A GUIDE TO THE STONEFLIES (PLECOPTERA) OF FLORIDA

Manuel L. Pescador
Andrew K. Rasmussen
Barton A. Richard

State of Florida
Department of Environmental Protection
Division of Water Resource Management
Tallahassee

Development of this document was funded by a grant from the Clean Water Act Section 319
Final Report for DEP Contract Number WM671
January 2000

A GUIDE TO THE STONEFLIES (PLECOPTERA) OF FLORIDA

by

Manuel L. Pescador, Ph.D.
Professor of Entomology
Florida A&M University
Tallahassee, FL 32307-4100
and
Research Associate
Florida State Collection of Arthropods
Gainesville, FL 32611

Andrew K. Rasmussen, M.Ed.
Research Associate
Entomology, Center for Water Quality
Florida A&M University
Tallahassee, FL 32307-4100
and
Research Associate
Florida State Collection of Arthropods
Gainesville, FL 32611

Barton A. Richard, M.S.
Research Associate
Entomology, Center for Water Quality
Florida A&M University
Tallahassee, FL 32307-4100

Ellen McCarron, Project Manager
Division of Water Resource Management
Florida Department of Environmental Protection

Requests for copies of this document should be addressed to:
Bureau of Laboratories, Attn: Joy Jackson
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

This document is available at the following web site: http://www.dep.state.fl.us/labs/library.htm

TABLE OF CONTENTS

Page

INTRODUCTION
- General overview of the order 1
- How to use this guide 1
- Acknowledgements 3
- Working with specimens 4
- Morphology 6

KEY TO FAMILIES OF FLORIDA PLECOPTERA
- Key to nymphs 10
- Key to adults 15

FAMILY CAPNIIDAE 20
- Key to genera for nymphs 20
- Key to genera for adults 21
- Genus *Allocapnia* Claassen 22
- Genus *Nemocapnia* Banks 23

FAMILY CHLOROPERLIDAE 24
- Genus *Haploperla* Navás 24

FAMILY LEUCTRIDAE 26
- Genus *Leuctra* Stephens 26
  - Key to species for adult males 29

FAMILY NEMOURIDAE 32
- Genus *Amphinemura* Ris 32

FAMILY PELTOPERLIDAE 34
- Genus *Tallaperla* Stark & Stewart 34

FAMILY PERLIDAE 36
- Key to genera for nymphs 36
- Key to genera for adults 41
- Genus *Acroneuria* Pictet 47
  - Key to species for nymphs 48
  - Key to species for adult males 49
- Genus *Agnetina* Klapálek 51
- Genus *Attaneuria* Ricker 52
- Genus *Eccoptura* Klapálek 52
- Genus *Neoperla* Needham 53
  - Key to species for nymphs 54
  - Key to species for adults 55

Page

PERLIDAE continued
Genus *Paragnetina* Klapálek 56
Key to species for nymphs 58
Key to species for adults 59
Genus *Perlesta* Banks 61
Genus *Perlinella* Banks 63
Provisional key to species for nymphs 64
Key to species for adults 65

FAMILY PERLODIDAE 68
Key to genera for nymphs 68
Key to genera for adults 70
Genus *Clioperla* Needham and Claassen 72
Genus *Helopicus* Ricker 73
Key to species for nymphs 74
Key to species for adults 75
Genus *Hydroperla* Frison 76
Genus *Isoperla* Banks 77

FAMILY PTERONARCYIDAE 78
Genus *Pteronarcys* Newman 78

FAMILY TAENIOPTERYGIDAE 80
Genus *Taeniopteryx* Pictet 80
Key to species for male nymphs 81
Key to species for adults 82

LITERATURE CITED 84

APPENDIX A: CHECKLIST OF FLORIDA STONEFLIES 92

APPENDIX B: DATABASE OF FLORIDA STONEFLIES 94

INTRODUCTION

Stoneflies (Plecoptera) are a diverse group of insects that are primarily associated with clean, cool running waters. A few species, however, have radiated and adapted to life in oligotrophic, alpine and boreal lakes, intermittent streams (Stewart & Harper, 1996), and terrestrial but cool damp environments (Williams & Feltmate, 1992). The nymphs generally have their highest density in riffle areas of streams, where rocks, gravel, snags, and accumulated leaf packs abound. The ecological value of stoneflies in stream ecosystems has been well documented (Hynes, 1976; Stewart & Stark, 1988; Stewart & Harper, 1996), and their potential use as biological indicators of water quality is well known (Resh & Jackson, 1993; Lenat & Penrose, 1996; Mauger, 1997; Morse et al.,1997; Barbour et al., 1999; Karr & Chu, 1999).

Based on invertebrate species composition, Florida has recently been classified into 3 geographic stream classes (bioregions) namely, the panhandle, northeast, and peninsular Florida (Barbour et al., 1996). Stoneflies are one of the most dominant groups of aquatic insects in the panhandle and northeast bioregions; approximately ninety percent of the stonefly fauna of Florida occur in these areas, a distributional pattern similar to that of cool-adapted mayfly and caddisfly taxa (Berner & Pescador, 1988; Pescador et al., 1995). Species richness in these two bioregions, which geographically represent North Florida, appears to be related to habitat diversity, current velocity, temperature, and proximity to rivers draining the Southeastern Nearctic Highlands and Coastal Plain.

The present study consolidates the available information on the taxonomy of the stonefly fauna of the state and provides taxonomic keys to both the nymphs and adults of presently recorded species. Additionally, we present a species checklist (Appendix A) and a database of collection localities where stoneflies have been collected within Florida (Appendix B). Knowledge of the systematics of the stonefly fauna in the state is still limited, particularly for the nymphs, the life stage that is most often encountered in the field. Previously, except for stonefly records presented by Berner (1948) and the paper of Stark & Gaufin (1979), no other statewide taxonomic study of the order has been done. Stark & Gaufin (1979) provided taxonomic descriptions and keys for the 26 species that were known from the state at that time. Subsequently, two papers have been published (Ray & Stark, 1981; Stark & Ray, 1983) dealing with part of the Florida fauna.

This guide was originally intended to include only the taxonomy of the nymphs, however we decided to include the adult taxonomy as well. Presently, the species taxonomy of stoneflies very much depends on morphological characters of the adults and sometimes the chorionic structure of the eggs. Hence, inclusion of the adults in this guide is vital to a comprehensive inventory of the stonefly fauna of the state.

HOW TO USE THIS GUIDE

Area covered: This guide was prepared to aid aquatic biologists in the identification of the stoneflies occuring in Florida. The guide treats both the nymphs and adults and provides keys to families, genera, and species. In cases where the family is represented by a single genus, the generic names are included in the key to the families (e.g., Chloroperlidae, Leuctridae, Nemouridae, Peltoperlidae, Pteronarcyidae, and Taeniopterygidae). Similarly, in the key to the genera of a particular family, a genus may be represented by one species (e.g., *Eccoptura*, *Hydroperla*, *Clioperla*) the specific name is then indicated in the key. The sources of information from which the keys were adapted are indicated at the beginning of each key.

During the course of preparing the guide, we found a number of species, 1 genus (*Haploperla*) and 1 family (Chloroperlidae) that represent new state records. We also have encountered some specimens that presumably represent new species (*Isoperla* sp. A, *Isoperla* sp. B, *Isoperla* sp. C, *Leuctra* sp. A, *Perlesta* sp. A, and *Perlesta* sp. B). We expect that more new state records will be added in the future and additional nymphal-adult associations will be accomplished.

We strongly recommend that other references be consulted in addition to this guide when identifying the stonefly fauna of the state. For keys of families and genera, the papers by Unzicker & McCaskill (1982), Stewart & Stark (1988), Poulton & Stewart (1991), and Stewart & Harper (1996) are useful. Significant taxonomic references for a given genus are included in the text and should be consulted when there are doubts as to taxonomic identity. Geographic distributions of North American stoneflies by state and Canadian province can be found at the website maintained by Bill Stark at Mississippi College (http://www.mc.edu/~stark/). To gain an appreciation of the beauty and diversity of North American stoneflies, we highly recommend the recent photographic guide by Stark et al. (1998).

Specimens examined: Specimens that were used for this study include the collections of Florida A&M University (FAMU), Florida State Collections of Arthropods (FSCA), Florida Department of Environmental Protections (FDEP), Illinois Natural History Survey (INHS) and Suwannee River Water Management District (SRWMD). For more information on specimens examined during this study and Florida stoneflies recorded in the scientific literature, Appendix B should be consulted.

Illustrations: The figures in this guide are a combination of original illustrations based on Florida specimens and illustrations borrowed from other sources. If the illustrations were adapted or modified from other publications, the source of each figure is cited in the figure legend. Diagnostic characters in the keys that non-stonefly specialists may have difficulty locating are indicated by arrows in the illustrations.

Cover Photograph: *Acroneuria arenosa*/*evoluta*. Florida: Gadsden Co., Monroe Creek, 30.iv.2000, P. Kovarik, A.K. Rasmussen.

Classification: Stoneflies are classified within the suborders Antarctoperlaria and Arctoperlaria. The suborder Antarctoperlaria presently includes stoneflies only from the southern hemisphere, whereas the northern hemisphere stoneflies belong to the suborder Arctoperlaria. Williams and Feltmate (1992) provide a brief but interesting discussion on the concept and probable evolution of these two major lineages.

Based on the development of the basal tarsal segment, two major groups of Arctoperlaria families are presently recognized: Euholognatha and Systellognatha. Members of the Euholognatha have a long basal tarsal segment, whereas the systellognathans have a reduced basal tarsal segment. As evidenced by their mouthparts, nymphs of euholognathans are primarily detritus, leaf litter, or algal feeders (Stewart & Stark, 1988; Stark et al., 1998). Except for the families Pteronarcyidae and Peltoperlidae, which are primarily leaf litter feeders, most systellognathan stoneflies (i.e., perlids, chloroperlids, and perlodids) are primarily carnivorous and have mouthparts adapted for grasping and handling prey.

In spite of the relatively low number of stonefly species in Florida, both family groups, Euholognatha and Systellognatha, including all nine North American families, are represented in

the state. Appendix A presents a checklist of Florida stoneflies following the scheme of classification used by Stark et al. (1986). The subfamily and tribe levels, and taxonomic synonymies of the genera and species are excluded in the text. Species that are presumably new to science are simply referred to as sp. A, B, C, etc; their descriptions will be published elsewhere.

Text Layout: The text for each family summarizes the genera represented in the state and provides a short diagnosis of the nymph and adult, and general habitat information. This is followed by a key to nymphs and adults of the Florida genera. The text of each genus gives a brief morphological DIAGNOSIS and NOTES of general information on the morphology, life history, ecology, and spatial distribution of the various species represented in the state. After identifying a stonefly, or any other organism, it is critical that the worker also refer to a diagnosis, as well as any other species descriptions that may be available, before making a final determination. The ADDITIONAL REFERENCES section lists significant literature on the taxonomy for each genus.

ACKNOWLEDGEMENTS

This guide is a product of the collective efforts of friends and colleagues. Our sincere thanks to R.W. Flowers, M.D. Hubbard, J. Jones, and J.G. and W.L. Peters for their encouragement and contributions to the stonefly collections at Florida A&M University (FAMU). The identification of much of the FAMU stonefly collection by Bill Stark, and the publication of his efforts (Stark and Gaufin, 1979), provided a solid foundation for this project.

In addition to the FAMU stonefly collection, this study was immeasurably enhanced by the generous loans of specimens from the following biologists: R.E. DeWalt (Illinois Natural History Survey), R. Mattson (Suwannee River Water Management District), D.R. Denson (FDEP, Orlando), and D. Ray (FDEP, Pensacola). Donald Ray was tremendously helpful in providing us his extensive stonefly collections from the Florida panhandle, and his constant encouragement and advice are deeply appreciated.

Sincere gratitude is extended to the following entomologists who generously provided us some of the important stonefly literature that we needed in the study: R.W. Baumann (Brigham Young University), R.E. DeWalt (Illinois Natural History Survey), B.C. Kondratieff (Colorado State University), L.C. Ferrington, Jr. (Kansas Biological Survey & University of Kansas), D. Huggins (Kansas Biological Survey & University of Kansas), B.P. Stark (Mississippi College), K.W. Stewart (University of North Texas), and S.W. Szczytko (University of Wisconsin-Stevens Point). Richard Baumann kindly provided us a listing of Florida stoneflies that are deposited in the Brigham Young University Collection (BYUC).

We thank B.P. Stark, S.W. Szczytko, and R.W. Baumann for providing verifications and species identifications of specimens from some of the more troublesome stonefly groups. We are grateful to Stan Szczytko for allowing us to use the original drawing of *Isoperla davisi*. Ken Stewart provided helpful advice on rearing stoneflies, and R.W. Baumann and B.C. Kondratieff provided invaluable field instruction on adult collecting and the technique to successfully extrude adult males. We also express our deep appreciation to R.W. Baumann, B.C. Kondratieff, B.P. Stark, K.W. Stewart, S.W. Szczytko, and the FDEP district biologists for reviewing the manuscript.

Our sincere thanks to Dr. Sunil K. Pancholy, Associate Dean for Research (FAMU) for his encouragement and for providing the funds to purchase a computer printer and scanner. Last but not least, we thank Ellen McCarron, Project Manager, Division of Water Resource Management (FDEP), for her assistance in getting this project funded.

WORKING WITH SPECIMENS

Preservation and Storage: The external morphological structures of the nymphs and adults that are used to identify stoneflies generally preserve well as long as proper preserving procedures are followed. To maintain and preserve the integrity of the insect structures and tissues, newly collected benthic samples should be preserved in 85-95% ethyl alcohol and replaced with the same concentration within 24 hours if the samples are not processed or sorted immediately. Once the specimens are sorted, they should be stored in 75-80% ethyl alcohol and appropriately labeled immediately. Shrinkage and color loss in freshly collected specimens can be minimized by heating the specimens to a boil in either ethyl alcohol or water. The quickest and easiest method for doing this in the field is to place the specimen(s) in a glass vial of ethyl alcohol (without a stopper) and heat the bottom of the vial with a cigarette lighter while holding the vial with a forceps. The lighter can be turned off after the alcohol boils for a few seconds. By fixing specimens in this manner, soft areas of the cuticle do not withdraw and color pigmentation is better maintained than in specimens which are not "cooked". This method works for any immature insect to be preserved in alcohol.

Rearing: For many stonefly genera (e.g., *Isoperla, Leuctra*) identification of nymphs is possible only to the genus level. By rearing stoneflies, the nymph can be associated with the adult and then both the shed nymphal exocuticle and the adult insect can be used for identification. Rearing stoneflies is relatively easy and can be accomplished with a simple aquarium setup. We use the following method and have obtained quite good results. Stonefly nymphs collected in the field are placed in 12 oz plastic drink cups, which have side sections cut away and covered with a plastic mesh glued to the cup. This allows for fresh water to flow freely through the rearing cup. For transport back to the laboratory, cups are placed in a styrofoam cooler partially filled with stream water. To hold cups in place and keep the top of the cup above the water level, they are placed within holes cut from a piece of styrofoam which fits snugly in the cooler. Each rearing cup is provisioned with leaf litter for cover and a small stick for the nymph to climb out of the water at emergence. The water in the cooler is oxygenated with a battery operated aerator while transporting the stoneflies. The rearing cups are then covered with a cloth mesh to prevent the adult from escaping, and placed in an aerated aquarium filled with stream water. Water temperature is a critical factor in rearing success. In general, if the water temperature in the aquarium is above 75ºF, nymphs will either cease in their development or die. Mature nymphs are checked on a daily basis for emergence, and predatory nymphs are provided with prey items such as small Ephemeroptera, Plecoptera, and Trichoptera (EPT) and chironomid larvae. The newly emerged adult is allowed time to complete the process of sclerotization before preserving the adult, and its nymphal exuviae, within a vial of alcohol. In the case of adult males of certain groups, the aedeagi are extruded prior to being placed in the alcohol (see discussion below).

Extrusion: To facilitate identification of adult male perlids and perlodids the aedeagi, for best viewing, should be extruded from an internal position to the fully everted external copulatory position. Often times the morphology of the aedeagus, including the shape, sclerites, spines, and hooks, is used to separate closely related species. Extruding is much easier to accomplish for freshly collected stoneflies which have not yet been preserved. In this case, the aedeagi are extruded by holding the stonefly's abdomen between the thumb and forefinger while squeezing the abdomen from front to back. If successful, the aedeagus will appear from behind the ninth abdominal sternite. In some genera (e.g., *Perlesta, Neoperla*) the aedeagus is telescopic and will extend a considerable distance when fully extruded. Once the aedeagus has been extruded, the

stonefly should be held in the same position within alcohol until dead. This is done so that the aedeagus does not retract back into the body. This method of extrusion works only for specimens that are alive or those that have been in alcohol only for a short period of time (less than 2 hours). For specimens that have been preserved in alcohol for longer periods, a more delicate and tedious method is necessary. The paper of Szczytko & Stewart (1979) provides a detailed explanation of the procedure. The stonefly is (1) rehydrated in distilled water, (2) heated in 10% KOH, (3) placed in distilled water again, and (4) the aedeagus is then everted using a combination of applying pressure to the abdomen with probes and teasing free any unextruded lobes or spines.

Dissection: Nymphs coated with silt or minute debris should be cleaned by ultra-sonic cleaner for 3-6 minutes for better viewing of structures and color patterns. Jewelers forceps, microdissecting scissors, dissecting dishes, and dissecting needles work very well in preparing specimens and associated structures for examination. Dissected specimens and body parts should be placed in microvials and separated from the rest of the specimens in the main container. In some cases, dissection of mature nymphs with black wing pads may reinforce nymphal and adult associations. For example, in the genus *Neoperla*, the pattern of spinule patches on the ninth tergum, a diagnostic character to distinguish the adult males, is already evident in dissected black wingpad nymphs. In this case, the abdominal cuticle of the abdomen, primarily abdominal segments 5 - 9 can be carefully removed with jewelers forceps to expose the patches of spinules on the ninth abdominal tergum. Often, dissections are best done after heating the structures in a 10% potassium hydroxide (KOH) solution. By doing this, soft tissues are cleared away and the diagnostic structures are often much easier to view. For examining abdominal structures such as adult genitalia, the posterior half of the abdomen should be removed from the insect, heated in the KOH solution, and then rinsed in distilled water. The cleared abdomen can then be placed in glycerine on a depression slide for examination.

Microscopes: Most of the external morphological characters that are involved in identifying the species can be seen under a dissecting microscope that is equipped with 50X magnification and illuminated base. Setal arrangements are best seen with a dissecting microscope equipped with a dark field base.

MORPHOLOGY

A general knowledge of the morphological terms associated with stoneflies is necessary for ease of identification. The external morphology of the nymph and adult is herein briefly discussed to facilitate users of this guide to key the various stonefly taxa.

NYMPH: [Refer to Fig. 1]

Head: The head is typically somewhat flattened and dorsally divided by the ecdysial line which separates the occiput from the frontoclypeal area which is composed of the frons and the small subrectangular clypeus. The labrum is located anterior to the frontoclypeus. The frons typically bears 3 ocelli, although several genera have only 2 ocelli. The eyes are typically set postero-laterally on the head capsule, and are sometimes accompanied by a postocular fringe of spines or setae. The occiput often possesses either a complete or incomplete transverse line of spinules, or sometimes a prominent ridge with or without spinules. The antennae are filiform with a variable number of segments. Gills are sometimes present either cervically or submentally in some nymphs. The dorsal pigmentation pattern of the head capsule is often of major taxonomic significance. The mouthparts generally consist of the following: a rectangular or subquadrate labrum; mandibles depending on feeding habits, varying from short with multiple stout apical teeth, and a prominent molar region (detritivorous-herbivorous), to elongate with multiple sharp apical teeth, and a smaller molar area (carnivorous); maxillae with 5 segmented palpi, lacinia triangular or quadrate, bearing 1 or more apical teeth, with various arrangements of teeth, spines, or setae, and galea designed for combing and raking food items or piercing and holding prey; and labium with a large well developed submentum, reduced mentum, and a well developed prementum with 3 segmented palpi, and glossae and paraglossae that vary in size and shape. The glossae and paraglossae are subequal in length among nymphs with detritivorous-herbivorous feeding habits, whereas among predatory nymphs the paraglossae project past the glossae.

Thorax: The thorax has 3 well defined segments: the pro-, meso-, and metathorax, each bearing a pair of legs and a sclerotized notum. The pronotum is a single plate with a median longitudinal suture, and in some families there is a submarginal groove. The presence and arrangement of setae on the margins of the pronotum is often of importance in identification. As with the head, the pigmentation patterns of the pronotum are often useful in distinguishing taxa. The meso- and metanota may also show distinguishing pigmentation patterns. The wingpads of stoneflies vary in orientation from being nearly parallel to the body axis, to being either weakly or strongly divergent from the body axis. The shape and connectivity of the Y-sulcus and furcal pits of the mesosternum are often useful in distinguishing taxa. Thoracic gills, either finger-like or multi-branched, are found on many stonefly taxa, while others completely lack thoracic gills. The legs are well developed with short coxa and trochanter, femur and tibia about equal in length, and a 3 segmented tarsus with 2 strong claws. The tibiae sometimes possess 1 or 2 apical spurs. The legs are often fringed with fine setae and/or stout setae along the margins.

Abdomen: The abdomen has 10 segments and ranges from cylindrical to dorsoventrally flattened. The abdominal terga and sterna are either fused or separated by a pleural membrane, and the posterior margins of segments usually have setal fringes. The abdomen often has distinguishing pigmentation patterns which can be of taxonomic value. Another prominent feature of stonefly nymphs are the paired cerci, which are usually long, and may possess one or more of the following: whorls of spinules or setae, intercalary hairs, or fringes of fine silky hairs.

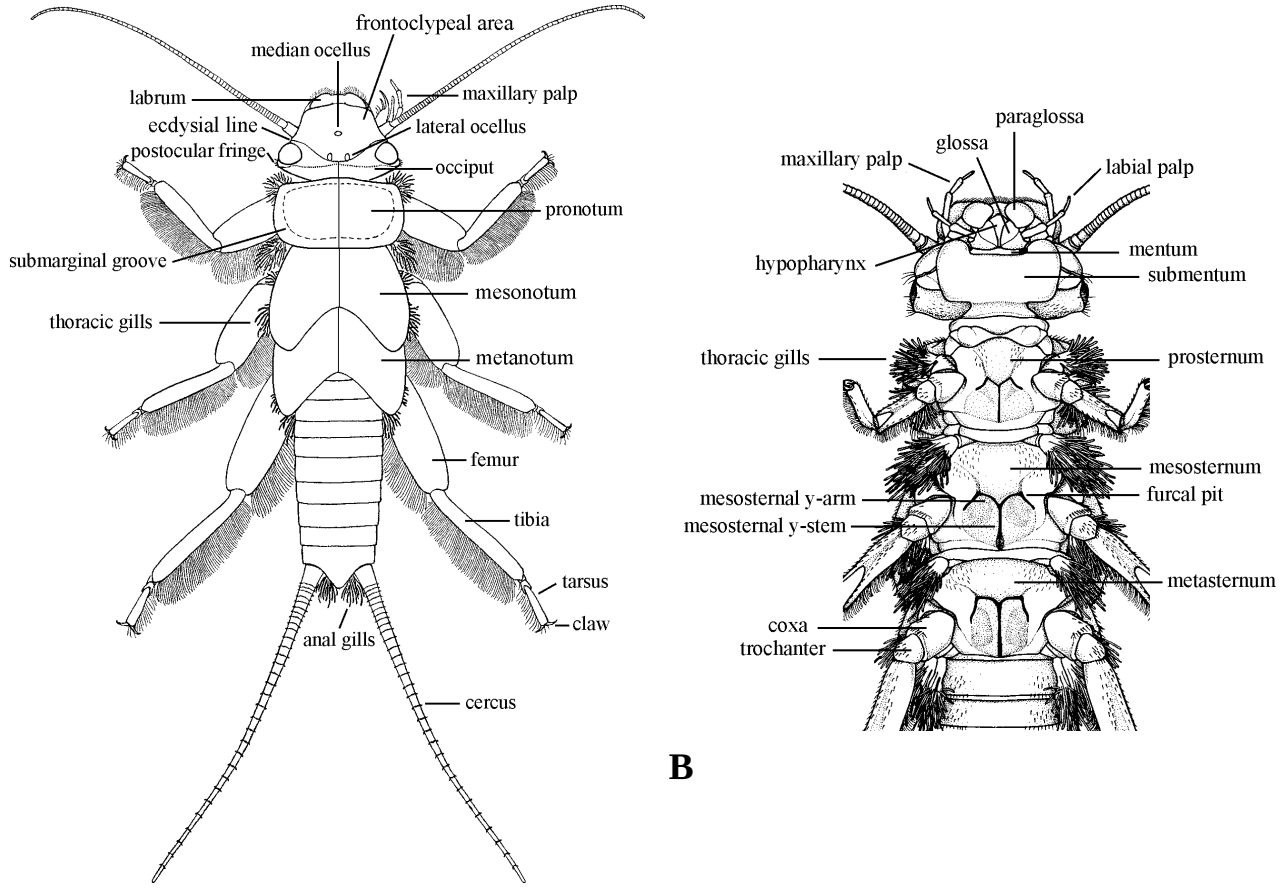


Figure 1. Morphology of the stonefly nymph, **A.** dorsal view [modified from Frison (1935)]; **B.** ventral view [modified from Stewart & Stark (1988)].

ADULT:

Stonefly adults greatly resemble the nymphs, more so than in any other primary aquatic insect order. Some of the same structures that are used for distinguishing families among the nymphs are also used to distinguish adults. For example, the relative length of tarsal segments, as well as the structure of the labium are the same in the nymphal and adult stage, and are important characters for distinguishing families for both nymphs and adults. Additionally, gills present in the nymphs often remain as remnants in the adults and are often of taxonomic importance.

Stonefly specialists have found that often egg characteristics, including the size, shape and chorionic sculpturing, are species specific, and as a result useful for defining species. However, for most stoneflies occurring in Florida, with the possible exceptions of some *Isoperla* and *Perlesta* species, species identifications can be made using other more easily examined external characters. Therefore, egg characters are not used in the keys.

Adult morphology departs most radically from nymphal morphology in the structures associated with flight and reproduction. Following is a brief summary of the morphology of stonefly wings and external reproductive structures (genitalia).

Wings: [Refer to Fig. 2] Most stonefly species have 4 membranous wings. The forewings are elongate and narrower than the hindwings, which usually have an enlarged anal lobe which is folded fanwise when the insect is at rest. The wing venation in stoneflies is generalized and relatively easy to interpret. The major longitudinal veins (in order) are costa (C), subcosta (Sc), radius (R), radial sector (R_S), media (M), cubitus (C), and anal (A). In the more generalized Pteronarcyidae, the venation includes numerous crossveins distributed throughout the wings. Among the more typical groups, crossveins are less numerous and are often found in series within the costal space; between the media and cubitus; and between the cubital veins. The number and position of the crossveins is often important for separating stonefly families and genera. However, at the species level there is often variability in the position and number of crossveins appearing within a vein series. Even the same insect will often have a slightly different arrangement of crossveins on the right wings versus the left wings. For a more detailed discussion of stonefly wing venation we recommend the classic work by Needham and Claassen (1925).

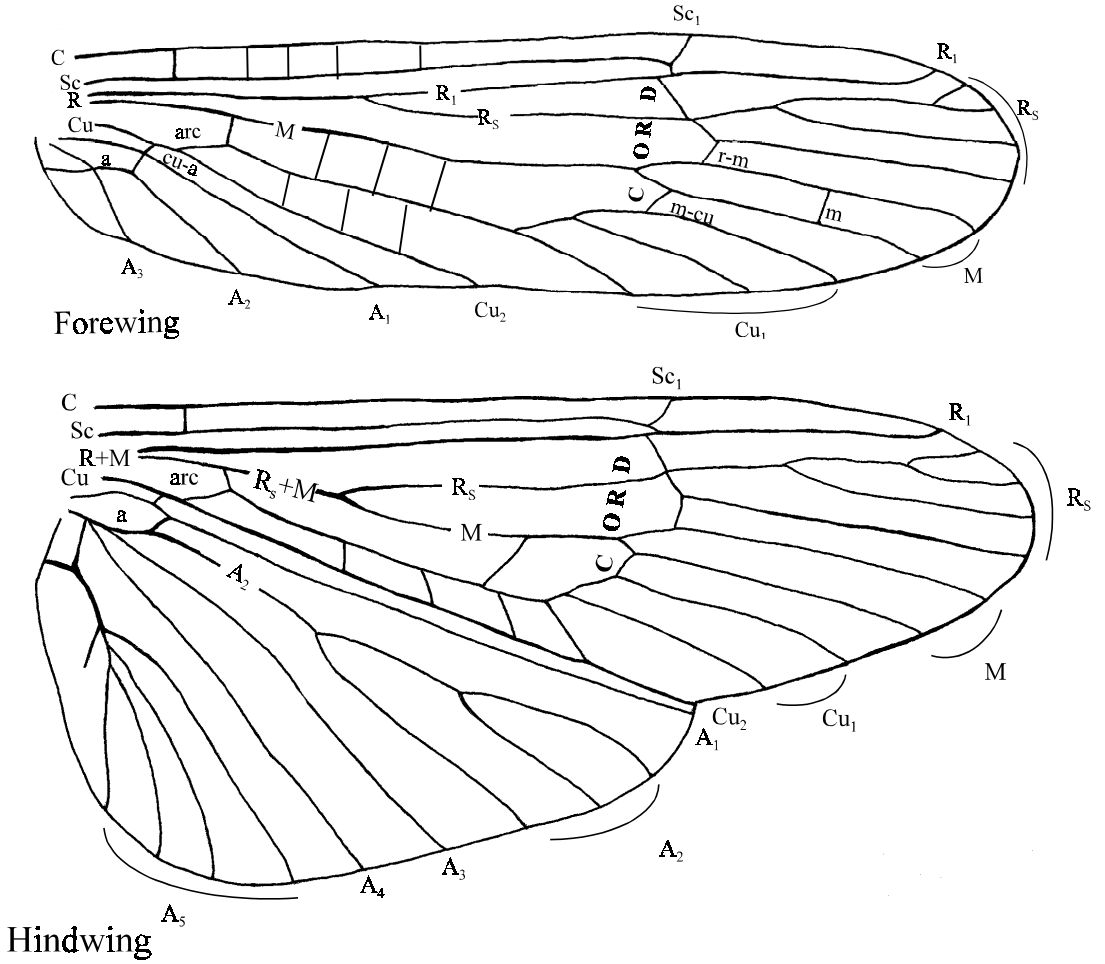


Figure 2. Stonefly wing venation [modified from Needham & Claassen (1925)]. Lettering as follows: C = costa; Sc = subcosta; R = radius; R_S = radial sector; M = media; Cu = cubitus; A = anal; r-m = radio-median crossvein; m = median crossvein; m-cu = medio-cubital crossvein; cu-a = cubital-anal crossvein; arc = arculus; a = anal cell; CORD = line of transverse joinings composed of crossveins and principal forks.

Genitalia: The reproductive structures present on the stonefly abdomen are usually the most important characters for making species determinations. Males and females are usually easy to tell apart by examining the genitalia. Males possess more complex genitalia which often includes genital hooks and other projections which can be viewed dorsally. Females, on the other hand, have only the 8th abdominal sternum (subgenital plate) modified for reproductive functions.

Males have a wide array of abdominal structures which aid them in mating. Many species possess structures on the 8th or 9th abdominal sternum used for sound production (drumming) to locate mates. These structures appear either as a dome-shape raised area (Fig. 82), termed the hammer, or as a flap-like vesicle (Fig. 162) or low lobe. As previously mentioned, the aedeagus is held internally except during copulation when it is erected from behind the 9th abdominal sternum. In many species the 9th sternum is enlarged and projects posteriorly. The morphology of aedeagi is diverse, ranging from membranous sacs (e.g., *Isoperla*) to long telescopic structures with spines and sclerites (e.g., *Perlesta*).

Males have a diverse array of structures which are used in coupling. A common feature among males are paired genital hooks which are used to open and hold the female subgenital plate. These hooks are often recurved and are either modified paraprocts orginating at the base of the cerci (e.g., *Acroneuria*, Fig. 80) or modifications of the 10th tergum (e.g, *Agnetina*, Fig. 79). Besides the genital hooks and other modifications of the paraprocts, many stoneflies (e.g., capniids, nemourids) possess highly modified epiprocts (e.g., *Allocapnia*, Fig. 43) that are taxonomically informative. In other groups, the epiproct is often reduced or not apparent. Males of many stoneflies also have various modifications of the dorsum of abdominal segments 5 -9. These include patches of spines, and various bumps and dorsal processes, as well as medial posterior projections.

Females possess much fewer external reproductive structures than do the males, and as a result are more difficult to identify to species in most cases. The most important female structure, the subgenital plate (e.g., Figs. 89, 90), arises on the 8th abdominal sternum, and often projects posteriorly to cover the oviduct. The structure of the subgenital plate is often taxonomically informative, although there are many examples where there is considerable intraspecific variation and interspecific character overlap between closely related species.

KEY TO FAMILIES FOR THE MATURE NYMPHS OF THE STONEFLIES (PLECOPTERA) OF FLORIDA

[modified from Stewart & Stark (1988)]

1. Highly branched gills present on sides and venter of all thoracic segments (Fig. 3) 2

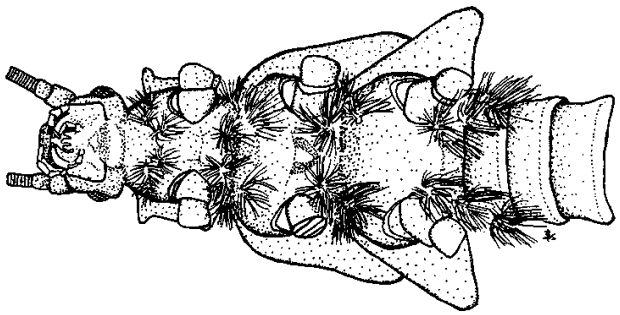


Fig. 3 [from Stewart & Stark (1988)]

Gills absent, or restricted to cervical or coxal areas or finger-like without numerous filaments 3

2(1) Gill tufts on abdominal sterna 1 and 2 present (Fig. 4) . . . . . Pteronarcyidae (p. 78); *Pteronarcys*

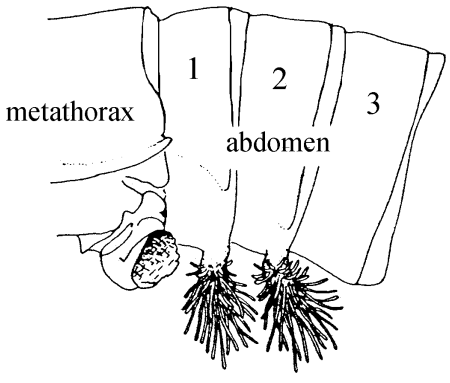


Fig. 4 [modified from Unzicker & McCaskill (1982)]

Gill tufts on abdominal sterna 1 and 2 absent . . . . . Perlidae (p. 36)

3(1) Paraglossae and glossae of labium subequal in length (Figs. 5, 6) 4

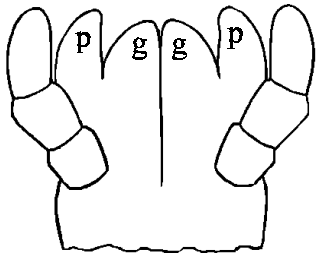


Fig. 5 [from Frison (1942)]
p=paraglossa; g=glossa

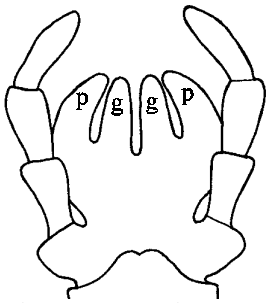


Fig. 6 [from Stark & Gaufin (1979)]

Paraglossae longer than glossae (Figs. 7, 8) 8

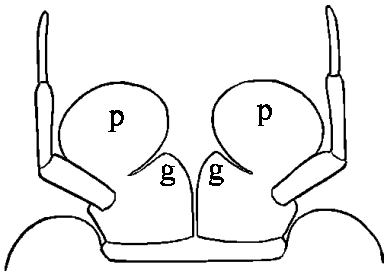


Fig. 7 [from Frison (1942)]

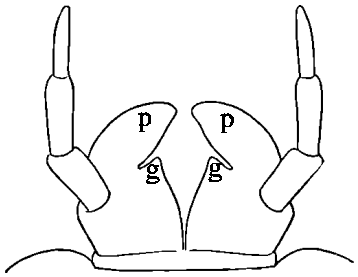


Fig. 8 [from Frison (1942)]

4(3) Thoracic sterna produced posteriorly, overlapping succeeding segments (Fig. 9); habitus roach-like (Fig. 10); double conical gills behind coxae of middle- and hindlegs (Fig. 9) . . . . . Peltoperlidae (p. 34); *Tallaperla*

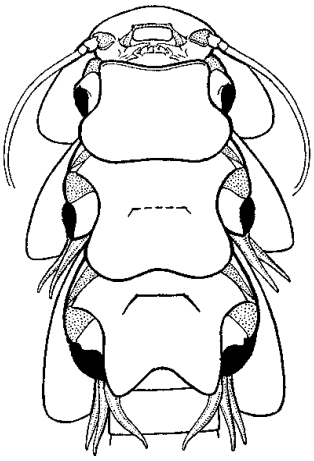


Fig. 9 [from Frison (1935)]

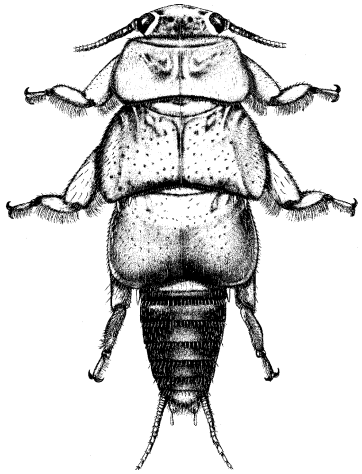


Fig. 10 [from Stewart & Stark (1988)]

Thoracic sterna not produced posteriorly; habitus not roach-like; thoracic gills, if present not conical 5

5(4) First and second tarsomeres subequal in length (Fig. 11); coxae each with single, telescoping gill (Fig. 11); wingpads strongly divergent from body axis (Fig. 12) . . . . . Taeniopterygidae (p. 80); *Taeniopteryx*

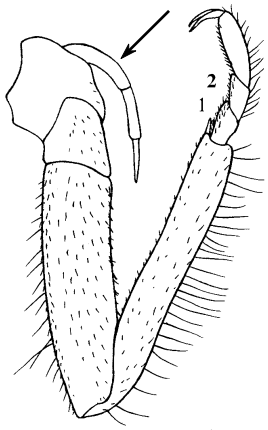


Fig. 11 [from Unzicker & McCaskill (1982)]

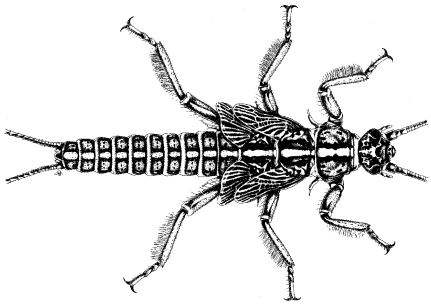


Fig. 12 [from Stewart & Stark (1988)]

Second tarsomere wedge-shaped and shorter than first tarsomere (Fig. 13); coxae without gills; wingpads parallel or divergent 6

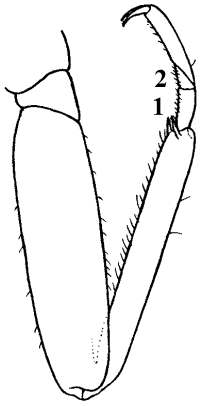


Fig. 13 [from Unzicker & McCaskill (1982)]

6(5) Hind wingpads strongly divergent (Fig. 14); body short and robust; hindlegs when extended reaching to apex of abdomen; branched cervical gills present . . . . . Nemouridae (p. 32); *Amphinemura*

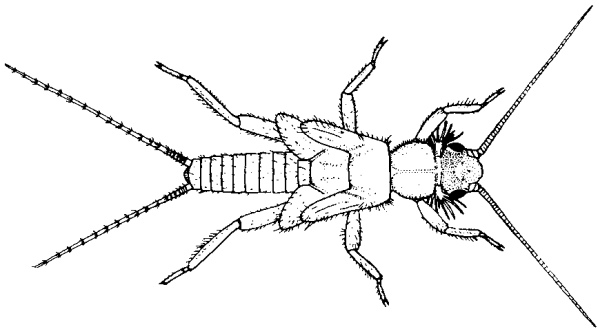


Fig. 14 [from Huggins (1981)]

Hind wingpads not strongly divergent; body elongate and slender; hindlegs when extended not reaching end of abdomen; cervical gills absent 7

7(6) Lateral membranous fold dividing first 9 abdominal segments (Fig. 15); abdominal segments (in dorsal view) gradually widening posteriorly (Fig. 16); hind wingpads, when present, about as wide as long (*Allocapnia*) (Fig. 16); cerci with dorsal and ventral fringe of long hairs (*Nemocapnia*) . . . . . Capniidae (p. 20)

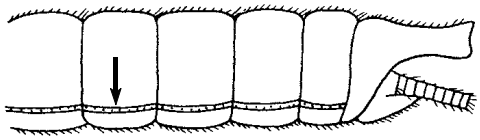


Fig. 15 [from Unzicker & McCaskill (1982)]

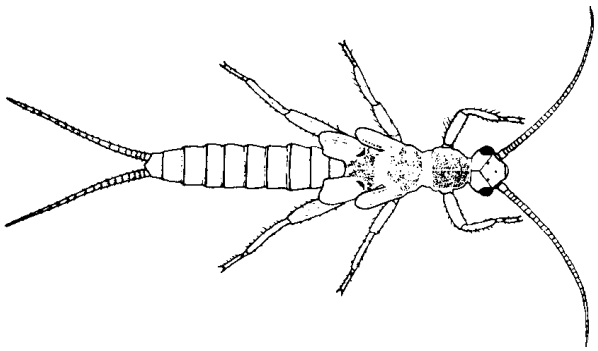


Fig. 16 [from Huggins (1981)]

Lateral membranous fold dividing at most first four abdominal segments (Fig. 17); abdomen narrow and parallel-sided (Fig. 18); hind wingpads longer than wide (Fig. 18); cerci without dorsal and ventral fringe of long hairs . . . . . Leuctridae (p. 26); *Leuctra*

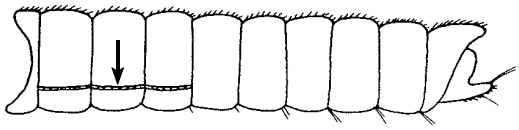


Fig. 17 [from Unzicker & McCaskill (1982)]

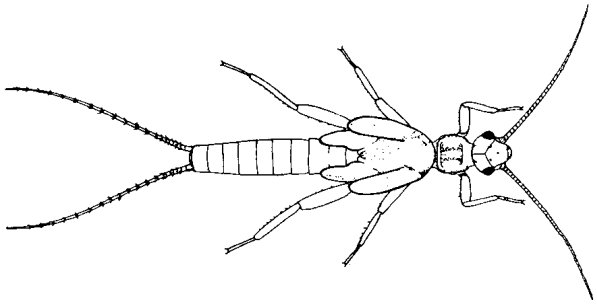


Fig. 18 [from Huggins (1981)]

8(3) Body with contrasting pigmented pattern (Fig. 19); inner margins of hind wingpads divergent; cerci at least as long as abdomen . . . . . Perlodidae (p. 68)

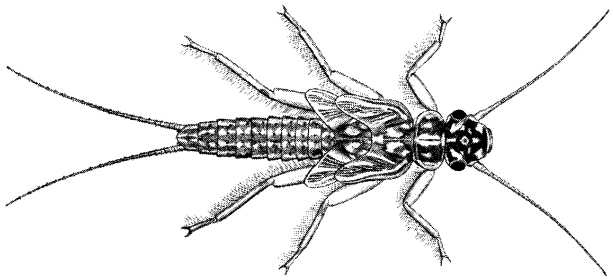


Fig. 19 [from Frison (1942)]

Body without contrasting pigmented pattern (Fig. 20); inner margins of hind wingpads nearly parallel; cerci 3/4 or less length of abdomen
. . . . . Chloroperlidae (p. 24); *Haploperla*

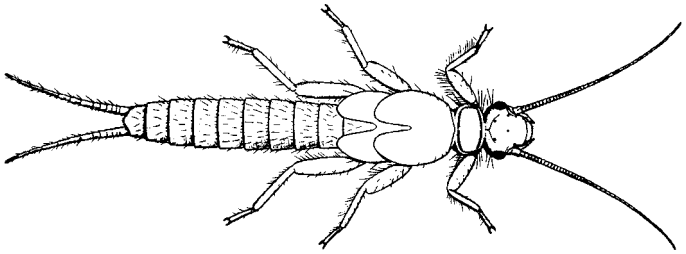


Fig. 20 [modified from Frison (1942)]

KEY TO FAMILIES FOR ADULT STONEFLIES (PLECOPTERA) OF FLORIDA

[modified from Stewart & Harper (1996)]

1. Paraglossae and glossae of labium subequal in length (Fig. 21) 2

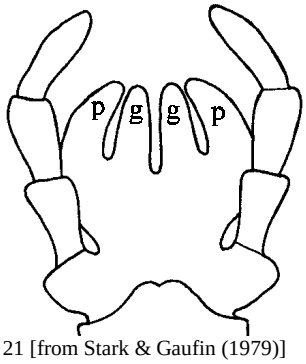


Fig. 21 [from Stark & Gaufin (1979)]
p=paraglossa; g=glossa

Paraglossae longer than glossae (Fig. 22) 7

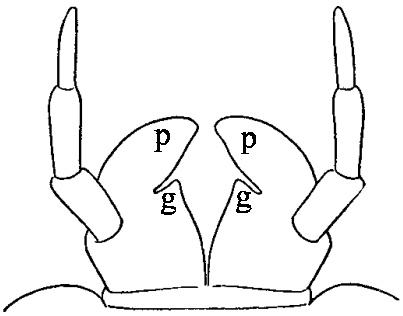


Fig. 22 [from Frison (1942)]

2(1) First tarsal segment short (Fig. 23); gill remnants on sides of thorax present 3

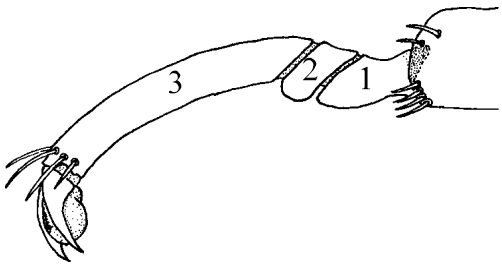


Fig. 23 [from Hitchcock (1974)]

First tarsal segment longer (Fig. 24); gill remnants on sides of thorax absent 4

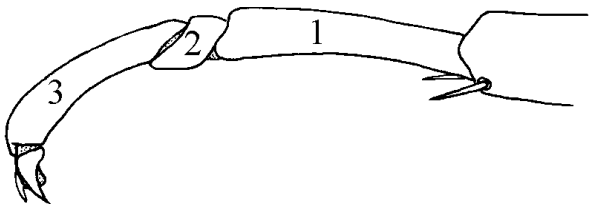


Fig. 24 [from Hitchcock (1974)]

3(2) Three ocelli; gill remnants on abdominal sterna 1-2 present; anal area of forewing with rows of many crossveins (Fig. 25) . . . . . Pteronarcyidae (p. 78); *Pteronarcys*

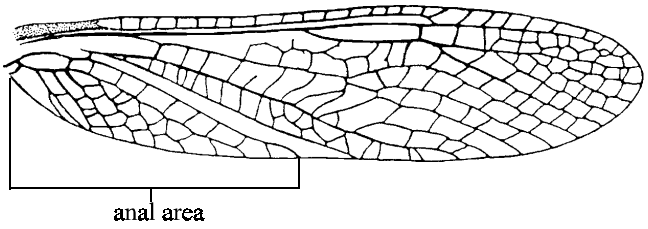


Fig. 25 [from Frison (1935)]

Two ocelli; gill remnants on abdominal sterna 1-2 absent; anal area of forewing without rows of anal crossveins (Fig. 26) . . . . . Peltoperlidae (p. 34); *Tallaperla*

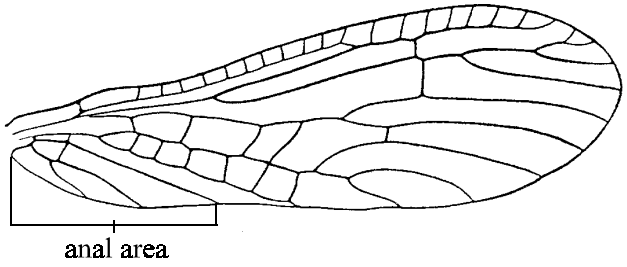


Fig. 26 [from Frison (1942)]

4(2) First and second tarsal segments subequal in length (Fig. 27)
. . . . . Taeniopterygidae (p. 80); *Taeniopteryx*

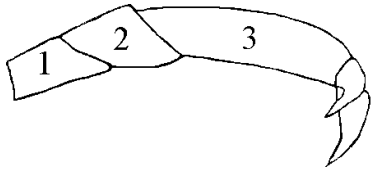


Fig. 27 [from Stark & Gaufin (1979)]

Second tarsal segment much shorter than first (Fig. 28) 5

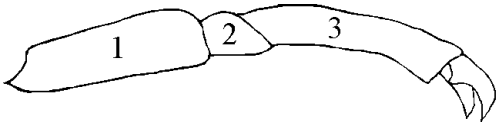


Fig. 28 [from Stark & Gaufin 1979]

5(4) Cerci multi-segmented; 1 or 2 intercubital crossveins (Fig. 29)
. . . . . Capniidae (p. 20)

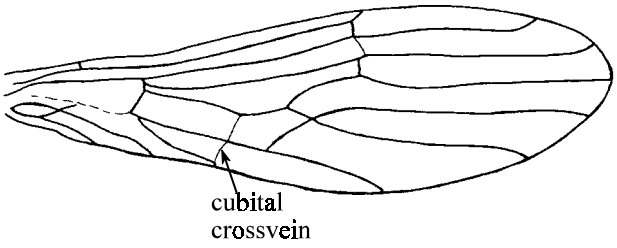


Fig. 29 [from Stark & Gaufin (1979)]

Cerci 1-segmented; 5 or more intercubital crossveins (Fig. 30) 6

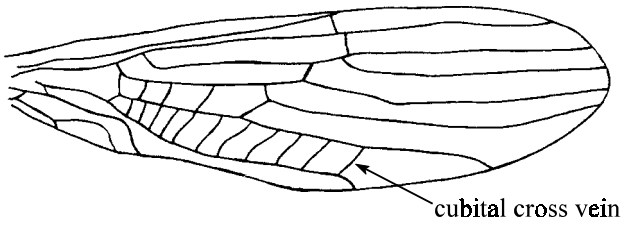


Fig. 30 [from Stark & Gaufin (1979)]

6(5) Apical marginal space of forewing with oblique crossvein (Fig. 31); wings flat over abdomen in resting position; cervical gill remnants present
. . . . . Nemouridae (p. 32); *Amphinemura*

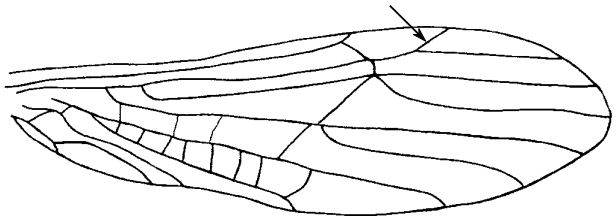


Fig. 31 [from Stark & Gaufin (1979)]

Apical marginal space of forewing without oblique crossvein (Fig. 30); wings rolled around abdomen in resting position; cervical gill remnants absent
. . . . . Leuctridae (p. 26); *Leuctra*

7(1) Hindwing with 1-3 anal veins, folded anal area absent (Fig. 32)
. . . . . Chloroperlidae (p. 24); *Haploperla*

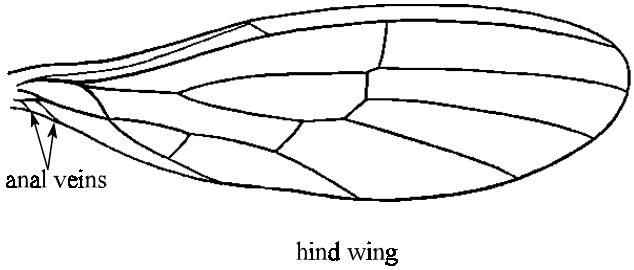


Fig. 32 [from Frison (1942)]

Hindwing with 5-10 anal veins, folded area present (Fig. 33) 8

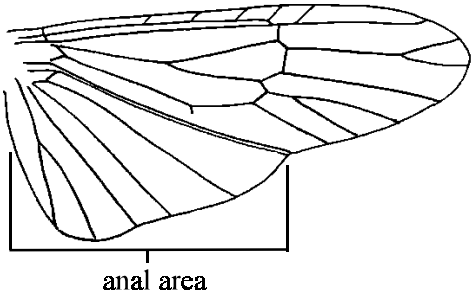


Fig. 33 [Frison (1935)]

8(7) Gill remnants on sides and venter of thorax usually present; arms of mesosternal Y-sulcus poorly developed, but reaching to or near anterior corners of furcal pits (Fig. 34); fore femora with long anteroventral setae . . . . . Perlidae (p. 36)

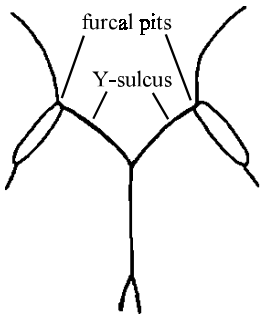


Fig. 34 [from Stark & Gaufin (1979)]

Gill remnants on thorax absent; arms of mesosternal Y-sulcus well developed reaching posterior corners of furcal pits (Fig. 35); fore femora usually without long anteroventral setae . . . . . Perlodidae (p. 68)

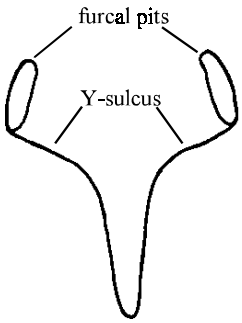


Fig. 35 [from Stark & Gaufin (1979)]

FAMILY CAPNIIDAE

This family of Euhologanatha is the most speciose in North America with 150 species representing 10 genera. The capniids exhibit some of the most interesting life history adaptations among aquatic insects. Many species are winter-active in cold temperate climates when most cold-blooded organisms are in hibernation. This physiological adaptation has allowed the capniids to utilize resources relatively free from competition and predation. *Capnia lacustra* has an even more unique life history strategy. This species spends its entire life cycle, including the adult stage, within the profundal zone of Lake Tahoe.

Although capniids are an icon for cold adaptation, they are far less successful in warm-water habitats such as we have in Florida. Presently, only the species *Nemocapnia carolina* has been collected in Florida, although *Allocapnia* is likely to also be found. Capniid nymphs lack gills, paraglossae and glossae are subequal in length, and the second tarsal segment is wedge-shaped and much shorter than the first. In general, nymphs of capniids can be difficult to separate from those of Leuctridae but the Florida fauna is easy to separate using the characters presented in the family key. Adults of Florida Capniidae are easily distinguished by their small slender appearance and multi-segmented cerci in both sexes.

KEY TO GENERA FOR NYMPHS OF FLORIDA CAPNIIDAE
[modified from Stewart & Stark (1988)]

1. Cerci with dorsal and ventral fringe of long hairs on apical segments (Fig. 36); hind wing pads elliptical with smoothly rounded margins (Fig. 37)
. . . . . *Nemocapnia* (p. 23); *N. carolina* Banks

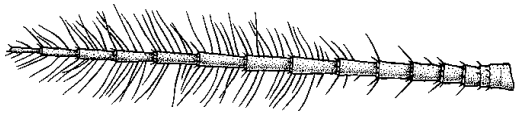


Fig. 36 [from Stewart & Stark (1988)]

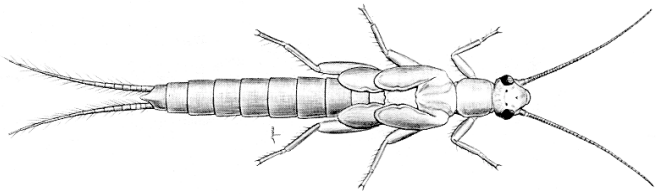


Fig. 37 [from Frison (1942)]

Cerci without vertical fringe of long hairs; long hairs restricted to apical segmental whorls (Fig. 38); hind wingpads, when present, subquadrangular, sometimes with apical notch (Fig. 39) . . . . . *Allocapnia* (p. 22)

Fig. 38 [from Stewart & Stark (1988)]

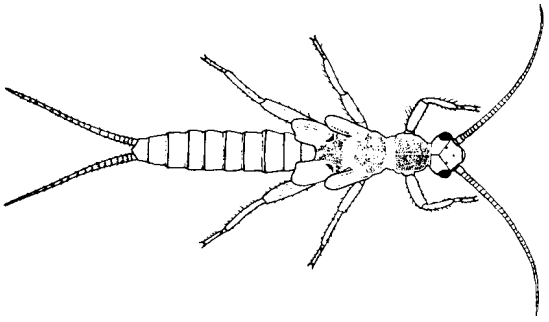


Fig. 39 [from Huggins (1981)]

KEY TO GENERA FOR ADULTS OF FLORIDA CAPNIIDAE

1. Eighth abdominal tergite of male without raised process (Fig. 40); epiproct comprised of single structure (Fig. 40); anal lobe of hindwing small (Fig. 41), extending only one-half length of wing; female subgenital plate recessed, set forward of posterior margin of abdominal sternum 8 (Fig. 42) . . . . . *Nemocapnia* (p. 23); *N. carolina* Banks

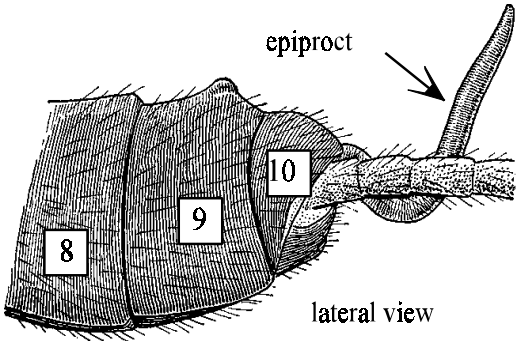


Fig. 40 [from Frison (1942)]

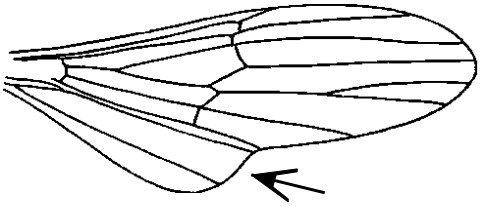


Fig. 41 [from Frison (1935)]

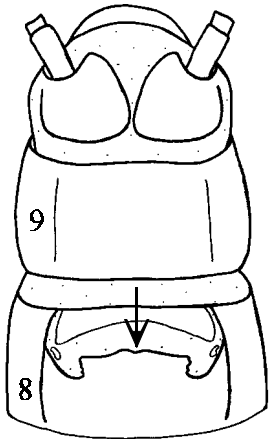


Fig. 42 [from Stark & Gaufin (1979)]

Eighth abdominal tergite of male with raised process (Fig. 43); epiproct comprised of double structure, with upper and lower limbs (Fig. 43); hindwings absent or present, when present, anal lobe large and extending nearly to wing apex (Fig. 44); female subgenital plate not recessed . . . . . *Allocapnia* (p. 22)

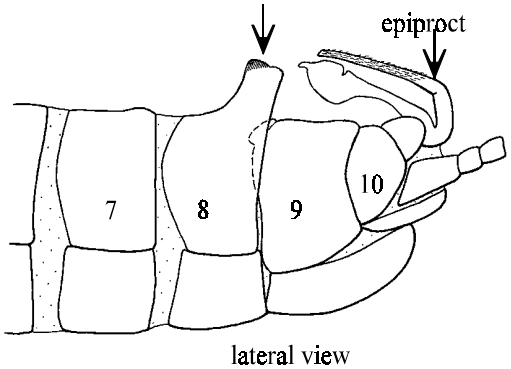


Fig. 43 [from Ross & Ricker (1971) – *Allocapnia recta*]

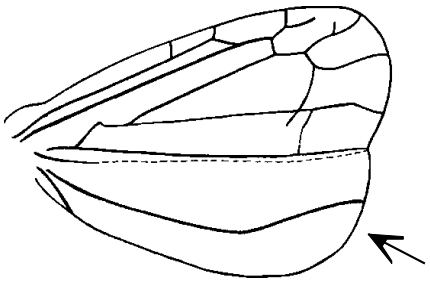


Fig. 44 [from Frison (1935)]

Genus ***Allocapnia*** Claassen

DIAGNOSIS: These small stoneflies are distinguished from *Nemocapnia* by the following combination of characters: **Nymph:** wingpads either well-developed (macropterous individuals) or poorly developed (brachypterous individuals), when well-developed, wingpads subquadrangular, as wide as long; cerci without vertical fringe of long hairs. **Adult:** color brown to black; brachypterous, or if macropterous, anal lobe of hindwing large, extending nearly to wing apex. **Male—** eighth abdominal tergite with raised process; epiproct comprised of double structure with upper and lower limb. **Female—**subgenital plate variable, but not recessed as in *Nemocapnia.* [Refer to figures in keys to genera]

NOTES: *Allocapnia* is a large genus (41 species) distributed throughout much of eastern North America. All species within this genus are truly "winter" stoneflies since they complete their development and emerge during the coldest months of the year. Because of their low vagility (males of most species are flightless), species within this genus have been used in studies of Pleistocene biogeography. The classic work by Ross & Ricker (1971) provided taxonomic accounts for adults of 38 species and proposed a phylogeny for the genus and hypotheses of Pleistocene biogeography.

Although *Allocapnia* has not been recorded in Florida, there is a good possibility that it occurs somewhere within the panhandle. Ross & Ricker (1971) in their distribution maps, showed collection points within Coastal Plain Alabama for *A. aurora*, *A. mystica*, *A. recta*, and *A. virginiana*. Both *A. recta* and *A. virginiana* were collected from nearby Alabama counties such as Conecuh Co. The largest populations of *A. recta* reported by Ross & Ricker (1971) fall within the Lime Hills district of southwestern Alabama and the habitat was characterized as being "small streams issuing from caves". Recently, Alford (1998) reported 3 species (*A. aurora*, *A. recta*, and *A. virginiana*) from southeastern Louisiana and southwestern Mississippi.

Small- to medium sized, spring-fed streams with gravely bottoms are the most likely habitat to discover *Allocapnia* in Florida. Ravine streams of the Apalachicola Bluffs and Ravines Region, as well as ravine systems on and around Eglin Air Force Base, are good target areas for winter collecting of adults. Adults can be hand-collected either from tree trunks or bridges, or by beating riparian vegetation.

Nymphal life histories are unknown for most species and no detailed studies exist for species occurring on the Southeastern Coastal Plain. However, studies [e.g., Harper & Hynes (1972); Pugsley & Hynes (1985); Ernst & Stewart (1985a, b)] of other species indicate that nymphs undergo a fast-univoltine life cycle and diapause in the hyporheic zone during summer months. Therefore, the most likely time to find nymphs is during their active growth period in the late fall and early winter when nymphs are feeding on conditioned leaves and associated fungi and bacteria.

ADDITIONAL REFERENCES: Claassen (1924); Frison (1929; 1935; 1942); Harper & Hynes (1971a); Ross & Ricker (1971); Stewart & Stark (1988); Alford (1998).

Genus ***Nemocapnia*** Banks

DIAGNOSIS: These small slender stoneflies are distinguished from *Allocapnia* by the following combination of characters: **Nymph:** cerci with dorsal and ventral fringe of long hairs on apical segments; hind wingpads elliptical, apex without notch. **Adult:** color dark brown-black; hindwing with anal area extending only one-half length of wing. **Male—** eighth abdominal tergite without raised process; epiproct comprised of singular tubular structure. **Female—** subgenital plate recessed. [Refer to figures in keys to genera]

NOTES: *Nemocapnia* is represented in North America by the sole species *N. carolina*, which is distributed throughout much of the eastern United States as well as Quebec. Nymphs are easily recognized by the vertical fringe of swimming hairs on the cerci, and adults are readily identifiable by examining reproductive parts.

Within Florida, *N. carolina* is found most commonly in streams and rivers of the western panhandle. The Choctawhatchee and Yellow rivers appear to support particularly large populations. Stark and Gaufin (1979) reported the species from an unknown locality in Clay Co. but this is the only collection locality known east of the Ochlockonee River Basin.

Adults can be collected in Florida from mid-January through mid-March. The best method for collecting adults is by beating or sweeping riparian vegetation. Stark et al. (1998) stated that adults emerge beginning at sunrise and stay close to the water after emergence. In Florida, the nymphs are best collected in winter just prior to their emergence. The lack of nymphal collections at other times of year suggests that nymphs may be within the hyporheic zone, or other hard to collect micohabitat throughout most of the year. There have been no studies of the biology of this species.

ADDITIONAL REFERENCES: Frison (1942); Harper & Hynes (1971a); Stark & Gaufin (1979); Stewart & Stark (1988); Poulton & Stewart (1991).

FAMILY CHLOROPERLIDAE

The Chloroperlidae are a widespread family, with 13 genera known from North America. Chloroperlids were previously unknown from Florida, but specimens of the genus *Haploperla* have now been collected from two localities in the panhandle.

Chloroperlids are small to medium sized stoneflies. Both nymphs and adults lack thoracic gills, and have paraglossae longer than the glossae. Chloroperlid nymphs are further distinguished by having the inner margins of the hind wingpads nearly parallel, and the cerci shorter than the abdomen. The adults are distinguished from other stoneflies by having hindwings with 1-3 anal veins, and folded anal area absent. [Refer to figures in family keys]

Nymphs are often found in gravel/riffle substrate, and are mostly carnivorous. Chloroperlids typically have a univoltine life-cycle. Adults are typically brightly colored yellow or green, and found in streamside vegetation. Emergence occurs in late spring.

Genus ***Haploperla*** Navás

DIAGNOSIS: These small stoneflies are distinguished from other chloroperlid genera by the following combination of characters: **Nymph:** dorsum of head and abdomen concolorous; with long pronotal fringe hairs 0.3-0.4 times pronotum width; pronotal hairs numerous on posterior margin of pronotum, sparse anteriorly, mostly absent laterally; inner margins of wingpads nearly parallel. **Adult:** Color green or yellow. **Male—**hindwing without anal lobe; and epiproct triangular dorsally (Figs. 45A, B). **Female—**hindwing without anal lobe; and subgenital plate rounded (Fig. 45C).

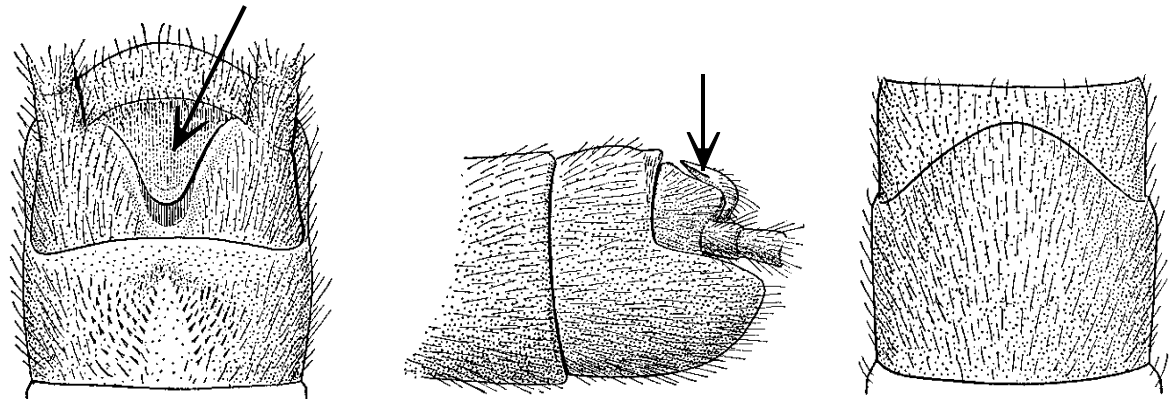


Figure 45: [from Frison, (1942)] – *Haploperla brevis* **Male: A.** Posterior abdominal segments (dorsal view); **B.** Posterior abdominal segments (lateral view); **Female: C.** Subgenital plate (ventral view).

NOTES: Of the four North American species of *Haploperla*, two species are known from the southeast, *H. brevis* and *H. chukcho*. *Haploperla brevis* adults are distinguished from *H. chukcho*

by lack of a dorsal abdominal stripe (Surdick & Stark, 1980). *Haploperla brevis* occurs throughout the eastern Nearctic, and is herein recorded for the first time from Florida. *Haploperla brevis* nymphs were collected from Alaqua Creek in Walton County by Donald Ray, and from Willacoochee Creek in Gadsden County by Manuel Pescador and Jerome Jones.

Haploperla nymphs are typically collected in gravel/riffle habitat. Ernst & Stewart (1986) found young nymphs in both leaf packs and gravel, but found mature nymphs most frequently in gravel substrate, and also reported that they were generalist feeders. Shapas & Hilsenhoff (1976) found nymphs to feed primarily on chironomid larvae. *Haploperla* species have a univoltine life-cycle and emergence has been reported to occur from mid-April to July (Neves, 1978; Ernst & Stewart, 1986; Surdick & Stark, 1980).

ADDITIONAL REFERENCES: Fiance (1977); Surdick & Stark (1980); Unzicker and McCaskill (1982); Stewart and Stark (1988); Stewart and Harper (1996).

FAMILY LEUCTRIDAE

The family Leuctridae is represented in North America by 8 genera and 55 species. Within Florida only the genus *Leuctra* is known. Adults and nymphs have glossae and paraglossae subequal in length, and the second tarsal segment is wedge-shaped and much shorter than the first. Nymphs do not possess gills and the hind wingpads are parallel to each other. Adults possess 1-segmented cerci, and the wings are curled around the abdomen. [Refer to figures in family keys]

Nymphs of Leuctridae are most easily confused with those of Capniidae. The character that is used to universally separate the two families (the lateral abdominal fold) is often difficult to discern in specimens preserved in alcohol, which have not first been fixed by boiling. The separation of leuctrids and capniids occurring in Florida is less problematic and the families are easily separated by examining the wingpads and cerci. *Leuctra* has narrow hind wingpads (unlike *Allocapnia*) and lacks the vertical fringe of cercal hairs possessed by *Nemocapnia*, the only capniid presently known in the state.

Leuctridae occur in a wide variety of lotic habitats and are important members of many aquatic communities. Nymphs generally live on or within mineral substrates (sand and gravel) and feed on detritus. Adults generally emerge in the spring and summer, although leuctrids occurring in Florida emerge mainly during winter months.

Genus ***Leuctra*** Stephens

DIAGNOSIS: These small, slender stoneflies are distinguished from other leuctrid genera, potentially occurring in Florida, by the following combination of characters: **Nymph:** body elongate; pronotum with clusters of 4-8 long setae at corners (Fig. 46A); abdominal terga and sterna with short surface hairs; paraprocts each with pair of long apical setae (Fig. 46B, C).

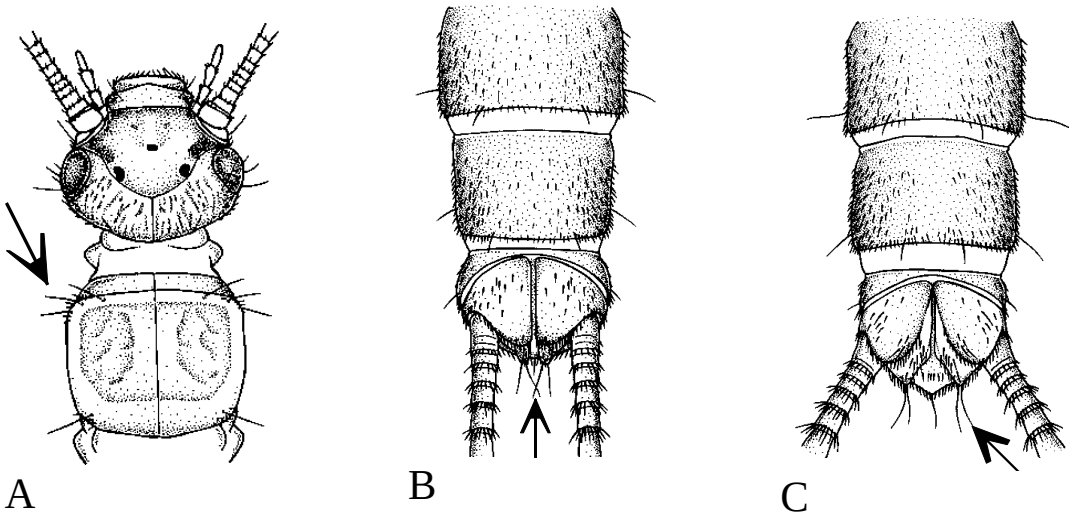


Figure 46: [from Stewart & Stark (1988)] – *Leuctra* **Nymph: A.** Head and pronotum; **B.** Male terminalia (ventral view); **C.** Female terminalia (ventral view).

Adult: hindwing with 3 anal veins; hindwing with m-cu crossvein proximal to Cu fork (Fig. 47).

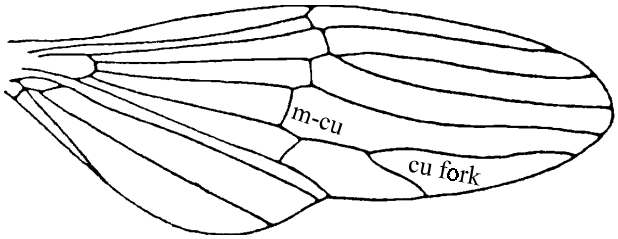


Figure 47. [from Needham & Claassen (1925)] – *Leuctra* hindwing.

NOTES: *Leuctra* is the largest genus within the family Leuctridae and contains 26 North American species distributed throughout the Eastern Nearctic. In addition, there are approximately 100 European species, primarily western Palearctic in distribution. In Florida, there are at least 5 species (L. *cottaquilla*, *L. ferruginea*, *L. rickeri*, *Leuctra* sp. A, and *L. triloba*). Two of these species, *L. rickeri* and *Leuctra* sp. A, represent new state records.

The genus *Leuctra* is in need of a major taxonomic revision. For the most part, species occurring within the central and southeastern United States have been inadequately described and illustrated (Harper & Harper, 1997). Harper & Hynes (1971b) provided nymphal descriptions and a key for 8 species common in eastern Canada, including *L. ferruginea*. Besides *L. ferruginea*, the nymphs of other Florida species are undescribed—therefore, species determinations are only possible using adults. Useful adult descriptions are available for the following: *L. cottaquilla* (James, 1974; Stark & Gaufin, 1979), *L. ferruginea* (Claassen, 1923; Frison, 1942; James, 1976; Harper & Harper, 1997), *L. rickeri* (James, 1976; Harper & Harper, 1997); *L. triloba* (Claassen, 1923; Needham & Claassen, 1925; Stark & Gaufin, 1979). Although females have been described for the named species occurring in Florida, we found that there is too much character overlap between species to make reliable species determinations. For males, the most useful characters are associated with abdominal tergal processes and the subanal lobes (specilla and paraprocts). Because of the poor quality and consistency of previous illustrations for species occurring in the state, we have drawn original illustrations of male terminalia using material collected in Florida.

In the literature there appears to have been confusion regarding males of *L. ferruginea* with those of *L. rickeri*. The description and illustrations given in Stark & Gaufin (1979) for *L. ferruginea* appear to most closely fit *L. rickeri* as described by James (1976) and Harper & Harper (1997). *Leuctra ferruginea* males have a specillum which is slightly bulbous at the apex, with only a minute subapical spine, whereas the specillum of *L. rickeri* is tapered and bears a prominent subapical spine (James, 1976; Harper & Harper, 1997; R.E. DeWalt, pers. comm.). After reexamination of the material used in Stark & Gaufin (1979), we found that the record of *L. ferruginea* from Goldhead Branch State Park was incorrect and correctly refers to *L. rickeri*.

The species we are calling *Leuctra* sp. A is based on 3 males and 1 female collected at two closely situated tributaries of the Blackwater River, as well as from McDavid Creek within the Perdido River basin. The male resembles *L. szczytkoi* as described by Stark & Stewart (1981a) and DeWalt & Stark (1996), in that the specillum possesses a long spine at the apex. However, the shape of the specillum as seen in lateral aspect is more slender in *L. szczytkoi* than

in *Leuctra* sp. A. The female of *Leuctra* sp. A is also similar to *L. szczytkoi* in that the notch of the subgenital plate is shallow, but the shape differs in that the plate of *Leuctra* sp. A angles to a subtriangular apex, whereas the apex of the subgenital plate of *L. szczytkoi* is broadly truncated. Following the examination of type material of *L. szczytkoi* and collection of additional material of *Leuctra* sp. A, we will be able to decide if this is a valid new species.

Among the Euholognatha, *Leuctra* is the most widespread and common genus in Florida. *Leuctra* spp. are found throughout the Florida panhandle and are especially abundant in headwater streams and creeks but may also be found in medium size rivers such as the Blackwater. The genus extends south to streams within the northern peninsula, where *L. rickeri* is known. *Leuctra* nymphs are detritivores and are often associated with fast-flowing sand and gravel areas with embedded organic matter. The best time to collect mature nymphs in Florida is early fall (September-October). Adults can be collected by sweeping or beating riparian vegetation, or by attracting them to UV-blacklight. Adults have been collected in Florida from October through April.

Based on adult collections, *L. rickeri* appears to be the most widespread and was most common within the Blackwater River basin. *Leuctra cottaquilla* appears to be relatively rare and occurs mainly in the western panhandle. Interestingly, we examined 2 adult males collected from Lloyd Ck, Jefferson Co. and Whitewater Ck., Calhoun Co. that possessed specilla shaped like those of *L. cottaquilla*, but the subapical spine and paraprocts were more developed than typical *L. cottaquilla*. These structures appear intermediate between *L. cottaquilla* and *L. rickeri*.

Within Florida, *L. ferruginea* and *L. triloba* appear to be restricted to spring-seep headwater streams. We collected large numbers of both species using an emergence trap over a 2 meter section of stream located at the FAMU research farm. The trap was situated at the extreme headwaters of this Quincy Creek tributary in Gadsden County. The two species were collected together from the same trap on several occasions during November, December, and January. In 1998-1999 the emergence of *Leuctra* at this site extended from late October through March. The presence of these two species within the same small stream area and the overlapping emergence period begs the question of what differences between the two species there are that allow for their coexistence.

Adults of *Leuctra* spp. collected from other localities in Florida also support a fall/winter emergence pattern unlike *Leuctra* spp. from northern latitudes, which emerge most often during the spring and summer. The most comprehensive study of *Leuctra* life histories was done by Harper (1973a) on southern Ontario populations of *L. ferruginea* and *L. tenuis*. There he found that populations of *L. ferruginea* from cooler streams were predominately semivoltine, while populations from warmer streams tended towards univoltinism.

ADDITIONAL REFERENCES: Claassen (1923); Needham & Claassen (1925); Hanson (1941); Frison (1942); Harper & Hynes (1971b); Hitchcock (1974); James (1974; 1976); Stark & Gaufin (1979); Stark & Stewart (1981a); Stewart & Stark (1988); DeWalt & Stark (1996); Harper & Harper (1997).

KEY TO SPECIES FOR ADULT MALES OF FLORIDA *LEUCTRA*

1. Seventh abdominal tergum with prominent trilobed process (Figs. 48, 49) . . . . . *L. triloba* Claassen

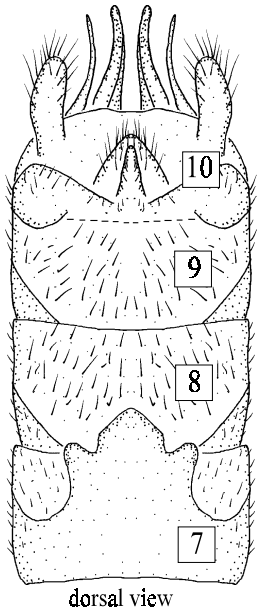


Fig. 48

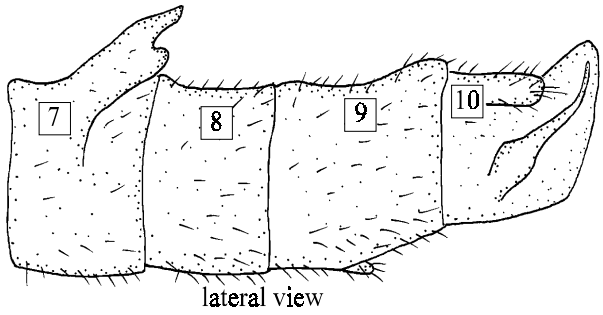


Fig. 49

Seventh abdominal tergum without trilobed process 2

2(1) Paraproct reduced, less than one third length of specillum (Figs. 50, 51) . . . . . *L. cottaquilla* James

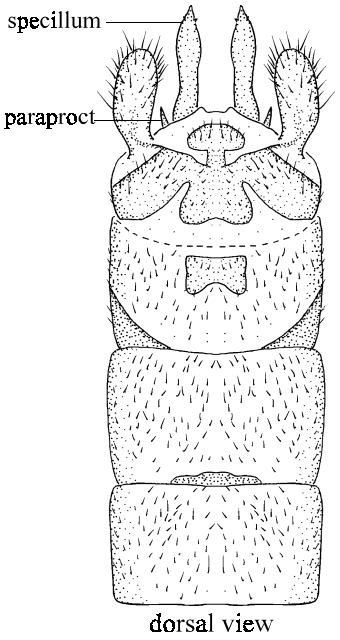


Fig. 50

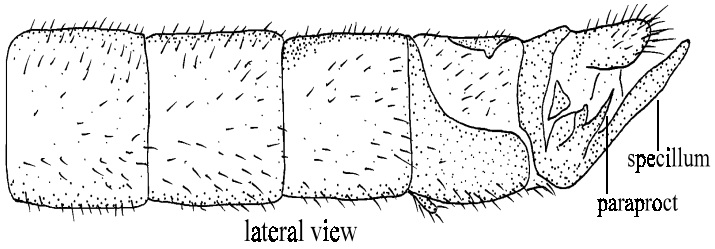


Fig. 51

Paraproct longer, more than one half length of specillum (Figs. 52, 54, 56) 3

3(2) Specillum ending as long spine at apex (Fig. 52); specillum wide at base and expanded caudally (Fig. 53) . . . . . *Leuctra* sp. A

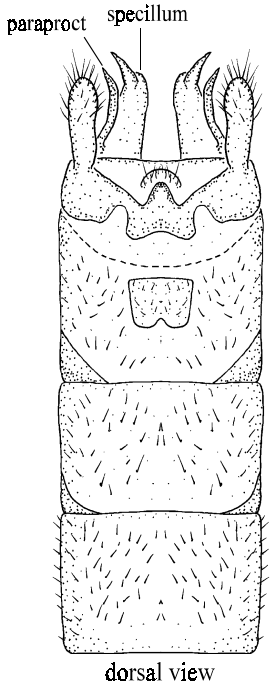


Fig. 52

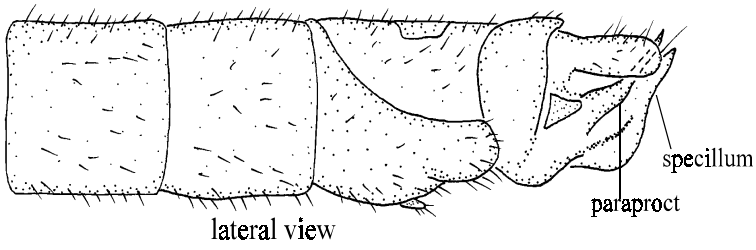


Fig. 53

Specillum blunt at apex, not ending as long spine (Figs. 54, 56); specillum narrower in lateral view (Figs. 55, 57) 4

4(3) Specillum with slightly bulbous tip, subapical spine minute (Fig. 54)
. . . . . *L. ferruginea* (Walker)

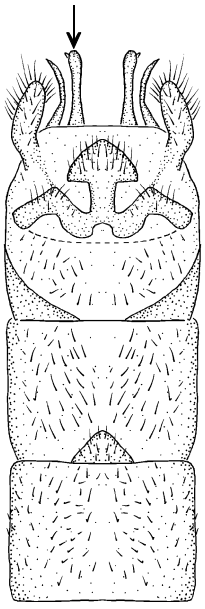


Fig. 54

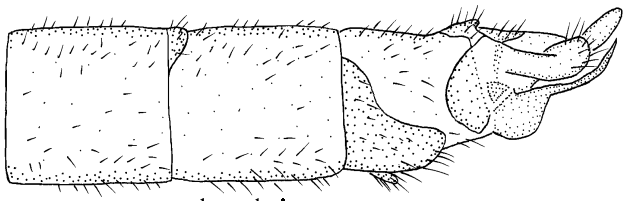


Fig. 55

Specillum apex not bulbous, subapical spine prominent (Fig. 56)
. . . . . *L. rickeri* James

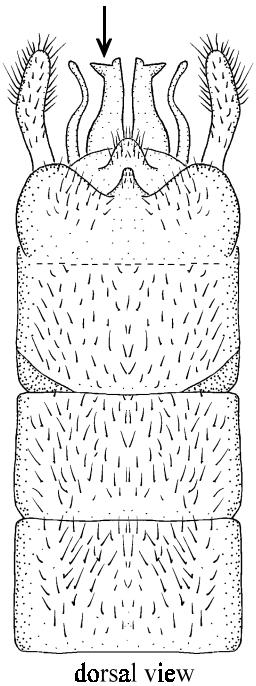


Fig. 56

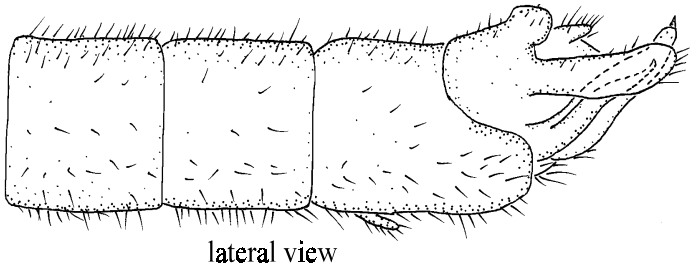


Fig. 57

FAMILY NEMOURIDAE

This euholognathan family is one of the most speciose families of Plecoptera in the world, with approximately 400 species known throughout the northern hemisphere. Within North America, the family is comprised of 12 genera and 71 species. Because nemourids have attained the greatest taxonomic diversity in mountain streams and rivers, the Florida fauna is depauparate with only a single species, *Amphinemura nigritta*, known from the state.

Nemourid nymphs and adults possess glossae and paraglossae subequal in length and wedge-shaped 2nd tarsal segments, which are much shorter than tarsal segment 1. Nymphs are further distinguished by their short and robust body and strongly divergent hind wingpads. Adults possess 1 segmented cerci, forewings each with 5 or more cubital crossveins, and an oblique crossvein in the apical marginal space of the forewing. [Refer to figures in family keys]

Genus ***Amphinemura*** Ris

DIAGNOSIS: These small stoneflies are distinguished from other nemourid genera by the following combination of characters: **Nymph:** cervical gills consisting of 2 pairs, one pair on each side of midline, each gill basally branched with at least 5 filaments arising equally from gill trunk (Fig. 58). **Adult:** Color dark brown to black; branched cervical gill remnants present. **Male—**paraprocts divided into three lobes, with spines or prongs on middle or outer lobes. **Female—**abdominal sternum 7 moderately produced; subgenital plate well developed with median notch and lateral lobes sclerotized.

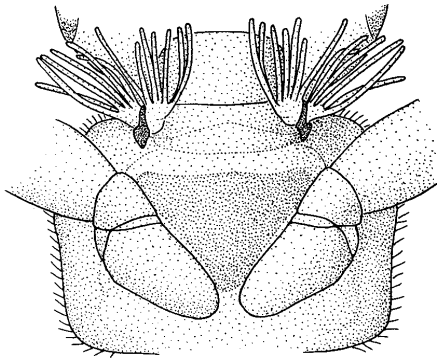


Figure 58. [from Baumann (1975)] – *Amphinemura delosa* Nymph cervical gills.

NOTES: Sixteen species of this large Holarctic and Oriental genus occur in North America. Two species (*A. delosa* and *A. nigritta*) are widespread within Eastern North America but only *A. nigritta* is known to occur within Florida. Many *Amphinemura* species are restricted to small geographic areas and it's quite possible that undiscovered localized endemic(s) occur within the Florida panhandle.

Harper & Hynes (1971c) included nymphal descriptions for 4 species (*A. delosa*, *A. linda*, *A. nigritta*, and *A. wui*). The nymphs from Florida that we examined match the description of *A. nigritta* except that the apical whorls of setae on the cercal segments are longer than described and more like those of *A. delosa*. For reliable species determinations, nymphs should be reared to the adult stage. Species determination of adults requires close examination of genitalia. The male paraprocts of *A. nigritta* are J-shaped from a lateral view, terminating dorsally as a bulbous head,

slightly recurved posteriorly, with thick dark spines forming a partial crown (Fig. 59A-C). Females of some *Amphinemura* species are difficult to distinguish. The female subgenital plate of *A. nigritta* has a large v-shaped median notch and rounded lateral lobes (Fig. 59E).

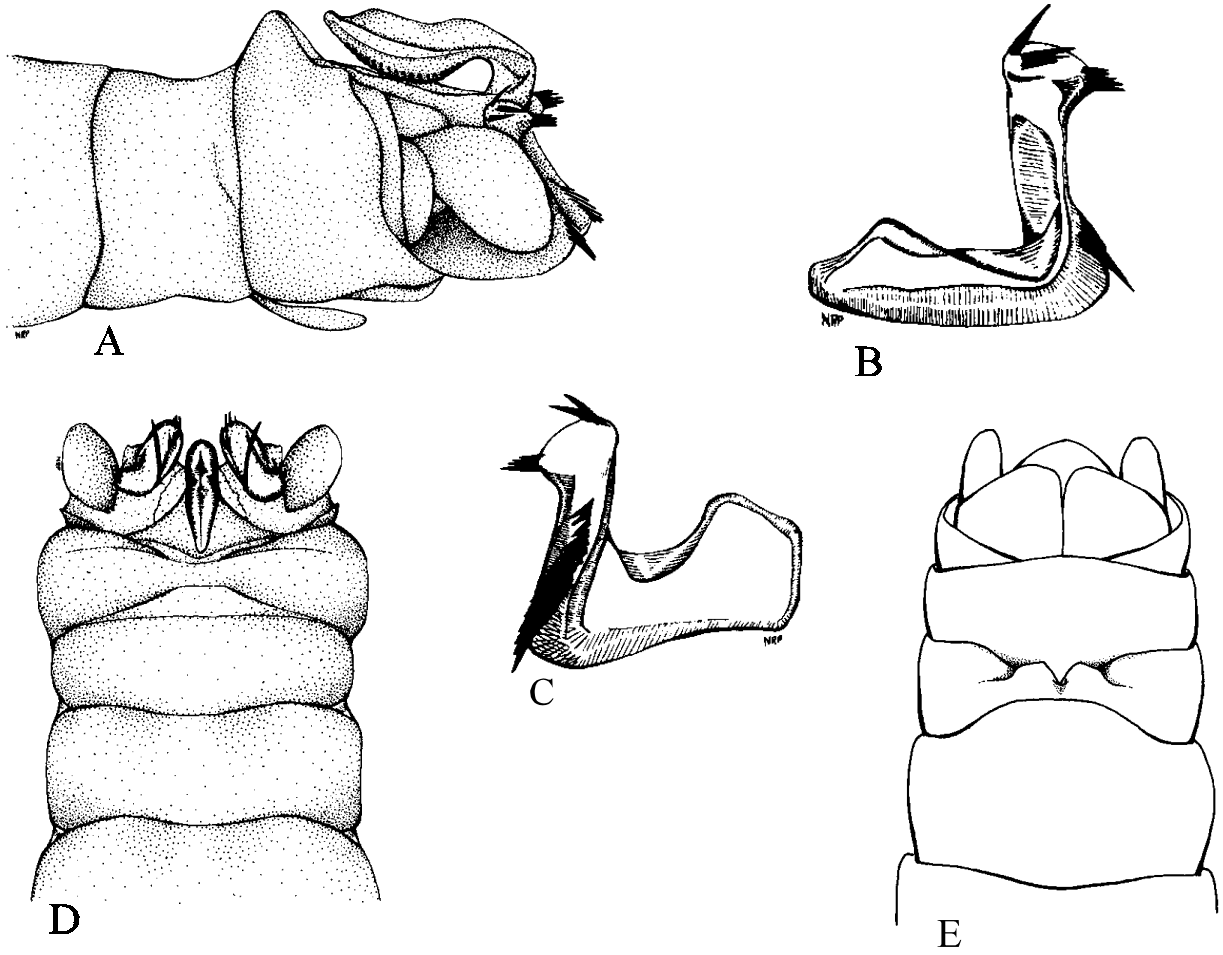


Figure 59: [from Hitchcock (1974)] – *Amphinemura nigritta* **Male: A**. Posterior abdominal segments (lateral view); **B**. Paraproct (lateral view); **C**. Paraproct (medial view); **D**. Posterior abdominal segments (dorsal view). **Female: E**. Posterior abdominal segments (ventral view).

Amphinemura is uncommon in Florida and has been collected from only small and sometimes intermittent streams (e.g., Black Ck, Leon Co.) in the eastern and western panhandle. *Amphinemura* species (including *A. nigritta*) studied by Harper (1973a) were shown to have univoltine life cycles with prolonged periods of egg diapause. *Amphinemura nigritta* adults have been collected in Florida from late March to early May. Adults from Torreya State Park were collected from Florida Yew. In streams where *Amphinemura* is present, nymphs are most likely to be found on organic substrates such as leaf packs and snags.

ADDITIONAL REFERENCES: Needham & Claassen (1925); Ricker (1952); Harper & Hynes (1971c); Hitchcock (1974); Baumann (1975); Stewart & Stark (1988); Poulton & Stewart (1991); Baumann (1996); Nelson (1997).

FAMILY PELTOPERLIDAE

The Peltoperlidae are a small family of roach-like stoneflies with 6 genera known from North America, represented in Florida by the genus *Tallaperla*. Stark & Stewart (1981b) reported *Tallaperla* from Florida, but no specific localities were given. Nymphs of *Tallaperla* have recently been collected from several localities in the western panhandle.

These medium-sized stoneflies are easily distinguished from other stonefly families by their roach-like appearance as both nymphs and adults. More specifically, the nymphs can be distinguished by their overlapping thoracic terga and sterna; having gills restricted to the coxal area; and the labium with paraglossae and glossae subequal in length. The adults also have paraglossae and glossae subequal in length; gill remnants on the coxal areas; two ocelli; a short first tarsal segment; and the anal area of the forewings without rows of anal crossveins. [Refer to figures in family keys]

Nymphs are usually found among leaf packs and detritus in swift flowing stretches of streams. Nymphs are predominantly shredders of leaf litter (Stewart & Stark, 1988). *Tallaperla* has been suggested to have a semivoltine life-cycle (Elwood & Cushman, 1975), with adults generally emerging in late spring.

Genus ***Tallaperla*** Stark & Stewart

DIAGNOSIS: These roach-like stoneflies are distinguished from other peltoperlid genera by the following combination of characters: **Nymph:** absence of procoxal gills; double conical meso- and metathoracic coxal gills; and pronotum without paired light circular spots. **Adult: Male—**epiproct reduced to flat sclerite or membranous bulb (Fig. 60A); and vesicle as long as wide (Fig. 60B). **Female—** subgenital plate projecting over 1/2 or less of sternum 9 (Fig. 60C).

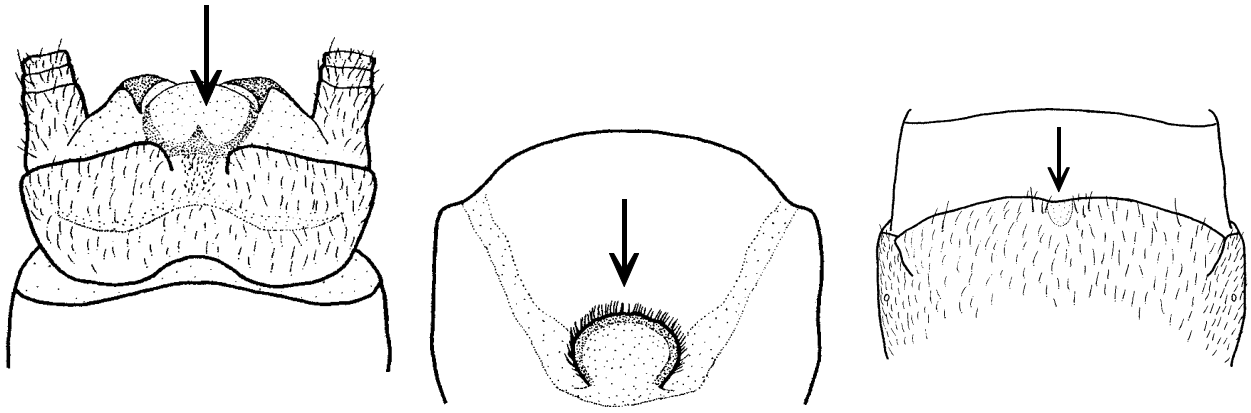


Figure 60: [from Stark (1983)] – *Tallaperla cornelia* **Male**: **A.** Posterior abdominal segments (dorsal view); **B.** Segment 9 (ventral view); **Female**: **C.** Subgenital plate (ventral view).

NOTES: The genus *Tallaperla* has an eastern Nearctic distribution. The *Tallaperla maria* complex was split from the eastern genus *Peltoperla* by Stark & Stewart (1981b). The six North

American species of the complex are all known from the southeast, but only *T. cornelia* is represented in Florida. The adults of *T. cornelia* are distinguished from other *Tallaperla* by the following characters: male vesicle width is about 1 ½ times the length (Fig. 60B); the female subgenital plate has a posterior mesal membranous area giving it a notched appearance (Fig. 60C) (Stark, 1983). The nymphs of *Tallaperla* cannot currently be identified to species.

Tallaperla nymphs have been collected from several localities in the western panhandle, such as Mitchell Ck. and Pine Barren Branch in Escambia Co., and Big Horse Ck. in Okaloosa Co. *Tallaperla cornelia* adults were reared by Donald Ray, from nymphs collected in Alaqua Creek in Walton County. Nymphs are typically collected in leaf packs and detritus in swift flowing stretches. Wallace et al. (1970) and Woodall & Wallace (1972) found the diet of *Tallaperla* to consist mainly of detritus and diatoms. Wallace et al. (1986) concluded that nymphs of *Tallaperla* were among the primary processors (shredders) of allochthonous input to some streams of the southern Appalachians. *Tallaperla* has been suggested to have a semivoltine life-cycle in Tennessee (Elwood & Cushman, 1975), and emergence has been reported to occur from April to June (Unzicker & McCaskill, 1982). In Florida, adults of *T. cornelia* were reared from nymphs collected in March.

ADDITIONAL REFERENCES: Needham & Smith (1916); Stark & Stewart (1981b); Unzicker & McCaskill (1982); Stark (1983); Stewart & Stark (1988); Stewart & Harper (1996).

FAMILY PERLIDAE

The family Perlidae is one of the largest groups of Nearctic systellognathan stoneflies second only to the family Perlodidae, based on the number of genera. This medium to large-sized family is the most diverse group of stoneflies in Florida, with eight (*Acroneuria*, *Agnetina*, *Attaneuria*, *Eccoptura*, *Neoperla*, *Paragnetina*, *Perlesta*, *Perlinella*) of the 15 known Nearctic genera occurring in the state. Close to 50 percent of the stonefly species known in the state belong to this family.

The nymphs mostly have striking color patterns and are easily recognized by their highly branched thoracic gills, and the adults have a folded area of the hindwings with 5-10 anal veins, and poorly developed arms of the mesosternal sulcus. [Refer to figures in the family keys]
In addition to being diverse, the perlids are the most geographically widespread stonefly group in the state with the species, *Neoperla clymene,* extending its range as far south as the Manatee and Peace River basins.

Perlid nymphs are found in a wide variety of lotic habitats ranging from small to moderate-sized streams and rivers. In Florida, the preferred nymphal microhabitats include mostly leaf packs trapped between wood snags or broken branches of trees embedded into the stream substrata. The predominantly predatory nymphs commonly feed on other aquatic insects (e.g., chironomid midges, mayflies, caddisflies).

KEY TO GENERA FOR MATURE NYMPHS OF FLORIDA PERLIDAE
[modified from Stewart and Harper (1996)]

1. Occiput with transverse row of regularly spaced spinules (Fig. 61), or elevated ridge extending to area of ecdysial line (Fig 62) 2

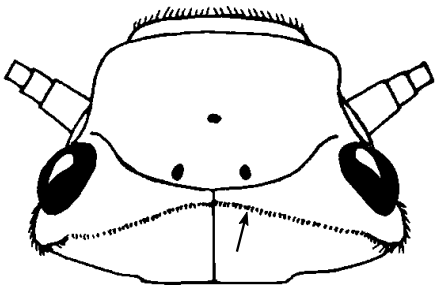


Fig. 61 [from Unzicker & McCaskill (1982)]

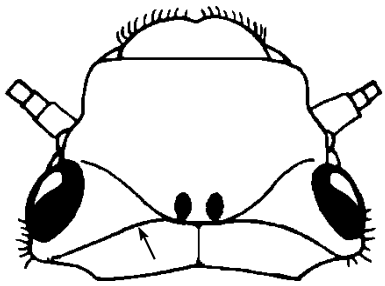


Fig. 62 [from Unzicker & McCaskill (1982)]

Occiput without row of spinules except possibly a few near postocular fringe (Fig. 63), or with a sinuate, irregularly spaced transverse row of spinules (Fig. 64) 4

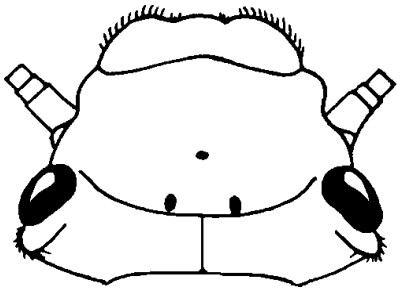


Fig. 63 [from Unzicker & McCaskill (1982)]

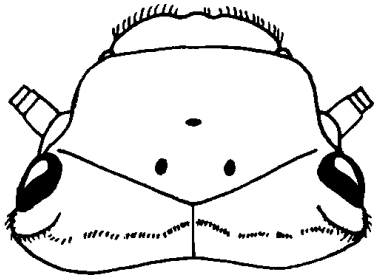


Fig. 64 [from Unzicker & McCaskill (1982)]

2(1) Two ocelli (Fig. 62); occiput with transverse ridge (Fig. 62) . . . . . *Neoperla* (p. 53)

Three ocelli (Fig. 61); occiput with transverse row of spinules (Fig. 61) 3

3(2) Posterior spinule fringe of abdominal sternum 7 complete (Fig. 65); cerci without long setal fringe . . . . . *Agnetina* (p. 51); *A. annulipes* (Hagen)

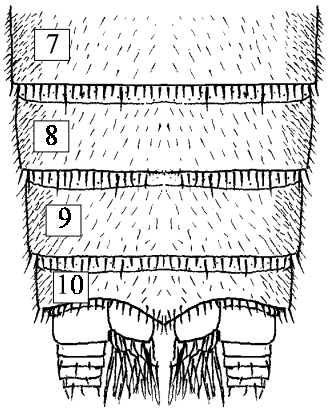


Fig. 65

Posterior spinule fringe of abdominal sternum 7 incomplete (Fig. 66); cerci with at least a few long silky setae basally . . . . . *Paragnetina* (p. 56)

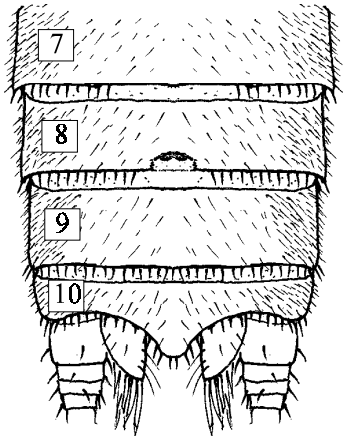


Fig. 66

4(1) Occiput with sinuate, irregularly spaced transverse row of spinules, more or less complete behind ocelli (Figs. 64, 67) 5

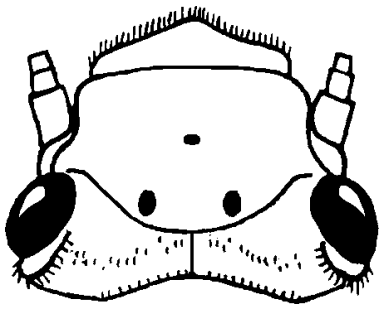


Fig. 67 [from Unzicker & McCaskill (1982)]

Occiput without row of spinules, a few scattered spinules may be present near postocular setal fringe (Figs. 63, 68) 6

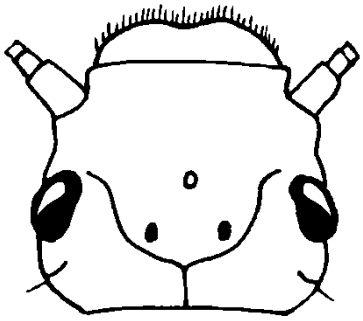


Fig. 68 [from Unzicker & McCaskill (1982)]

5(4) Pronotum laterally fringed with complete, closely-set row of long setae (Fig. 69); posterior fringe of abdominal terga with numerous long setae, length three-fourths or more length of abdominal segments (Fig. 70) . . . *Attaneuria* (p. 52); *A. ruralis* (Hagen)

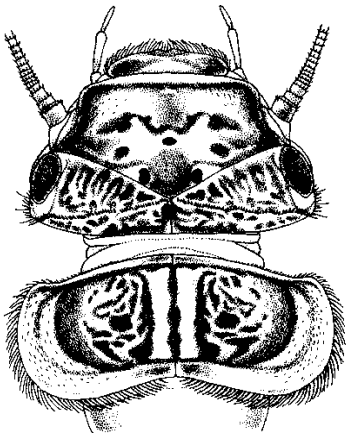


Fig. 69 [from Stewart & Stark (1988)]

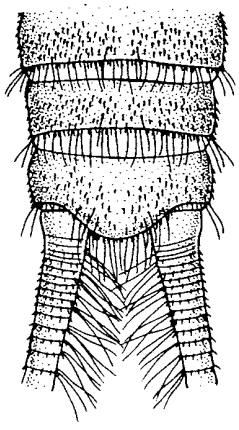


Fig. 70 [from Stewart & Stark (1988)]

Pronotum laterally fringed with not so closely-set, row of short setae (Fig. 71); posterior fringe of abdominal terga with mostly short setae, length approximately one-fourth length of abdominal segments (Fig. 72) . . . . . *Perlesta* (p. 61)

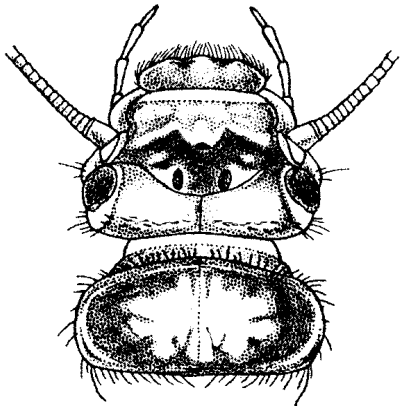


Fig. 71 [from Stewart & Stark (1988)]

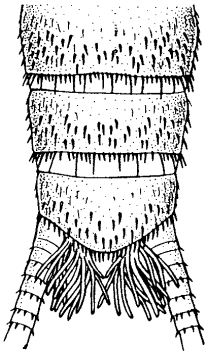


Fig. 72 [from Stewart & Stark (1988)]

6(4) Postocular fringe reduced to 1-3 setae (Fig. 73); eyes set forward on head; pronotal fringe consists of 2-5 anterolateral setae . . . . . *Perlinella* (p. 63)

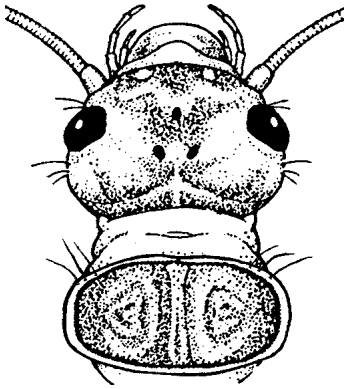


Fig. 73 [from Kondratieff et al. (1988)]

Postocular fringe with closely-set row of several thick spinules (Fig. 74); eyes set more toward posterior of head; pronotal fringe consists of closely-set row of spinules, sometimes incomplete laterally 7

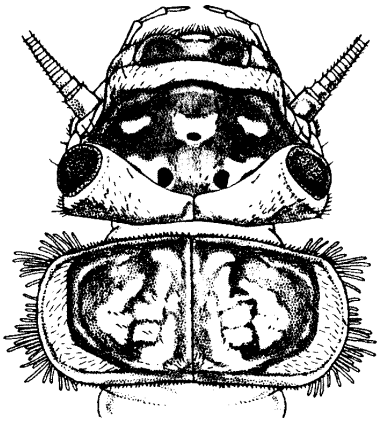


Fig. 74 [from Stewart & Stark (1988)]

7(6) Head with broad yellow area anterior to median ocellus (Fig. 75); cerci without fringe of long setae (Fig. 76) . . . . . *Eccoptura* (p. 52); *E. xanthenes* (Newman)

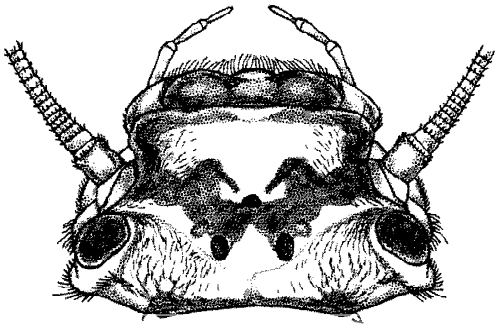


Fig. 75 [from Stewart & Stark (1988)]

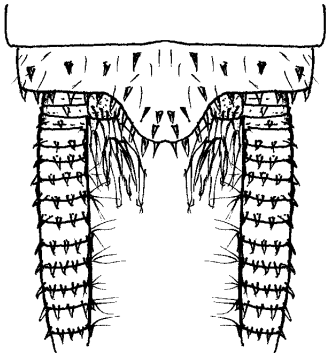


Fig. 76

Head mostly brown anterior of median ocellus, sometimes with a yellow M-shaped mark (Fig. 77); cerci with fringe of long setae (Fig. 78) . . . . . *Acroneuria* (p. 47)

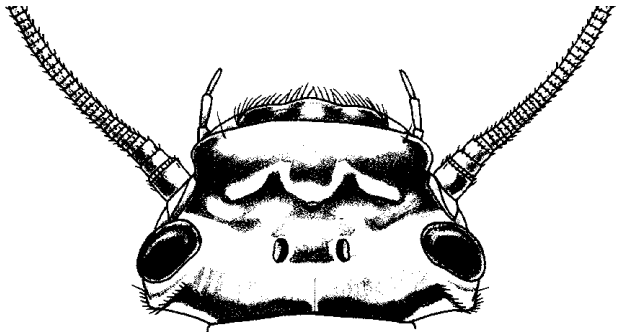


Fig. 77 [from Stewart & Stark (1988)]

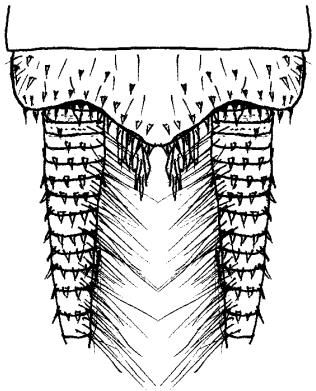


Fig. 78

KEY TO GENERA FOR ADULTS OF FLORIDA PERLIDAE
[modified from Stark & Gaufin (1979)]

Males

1. Genital hooks developed from posterior margin of tergum 10, anterior to cerci (Fig. 79); abdominal sternum 9 without hammer 2

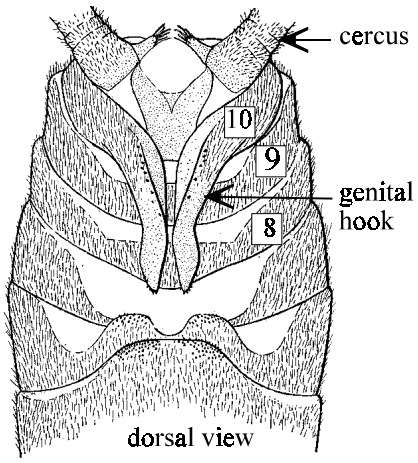


Fig. 79 [from Frison (1935)]

Genital hooks developed from paraprocts, originating below cercal bases (Fig. 80); abdominal sternum 9 usually with hammer (Fig. 82) (except *Perlesta*) 4

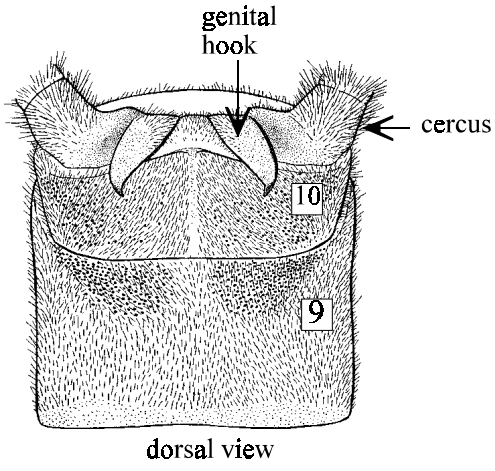


Fig. 80 [from Frison (1935)]

2(1) Two ocelli . . . . . *Neoperla* (p. 53)

Three ocelli 3

3(2) Genital hooks long, reaching anterior margin of abdominal tergum 8 (Fig. 79) . . . . . *Agnetina* (p. 51)

Genital hooks shorter, not reaching tergum 8 (Fig. 81) . . . . . *Paragnetina* (p. 56)

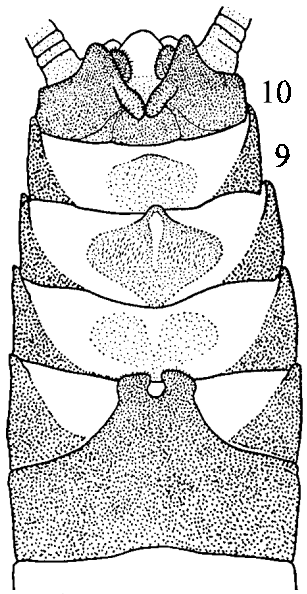


Fig. 81 [from Ricker (1949)]

4(1) Abdominal sternum 9 without a hammer . . . . . *Perlesta* (p. 61)

Abdominal sternum 9 with a hammer (Fig. 82) 5

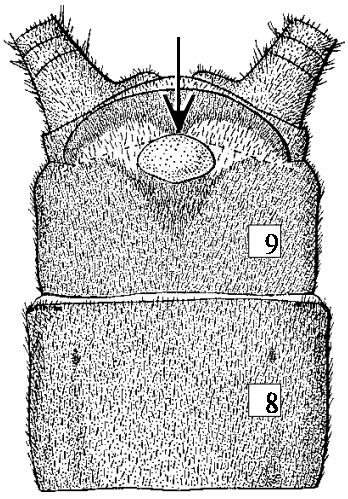


Fig. 82 [from Frison (1935)]

5(4) Forewing with at least 1 crossvein between A1 and A2 (Fig. 83) . . . . . *Perlinella* (p. 63)

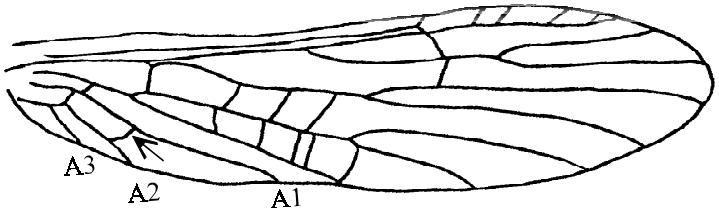


Fig. 83 [from Stewart et al. (1976)]

Forewing without crossveins between A1 and A2 (Fig. 84) 6

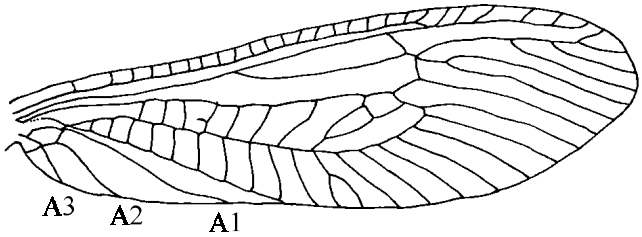


Fig. 84 [from Hitchcock (1974)]

6(5) Spinule patches present on abdominal terga 9 *and* 10 (Fig. 85) . . . . . *Acroneuria* (p. 47)

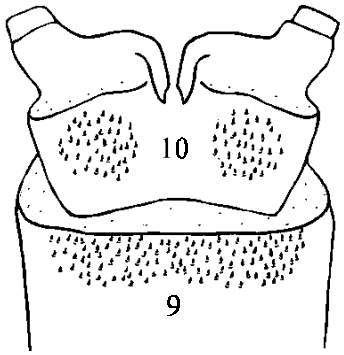


Fig. 85 [from Stark & Gaufin (1979)]

Spinule patches not present on *both* abdominal terga 9 and 10 7

7(6) Abdominal tergum 10 with small almost straight, median row of spinules (Fig. 86); body pale yellow . . . . . *Eccoptura* (p. 52); *E. xanthenes* (Newman)

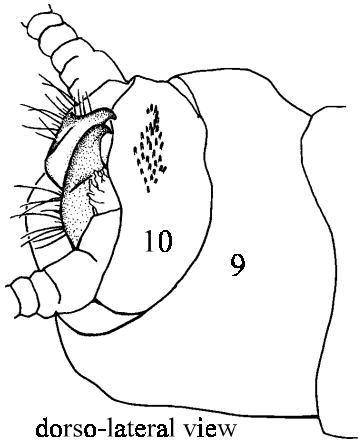


Fig. 86 [from Hitchcock (1974)]

Abdominal tergum 10 darkly sclerotized mesally, without row of spinules (Fig. 87); body dark yellow-brown . . . . . *Attaneuria* (p. 52); *A. ruralis* (Hagen)

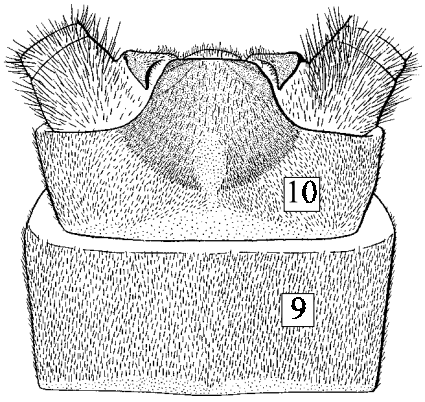


Fig. 87 [from Frison (1935)]

Females

1. Forewing with at least 1 crossvein between A1 and A2 (Fig. 88) . . . . . *Perlinella* (p. 63)

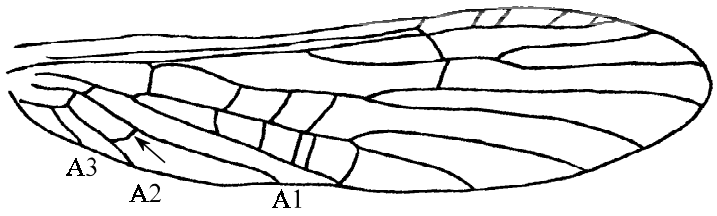


Fig. 88 [from Stewart et al. (1976)]

Forewing without crossveins between A1 and A2 2

2(1) Two ocelli . . . . . *Neoperla* (p. 53)

Three ocelli 3

3(2) Subgenital plate with midposterior notch (Figs. 89, 90) 4

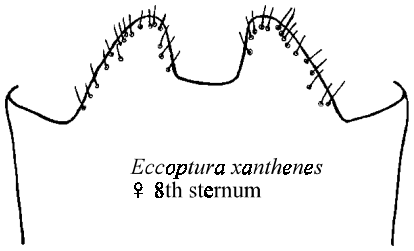


Fig. 89 [from Stark & Gaufin (1979)]

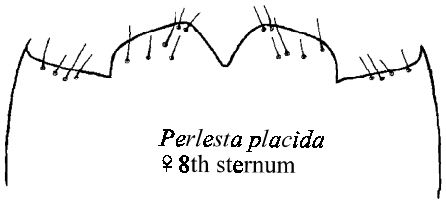


Fig. 90 [from Stark & Gaufin (1979)]

Subgenital plate without midposterior notch 6

4(3) Notch of subgenital plate broad and rectangular (Fig. 89); body pale yellow . . . . . *Eccoptura* (p. 52); *E. xanthenes* (Newman)

Notch of subgenital plate not as above; body color variable 5

5(4) Forewing length less than 15mm; notch of subgenital plate v-shaped (Fig 90) . . . . . *Perlesta* (p. 61)

Forewing length longer than 15mm; notch of subgenital plate narrow and rectangular (Fig. 91) . . . . . *Paragnetina* (p. 56)

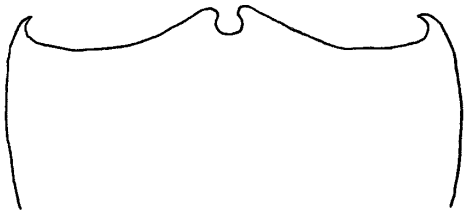


Fig. 91 [from Stark & Gaufin (1979)]

6(5) Thoracic sterna with transverse dark brown bands of pigmentation . . . . . *Agnetina* (p. 51)

Thoracic sterna without transverse dark brown bands of pigmentation 7

7(6) Subgenital plate slightly produced with small transverse tubercle basally (Fig. 92) . . . . . *Attaneuria* (p. 52); *A. ruralis* (Hagen)

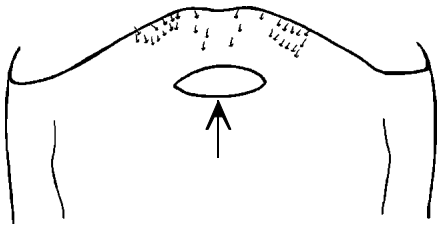


Fig. 92 [from Stark & Gaufin (1979)]

Subgenital plate variable without small transverse tubercle . . . . . *Acroneuria* (p. 47)

Genus ***Acroneuria*** Pictet

DIAGNOSIS: These medium- to large sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput without transverse spinule row or ridge; postocular fringe consisting of closely set row of thick spinules; and cerci with basal fringe of long setae. **Adult**: color gold-brown. **Male—**genital hooks developed from paraprocts; abdominal sternum 9 with hammer; forewing without crossveins between A1 and A2; spinule patches present on abdominal terga 9 and 10. **Female—**forewings without crossveins between A1 and A2; 3 ocelli; subgenital plate slightly to strongly produced, lacking basal tubercle. [Refer to figures in keys to genera]

NOTES: This genus is primarily eastern Nearctic in distribution and includes 15 described species from North America. Within Florida, 4 species are known (*A. abnormis*, *A. arenosa*, *A. evoluta*, and *A. lycorias*). Despite being relatively large stoneflies within a moderately sized genus, the taxonomy of this group is difficult. Stark & Gaufin (1976a) provided nymphal and adult male and female descriptions for most Nearctic species. However, because of conservative nymphal and adult female morphology and variable nymphal coloration patterns, they provided a key only for males. Important to note is that descriptions for *Acroneuria evoluta* appear under *Acroneuria mela* in Stark and Gaufin (1976a, 1979) as well as in other literature. The taxonomic confusion was not resolved until Stark and Brown (1991) placed *A. mela* as a junior synonym of *A. evoluta* and assigned a new species, *A. frisoni*, to *A. evoluta* (*sensu* Frison, 1942). *Acroneuria* nymphs for many species cannot be identified to species unless they are reared to adults. Definitive species determinations are best made using males in which the aedeagi have been extruded. Therefore, newly field collected or reared adult males should be extruded following the method outlined in the guide's introduction.

Frison (1942) originally reported the occurrence of *A. lycorias* in Florida based upon nymphal material collected by Lewis Berner. However these records were apparently disregarded by Stark & Gaufin (1979) because these determinations were based solely on nymphal material and because the species had not otherwise been recorded south of North Carolina and Kentucky. During this study we successfully reared a number of *A. lycorias* from streams within the Apalachicola Bluffs and Ravines region (see Appendix B). Additionally, we collected adult *A. lycorias* (using blacklights) from ravine streams within both the eastern and western panhandle. Within headwaters of these ravine streams *A. lycorias* is the most abundant *Acroneuria* species. The *A. lycorias* populations in Florida represent relict populations now disjunct from populations far to the North (Peckarsky, 1979).

Acroneuria species are among the most commonly encountered stoneflies in Florida. *Acroneuria arenosa* appears to be the most widely distributed and abundant species in the state. Nymphs of this species can not be separated from those of the much less common *A. evoluta*, which has been collected from only a few localities in the Florida panhandle. *Acroneuria abnormis* nymphs can be recognized by their lack of anal gills and uniformly brown head. This species occurs in a wide variety of lotic habiats within the panhandle. In Florida, *Acroneuria* adults emerge during spring and early summer, with adult collection times ranging from March through June and peak collection numbers in April and May. Nymphs are predatory and are easily collected from microhabitats such as leaf packs and snags containing prey species such as larval Diptera, Ephemeroptera, and Trichoptera.

ADDITIONAL REFERENCES: Frison (1942); Stark & Gaufin (1976a); Stark & Gaufin (1979); Stewart & Stark (1988); Stark & Brown (1991).

KEY TO SPECIES FOR MATURE NYMPHS OF FLORIDA *ACRONEURIA*

1. Anal gills absent; head without pale yellow marking anterior to median ocellus . . . . . *A. abnormis* (Newman)

   Anal gills present (Fig. 93); head with pale yellow marking anterior to median ocellus (Figs. 94, 95) 2

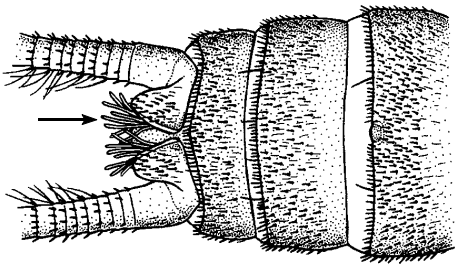


Fig. 93 [from Stewart & Stark (1988)]

2(1) Head with transverse, well developed M-shaped pale yellow marking anterior to median ocellus (Fig. 94); abdomen with light yellow bands on terga of at least first few abdominal segments . . . . . *A. lycorias* (Newman)

Fig. 94 [from Frison (1942)]

Head with 3 separate pale yellow markings anterior to median ocellus (Fig. 95); abdominal terga without transverse yellow banding, either uniformly brown (Fig. 95) or brown with isolated yellow spots (see cover photo)
. . . . . *A. arenosa* (Pictet) and *A. evoluta* Klapálek

Fig. 95 [from Frison (1935)]

KEY TO SPECIES FOR ADULT MALES OF FLORIDA *ACRONEURIA*
[modified from Stark & Gaufin (1976a)]

1. Genital hooks broad basally (Figs. 96, 98) 2

   Genital hooks long and finger-like (Figs. 101, 103) 3

2(1) Genital hooks broadly triangular (Fig. 96), aedeagus as in Fig. 97
. . . . . *A. abnormis* (Newman)

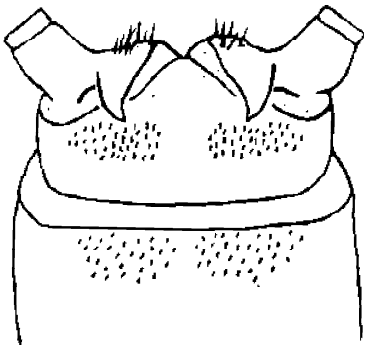


Fig. 96 [from Stark & Gaufin (1976a)]

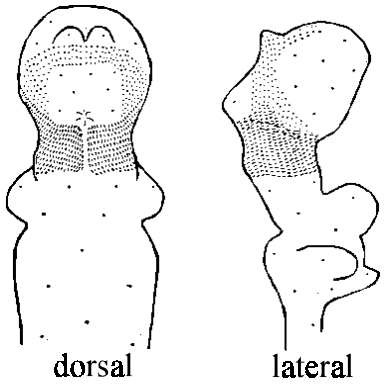


Fig. 97 [from Stark & Gaufin (1976a)]

Genital hooks broad basally, slender in apical half with tips sharply downturned (Fig. 98); aedeagus as in Fig. 99 . . . . . *A. lycorias* (Newman)

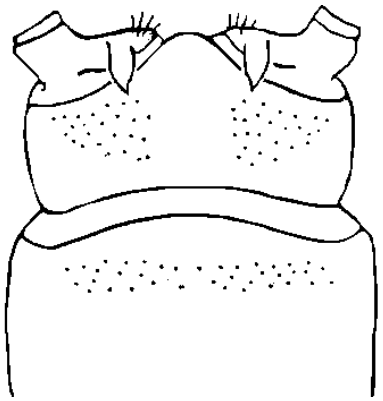


Fig. 98 [from Stark & Gaufin (1976a)]

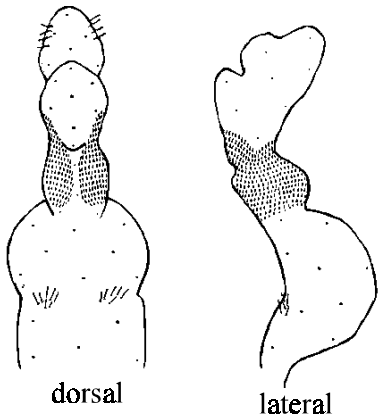


Fig. 99 [from Stark & Gaufin (1976a)]

3(1) Aedeagus apical spinule patch v-shaped (dorsal view, Fig. 100); basal spinule band wide basally, convergent apically (ventral view Fig. 100); genital hooks apically notched (Fig. 101) . . . . . *A. arenosa* (Pictet)

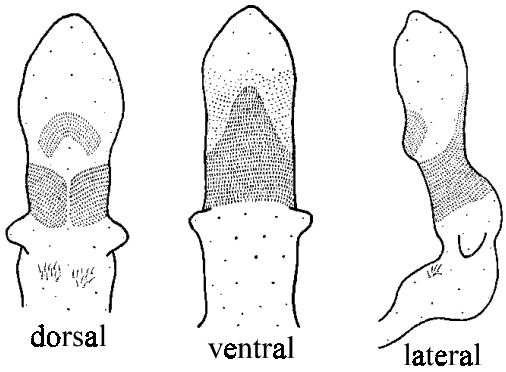


Fig. 100 [from Stark & Gaufin (1976a)]

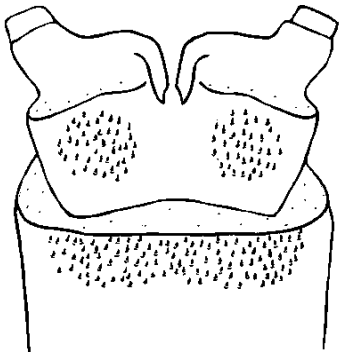


Fig. 101 [from Stark & Gaufin (1979)]

Aedeagus apical spinule patches quadrangular, separated mesally (dorsal view, Fig. 102); basal spinule band as narrow longitudinal band, widest at apex (ventral view, Fig. 102); genital hooks not apically notched (Fig. 103) . . . . . *A. evoluta* Klapálek

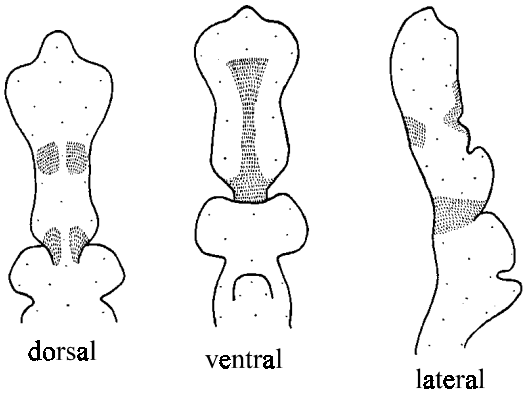


Fig. 102 [from Stark & Gaufin (1976a)]

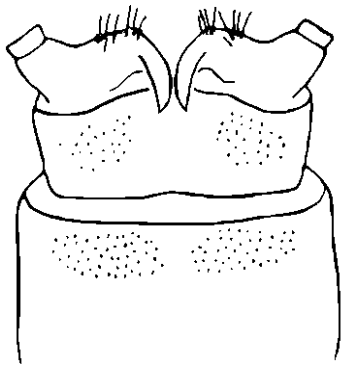


Fig. 103 [from Stark & Gaufin (1976a)]

Genus ***Agnetina*** Klapálek

DIAGNOSIS: These medium sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** brown with distinctive yellow pattern; occiput with transverse row of regularly spaced spinules; posterior margin of abdominal sternum 7 with complete setal fringe. **Adult:** yellow brown, both sexes with dark brown bands across thoracic sterna. **Male—**genital hooks, long reaching to anterior margin of tergum 8; 3 ocelli. **Female—**3 ocelli; thoracic sterna with dark bands; subgenital plate rounded without median notch. [Refer to figures in keys to families]

NOTES: Three species of this Holarctic genus occur in North America. Within Florida only 1 species, *Agnetina annulipes*, has been collected, and the occurrence of the other 2 species is unlikely. *Agnetina annulipes* has previously been reported in Florida as *Neophasganophora capitata* by Berner (1948) and as *Phasganophora capitata* by Stark & Gaufin (1979). Stark (1986) revised the Nearctic *Agnetina* and provided descriptions and keys for adults and nymphs. *Agnetina annulipes* nymphs are distinguished from those of other *Agnetina* species by the presence of a distinctive m-shaped yellow marking anterior to the median ocellus (Fig. 104A) and the dark pigmentation on the apex of tergum 10 (Fig. 104B).

Figure 104: [from Stark (1986)] – *Agnetina annulipes* **Nymph: A.** Nymphal head mask; **B.** Tergum 10.

Adults of *A. annulipes* are recognized by the transverse banding pattern of the femora (Fig. 105A). Males are further distinguished by the shape of the genital hooks (Fig. 105B). The female subgenital plate is characterized as slightly truncate (Fig. 105C), although the subgenital plates of Florida material we examined were more broadly rounded.

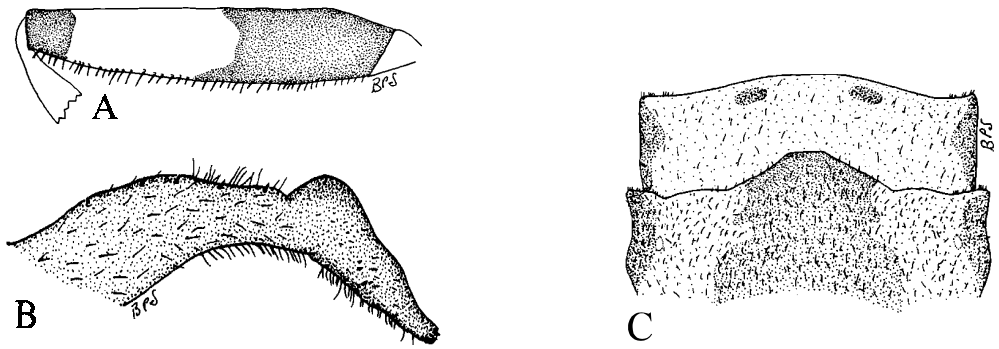


Figure 105: [from Stark (1986)] – *Agnetina annulipes* **Adult: A.** Femora (anterior view); **B.** Male genital hook (lateral view); **C.** Female abdominal sterna 8 & 9.

Agnetina annulipes has been collected from the Apalachicola, Blackwater, and Yellow river basins in the West Florida panhandle, but the species is most common within the Ochlockonee River Basin. Particularly abundant populations can be found in Rocky Comfort Ck. Most of the material we examined was collected from medium sized streams, but this species also occurs in small streams and rivers such as the Shoal. As with other perlids, the nymphs are predatory and are likely to be found in microhabitats containing other EPT. Adults in Florida have been collected during the months of April, May, and June.

ADDITIONAL REFERENCES: Stark & Gaufin (1979); Stark (1986); Stewart & Stark (1988).

Genus ***Attaneuria*** Ricker

DIAGNOSIS: These large stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput with sinuate, almost complete row of spinules; pronotum with lateral fringe of closely-set, long setae. **Adult:** yellow-brown. **Male—**genital hooks triangular, arising from paraprocts; forewing without crossveins between A1 and A2; hammer present; spinules absent from tergum 9 and 10. **Female—**subgenital plate slightly produced and smoothly rounded to slightly emarginate, bearing small basal tubercle. [Refer to figures in keys to families]

NOTES: *Attaneuria* is monotypic, represented by species *A. ruralis*, which is widely distributed over much of eastern North America. Female nymphs and adults, along with *Pteronarcys*, are the largest stoneflies occurring in Florida. Descriptions of nymphs and adults are provided in Stark & Gaufin (1976b) and Stark & Gaufin (1979). *Attaneuria ruralis* is found within the larger rivers of the Florida panhandle, including the Escambia, Blackwater, Yellow, Shoal, Choctawhatchee, Chipola, and Suwannee rivers. In Florida, adults have been collected from late March through mid-June using light traps.

ADDITIONAL REFERENCES: Frison (1935); Stark & Gaufin (1976b, 1979); Stewart & Stark (1988).

Genus ***Eccoptura*** Klapálek

DIAGNOSIS: These medium- to large sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput without transverse row of spinules; postoccular fringe of closely-set spinules; head with large mushroom-shaped yellow area anterior to median ocellus; cerci without fringe of long setae. **Adult:** bright yellow when alive and pale yellow once preserved. **Male—**genital hooks short, arising from paraprocts; hammer present; forewing without crossveins between A1 and A2; spinules absent from tergum 9; spinules present on tergum 10, arranged mesally in somewhat straight fashion. **Female—**forewing without crossveins between A1 and A2; 3 ocelli; subgenital plate strongly produced with broad mid-posterior notch. [Refer to figures in keys to genera]

NOTES: *Eccoptura* is monotypic, represented by the species *Eccoptura xanthenes*, which is distributed over parts of eastern North America. The species is particularly abundant in

headwater streams of the southern Appalachians. In Florida, this species is not commonly collected and is restricted to very specific habitats. It is found primarily in small, seepage-fed streams flowing through intact, mixed mesophytic forest, particularly Beech-Magnolia association. In these seepage streams *E. xanthenes,* along with *A. lycorias,* is the dominant large perlid. Morphologically, *Eccoptura* is closest to *Acroneuria,* and Stark & Gaufin (1976b) postulated that *Eccoptura* may represent a specialized lineage that has successfully exploited small, spring-fed streams. We've found that the densest populations occur in streams where there are high numbers of salamanders. *Eccoptura xanthenes* was observed feeding on salamanders in laboratory studies by Mathews (1982), and it is likely that larval salamanders are an important dietary component. We observed emergence of adults from mid-May to early June in a headwater stream of Quincy Creek, Gadsden County.

ADDITIONAL REFERENCES: Needham & Claassen (1925); Frison (1942); Stark & Gaufin (1976b, 1979); Stewart & Stark (1988).

Genus ***Neoperla*** Needham

DIAGNOSIS: These medium sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput with elevated transverse ridge extending across head behind ocelli; 2 closely-set ocelli. **Adult: Male—**genital hooks developed from posterior margin of abdominal tergum 10, anterior to cerci (Fig. 108); abdominal sternum 9 without hammer. **Female—**crossveins between A1 and A2 of female forewings absent; 2 ocelli. [Refer to figures in key to genera]

NOTES: Fifteen *Neoperla* species are recognized in eastern North American, 2 of which are represented in Florida, *N. carlsoni*, and *N. clymene*. Based on external spination of the male aedeagi, length and presence or absence of spinulae of female spermatheca, and chorionic striation of eggs, Stark & Baumann (1978) placed the Nearctic *Neoperla* in 2 species complexes, the *clymene* complex and the *choctaw* complex. *Neoperla carlsoni* is a member of the *choctaw* complex (Stark & Baumann 1978; Ernst et al., 1986; Poulton & Stewart, 1991).

The color pattern of the thoracic nota appears to easily distinguish the nymphs of *N. carlsoni* and *N. clymene* in Florida. The pale yellow submedian markings on the meso- and metathoracic nota of *N. carlsoni* are anteriorly connected with the broad pale yellow median area (Fig. 106) but not in *N. clymene* (Fig. 107).The nymphs and adults of both species were associated by the dissection of mature nymphs with black wing pads or about to emerge (especially in specimens where apolysis has commenced or taken placed). The pattern of spinule patches on the 10th tergum of the males, as previously alluded, are already evident in this stage. Nymphs of both species collected from various localities, including several nymphs from the type locality of *N. carlsoni* (Florida: Gadsden Co., Rocky Comfort Ck, 7 mi. S Quincy) were used in this exercise.

Neoperla carlsoni appears geographically confined to the northwestern region of the state, the species has never been collected east of the Ochlockonee River Basin. *Neoperla clymene* on the other hand, is more geographically widespread, occurring from the western panhandle and as far south to Hillsborough and Manatee counties.

The nymphs of both species were collected in fairly small streams (e.g., Camp and Telogia creeks) to moderate sized rivers (e.g. Blackwater and Shoal rivers). They were found

mostly in relatively low flow areas where leaf packs and snags, thinly covered with detritus, were common. The seasonality of *N. carlsoni* and *N. clymene* in the state appears to be similar. The nymphs of both were collected almost throughout the year, and collection records indicated the adults emergence in March to early September (Appendix B). Stark & Gaufin (1979) reported the emergence period of *N. clymene* and *N carlsoni* from April to mid-June and late April through September, respectively. Elsewhere, *N. clymene* has been observed to emerge from May to July in Texas (Vaught & Stewart, 1974) and from early June through August in Illinois (Frison, 1935).

ADDITIONAL REFERENCES: Needham & Claassen (1925); Frison (1935); Hitchcock (1974); Stark & Baumann (1978); Stark & Gaufin (1979); Poulton & Stewart (1991).

PROVISIONAL KEY TO SPECIES FOR MATURE NYMPHS OF FLORIDA *NEOPERLA*

1. Pale yellow coloration of wing pads extended anteriorly and connected to broad median pale yellow areas of nota (Fig. 106); pronotum with broad pale yellow area . . . . . *N. carlsoni* Stark & Baumann

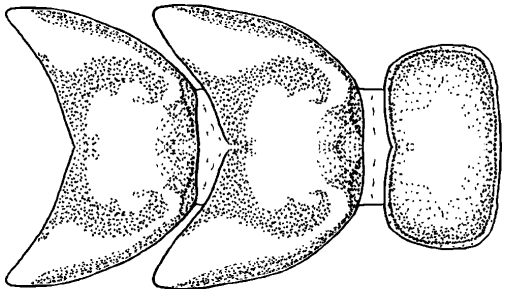


Fig. 106

Pale yellow coloration of wing pads confined to distal section (Fig. 107); pronotum with relatively small pale yellow area . . . . . *N. clymene* (Newman)

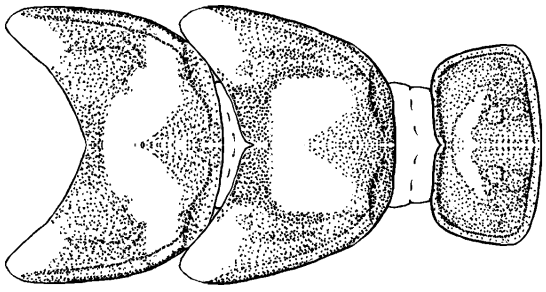


Fig. 107

KEY TO SPECIES FOR ADULTS OF FLORIDA NEOPERLA
[modified from Stark & Gaufin (1979)]

1. Male with 3 prominent patches of spinules on abdominal tergum 9 (Fig. 108); Female with anterior and posterior margins subgenital plate concave, vagina bearing a sclerotized process which is seen through 8th sternum as 2 dark circular areas (Fig. 109); tibiae and tarsi bicolorous yellow and dark brown . . . . . *N. clymene* (Newman)

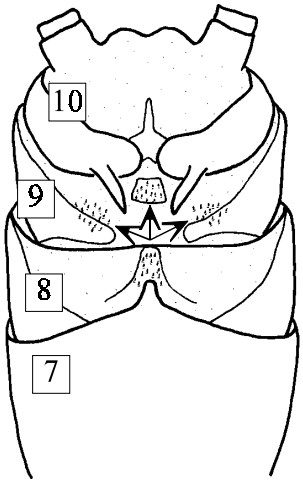


Fig. 108 [from Stark & Baumann (1978)]

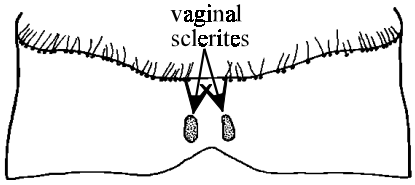


Fig. 109 [from Stark & Gaufin (1979)]

Male with 1 small mesal patch of spinules on abdominal tergum 9 (Fig. 110); Female with posterior margin of subgenital plate slightly convex (Fig. 111), vagina lacking a sclerotized basal process, 2 dark circular areas absent (Fig. 111); tibiae and tarsi unicolorous dark brown . . . . . *N. carlsoni* Stark & Baumann

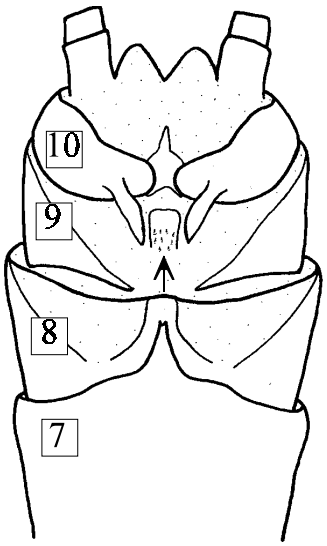


Fig. 110 [from Stark & Baumann (1978)]

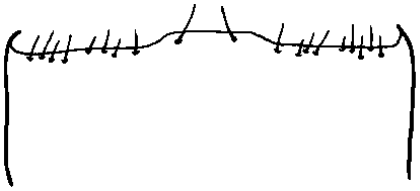


Fig. 111 [from Stark & Gaufin (1979)]

Genus ***Paragnetina*** Klapálek

DIAGNOSIS: These relatively large sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput with prominent transverse row of spinules; 3 ocelli present; abdominal sternum 7 with incomplete spinule fringe on posterior margin; cerci with only few long silky setae near base. **Adult: Male—**genital hooks developed from posterior margin of tergum 10, short and not reaching tergum 8; hammer absent from abdominal sternum 9. **Female**—forewings long (> 15 mm), lacking cross veins between A1 and A2; subgenital plate with narrow and rectangular midposterior notch. [Refer to figures in keys to genera]

NOTES: This primarily Oriental perlid genus has 6 nominal species in North America; 2 species are represented in Florida, *Paragnetina fumosa* and *P. kansensis*. Stark & Gaufin (1979) reported the occurrence of these 2 species in the state and included a key for the adults. In a review of the systematics of the genus, Stark & Szczytko (1981) included a nymphal key to the various species, and differentiated the nymphs of *P. fumosa* and *P. kansensis* by the yellow markings surrounding the median ocellus (Figs. 114, 116) and the abdominal terga. In addition to these characters, we found that the pattern of the yellow markings of the thoracic nota is also diagnostic in distinguishing the nymphs of *P. fumosa* and *P. kansensis* in Florida. The size of the pale yellow markings of the thoracic nota of *P. fumosa* nymphs usually varies but the pronounced flower-like pattern is fairly distinctive (Fig. 113) and consistent throughout its geographic range. Typically, *P. kansensis* nymphs have disconnected pale yellow areas of various shapes on the pronotum, and a combination of yellow areas and yellow dots on the meso- and metanota (Fig. 115). The nymphs collected from the Suwannee River drainage, however, have greatly reduced thoracic pale yellow areas of the thoracic nota (Fig. 112A). Additionally, the pale yellow markings of the head (Fig. 112B) are not as extensive as the specimens collected from other localities.

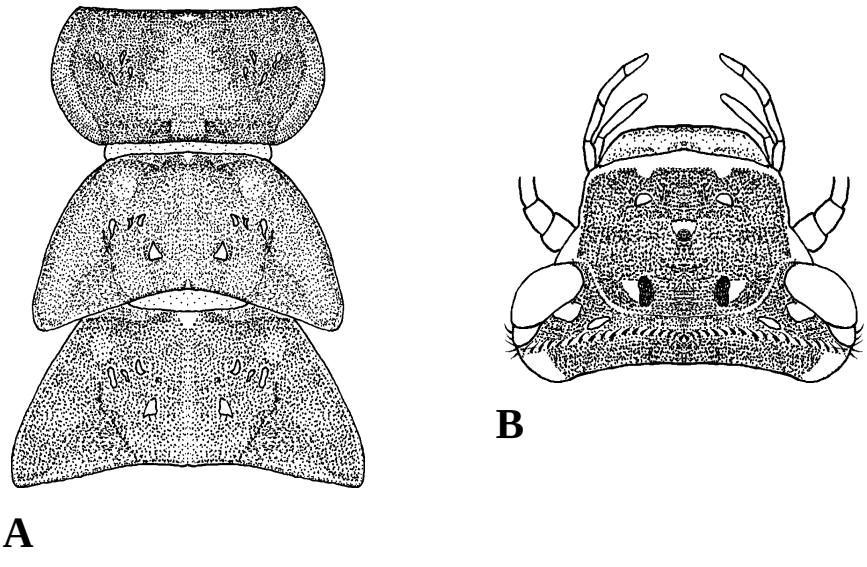


Figure 112: *Paragnetina kansensis* (Suwannee form) **Nymph: A.** Thorax (dorsal view); **B.** Head (dorsal view).

The adults of *P. fumosa* are distinctly darker (dark brown to black) than *P. kansensis* (pale yellow to light brown). Additionally, the male of *P. fumosa* has a distinctive, apically notched lobe on the posterior margin of abdominal tergum 5 (Fig. 117).

Paragnetina fumosa and *P. kansensis* generally have a similar geographic distribution in the state, occurring in North Florida running waters, from Levy County northwest to Escambia County; *Paragnetina fumosa* however, is the more common of the two. Both species were collected from small streams (e.g., Pond Ck, Attapulgus Ck.) to moderately large rivers (e.g., Blackwater River) and generally share similar microhabitats with *Acroneuria* nymphs, in leaf packs trapped between snags and other wood debris. The life cycles of *P. fumosa* and *P. kansensis*, in Florida are unknown. A congeneric species, *P. media* has been reported to have a two-year life cycle in northern Kentucky, with emergence occurring in mid-April and first instar nymphs appearing in late June (Tarter & Krumholz, 1971). Low temperatures appear to be a limiting factor accounting for the slow nymphal growth of the species in their northern range (Harper, 1973b). *Paragnetina fumosa* and *P. kansensis* have been reported to emerge in April though June, and June to July, respectively (Stark et al., 1998). In Florida, Stark & Gaufin (1979) reported the flight period of *P. fumosa* from April to September whereas in *P. kansensis* from May through July. Based on collection records, we found that the nymphs of *P. fumosa* and *P. kansensis* occur all year in the state and the adults appear to emerge in April to early July.

ADDITIONAL REFERENCES: Ricker (1949); Stark & Gaufin (1979); Stark & Szczytko (1981); Poulton & Stewart (1991); Stark et al. (1998).

KEY TO SPECIES FOR MATURE NYMPHS OF FLORIDA *PARAGNETINA*
[modified from Stark & Szczytko (1981)]

1. Thoracic nota with elaborate broad pale yellow markings (Fig. 113); dark area of frons with pair of yellow spots lateral to spot surrounding median ocellus (Fig. 114); several abdominal terga with conspicuous yellow markings . . . . . *P. fumosa* (Banks)

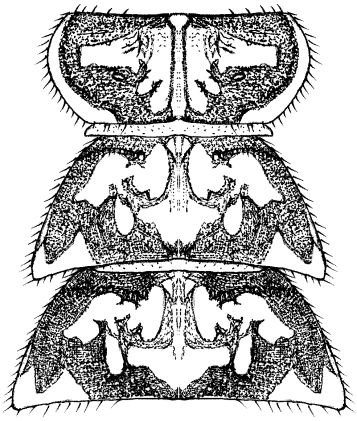


Fig. 113

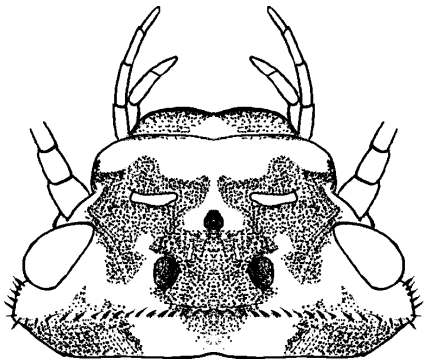


Fig. 114

Thoracic nota with small scattered pale yellow markings (Fig. 115); dark area of frons without yellow spots lateral to spot surrounding median ocellus (Fig. 116); abdominal terga without yellow markings . . . . . *P. kansensis* (Banks)

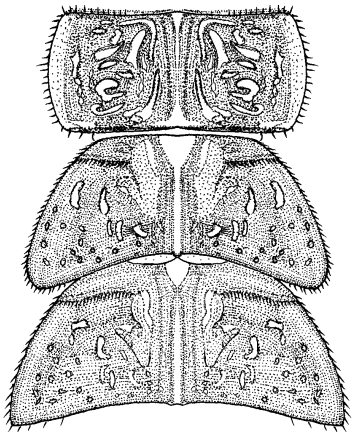


Fig. 115

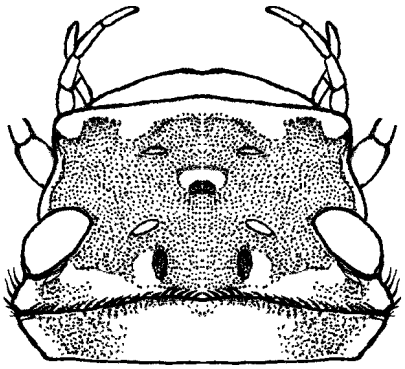


Fig. 116

KEY TO SPECIES FOR ADULTS OF FLORIDA *PARAGNETINA*
[modified from Stark & Szczytko (1981)]

Males

1. Posterior margin of abdominal tergum 5 produced into apically notched lobe which extends over most of tergum 6 (Fig. 117); general color dark brown to black . . . . . *P. fumosa* (Banks)

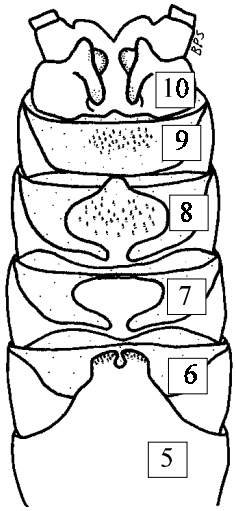


Fig. 117 [from Stark & Szcztytko (1981)]

Posterior margin of tergum 5 not produced into lobe (Fig. 118); general color pale yellow to light brown . . . . . *P. kansensis* (Banks)

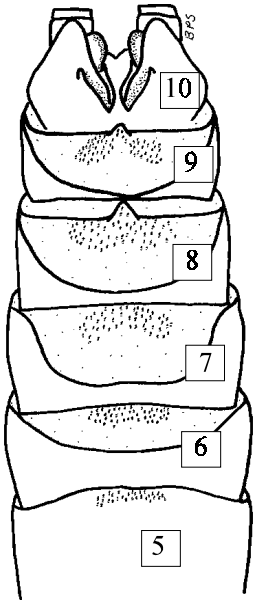


Fig. 118 [from Stark & Szczytko (1981)]

Females

1. General color dark brown to black; notch of subgenital plate at least as wide apically as at base (Fig. 119) . . . . . *P. fumosa* (Banks)

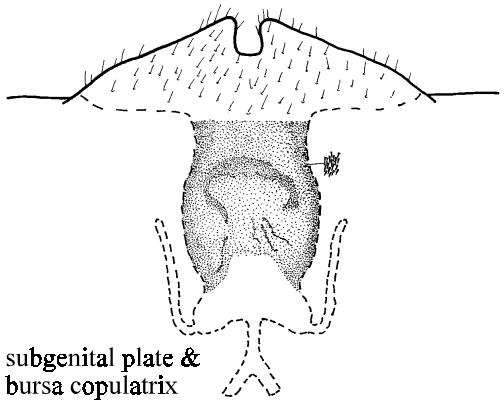


Fig. 119 [from Stark & Szczytko (1981)]

General color yellow to light brown; notch of subgenital plate wider at base than apex (Fig. 120) . . . . . *P. kansensis* (Banks)

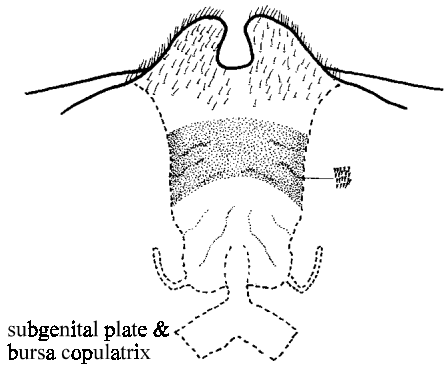


Fig. 120 [from Stark & Szczytko (1981)]

Genus ***Perlesta*** Banks

DIAGNOSIS: These small- to medium sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput with sinuate, irregularly spaced transverse row of spinules; pronotum laterally fringed with short and sparse setae; abdominal terga posteriorly fringed with short setae with length approximately one-fourth length of tergites. **Adult: Male—**genital hooks developed from paraprocts, originating below cercal bases; hammer and dorsal lobes absent. **Female—**forewings without crossveins between A1 and A2; subgenital plate slightly produced and often broadly bilobed. [Refer to figures in keys to genera]

NOTES: There are 17 *Perlesta* species recognized in North America and only 1, *Perlesta placida*, has previously been reported from Florida (Stark & Gaufin, 1979). In spite of the relatively recent review of the *placida* complex by Stark (1989), we still find it difficult to deal with the taxonomy of the group in Florida. Even in *P. placida*, variations in color and pattern of pigmentation and form of the male parapoct make species identification quite problematic. According to Stark (1989), *P. placida* adults can be distinguished from the other members of the species complex by the following characteristics: 1) the male paraproct is long and thin, and usually without a spine, if present, poorly developed; and 2) the female has a narrow subgenital plate with a width less than half than that of segment 8, and inner shoulder is lower than the outer shoulder.

We have encountered some adult specimens that do not fit the description of *P. placida* and which could very well represent other species. These specimens were sent to Dr. Bill Stark for verification and their taxonomic status is discussed below:

Perlesta nitida – Dr. Bill Stark tentatively identified one reared male as *P. nitida*. It was collected from Willacoochee Creek at State Road 65, N30°40’15", W84°32’34", Gadsden Co. 27-IV-99 . The paraprocts are short and stout with a small mesally directed spine. Unfortunately, the nymphal skin was never found or recovered after emergence. More specimens are needed to support a more definitive occurrence of this species in the state. The species is recorded from the northeastern United States (Connecticut, Massachussetts, and Pennsylvania).

Perlesta sp. A – The lobes of the female subgenital plate are relatively large and truncate and separated by a V-shaped notch similar to *P. lagoi*. The egg, according to Dr. Bill Stark, however, has a small stalked collar, and he could not at this time assign a species. The specimens have both the antennae and cerci unicolorous dark brown compared to bicolorous pale yellow and dark brown in *P. placida.* The specimens were collected by light trap from an unnamed tributary of Turkey Creek at a steephead off Base Road 639, Eglin Air Force Base, N 30°25’29”, W86°35’58”, Okaloosa Co.,15-VI-99.

Perlesta sp. B – The male has many similar features with and keys to *P. bolukta* but the paraprocts according to Dr. Bill Stark are different from the type specimens. *Perlesta bolukta* is presently known from Missouri and Oklahoma. The head is pale yellow and there are dark brown areas between the ocelli with prominent freckles. The antennae are brown, progressively darker towards apex. Cerci are bicolorous pale yellow and dark brown. The specimens were collected by light trap from Turkey Creek at Base Road 637,

Eglin AFB N30º34’47”, W86º36’27”, Okaloosa Co. 15-VI-99.

There is one male specimen in one of the vials on loan from the Illinois Natural History Survey identified as *P. shubuta*. The specimen has the following locality information: Jackson Co., Florida, Blue Spring Creek, 3 mi E. of Marianna, June 5, 1940, L. Berner and was previously identified as *P. placida* by Frison in 1940. The specimen could very well be *P. shubuta* but with the slightly shriveled condition of the paraprocts and only one specimen available it is difficult to make a definitive specific determination. As more specimens become available from this locality, we hope to have a more definitive species determination. *Perlesta shubuta* presently occurs in the lower Mississippi River Valley from Missouri to Mississippi (Stark et al., 1998).

The Florida *Perlesta* fauna certainly needs a more in-depth taxonomic study, as we find it difficult to identfiy nymphs and adults to species. Until more rearings are carried out to associate the nymphs and adults, we have decided for now to refer the nymphs as P*erlesta placida* complex. The nymphs show a tremendous degree of variation in coloration and setation. The general body color ranges from yellow to brownish yellow. Some nymphs have a head masked with dense freckles and the tranverse “W” pale yellow marking between antennae are remarkably more pronounced than others. This variation occurs throughout the geographic range, although it appears to be more common among nymphs from the Blackwater and Shoal River drainages. Similarly, some nymphs have brown spinous setae on the pronotum while lacking in others. Furthermore, the brown setae on the meso- and metanota of some nymphs are confined mostly on the wing pads, others have setae throughout the mesonotal surface. A few nymphs, from Telogia, Sweetwater, and Willacoochee creeks have a broad pale yellow area anterior to median ocellus and a pattern of markings quite similar to *P. shubuta* nymphs. We also found some female adults collected from the FAMU Farm stream, Rocky Creek, Gum Creek, and Turkey Creek (see Appendix B) that have remarkably dark colored wings but have the notch of the subgenital plate resembling the *P. placida* type. Future examination of the eggs may provide a more positive identification of these specimens.

The geographic distribution of *Perlesta placida* very much reflects the distribution of the genus in the state. The species occurs from Clay to Escambia County. *Perlesta* nymphs are one of the most common stoneflies inhabiting North Florida streams, and are most abundant in leaf packs and detritus-coated wood snags near shorelines of streams and rivers.

We collected a nymph (Gadsden Co. Camp Creek @ CR-274, 19-V-1987) along with a mature chironomid larva with its mouthparts firmly attached near the posterior base of the mesothoracic leg of the nymphal host. The posterior half of the larval body is inside a gelatinous and tubular case that is attached between the hind wingpad and the metathorax of the nymphal host. We found no visible external morphological deformities on the nymphal host. It seems like a fortuitous association since only one specimen, among the hundreds of *Perlesta* nymphs that we examined, has the chironomid larva. Phoretic and parasitic associations of stonefly nymphs and chironmid larvae, however, have previously been reported, and are not an uncommon phenomenon. The larvae of the chironomid, *Plecopteracoluthus downnesi,* have been found to phoretically live on *Acroneuria abnormis, A. lycorias, Paragnetina immarginata, P. media,* and *Togoperla media* nymphs (Steffan, 1965). Based on stable-isotope analysis Doucett et al. (1999) recently documented a parasitic association of the chironomid, *Nanocladius* sp, and the stonefly nymph, *Pteronarcys biloba.*

The biology of *Perlesta* in Florida is unknown. Elsewhere, *Perlesta placida* has been observed to have a univoltine life cycle (Hilsenhoff, 1981; Snellen & Stewart, 1979; Benke et

al., 1984). Young instars are detrital feeders and gradually shift to predation as they mature. The adults have been reported to emerge in May to July (Snellen & Stewart, 1979; Stark et al., 1998). In Florida, Stark & Gaufin (1979) reported the emergence from April to August. We have collected the nymphs throughout the year and collection records of the adults show emergence periods similar to those reported by Stark & Gaufin (1979).

ADDITIONAL REFERENCES: Frison (1935, 1942); Hitchcock (1974); Stark & Gaufin (1979); Stark (1989); Poulton & Stewart (1991); Stark et al. (1998).

Genus ***Perlinella*** Banks

DIAGNOSIS: These slender, medium sized stoneflies are distinguished from other perlid genera by the following combination of characters: **Nymph:** occiput devoid of spinules; 1-3 long postocular setae; compound eyes set forward on head; pronotum with 2-5 anterolateral setae. **Adult: Male—**genital hooks developed from paraprocts below cercal bases; oval hammer present on abdominal segment 9; forewings with at least 1 crossvein between A1 and A2. Female—forewings with at least 1 crossvein between veins A1 and A2; subgenital plate slightly notched . [Refer to figures in keys to genera]

NOTES: All 3 known *Perlinella* species, *P. drymo, P. ephyre, and P. zwicki*, occur in Florida. Based on the Kondratieff et al. (1988) re-evaluation of the systematics of the genus, *Perlinella zwicki* represents *P. fumipennis* (*sensu* Zwick, 1971) previously included in the Florida *Perlinella* species list of Stark & Gaufin (1979).

Kondratieff et al. (1988) provided a preliminary key to species for the mature nymphs of *Perlinella.* We were unable, however, to separate or identify the nymphs of *P. ephyre* and *P. zwicki* of Florida based on body coloration, neither were we able to find other distiguishing external morphological characters. Association of the nymphs and adults by rearing of both species in Florida is needed to resolve this nymphal taxonomic dilemma. We agree with Kondratieff et al. (1988) that *P. drymo* is a species that is variable in body size and color intensity. We also noticed the variability of the pale yellow markings of the meso- and metathoracic nota of the nymphs. Moreover, most nymphs collected from Econfina and Alaqua creeks lack the pale yellow markings on the abdominal terga which are common among nymphs from other localities.

All 3 species of *Perlinella* appear to have a similar spatial distribution in Florida, geographically limited to the panhandle region. *Perlinella drymo*, however, is the most common and abundant species in the state. The species has been collected from Hamilton Co. northwest to Santa Rosa Co., whereas *P. ephyre* and *P. zwicki* appear to have a more northern distribution. The nymphs of *Perlinella* are not as commonly collected as other perlids, although they occur mostly in the same general habitats, small to moderate sized streams and rivers (see Appendix B). Pre-emergent nymphs are most abundant in leaf packs and wood snags or debris in riffly stream margins or river shorelines. Earlier instars possibly spend considerable time in the hyporheic zone. Knowledge of the biology of *Perlinella* is very limited. In the southeastern United States, *P. drymo* usually emerges from late February to early April, whereas both *P. ephyre* and *P. zwicki* usually overlap in emergence period (May to June) (Kondratieff et al., 1988). In the Ozark and Ouachita Mountains, *P. drymo* emerges in mid-March through early May, and *P. ephyre* in May through July (Poulton & Stewart 1991). *Perlinella* appears to be

univoltine (Unzicker & McCaskill, 1982). In Florida, collection records show that the nymphs of *P. drymo* occur all year and adults emerge in March through June, a slightly longer emergence period than previously reported by Stark & Gaufin (1979). The few nymphs that either belong to *P. ephyre* or *P. zwicki* were collected from March through June. Adults of both species appear to have the same emergence period (March to June). One *P. ephyre* adult was collected in November.

ADDITIONAL REFERENCES: Frison (1935); Zwick (1971); Hitchcock (1974); Stark & Gaufin (1979); Unzicker & McCaskill (1982); Kondratieff et al. (1988); Poulton & Stewart (1991).

PROVISIONAL KEY TO SPECIES FOR MATURE NYMPHS OF FLORIDA *PERLINELLA*

1. Median ocellus present; head with distinct dark brown marking (Fig. 121); thorax with discernible yellow markings; anal gills developed, usually branched . . . . . *P. drymo* (Newman)

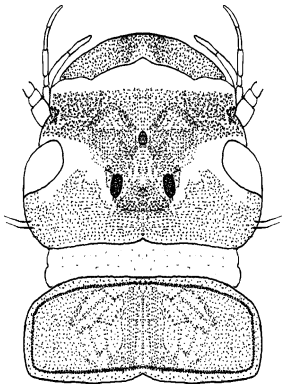


Fig. 121

Median ocellus absent; head with brown marking (Fig. 122); thorax brown without descernible pale yellow markings; anal gills either greatly reduced and unbranched or absent . . . . . *P. ephyre* (Newman) and *P. zwicki* Kondratieff et al.

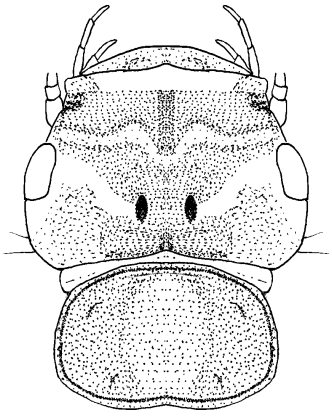


Fig. 122

KEY TO SPECIES FOR ADULTS OF FLORIDA *PERLINELLA*
[modified from Kondratieff et al. (1988)]

Males

1. Pronotum with prominent dark brown median stripe flanked by pale yellow areas, margins brown (Fig. 123); median ocellus present; cercal segments with subapical setae subequal in length (Fig. 124); aedeagus as in Fig. 125 . . . . . *P. drymo* (Newman)

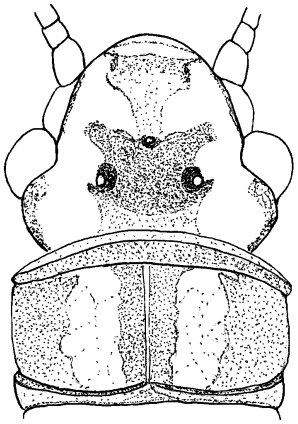


Fig. 123

Fig. 124

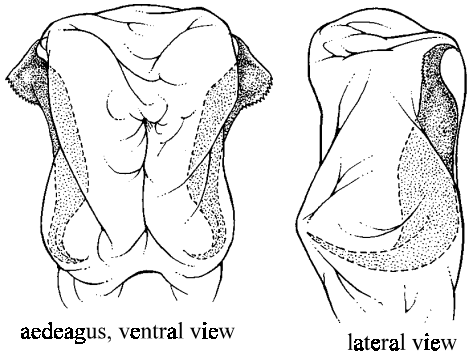


Fig. 125 [from Kondratieff et al. (1988)]

Pronotum not as above; median ocellus either present or absent; cercal segments with one or two subapical setae distinctly longer than others (Fig. 126); aedeagi as in Figs. 128, 130 2

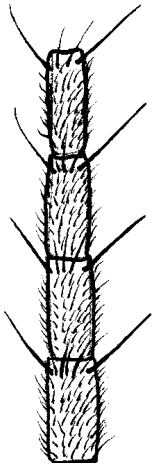


Fig. 126

2(1) Head with dark pigmentation restricted to a single patch ending near anterior margin of compound eyes (Fig. 127); median ocellus absent; cerci unicolorous brown; lateral edge of aedeagus without a hook (Fig. 128) . . . . . *P. zwicki* Kondratieff et al.

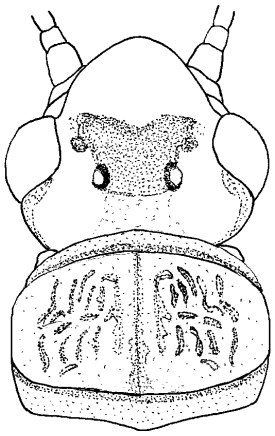


Fig. 127

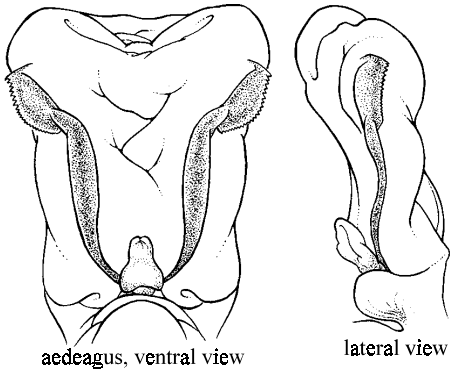


Fig. 128 [from Kondratieff et al. (1988)]

Head with dark pigmention extending to clypeus (Fig. 129); median ocellus usually absent, if present, reduced; cerci bicolorous pale yellow and brown; lateral edge of aedeagus with sharp sclerotized hook (Fig. 130) . . . . . *P. ephyre* (Newman)

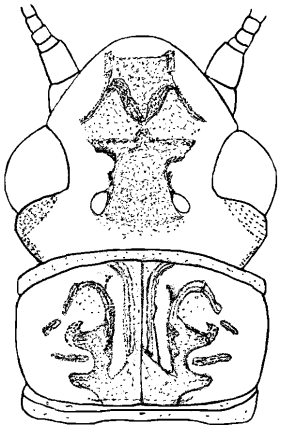


Fig. 129

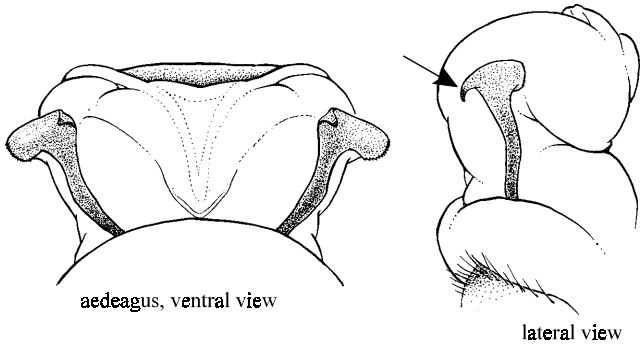


Fig. 130 [from Kondratieff et al. (1988)]

Females

1. Color pattern of pronotum as in adult male (Fig. 123); median ocellus present; subgenital plate with broad median notch (Fig. 131) . . . . . *P. drymo* (Newman)

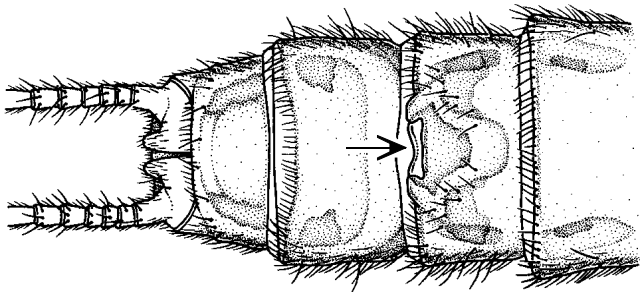


Fig. 131 [from Kondratieff et al. (1988)]

Color pattern of pronotum not as above; median ocellus either present or absent; subgenital plate not as above 2

2(1) Head color pattern as in male (Fig. 127); median ocellus always absent; subgenital plate broadly bilobed with shallow median notch (Fig. 132); color of cerci as in male . . . . . *P. zwicki* Kondratieff et al.

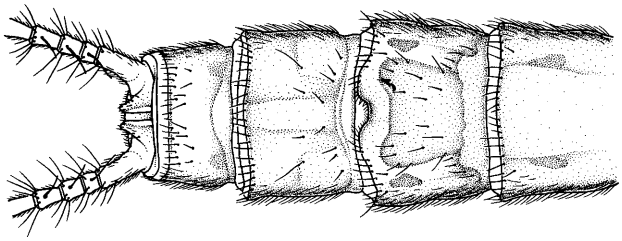


Fig. 132 [from Kondratieff et al. (1988)]

Head color pattern as in male (Fig. 129); median ocellus usually absent; subgenital plate truncately bilobed with deeper median notch (Fig. 133); color of cerci as in male . . . . . *P. ephyre* (Newman)

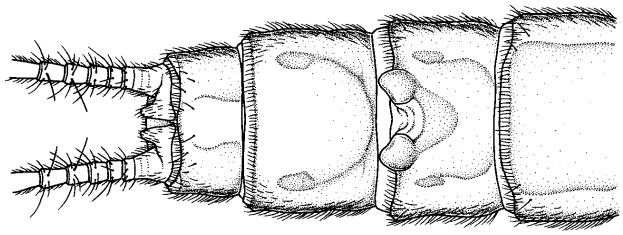


Fig. 133 [from Kondratieff et al. (1988)]

FAMILY PERLODIDAE

The Perlodidae are a large and diverse family, represented in Florida by 4 genera: *Clioperla*, *Helopicus*, *Hydroperla*, and *Isoperla*. Stark & Szczytko (1984) recognized 2 subfamilies, the Isoperlinae and Perlodinae, which are distinguished by the presence or absence of submental gills. There are 30 genera found in North America.

Perlodids range in size from small to large, and typically have a contrasting pigment pattern on the head, thorax, and abdomen. The nymphs are distinguished by the lack of thoracic gills; having paraglossae longer than glossae; and by having the inner margins of the hind wingpads divergent, and cerci at least as long as the abdomen. Perlodid adults are distinguished from other stoneflies by lacking remnants of thoracic gills; having paraglossae longer than glossae; having hindwings with 5-10 anal veins, with a folded area present; the arms of the mesosternal Y-sulcus being well developed and reaching the posterior corners of the furcal pits in Florida genera; and the fore femora usually without long anteroventral setae. [Refer to figures in family keys]

Nymphs are often found among snags and leaf packs or in gravel/riffle substrate. Nymphs are predominantly carnivorous, often preying on chironomid larvae. Perlodids typically have a univoltine life cycle, and adults emerge from early to late spring. Adults are often collected in streamside vegetation, with the larger species being cryptic, often found under streamside rocks (Poulton & Stewart, 1991).

KEY TO GENERA FOR MATURE NYMPHS OF FLORIDA PERLODIDAE
[modified from Stewart & Stark (1988)]

1. Submental gills present (Fig. 134) 2

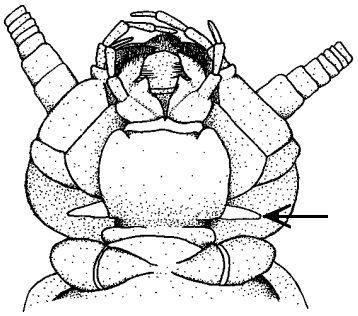


Fig. 134 [from Stewart & Stark (1988)]

Submental gills absent 3

2(1) Dark band of frons with light spot on either side of median ocellus (Fig. 135) . . . . . *Hydroperla* (p. 76); *H. phormidia* Ray & Stark

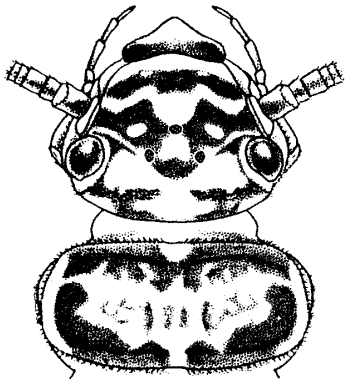


Fig. 135 [modified from Stewart & Stark (1988)]

Dark band of frons without light spots on sides of median ocellus (Fig. 136) . . . . . *Helopicus* (p. 73)

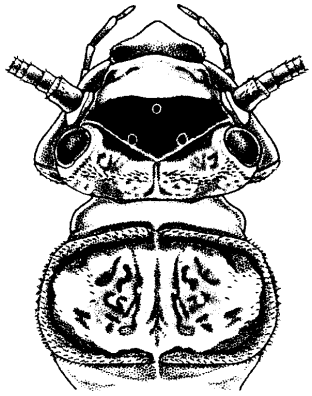


Fig. 136 [modified from Stewart & Stark (1988)]

3(1) Ocellar region with transverse dark band between eyes, but not covering anterior ocellus (Fig. 137); abdomen without longitudinal stripes . . . *Clioperla* (p. 72); *C. clio* (Newman)

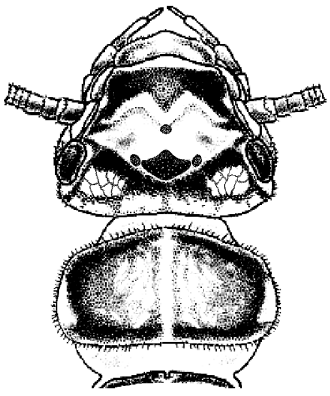


Fig. 137 [from Stewart & Stark (1988)]

Ocellar triangle covered by dark area usually with light area (spot) in middle (Fig. 138); abdomen usually with longitudinal stripes . . . . . *Isoperla* (p. 76)

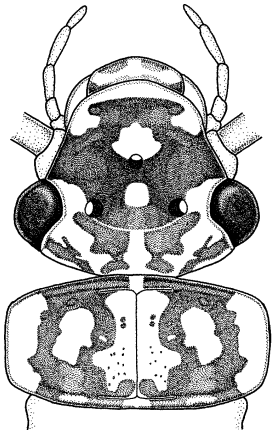


Fig. 138 [from S.W. Szczytko, unpublished figure]

KEY TO GENERA FOR ADULTS OF FLORIDA PERLODIDAE
[modified from Poulton & Stewart (1991)]

1. Male abdominal tergum 10 with deep cleft (Fig. 139); submental gill remnants present (Fig. 140) 2

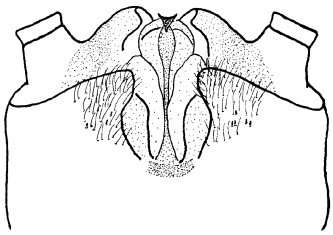


Fig. 139 [from Ray & Stark (1981]

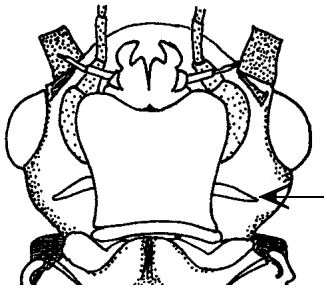


Fig. 140 [from Ricker (1952)]

Male abdominal tergum 10 without deep cleft (Fig. 141); submental gill remnants absent 3

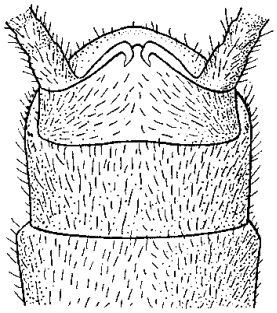


Fig. 141 [modified from Frison (1942)]

2(1) Male epiproct with spoon shaped lateral stylets basally and paired minute posteroventral barbs (Figs. 142, 143); female subgenital plate broadly rounded and overlapping 3/4 of abdominal sternum 9 . . . . . *Hydroperla* (p. 76); *H. phormidia* Ray & Stark

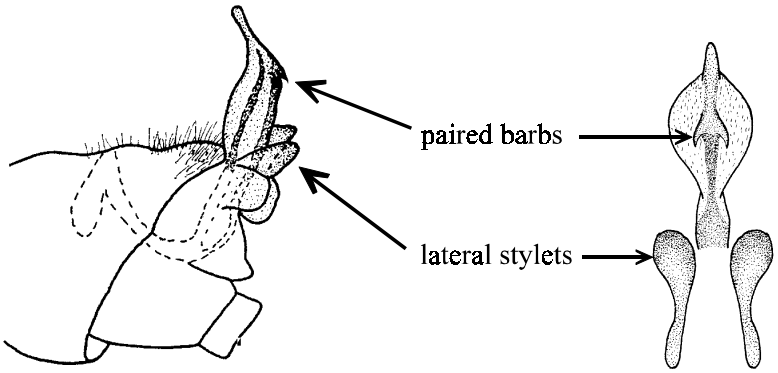


Fig. 142 [from Ray & Stark (1981)]

Fig. 143 [from Ray & Stark (1981)]

Male epiproct without lateral stylets or paired barbs (Fig. 144); female subgenital plate either broadly rounded or subtriangular reaching middle of abdominal sternum 9 . . . . . *Helopicus* (p. 73)

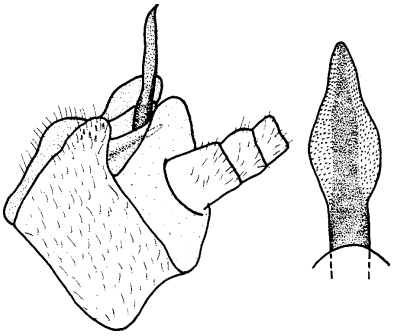


Fig. 144 [from Stark & Ray (1983)]

3(1) Males with shallow cleft and pair of ridges on posterior margin of abdominal tergum 10 (Fig. 145); paraprocts mostly membranous, broad, flat, not recurved (Fig. 146); females with subgenital plate barely produced over abdominal sternum 9 (Fig. 147) . . . . . *Clioperla* (p. 72); *C. clio* (Newman)

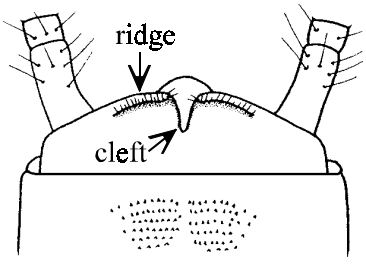
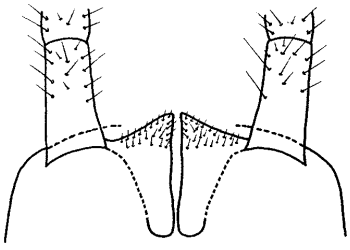


Fig. 145 [from Szczytko & Stewart (1981)]



dorsal view with 10th tergum dissected

Fig. 146 [from Szczytko & Stewart (1981)]

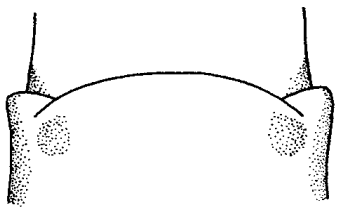


Fig. 147 [from Szczytko & Stewart (1981)]

Males without cleft and elevated ridges on abdominal tergum 10; paraprocts modified into recurved hooks (Fig. 148); females with subgenital plate overlapping at least 1/4 of abdominal sternum 9 (Fig. 149) . . . . . *Isoperla* (p. 76)

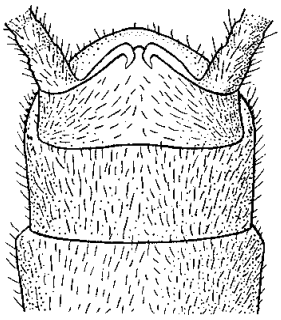


Fig. 148 [modified from Frison (1942)]

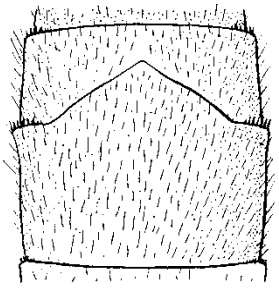


Fig. 149 [from Frison (1942)]

Genus ***Clioperla*** Needham & Claassen

DIAGNOSIS: These medium sized stoneflies are distinguished from other perlodid genera by the following combination of characters: **Nymph:** submental gills absent; ocellar region with transverse dark band connecting lateral ocelli and eyes, but not covering anterior ocellus; abdomen without longitudinal stripes. **Adult:** submental gill remnants absent; **Male—**abdominal tergum10 with partial posteromesal cleft and upturned terminal ridges; paraprocts broad and flattened, mostly membranous. **Female—**subgenital plate only slightly produced over ninth sternum. [Refer to figures in keys to genera]

NOTES: *Clioperla* is a monotypic genus, containing only *C. clio*, which has an eastern Nearctic distribution. *Clioperla clio* is widespread in Florida, with nymphs having been collected throughout the panhandle in both large rivers such as the Chipola, Choctawhatchee, and Escambia rivers, and in smaller streams such as Burnt Mill Ck., Flat Ck., and Willacoochee Ck. *Clioperla clio* has also been collected in the peninsula from San Felasco Hammock and Worthington Springs in Alachua County. Adults have been collected from 3 localities, the Yellow River in Okaloosa Co., Monroe Ck. in Gadsden Co., and a small stream at the North Florida Research and Education Center, Jefferson Co. The nymphs have a univoltine fast-seasonal life cycle throughout their range (Stewart & Stark, 1988). Nymphs are found in leaf packs and in riffles among stones, and prey upon other invertebrates (Minshall & Minshall, 1966; Feminella & Stewart, 1986). Feminella & Stewart (1986) showed that the feeding habits of an Arkansas population of *Clioperla* shifted through ontogeny from herbivore-detritivore to omnivore, and then to obligate carnivore. Emergence has been reported from March through April in Illinois, Kentucky, and Arkansas (Frison, 1935; Minshall & Minshall, 1966; Feminella & Stewart, 1986). *Clioperla clio* adults were collected in Florida in mid-March.

ADDITIONAL REFERENCES: Frison (1935); Stark & Gaufin (1979); Szczytko & Stewart (1981); Unzicker & McCaskill (1982); Stewart & Stark (1988); Poulton & Stewart (1991); Stewart & Harper (1996).

Genus ***Helopicus*** Ricker

DIAGNOSIS: These medium-large stoneflies are distinguished from other perlodid genera by the following combination of characters: **Nymph:** submental gills present; dark transverse pigment band of frons without light spots on sides of median ocellus. **Adult:** submental gill remnants present; **Male—**abdominal tergum 10 with deep cleft; epiproct without lateral stylets or paired posteroventral barbs. **Female—**subgenital plate broadly rounded or subtriangular overlapping at most 1/2 of sternum 9. [Refer to figures in keys to genera]

NOTES: Of the 3 Nearctic species of *Helopicus*, both *H. bogaloosa* and *H. subvarians* are known from Florida. Stark & Ray (1983) provided a revision of the genus *Helopicus*, including keys to nymphs and adults, redescriptions of *H. nalatus* and *H. subvarians*, and the original description for *Helopicus bogaloosa*. Both *H. bogaloosa* and *H. subvarians* are distinguished from *H. nalatus* by the following: nymphs have a labrum with a produced central flap and a transverse dark pigment band covering the entire ocellar triangle; adult males have an epiproct lacking prominent lateral membranous lobes and apex bent strongly caudad, and adult females lack the combination of both a broadly rounded subgenital plate and hyaline wings with brown veins. *H. bogaloosa* and *H. subvarians* are distinguished from each other by the characters shown in the following keys to species for nymphs and adults.

Helopicus bogaloosa is known only from the southeastern United States, and *H. subvarians* from the eastern Nearctic. Both species appear to have similar life histories in Florida (Stark & Ray, 1983). Nymphs are usually collected in leaf packs associated with snags in swiftly flowing stretches. *Helopicus bogaloosa* has been collected throughout the panhandle from the Chipola R. westward, typically in blackwater streams and rivers. *Helopicus bogaloosa* has also been collected in the Alapaha R. indicating it may have a more widespread distribution. *Helopicus subvarians* is known only from the Chipola, Choctawhatchee, and Escambia rivers. *Helopicus bogaloosa* apparently prey upon chironomids, hydropsychids, and simuliids (Stark & Ray, 1983). Adults emerge from February through April.

ADDITIONAL REFERENCES: Stark & Gaufin (1979); Stark & Ray (1983); Stewart & Stark (1984, 1988); Kondratieff & Painter (1986); Nelson (1996).

KEY TO SPECIES FOR MATURE NYMPHS OF FLORIDA *HELOPICUS*
[from Stark & Ray (1983)]

1. Transverse dark band of head with 2 anterior lobes projecting forward of median ocellus (Fig. 150); occipital spinules typically grouped into a single irregular row
. . . . . *H. bogaloosa* Stark & Ray

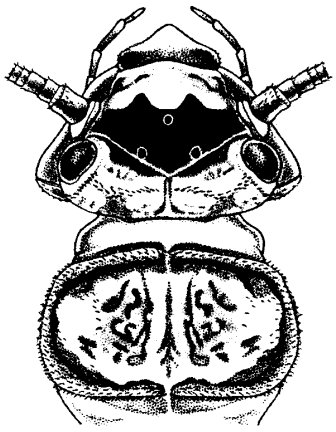


Fig. 150 [modified from Stewart & Stark (1988)]

Transverse dark band of head almost straight without anterior lobes (Fig. 151); occipital spinules typically grouped into broad patch of 2-3 irregular rows
. . . . . *H. subvarians* (Banks)

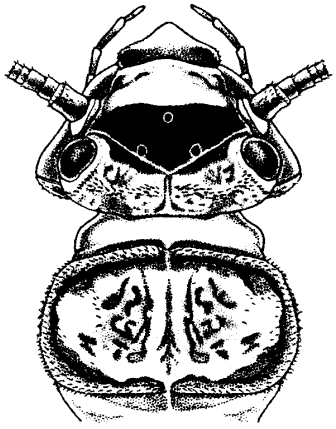


Fig. 151 [modified from Stewart & Stark (1988)]

KEY TO SPECIES FOR ADULTS OF FLORIDA *HELOPICUS*
[from Stark & Ray (1983)]

1. Wings smoky brown; male epiproct without lateral carinae, appearing flat in lateral aspect (Fig. 152); females with transverse dark mesosternal band uniformly pigmented (Fig. 153); subgenital plate broadly rounded (Fig. 154) . . . . . *H. bogaloosa* Stark & Ray

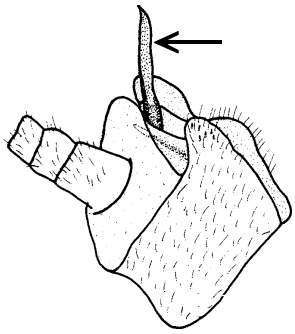


Fig. 152 [from Stark & Ray (1983)]

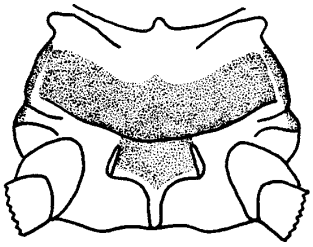


Fig. 153 [from Stark & Ray (1983)]

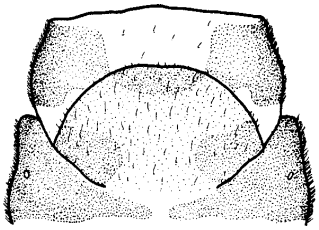


Fig. 154 [from Stark & Ray (1983)]

Wings hyaline with dark veins; male epiproct with membranous lateral carinae, appearing round in lateral aspect (Fig. 155); females with transverse dark mesosternal band interrupted by lighter pigment lateral to midline (Fig. 156); subgenital plate subtriangular (Fig. 157) . . . . . *H. subvarians* (Banks)

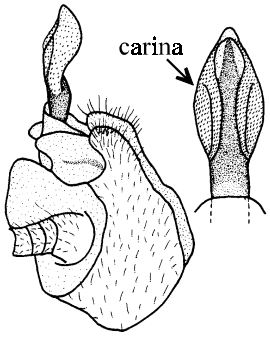


Fig. 155 [from Stark & Ray (1983)]

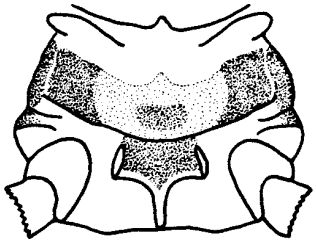


Fig. 156 [from Stark & Ray (1983)]

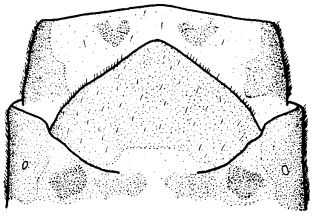


Fig. 157 [from Stark & Ray (1983)]

Genus ***Hydroperla*** Frison

DIAGNOSIS: These medium-large stoneflies are distinguished from other perlodid genera by the following combination of characters: **Nymph:** submental gills present; head with transverse dark pigment band of frons with light spot on either side of median ocellus. **Adult:** submental gill remnants present; **Male—**abdominal tergum 10 with deep cleft; epiproct with spoon shaped lateral stylets and paired posteroventral barbs. **Female—**subgenital plate broadly rounded overlapping at least 3/4 of ninth sternum. [Refer to figures in keys to genera]

NOTES: Of the 4 Nearctic species of *Hydroperla*, only *H. phormidia* is known from Florida. *Hydroperla phormidia* was described from Florida by Ray & Stark (1981). *Hydroperla phormidia* is distinguished from other *Hydroperla* by the following: nymphs have a labrum with a strongly produced central flap (Fig. 135); adult males have an epiproct with a short semilunate tip and paired dorsal barbs and possess spoon shaped lateral stylets (Figs. 142, 143), and adult females have a broadly rounded subgenital plate produced over 3/4 of sternum 9.

Hydroperla phormidia is known only from the southeast, with the type locality being the Yellow River, Okaloosa County, Florida (Ray & Stark, 1981). *Hydroperla phormidia* are typically found in the larger rivers of the panhandle such as the Choctawhatchee, Escambia, Suwannee, and Yellow rivers. They are usually collected in leaf packs associated with the blue-green alga *Phormidium inundatum.* They typically feed on Chironomidae and Simuliidae larvae, and emergence occurs from late February through April (Ray & Stark, 1981).

ADDITIONAL REFERENCES: Ray & Stark (1981); Stewart & Stark (1984, 1988); Kondratieff & Painter (1986); Nelson (1996).

Genus ***Isoperla*** Banks

DIAGNOSIS: These small stoneflies are distinguished from other perlodid genera by the following combination of characters: **Nymph:** submental gills absent; ocellar triangle covered by dark area usually with light area (spot) in middle; abdomen usually with longitudinal stripes. **Adult:** submental gill remnants absent; **Male—**abdominal tergum 10 without deep cleft and elevated ridges; paraprocts modified into recurved hooks. **Female—**subgenital plate overlapping at least 1/4 of ninth sternum. [Refer to figures in keys to genera]

NOTES: *Isoperla* is a very large group with at least 57 species known from North America. Frison (1935, 1942) discussed *Isoperla* extensively, including original descriptions of many new species (including *I. dicala* and *I. orata*) and redescriptions of several others. Previously, only the species *I. dicala*, and *I. orata* were recognized from Florida (Stark & Gaufin, 1979). *Isoperla bilineata*, and *I. davisi* are herein recorded from Florida. The *Isoperla* of North America is currently being revised by Dr. Stanley Szczytko, and at least 3 new species from Florida will likely be recognized. A large number of Florida *Isoperla* specimens were sent to Dr. Szczytko for examination, and he noted that there were specimens representing 3 species different from those mentioned above. They will be referred to as *Isoperla* sp. A, B, and C. Adults of *Isoperla* sp. A were collected from the Blackwater River, and have a very unusual egg. *Isoperla* sp. B adults were collected at two streams in the Blackwater River State Forest, and are

similar to *I. davisi*, but differ in being very small and slender. Females of *Isoperla* sp. C were collected at Blues Creek in Alachua County, and are unique in that the female has a pair of posteromedial patches on the subgenital plate. The nymphs of *Isoperla* usually have distinct patterns of pigmentation on the head and abdomen. The most common nymphal head pattern of Florida *Isoperla* is shown in Fig. 158A, and the most common abdominal pattern is shown in Fig. 158B. Adults are often distinguished by a combination of head pattern and features of the abdomen and genitalia; with males often distinguished by the structure of the vesicle and features of the aedeagus, and females typically distinguished by the structure of the subgenital plate. The typical head patterns of Florida *Isoperla* adults are shown in Figs. 158C and 158D. The genitalic characters for Florida adults of *Isoperla* have not been well enough studied to include in this discussion, and are currently being characterized outside of this study by Dr. Szczytko.

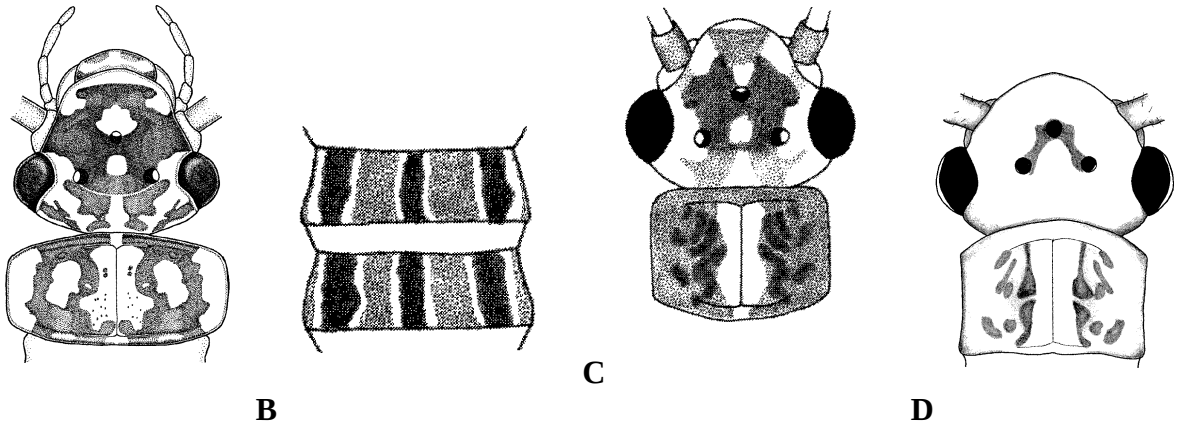


Figure 158: Nymph: A. [from Szczytko, unpublished] – *Isoperla davisi* head and pronotum; **B.** [from Poulton & Stewart (1991)] – *I. davisi* abdominal segments (dorsal view); **Adult: C.** [from Poulton & Stewart (1991)] – *I. davisi* head and pronotum; **D.** [from Szczytko & Stewart (1978)] – *I. bilineata* head and pronotum.

Isoperla nymphs and adults have been collected throughout the panhandle and in the northern peninsula. *Isoperla bilineata* occurs throughout North America east of the Rockies, and is now recorded from Florida, having been collected in the Blackwater and Perdido rivers. *Isoperla davisi* is known from Alabama and South Carolina, and is now recorded from Florida. *Isoperla davisi* has been collected from scattered localities in the panhandle and northern peninsula. *Isoperla dicala* has been collected in eastern North America, and adults have been collected from a few sites in the panhandle. *Isoperla orata* has also been collected in eastern North America, and in Florida the adults are known from the Blackwater River.

Little is known of *Isoperla* life cycles in Florida. *Isoperla* has been found to be univoltine in most studies of North American populations (Stewart & Stark, 1988). Nymphs are usually found in leaf packs and/or gravel/riffle substrate. A few studies have shown *Isoperla* nymphs to be generally omnivorous, sometimes having ontogenetic shifts in diet (Fuller & Stewart, 1977, 1979; Jop & Szczytko, 1984; Ernst & Stewart, 1986; Feminella & Stewart, 1986). *Isoperla* adults have been collected in Florida from March through May.

ADDITIONAL REFERENCES: Frison (1935); Hitchcock (1974); James (1974); Szczytko & Stewart (1978); Unzicker & McCaskill (1982); Stewart & Stark (1988); Poulton & Stewart (1991).

FAMILY PTERONARCYIDAE

The Pteronarcyidae are large stoneflies with two Nearctic genera, *Pteronarcys* and *Pteronarcella. Pteronarcys* is found throughout North America, including Florida, while *Pteronarcella* is only found west of the Rocky Mountains.

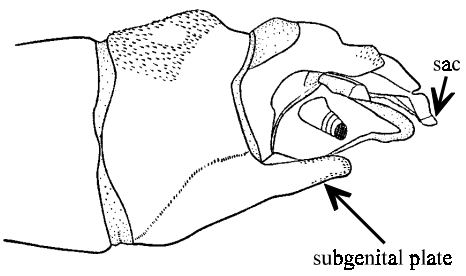
Pteronarcyid nymphs are unique among stoneflies in having branched gills on the first two or three abdominal segments. Adults are distinguished by having paraglossae and glossae subequal in length; three ocelli present; thoracic and abdominal gill remnants; and the anal area of the forewing with rows of many crossveins.

Nymphs are typically found on snags and in leaf packs. The nymphs are shredders and contribute to the processing of allochthonous materials in lotic habitats. Pteronarcyids typically have a semivoltine life-cycle, requiring more than one year to attain adult size. Adults are found in streamside vegetation and emergence occurs in the spring.

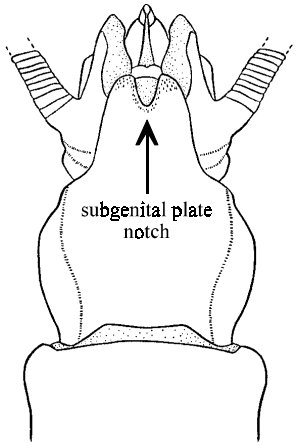
Genus ***Pteronarcys*** Newman

DIAGNOSIS: These large stoneflies are distinguished by the following combination of characters: **Nymph:** presence of branched gills on abdominal segments 1 and 2. **Adult:** paraglossae and glossae subequal in length; thoracic and abdominal gill remnants present; first tarsal segment short; 3 ocelli present; and anal area of forewing with rows of many crossveins. [Refer to figures in family keys]

NOTES: Of the 8 North American species of *Pteronarcys*, only *P. dorsata* is known from Florida. The adults are distinguished by the following characters: male with sternum 9 greatly produced into a gradually narrowing elongate subgenital plate appearing straight in lateral view (Fig. 159A); and with a distinct median notch at the hind margin in ventral view (Fig. 159B); tergite 10 with median hemitergal lobes greatly produced posteriorly (Fig. 159C); and supra-anal process apically expanded into a cup-like process containing an eversible membranous sac (Fig. 159A); females with truncate subgenital plate with two small medial projections (Fig. 159D), (Nelson & Hanson, 1971). The nymphs of *Pteronarcys* cannot presently be identified to the species level, as there are no known characters to differentiate between *P. dorsata* and *P. pictetii.*



A



B

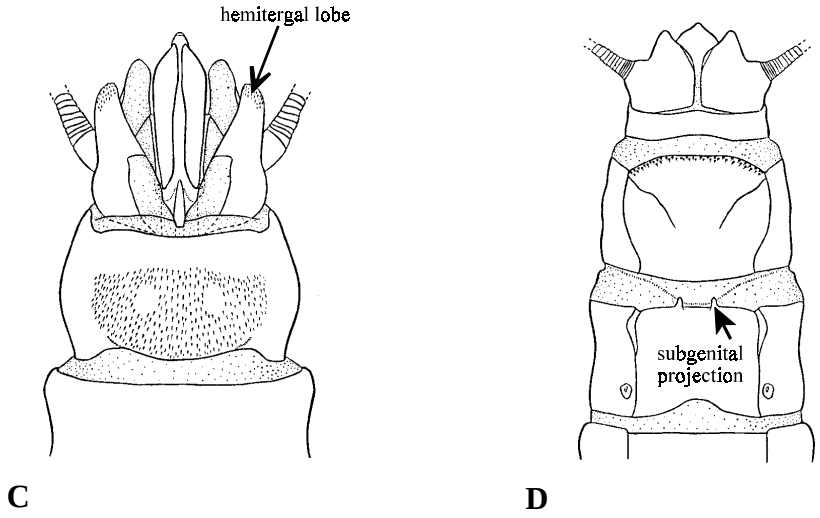


Figure 159: [from Nelson & Hanson (1971) – *Pteronarcys dorsata* **Male: A.** Posterior abdominal segments (lateral view); **B.** Posterior abdominal segments (ventral view); **C.** Posterior abdominal segments (dorsal view); **Female**: **D.** Posterior abdominal segments (ventral view).

Pteronarcys has been collected in Florida throughout the panhandle, in habitats ranging from small streams such as Flat Ck., Sweetwater Ck., and Willacoochee Ck., to large rivers such as the Blackwater, Chipola, and Choctawhatchee. They are typically collected on snags and in leaf packs. *Pteronarcys* nymphs are considered to be important processors (shredders) of coarse particulate organic matter in stream systems (Cummins et al., 1973). Bueler (1984) in a laboratory study using *Pteronarcys* nymphs from Canoe Ck., Escambia Co., correlated feeding preference with conditioning of red titi (*Cyrilla racemiflora*) leaves, and found that leaf utilization increased with conditioning time and the corresponding increase in fungal colonization. Many life history studies of *Pteronarcys* have found 2-4 year life cycles (Stewart & Stark, 1988). In Virginia, Lechleitner & Kondratieff (1983) found *Pteronarcys* to be univoltine with slow seasonal growth. Emergence times have been reported from mid-February through May. In Florida, adults of *Pteronarcys dorsata* have been collected at the Chipola R., Jackson Co., and at Juniper Ck., Okaloosa Co., in March.

ADDITIONAL REFERENCES: Frison (1942); Nelson & Hanson (1971); Stark & Gaufin (1979); Stewart & Stark (1988); Stewart & Harper (1996).

FAMILY TAENIOPTERYGIDAE

This family of Euholognatha is represented transcontinentally in North America by 6 genera and 35 species. Both nymphs and adults have glossae and paraglossae, and first and second tarsal segments, that are subequal in length. Nymphs lack branched thoracic gills and the inner margins of the hind wingpads are widely divergent. [Refer to figures in family keys]

The family has been divided into 2 well defined subfamilies (Brachyterainae and Taeniopteriginae) (Ricker & Ross, 1975). In Florida only the genus *Taeniopteryx* is known. The taeniopterygids, as indicated by their mouthpart morphology, are detritivorous-herbivorous. Nymphs of some species have been shown to diapause in the summer (Harper & Hynes 1970, 1972).

Genus ***Taeniopteryx*** Pictet

DIAGNOSIS: These small- to medium sized, slender stoneflies are distinguished from other taeniopterygid genera by the following combination of characters: **Nymph:** Coxae each with 3-segmented, telescopic gill. **Adult:** Color dark brown to black; coxae each with membranous circular area where nymphal gill attached. **Male—**1 segmented cerci; epiproct consisting of simple erect lobe containing central sclerotized rod; abdominal sternum 9 not extended past sternum 10, and not scoop-shaped. **Female—**multi-segmented cerci; subgenital plate reduced; abdominal sternum 9 not greatly produced. [Refer to figures in species keys]

NOTES: *Taeniopteryx* is a medium size genus distributed within the Nearctic and western Palearctic. In North America 11 species are known, and 3 species (*T. burksi*, *T. lita*, *T. lonicera*) are known from Florida. Frison (1942) was the first to record *Taeniopteryx* (as *T. maura*) from Florida. After examining the specimens that Frison apparently based this record, we determined that they were actually *T. burksi* as presently defined. Berner (1948) reported *T. nivalis* but these records most likely refer to one of the 3 presently known species in the state.

The presence of coxal gills in *Taeniopteryx* nymphs is unique among stoneflies and allows for a quick genus determination. However, species determinations of nymphs is a much more difficult matter. Nymphs of Florida *Taeniopteryx* species look very much alike. All 3 Florida species have a mid-dorsal stripe and similar pattern of dark spots on the abdominal terga. Taeniopterygid nymphs (including *T. burksi*) of eastern Canada were treated by Harper & Hynes (1971d). Fullington & Stewart (1980) provided descriptions and a key for mature male nymphs for most North American species of *Taeniopteryx*. In their study, they reported that male and female nymphs of *T. lita* and *T. lonicera* are inseparable with the exception that *T. lonicera* is generally smaller than *T. lita*. *Taeniopteryx burksi* nymphs were described as having a dark border along the mid-dorsal stripe but this character is not evident in the Florida material that we examined. The only reliable way of separating species is by examining the developing adult reproductive structures that appear under the nymphal cuticle as nymphs approach maturity.

Adults of North American *Taeniopteryx* were revised by Ricker & Ross (1968). This work included original descriptions for 4 new species, including *T. burksi* and *T. lonicera*. Adult males for Florida *Taeniopteryx* are easily separated using the characters presented in the following key. However, females (as is the case with the nymphs) of *T. lita*/*lonicera* are not easily distinguished and look very much alike except that *T. lonicera* is usually smaller than *T. lita*.

Taeniopteryx nymphs have been collected from a wide array of streams throughout the Florida panhandle. Nymphs are usually associated with leaf packs and other organic debris in slow moving water. The optimal time to collect mature nymphs is winter. Adults are most effectively collected by beating or sweeping stream-side vegetation. Adult collection dates in Florida range from late January to early March.

ADDITIONAL REFERENCES: Frison (1935, 1942); Ricker & Ross (1968, 1975); Harper & Hynes (1971d); Stark & Gaufin (1979); Fullington & Stewart (1980); Stewart & Stark (1988); Poulton & Stewart (1991)

KEY TO SPECIES FOR MATURE MALE NYMPHS OF FLORIDA *TAENIOPTERYX*
[modified from Fullington & Stewart (1980)]

[**Note:** Male *Taeniopteryx* nymphs can be distinguished from female nymphs by the presence of the developing epiproct of the adult male genitalia. The structure is single, lobe-like, and arises from the posterior end of the tenth abdominal segment, projecting dorsally.]

1. Developing epiproct triangular in dorsal view (Fig. 160); developing vesicle of sternum 9 sometimes visible through cuticle; mid-dorsal stripe of thorax and abdomen may be bordered by dark brown (Fig. 160) . . . . . *T. burksi* Ricker & Ross

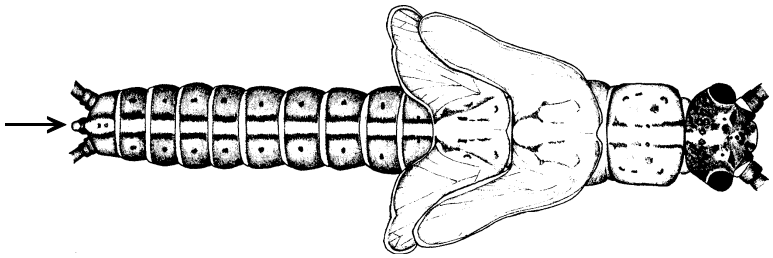


Fig. 160 [modified from Fullington & Stewart (1980)]

Developing epiproct rectangular in dorsal view (Fig. 161); developing vesicle of sternum 9 absent; mid-dorsal strip of thorax and abdomen never bordered by dark brown (Fig. 161) . . . . . *T. lita* Frison and *T. lonicera* Ricker & Ross

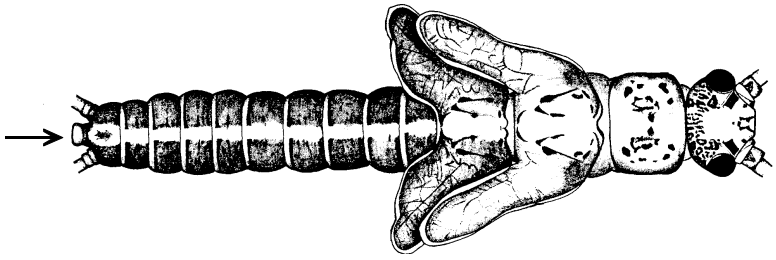


Fig. 161 [modified from Fullington & Stewart (1980)]

KEY TO SPECIES FOR ADULTS OF FLORIDA *TAENIOPTERYX*
[modified from Ricker & Ross (1968)]

1. Male vesicle present on sternum 9 (Fig. 162); female subgenital plate notch without marginal sclerotized band (Fig. 163) . . . . . *T. burksi* Ricker & Ross

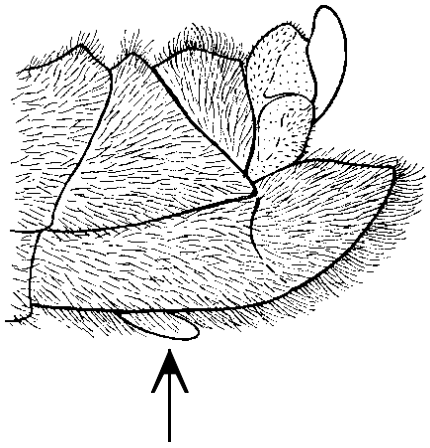


Fig. 162 [from Frison (1935)]

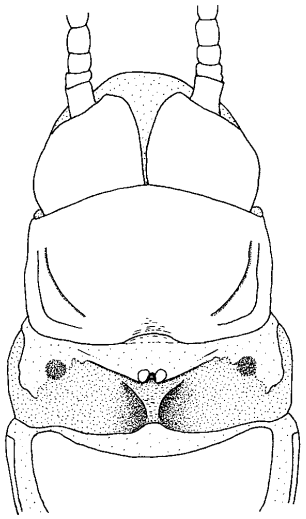


Fig. 163 [from Poulton & Stewart (1991)]

Male vesicle absent on sternum 9; female subgenital plate with marginal sclerotized band (Fig. 164) 2

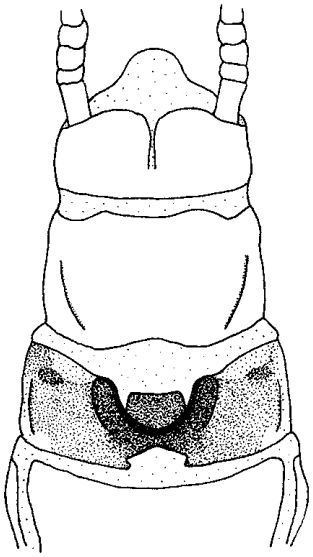


Fig. 164 [from Poulton & Stewart (1991)]

2(1) Females . . . . . *T. lita* Frison and *T. lonicera* Ricker & Ross

Males 3

3(2) Cerci short, broad, and slightly curved inward at tip (Fig. 165); posteroventral surface of sternum 9 elevated, pale, membranous, bearing long light hairs; body length greater than 7 mm . . . . . *T. lita* Frison

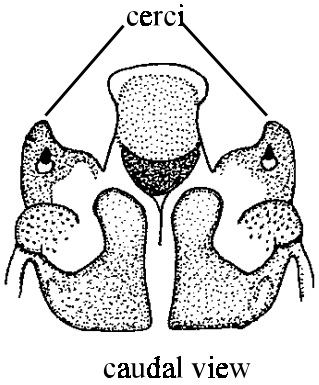


Fig. 165 [from Poulton & Stewart (1991)]

Cerci long, narrow, curved inward at tip (Fig. 166); posteroventral surface of sternum 9 only slightly connate, not membranous though sometimes lighter in color than rest of sternite; body length less than 7 mm . . . . . *T. lonicera* Ricker & Ross

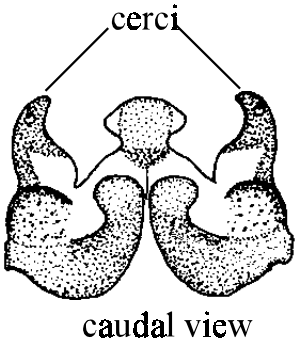


Fig. 166 [from Poulton & Stewart (1991)]

LITERATURE CITED

Alford, M. H. 1998. New records of *Allocapnia* (Plecoptera: Capniidae) from Mississippi and Louisiana, with accompanying scanning electron micrographs. Entomol. News. 109: 183-188.

Barbour, M. T., J. Gerritsen, G. E. Griffith, R. Frydenborg, E. McCarron, J. S. White, and M. L. Bastian. 1996. A framework for biological criteria for Florida streams using benthic macroinvertebrates. J. N. Am. Benthol. Soc. 15: 185-211.

Barbour, M. T., J. Gerritsen, B. D. Snyder, and J. B. Stribling. 1999. Rapid bioassessment protocols for use in streams and wadeable rivers: periphyton, benthic macroinvertebrates and fish, 2nd ed. EPA 841-B-99-002. U. S. Environmental Protection Agency; Office of Water; Washington D. C.

Baumann, R. W. 1975. Revision of the stonefly family Nemouridae (Plecoptera): a study of the world fauna at the generic level. Smithson. Contrib. Zool. 211: 1-74.

Baumann, R. W. 1996. Three new species of *Amphinemura* (Plecoptera: Nemouridae) from eastern North America. Entomol. News 107:249-254.

Benke, A. C., T. Van Arsdall, Jr., D. M. Gillespie, and F. K. Parish. 1984. Invertebrate productivity in a subtropical blackwater river: the importance of habitat and life history. Ecol. Monogr. 54: 25-63.

Berner, L. 1948. Records of stoneflies from Florida (Plecoptera). Fla. Entomol. 31: 21-23.

Berner, L., and M. L. Pescador. 1988. The mayflies of Florida (rev. ed.). Univ. Presses of Florida, Gainesville. 415 pp.

Bueler, C. M. 1984. Feeding preference of *Pteronarcys pictetii* (Plecoptera: Insecta) from a small acidic woodland stream. Fla. Entomol. 67: 393-401.

Claassen, P. W. 1923. New species of North American Plecoptera. Can. Entomol. 55: 257-263.

Claassen, P. W. 1924. New species of North American Capniidae (Plecoptera). Can. Entomol. 56: 38-43, 54-57.

Cummins, K. W., R. C. Petersen, F. O. Howard, J. C. Wuycheck, and V. I. Holt. 1973. The utilization of leaf litter by stream detritivores. Ecology. 54: 336-345.

DeWalt, R. E., and B. P. Stark. 1996. Descriptions of the female, nymph, and variation in male characters of the stonefly *Leuctra szczytkoi* (Plecoptera: Leuctridae). Entomol. News. 107: 61-67.

Doucett, R. R., D. J. Giberson, and G. Power. 1999. Parasitic association of *Nanocladius* (Diptera: Chironomidae) and *Pteronarcys biloba* (Plecoptera: Pteronarcyidae): insights from stable-isotope analysis. J. N. Am. Benthol. Soc. 18: 514-523.

Elwood, J. E., and R. M. Cushman. 1975. The life history and ecology of *Peltoperla maria* (Plecoptera: Peltoperlidae) in a small springfed stream. Verh. Int. Verein. Limnol. 19: 3050-3056.

Ernst, M. R., and K. W. Stewart. 1985a. Growth and drift of nine stonefly species (Plecoptera) in an Oklahoma Ozark foothills stream, and conformation to regression models. Ann. Entomol. Soc. Am. 78: 635-646.

Ernst, M. R., and K. W. Stewart. 1985b. Emergence patterns and an assessment of collecting methods for adult stoneflies (Plecoptera) in an Ozark foothills stream. Can. J. Zool. 63: 2962-2968.

Ernst, M. R., and K. W. Stewart. 1986. Microdistribution of stoneflies (Plecoptera) in relation to organic matter in an Ozark foothill stream. Aquat. Insects. 8: 237-254.

Ernst, M. R., B. C. Poulton, and K. W. Stewart. 1986. *Neoperla* (Plecoptera: Perlidae) of the southern Ozark and Ouachita mountain region, and two new species of *Neoperla.* Ann. Entomol. Soc. Am. 79: 645-661.

Feminella, J. W., and K. W. Stewart. 1986. Diet and predation by three leaf-associated stoneflies (Plecoptera) in an Arkansas mountain stream. Freshw. Biol. 16: 521-538.

Fiance, S. B. 1977. The genera of eastern North American Chloroperlidae (Plecoptera): key to larval stages. Psyche. 83: 308-316.

Frison, T. H. 1929. Fall and winter stoneflies or Plecoptera of Illinois. Bull. Ill. Nat. Hist. Surv. 18: 345-409.

Frison, T. H. 1935. The stoneflies, or Plecoptera, of Illinois. Bull. Ill. Nat. Hist. Surv. 20: 281-471.

Frison, T. H. 1942. Studies of North American Plecoptera, with special reference to the fauna of Illinois. Bull. Ill. Nat. Hist. Surv. 22: 235-355.

Fuller, R. L., and K. W. Stewart. 1977. The food habits of stoneflies (Plecoptera) in the upper Gunnison River, Colorado. Environ. Entomol. 6: 193-302.

Fuller, R. L., and K. W. Stewart. 1979. Stonefly (Plecoptera) food habits and prey preference in the Dolores River, Colorado. Am. Midl. Nat. 101: 170-181.

Fullington, K. E., and K. W. Stewart. 1980. Nymphs of the stonefly genus *Taeniopteryx* (Plecoptera: Taeniopterygidae) of North America. J. Kans. Entomol. Soc. 53: 237- 259.

Hanson, J. F. 1941. Studies on the Plecoptera of North America, II. Bull. Broklyn Entomol. Soc. 36: 57-66.

Harper, P. P. 1973a. Life histories of Nemouridae and Leuctridae in Southern Ontario (Plecoptera). Hydrobiologia. 41: 309-356.

Harper, P. P. 1973b. Emergence, reproduction, and growth of setipalpian Plecoptera in southern Ontario. Oikos. 24: 94-107.

Harper, P. P., and F. H. Harper. 1997. The genus *Leuctra* Stephens in North America: a preliminary report, pp. 467-472. *In* P. Landolt and M. Sartori [eds.], Ephemeroptera & Plecoptera: Biology - Ecology - Systematics. MTL, Fribourg. 569 pp.

Harper, P. P., and H. B. N. Hynes. 1970. Diapause in the nymphs of Canadian winter stoneflies. Ecology. 51: 925-927.

Harper, P. P., and H. B. N. Hynes. 1971a. The Capniidae of eastern Canada (Insecta: Plecoptera). Can. J. Zool. 49: 921-940.

Harper, P. P., and H. B. N. Hynes. 1971b. The Leuctridae of eastern Canada (Insecta: Plecoptera). Can. J. Zool. 49: 915-920.

Harper, P. P., and H. B. N. Hynes. 1971c. The nymphs of the Nemouridae of eastern Canada (Insecta: Plecoptera). Can. J. Zool. 49: 1129-1142.

Harper, P. P., and H. B. N. Hynes. 1971d. The nymphs of the Taeniopterygidae of eastern Canada (Insecta; Plecoptera). Can. J. Zool. 49: 941-947.

Harper, P. P., and H. B. N. Hynes. 1972. Life histories of Capniidae and Taeniopterygidae in southern Ontario (Plecoptera). Arch. Hydrobiol. Suppl. 40: 274-314.

Hilsenhoff, W. L. 1981. Aquatic insects of Wisconsin: keys to Wisconsin genera, and notes on biology, distribution, and species. Publ. Nat. Hist. Council Univ. Wisconsin - Madison. 2: 1-60.

Hitchcock, S. W. 1974. Guide to the insects of Connecticut. Part VII. The Plecoptera or stoneflies of Connecticut. Bull. Conn. State Geol. Nat. Hist. Surv. 107: 1-262.

Huggins, D. G. 1981. Plecoptera (Stoneflies), pp. 156-166. *In* D. G. Huggins, P. M. Liechti, L. C. Ferrington [eds.], Guide to the freshwater invertebrates of the midwest. Tech. Publ. State Biol. Surv. Kan., Univ. Kan., Lawrence, Kan. 221 pp.

Hynes, H. B. N. 1976. The biology of Plecoptera. Annu. Rev. Entomol. 21: 135-153.

James, A. M. 1974. Four new species of stoneflies in North America (Plecoptera). Ann. Entomol. Soc. Am. 67: 964-966.

James, A. M. 1976. Two new species of *Leuctra*, with notes on the *ferruginea* Group (Plecoptera: Leuctridae). Ann. Entomol. Soc. Am. 69: 882-884.

Jop, K., and S. W. Szczytko. 1984. Life cycle and production of *Isoperla signata* (Banks) in a central Wisconsin stream. Aquat. Insects. 6: 81-100.

Karr, J. R., and E. W. Chu. 1999. Restoring life in running waters: better biological monitoring. Island Press, Washington D. C. 206 pp.

Kondratieff, B. C., and W. B. Painter. 1986. Two new records of stoneflies (Plecoptera: Perlodidae) from South Carolina (USA). Entomol. News. 97: 17-20.

Kondratieff, B. C., R. F. Kirchner, and K. W. Stewart. 1988. A review of *Perlinella* Banks (Plecoptera: Perlidae). Ann. Entomol. Soc. Am. 89:24-30.

Lechleitner, R. A., and B. C. Kondratieff. 1983. The life history of *Pteronarcys dorsata* (Say) (Plecoptera: Pteronarcyidae) in southwestern Virginia. Can. J. Zool. 61: 1981-1985.

Lenat, D. R., and D. L. Penrose. 1996. History of the EPT taxa richness metric. Bull. N. Am. Benthol. Soc. 13: 305-306.

Mathews, R. C., Jr. 1982. Predator stoneflies: role in freshwater stream communities. J. Tenn. Acad. Sci. 57: 82-83.

Mauger, S. 1997. Monitoring aquatic insects in Pacific Northwest watersheds: three case studies, pp. 41-53. *In* M. Troychak [ed.], Streamkeeper, aquatic insects as biomonitors. The Xerces Society, Portland, Oregon. 65 pp.

Minshall, G. W., and J. N. Minshall. 1966. Notes on the life history and ecology of *Isoperla clio* (Newman) and *Isogenus decisus* Walker (Plecoptera: Perlodidae). Am. Midl. Nat. 76: 340-350.

Morse, J. C., B. P. Stark, W. P. McCafferty, and K. J. Tennessen. 1997. Southern Appalachian and other southeastern streams at risk: implications for mayflies, dragonflies and damselflies, stoneflies, and caddisflies, pp. 17-39. *In* B. W. Benz, and D. E. Collins [eds.] Aquatic fauna in peril: the southeastern perspective. Special publication 1, Southeastern Aquatic Research Institute, Lenz Design and Communications, Decatur, Georgia. 554 pp.

Needham, J. G., and P. W. Claassen. 1925. A monograph of the Plecoptera or stoneflies of America North of Mexico. Thomas Say Found. Ser., Entomol. Soc. Am. 2: 1- 397.

Needham, J. G., and L. W. Smith. 1916. The stoneflies of the genus *Peltoperla.* Can. Entomol. 48: 80-88.

Nelson, C. H. 1996. Placement of *Helopicus rickeri* Stark in *Hydroperla* Frison (Plecoptera: Perlodidae) with the description of the adult female, nymph, and egg and a cladistic

analysis of *Hydroperla.* Proc. Entomol. Soc. Wash. 98: 237-244.

Nelson, C. H. 1997. Descriptions of the female, nymph, egg, and redescription of the male of *Amphinemura mockfordi* (Plecoptera: Nemouridae). Entomol. News. 108: 107-112.

Nelson, C. H., and J. F. Hanson. 1971. Contribution to the anatomy and phylogeny of the family Pteronarcidae. Trans. Am. Entomol. Soc. 97: 123-200.

Neves, R. J. 1978. Seasonal succession and diversity of stoneflies (Plecoptera) in Factory Brook, Massachusetts. J. N. Y. Entomol. Soc. 86: 144-152.

Peckarsky, B. L. 1979. A review of the distribution, ecology, and evolution of the North American species of *Acroneuria* and six related genera (Plecoptera: Perlidae). J. Kans. Entomol. Soc. 52: 787-809.

Pescador, M. L., A. K. Rasmussen, and S. C. Harris. 1995. Identification manual for the caddisfly larvae (Trichoptera) of Florida. Florida Department of Environmental Protection, Tallahassee. 132 pp.

Poulton, B. C., and K. W. Stewart. 1991. The stoneflies of the Ozark and Ouachita Mountains (Plecoptera). Mem. Am. Entomol. Soc. 38: 1-116.

Pugsley, C. W., and H. B. N. Hynes. 1985. Summer diapause and nymphal development in *Allocapnia pygmaea* (Burmeister) (Plecoptera: Capniidae) in the Speed River, Southern Ontario. Aquat. Insects. 7: 53-63.

Ray, D. H., and B. P. Stark. 1981. The Nearctic species of *Hydroperla* (Plecoptera: Perlodidae). Fla. Entomol. 64: 385-395.

Resh, V. H., and J. K. Jackson. 1993. Rapid assessment approaches to biomonitoring using benthic macroinvertebrates, pp. 195-233. *In* D. M. Rosenberg, and V. H. Resh [eds.] Freshwater biomonitoring and benthic macroinvertebrates. Chapman and Hall, New York. 488 pp.

Ricker, W. E. 1949. The North American species of *Paragnetina* (Plecoptera: Perlidae). Ann. Entomol. Soc. Am. 42: 279-288.

Ricker, W. E. 1952. Systematic studies in Plecoptera. Ind. Univ. Publ. Sci. Ser. 18: 1-200.

Ricker, W. E. and H. H. Ross. 1968. North American species of *Taeniopteryx* (Plecoptera, Insecta). Jour. Fish. Res. Bd. Can. 25: 1423-1439.

Ricker, W. E., and H. H. Ross. 1975. Synopsis of the Brachypterinae, (Insecta: Plecoptera: Taeniopterygidae). Can. J. Zool. 53: 132-153.

Ross, H. H., and W. E. Ricker. 1971. The classification, evolution, and dispersal of the winter

stonefly genus *Allocapnia*. Illinois Biological Monographs No. 45, Univ. of Illinois Press, 166 pp.

Shapas, T. J., and W. L. Hilsenhoff. 1976. Feeding habits of predominant lotic Plecoptera, Ephemeroptera, and Trichoptera. Great Lakes Entomol. 9: 175-188.

Snellen, R. K., and K. W. Stewart. 1979. The life cycle of *Perlesta placida* (Plecoptera: Perlidae) in an intermittent stream in northern Texas. Ann. Entomol. Soc. Am. 72: 659-666.

Stark, B. P. 1983. The *Tallaperla maria* complex of eastern North America (Plecoptera: Peltoperlidae). J. Kans. Entomol. Soc. 56: 398-410.

Stark, B. P. 1986. The Nearctic species of *Agnetina* (Plecoptera: Perlidae). J. Kans. Entomol. Soc. 59: 437-445.

Stark, B. P. 1989. *Perlesta placida* (Hagen), an eastern nearctic species complex (Plecoptera: Perlidae). Ent. scand. 20: 263-286.

Stark, B. P., and R. W. Baumann. 1978. New species of Nearctic *Neoperla* (Plecoptera: Perlidae) with notes on the genus. Great Basin Nat. 38: 97-114.

Stark, B. P., and L. D. Brown. 1991. What is *Acroneuria evoluta* Klapálek (Plecoptera: Perlidae)? Aquat. Insects. 13: 29-32.

Stark, B. P., and A. R. Gaufin. 1976a. The Nearctic species of *Acroneuria* (Plecoptera: Perlidae). J. Kans. Entomol. Soc. 49: 221-253.

Stark, B. P., and A. R. Gaufin. 1976b. The Nearctic genera of Perlidae (Plecoptera). Misc. Publ. Entomol. Soc. Am. 10: 1-80.

Stark, B. P., and A. R. Gaufin. 1979. The stoneflies (Plecoptera) of Florida. Trans. Am. Entomol. Soc. 104: 391-433.

Stark, B. P., and D. H. Ray. 1983. A revision of the genus *Helopicus* (Plecoptera: Perlodidae). Freshw. Invert. Biol. 2: 16-27.

Stark, B. P., and K. W. Stewart. 1981a. *Leuctra szczytkoi*, a new stonefly from Louisiana (Plecoptera: Leuctridae). Entomol. News. 92: 91-92.

Stark, B. P., and K. W. Stewart. 1981b. The Nearctic genera of Peltoperlidae (Plecoptera). J. Kans. Entomol. Soc. 54: 285-311.

Stark, B. P., and S. W. Szczytko. 1981. Contributions to the systematics of *Paragnetina* (Plecoptera: Perlidae) J. Kans. Entomol. Soc. 54: 625-648.

Stark, B. P., and S. W. Szczytko. 1984. Egg morphology and classification of Perlodinae

(Plecoptera: Perlodidae). Ann. Limnol. 20: 99-104.

Stark, B. P., S. W. Szczytko, and R. W. Baumann. 1986. North American stoneflies (Plecoptera): systematics, distribution, and taxonomic references. Great Basin Nat. 46: 383-397.

Stark, B. P., S. W. Szczytko, and C. R. Nelson. 1998. American stoneflies: a photographic guide to the Plecoptera. The Caddis Press, Columbus, Ohio. 126 pp.

Steffan, A. W. 1965. *Plecopteracoluthus downesi* gen. et sp. nov. (Diptera: Chironomidae), a species whose larvae live phoretically on larvae of Plecoptera. Can. Entomol. 97: 1323-1344.

Stewart, K. W., and P. P. Harper. 1996. Plecoptera, pp. 217-266. *In* R. W. Merritt, and K. W. Cummins [eds.] An introduction to the aquatic insects of North America, 3rd ed. Kendall-Hunt, Dubuque, Iowa. 862 pp.

Stewart, K. W., and B. P. Stark. 1984. Nymphs of North American Perlodinae genera (Plecoptera: Perlodidae). Great Basin Nat. 44: 373-415.

Stewart, K. W., and B. P. Stark. 1988. Nymphs of North American stonefly genera (Plecoptera). Thomas Say Found. Ser., Entomol. Soc. Am. 12: 1-460.

Stewart, K. W., B. P. Stark, and T. G. Huggins. 1976. The stoneflies (Plecoptera) of Louisiana. Great Basin Nat. 36: 365-384.

Surdick, R. F., and B. P. Stark. 1980. Two new species of Chloroperlidae (Plecoptera) from Mississippi. Proc. Entomol. Soc. Wash. 82: 69-73.

Szczytko, S. W., and K. W. Stewart. 1978. *Isoperla bilineata*: Designation of a neotype and allotype, and further descriptions of egg and nymph. Ann. Entomol. Soc. Am. 71: 212-217.

Szczytko, S. W., and K. W. Stewart. 1979. The genus *Isoperla* of western North America; holomorphology and systematics, and a new stonefly genus *Cascadoperla*. Mem. Am. Entomol. Soc. 32: 1-120.

Szczytko, S. W., and K. W. Stewart. 1981. Reevaluation of the genus *Clioperla.* Ann. Entomol. Soc. Am. 74: 536-569.

Tarter, D. C., and L. A. Krumholz. 1971. Life history and ecology of *Paragnetina media* (Walker) (Insecta: Plecoptera) in Doe Run, Meade County, Kentucky. Am. Midl. Nat. 86: 169-180.

Unzicker, J. D., and V. H. McCaskill. 1982. Plecoptera, pp. 5.1-5.50. *In* A. R. Brigham, W. V. Brigham, A. Gnilka [eds.], Aquatic insects and oligochaetes of North and South Carolina. Midwest Aquatic Enterprises, Mahomet, Illinois. 837 pp.

Vaught, G. L., and K. W. Stewart. 1974. The life history and ecology of the stonefly *Neoperla clymene* (Newman) (Plecoptera: Perlidae). Ann. Entomol. Soc. Am. 67: 167-178.

Wallace, J. B., D. S. Vogel, and R. F. Cuffney. 1986. Recovery of a headwater stream from an insecticide-induced community disturbance. J. N. Am. Benthol. Soc. 5: 115-126.

Wallace, J. B., W. R. Woodall, and F. F. Sherberger. 1970. Breakdown of leaves by feeding of *Peltoperla maria* nymphs (Plecoptera: Peltoperlidae). Ann. Entomol. Soc. Am. 63: 562-567.

Williams, D. D., and B. W. Feltmate. 1992. Aquatic insects. C. A. B. Int., Wallingford, Oxon, U. K. 358 pp.

Woodall, W. R., Jr., and J. B. Wallace. 1972. The benthic fauna in four small southern Appalachian streams. Am. Midl. Nat. 88: 393-407.

Zwick, P. 1971. Notes on the genus *Perlinella* and a generic synonymy in North American Perlidae (Plecoptera). Fla. Entomol. 54:315-320.

APPENDIX A: CHECKLIST OF FLORIDA STONEFLIES

The stonefly fauna of Florida presently includes 42 nominal species representing 19 genera in nine families, including the tentatively identified *Perlesta nitida* and six unnamed species. The arrangement of taxa in this checklist follows the scheme of classification used by Stark et al. (1986).

KEY: **N**= nymph known; **N***= nymph known but identification still problematic in Florida; **A**= adult known; **?** = identification tentative.

Suborder Arctoperlaria
- Group Euholognatha
  - Family Capniidae
    - Subfamily Capniinae
      - 1) *Nemocapnia carolina* Banks — NA
  - Family Leuctridae
    - Subfamily Leuctrinae
      - 2) *Leuctra cottaquilla* James — A
      - 3) *L. ferruginea* (Walker) — N*A
      - 4) *L. rickeri* James — A
      - 5) *L. triloba* Claassen — A
      - 6) *Leuctra* sp. A — A
  - Family Nemouridae
    - Subfamily Amphinemurinae
      - 7) *Amphinemura nigritta* (Provancher) — N*A
  - Family Taeniopterygidae
    - Subfamily Taeniopteryginae
      - 8) *Taeniopteryx burksi* Ricker & Ross — NA
      - 9) *T. lita* Frison — N*A
      - 10) *T. lonicera* Ricker & Ross — N*A
- Group Systellognatha
  - Family Chloroperlidae
    - Subfamily Chloroperlinae
      - 11) *Haploperla brevis* (Banks) — NA
  - Family Peltoperlidae
    - Subfamily Peltoperlinae
      - 12) *Tallaperla cornelia* (Needham & Smith) — N*A
  - Family Perlidae
    - Subfamily Acroneuriinae
      - Tribe Acroneuriini
        - 13) *Acroneuria abnormis* (Newman) — NA
        - 14) *A. arenosa* (Pictet) — N*A
        - 15) *A. evoluta* Klapálek — N*A

16) *A. lycorias* (Newman)	NA
17) *Attaneuria ruralis* (Hagen)	NA
18) *Eccoptura xanthenes* (Newman)	NA
19) *Perlesta nitida* Banks ?	N*A
20) *P. placida* (Hagen)	N*A
21) *Perlesta* sp. A	A
22) *Perlesta* sp. B	A
23) *Perlinella drymo* (Newman)	NA
24) *P. ephyre* (Newman)	N*A
25) *P. zwicki* Kondratieff et al.	N*A
Subfamily Perlinae	
Tribe Neoperlini	
26) *Neoperla carlsoni* Stark & Baumann	NA
27) *N. clymene* (Newman)	NA
Tribe Perlini	
28) *Agnetina annulipes* (Hagen)	NA
29) *Paragnetina fumosa* (Banks)	NA
30) *P. kansensis* (Banks)	NA
Family Perlodidae	
Subfamily Isoperlinae	
31) *Clioperla clio* (Newman)	NA
32) *Isoperla bilineata* (Say)	N*A
33) *I. davisi* James	N*A
34) *I. dicala* Frison	N*A
35) *I. orata* Frison	N*A
36) *Isoperla* sp. A	A
37) *Isoperla* sp. B	A
38) *Isoperla* sp. C	A
Subfamily Perlodinae	
Tribe Perlodini	
39) *Helopicus bogaloosa* Stark & Ray	NA
40) *H. subvarians* (Banks)	NA
41) *Hydroperla phormidia* Ray & Stark	NA
Family Pteronarcyidae	
Subfamily Pteronarcyinae	
Tribe Pteronarcyini	
42) *Pteronarcys dorsata* (Say)	N*A

APPENDIX B: DATABASE OF FLORIDA STONEFLIES

Appendix B includes a database of the spatial distribution and the seasonality of the 42 stonefly species known in the state. Interestingly, but not surprisingly, only 8 species: *Acroneuria arenosa*, *Clioperla clio*, *Isoperla davisi*, *Isoperla* sp. C, *Leuctra rickeri*, *Nemocapnia carolina*, *Neoperla clymene*, and *Perlesta placida* (complex) are known from the Florida peninsula. *Neoperla clymene* the most widely distributed stonefly species in the state has been recorded from Escambia River Basin and as far south as Manatee River and Peace River basins. The highest species diversity in the state occurs between the Choctawhatchee and Escambia river basins.

Knowledge of the distribution and regional biodiversity of species and the ecosystems in which they live, is essential to the identification of biologically important areas and facilitates in setting priorities for conservation and restoration. Additionally, basic information on geographic distribution provides an insight as to what species can be expected to occur in a given study area and from this, sampling strategies may then be selectively chosen for certain target species. The efficacy of the benthic sampling strategies can later be evaluated through comparison of taxa sampled with past collection records (Pescador et al., 1995). Likewise, general knowledge of the seasonality of the life stages can assist in the development of effective sampling strategies in any biomonitoring exercise.

The data tables presented below, one of each stonefly family and arranged alphabetically, were extracted from the database which we are constantly updating to keep track of new collection records. There are 2,040 collection records compiled in the database. The information sources we used to gather these data include the following: 1) specimens loaned to us and examined during the course of preparing the guide; 2) stonefly collections housed in the Florida A&M collection; and 3) records gleaned from largely taxonomic literature. With respect to all three of these sources, the data tables are a survey, and although not a completely exhaustive account, the records provide essential baseline information for a more comprehensive future inventory of the stonefly fauna in the state

Data fields for each family table include: **Species** (scientific names, arranged alphabetically); **Basin** (USGS basin where the collection was made); **Waterbody** (name of the river, stream, or lake where the species was collected; **County** (county where collected); **Stage** (life stage, N= nymph; A= adult); **Date Coll.** [the month, day, and year the species was collected (if the record indicated a range of dates, one month or less, over which time the specimens were collected, then a mid-date was used)]; **Source** [source of collection records, this includes: literature records enclosed in parentheses (see Literature cited section for complete citation); the abbreviated names of agency which loaned us material; and caddisfly collections housed at Florida A&M University, abbreviated as FAMU)]; and **Locality description** (information on the exact location of the collection site). The agencies that have loaned us specimens for study include: Florida State Collection of Arthropods (FSCA), Florida Department of Environmental Protection, (FDEP), Illinois Natural History Survey (INHS) and Suwannee River Water Management District (SRWMD). Additonal information that is included in the FAMU data such as FAMU-Ravine Study, FAMU-Eglin Study or FAMU- ORB (Ochlockonee River Basin) etc., refers to the research projects that facilitated the collection of the specimens.

The veracity and completeness of the following data were dependent on the amount of information presented with collection accounts and the locality labels of the given sources. In many cases collection information is vague as to exact collection locality, and often in the past, collection accounts simply indicated the county where the specimen was collected, with no other information given.

FLORIDA PLECOPTERA

Family: Capniidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Nemocapnia carolina			Clay			(Stark & Gaufin, 1979)	
Nemocapnia carolina		unknown ck	Bay			(Stark & Gaufin, 1979)	
Nemocapnia carolina		unknown ck	Liberty			(Stark & Gaufin, 1979)	Hwy 12
Nemocapnia carolina	Blackwater R	Big Coldwater Ck	Santa Rosa	A	3/14/1978	FDEP-Pensacola	confluence of E & W Forks
Nemocapnia carolina	Blackwater R	Big Juniper Ck	Santa Rosa	A	3/1/2000	FAMU	Red Rock Rd, 10 mi NW Holt
Nemocapnia carolina	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Nemocapnia carolina	Blackwater R	Blackwater R	Okaloosa	A	1/25/1974	FAMU	State For. Service Environ. Center
Nemocapnia carolina	Blackwater R	Blackwater R	Okaloosa	N	2/1/1979	FDEP-Pensacola	Hwy 4
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/21/1977	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/21/1978	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/5/1979	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	1/16/1980	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/23/1982	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	3/2/1982	FDEP-Pensacola	Hwy 90
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	A	1/24/1983	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/5/1979	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/24/1983	FDEP-Pensacola	Hwy 2
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Walton	A	2/22/1977	FDEP-Pensacola	Hwy 20
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Walton	A	1/14/1980	FDEP-Pensacola	Hwy 20
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Walton	A	2/9/1981	FDEP-Pensacola	Hwy 20
Nemocapnia carolina	Choctawhatchee R	Choctawhatchee R	Walton	A	3/8/1982	FDEP-Pensacola	Hwy 20
Nemocapnia carolina	Escambia R	Escambia R	Escambia	A	2/14/1977	FDEP-Pensacola	Hwy 4
Nemocapnia carolina	Escambia R	Escambia R	Escambia	A	3/16/1978	FDEP-Pensacola	Hwy 4
Nemocapnia carolina	Escambia R	Escambia R	Escambia	A	1/30/1979	FDEP-Pensacola	Hwy 4
Nemocapnia carolina	Escambia R	Mitchell Ck	Escambia	A	2/20/1992	FDEP-Pensacola	above Hwy 29
Nemocapnia carolina	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Nemocapnia carolina	Ochlockonee R	Bear Ck	Gadsden	A		FAMU	8 mi S SR 268, 1 mi N Hwy 65C
Nemocapnia carolina	Perdido R	Perdido R	Escambia	A	3/5/1977	FDEP-Pensacola	Bay Springs
Nemocapnia carolina	Perdido R	Perdido R	Escambia	A	3/1/1979	FDEP-Pensacola	Hwy 184
Nemocapnia carolina	St. Andrews Bay	Econfina Ck	Bay	N	1/14/1980	FDEP-Pensacola	SR 388
Nemocapnia carolina	Yellow R	Shoal R	Okaloosa	A	2/22/1978	FDEP-Pensacola	CR 393

FLORIDA PLECOPTERA

Family: Capniidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Nemocapnia carolina	Yellow R	Shoal R	Okaloosa	N	2/22/1978	FDEP-Pensacola	CR 393
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	2/22/1977	FDEP-Pensacola	SR 189
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	2/16/1978	FDEP-Pensacola	SR 189
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	2/20/1979	FDEP-Pensacola	SR 189
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	2/27/1980	FDEP-Pensacola	SR 189
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	3/10/1999	BYUC	SR 2, 10 mi N Crestview
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	3/10/1999	FAMU	SR 2, 5 mi E Blackman
Nemocapnia carolina	Yellow R	Yellow R	Okaloosa	A	3/10/1999	Kondratieff (FL visit)	SR 2

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Chloroperlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Haploperla brevis	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/10/1982	FDEP-Pensacola	Pine Allen Bridge
Haploperla brevis	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Haploperla brevis	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU	SR 65

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Leuctridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra	Apalachicola R	Beaver Dam Ck	Liberty	A	12/7/1994	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Leuctra	Apalachicola R	Beaver Dam Ck	Liberty	A	10/26/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Leuctra	Apalachicola R	Big Gully Ck	Liberty	N	10/20/1982	FDEP-Pensacola	SR 12
Leuctra	Apalachicola R	Kelley Branch	Liberty	N	12/7/1994	FAMU Ravine Study	upper end, ABRP, 3 mi N Bristol
Leuctra	Apalachicola R	Little Sweetwater Ck	Liberty	N	10/26/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Leuctra	Apalachicola R	Rock Ck	Liberty	N	2/6/1979	FDEP-Pensacola	Torreya State Park
Leuctra	Apalachicola R	Sweetwater Ck	Liberty	N	11/4/1938	INHS	
Leuctra	Apalachicola R	Unnamed ravine stream	Liberty	A	4/1/1999	FAMU Ravine Study	Apalachicola Bluffs & Ravines Preserve
Leuctra	Apalachicola R	Unnamed ravine stream	Liberty	N	3/11/1994	FAMU Ravine Study	just N of Bluff overlook, 5 km N Bristol
Leuctra	Apalachicola R	Unnamed ravine stream	Liberty	N	12/7/1994	FAMU Ravine Study	just NE of Bluff overlook, ABRP
Leuctra	Blackwater R		Okaloosa	A	10/26/1978	FSCA	1 mile North of Holt
Leuctra	Blackwater R	Alligator Ck	Santa Rosa	A	3/1/2000	FAMU	Bryant Bridge Rd, 9 mi NW Holt
Leuctra	Blackwater R	Beaver Ck	Santa Rosa	A	2/20/1998	FDEP-Pensacola	Beaver Ck Rd
Leuctra	Blackwater R	Big Coldwater Ck	Santa Rosa	N	11/23/1976	FDEP-Pensacola	confluence of E & W Forks
Leuctra	Blackwater R	Big Juniper Ck	Santa Rosa	A	12/6/1997	FDEP-Pensacola	Overstreet Rd
Leuctra	Blackwater R	Blackwater R	Okaloosa	A	11/19/1988	FAMU	
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	9/14/1976	FDEP-Pensacola	Hwy 4
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	10/17/1977	FDEP-Pensacola	Hwy 4
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	8/15/1978	FDEP-Pensacola	Hwy 4
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	10/21/1978	FAMU	
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	10/25/1979	FDEP-Pensacola	Hwy 4
Leuctra	Blackwater R	Blackwater R	Okaloosa	N	9/22/1983	FDEP-Pensacola	Hwy 4
Leuctra	Blackwater R	Bone Ck	Okaloosa	N	11/12/1978	FAMU	
Leuctra	Blackwater R	Reedy Ck	Santa Rosa	A	12/6/1997	FDEP-Pensacola	Overstreet Rd
Leuctra	Blackwater R	Reedy Ck	Santa Rosa	A	3/1/2000	FAMU	Overstreet Rd, 3.3 mi E McClellan
Leuctra	Blackwater R	Riley Spring Branch	Santa Rosa	N	10/28/1973	FAMU	2nd stream W Riley Landing, 4.5 mi W Holt
Leuctra	Chipola R	Whitewater Ck	Calhoun	N	11/26/1980	INHS	9.6 km NW Clarksville, 1.3 km S CR 274
Leuctra	Choctawhatchee Bay	Four Mile Ck	Walton	N	11/6/1970	FAMU	Hwy 20, Freeport
Leuctra	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	3/19/1998	FAMU Eglin Study	Eglin AFB, BR-221
Leuctra	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	3/2/2000	FAMU Eglin Study	W side of BR-231, SE of Duke Field
Leuctra	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	Eglin AFB, BR 221

FLORIDA PLECOPTERA

Family: Leuctridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	W side of BR-231, SE of Duke Field
Leuctra	Choctawhatchee Bay	Lafayette Ck	Walton	N	11/2/1976	FDEP-Pensacola	Hwy 20
Leuctra	Choctawhatchee Bay	Lafayette Ck	Walton	N	10/11/1978	FDEP-Pensacola	Hwy 20
Leuctra	Choctawhatchee Bay	Little Alaqua Ck	Walton	N	10/17/1970	FAMU	1st bridge on dirt rd, N Hwy 282&Portland Rd
Leuctra	Choctawhatchee Bay	Little Rocky Ck	Okaloosa	N	11/9/1970	FAMU	Eglin AFB, Hwy 285, 6.5 mi NE Niceville
Leuctra	Choctawhatchee Bay	Long Branch	Okaloosa	A	2/19/1998	FDEP-Pensacola	Martin Mill Rd
Leuctra	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	11/13/1997	FAMU Eglin Study	Base Rd 233, Eglin Air Force Base
Leuctra	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Leuctra	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	A	10/27/1998	FAMU Eglin Study	BR-639, Eglin AFB
Leuctra	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	A	4/8/1999	FAMU Eglin Study	BR-639, Eglin AFB
Leuctra	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	N	10/27/1998	FAMU Eglin Study	BR-639, Eglin AFB
Leuctra	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	11/13/1997	FAMU Eglin Study	Base Rd 232, Eglin Air Force Base
Leuctra	Choctawhatchee R	Black Ck	Walton	N	11/7/1970	FAMU	4 mi W of Hwy 81 at bridge
Leuctra	Choctawhatchee R	Pine Log Ck	Bay	N	11/20/1970	FAMU	Hwy 79
Leuctra	Choctawhatchee R	Sandy Ck	Walton	A	12/4/1980	INHS	6.4 km NE DuFuniak Springs @ CR 183
Leuctra	Choctawhatchee R	Wolf Ck	Walton	N	11/7/1970	FAMU	private rd W of Hwy 81
Leuctra	Escambia R	Brickton Branch	Escambia	A	12/9/1998	FDEP-Pensacola	Brickyard Rd N of Molino
Leuctra	Escambia R	Canoe Ck	Escambia	N	6/7/1977	INHS	4.8 km N McDavid @ US 29
Leuctra	Escambia R	Canoe Ck	Escambia	N	12/6/1978	FDEP-Pensacola	Hwy 29
Leuctra	Escambia R	Escambia R	Escambia	N	9/15/1995	INHS	Upper Bluffs, 4.8 km E Cantonment
Leuctra	Escambia R	Hobbs Branch	Escambia	A	2/12/1997	FDEP-Pensacola	CR 168
Leuctra	Escambia R	Hobbs Branch	Escambia	N	2/12/1997	FDEP-Pensacola	CR 168
Leuctra	Escambia R	Mitchell Ck	Escambia	A	1/22/1979	INHS	0.32 km N McDavid @ US 29
Leuctra	Escambia R	Mitchell Ck	Escambia	A	10/20/1995	INHS	0.32 km N McDavid @ US 29
Leuctra	Escambia R	Mitchell Ck	Escambia	N	12/6/1978	FDEP-Pensacola	Hwy 29
Leuctra	Escambia R	Molino Branch	Escambia	A	12/3/1997	FDEP-Pensacola	Brickyard Rd
Leuctra	Escambia R	Molino Branch	Escambia	N	12/3/1997	FDEP-Pensacola	Brickyard Rd
Leuctra	Escambia R	Pretty Branch	Escambia	N	12/10/1979	FDEP-Pensacola	above railroad
Leuctra	Escambia R	Reedy Ck, middle fork	Escambia	A	12/2/1997	FDEP-Pensacola	CR 168
Leuctra	Ochlockonee R	Camp Ck	Gadsden	N	10/13/1987	FAMU ORB Study	CR 274
Leuctra	Ochlockonee R	Camp Ck	Gadsden	N	10/12/1988	FAMU ORB Study	CR 274

FLORIDA PLECOPTERA

Family: Leuctridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra	Ochlockonee R	Camp Ck	Gadsden	N	10/12/1988	FAMU ORB Study	CR 274
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	3/21/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	10/25/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	11/4/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	11/14/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	11/25/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	12/7/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	12/16/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	12/27/1998	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	1/6/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	1/17/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	1/27/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	2/8/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	2/18/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	3/20/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	5/4/1999	FAMU Ravine Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	A	11/11/1999	FAMU Emergence Study	near ravine head
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	12/5/1991	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	10/14/1992	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	12/7/1992	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	12/7/1992	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	2/11/1993	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	FAMU Farm St	Gadsden	N	12/10/1998	FAMU Ravine Study	near upper end
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	A	12/3/1987	FAMU ORB Study	SR 267
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	10/8/1986	FAMU ORB Study	CR 65, 6.6 mi N Hosford
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	10/9/1986	FAMU ORB Study	SR 65
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	11/5/1986	FAMU ORB Study	SR 267, 10 mi S Quincy
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	11/5/1986	FAMU ORB Study	SR 267
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	10/13/1987		
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	10/13/1987	FAMU ORB Study	SR 267
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	9/12/1988	FAMU ORB Study	SR 267

FLORIDA PLECOPTERA

Family: Leuctridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra	Ochlockonee R	Ocklawaha Ck	Gadsden	N	10/30/1990	FAMU ORB Study	CR 65, 6.6 mi N Hosford
Leuctra	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 271
Leuctra	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Leuctra	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/8/1986	FAMU ORB Study	SR 65 + SR 65A, 6.5 mi N Quincy
Leuctra	Perdido R	McDavid Ck	Escambia	A	10/20/1995	INHS	4.8 km N Barrineau Park @ SR 99
Leuctra	Perdido R	Run Ck	Escambia	A	10/20/1995	INHS	4.8 km SSW Muscogee I-10 rest, 300m N I-1
Leuctra	Perdido R	Run Ck	Escambia	N	10/20/1992	INHS	4.8 km SSW Muscogee I-10 rest, 300m N I-1
Leuctra	St. Andrews Bay	Sweetwater Ck	Bay	N	10/16/1997	FAMU	Sweetwater Branch Rd, 2 mi SW Betts
Leuctra	St. Johns R (lower)	Gold Head Branch	Clay	N	12/6/1997	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Leuctra	St. Johns R (lower)	Gold Head Branch	Clay	N	10/3/1998	FAMU Ravine Study	Gold Head Branch St. Pk., old mill trail
Leuctra	St. Johns R (lower)	Jim Branch	Clay	N	12/11/1996	FDEP-Tallahassee	
Leuctra	Yellow R	East Turkey Hen Ck	Okaloosa	A	10/29/1998	FAMU Eglin Study	BR-601, Eglin AFB
Leuctra	Yellow R	East Turkey Hen Ck	Okaloosa	A	3/11/1999	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Leuctra	Yellow R	East Turkey Hen Ck	Okaloosa	A	3/2/2000	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Leuctra	Yellow R	East Turkey Hen Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Leuctra	Yellow R	East Turkey Hen Ck	Okaloosa	N	10/29/1998	FAMU Eglin Study	BR-601, Eglin AFB
Leuctra ?	Ochlockonee R	FAMU Farm St	Gadsden	N	9/28/1993	FAMU Ravine Study	near upper end
Leuctra cottaquilla	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Leuctra cottaquilla	Blackwater R	Blackwater R	Okaloosa	A	1/24/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Leuctra cottaquilla	Blackwater R	Bone Ck	Okaloosa	A	11/12/1978	FAMU	
Leuctra cottaquilla	Blackwater R	E Fork Big Coldwater Ck	Santa Rosa	A	11/21/1996	INHS	1.5 km E Sellersville @ Sellersville Rd
Leuctra cottaquilla	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	11/13/1997	FAMU Eglin Study	Base Rd 233, Eglin Air Force Base
Leuctra cottaquilla	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	A	10/27/1998	FAMU Eglin Study	BR-639, Eglin AFB
Leuctra cottaquilla	Escambia R	Brickton Branch	Escambia	N/A	12/9/1997	FDEP-Pensacola	Brickyard Road
Leuctra cottaquilla	Yellow R	East Turkey Hen Ck	Okaloosa	A	3/2/2000	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Leuctra cottaquilla	Yellow R	Indigo Ck	Santa Rosa	A	3/19/1998	FAMU Eglin Study	Eglin AFB, BR-213
Leuctra ferruginea	Apalachicola R	Beaver Dam Ck	Liberty	A	10/26/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Leuctra ferruginea	Apalachicola R	Little Sweetwater Ck	Liberty	A	10/26/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Leuctra ferruginea	Apalachicola R	Rock Ck	Liberty	A	11/20/1998	FAMU Ravine Study	upper end, Torreya State Park
Leuctra ferruginea	Escambia R	Mitchell Ck	Escambia	A	10/20/1995	INHS	0.32 km N McDavid @ US 29
Leuctra ferruginea	Ochlockonee R		Leon			(Stark & Gaufin, 1979)	12 mi W Tallahassee

FLORIDA PLECOPTERA

Family: Leuctridae Page 3-5

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra ferruginea	Ochlockonee R		Leon	A	11/30/1939	(Frison, 1942)	12 mi W Tallahassee
Leuctra ferruginea	Ochlockonee R		Leon	A	11/30/1939	INHS	12 mi W Tallahassee
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	11/25/1998	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	12/7/1998	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	12/16/1998	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	12/27/1998	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	1/6/1999	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	1/17/1999	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	1/27/1999	FAMU Emergence Study	near ravine head
Leuctra ferruginea	Ochlockonee R	FAMU Farm St	Gadsden	A	2/28/1999	FAMU Emergence Study	near ravine head
Leuctra ferruginea ?	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Leuctra ferruginea ?	Choctawhatchee R	Mill Ck	Walton			(Stark & Gaufin, 1979)	
Leuctra rickeri	Blackwater R	Big Coldwater Ck	Santa Rosa	N	11/23/1976	FDEP-Pensacola	confluence of E & W Forks
Leuctra rickeri	Blackwater R	Big Juniper Ck	Santa Rosa	A	11/21/1996	INHS	3.2 km NW Munson @ Amos Cabrniss Rd
Leuctra rickeri	Blackwater R	Big Juniper Ck	Santa Rosa	N	11/21/1996	INHS	3.2 km NW Munson @ Amos Cabrniss Rd
Leuctra rickeri	Blackwater R	Blackwater R	Okaloosa	A	10/23/1978	INHS	4.8 km N Baker @ SR 4
Leuctra rickeri	Blackwater R	Blackwater R	Okaloosa	A	10/25/1979	INHS	4.8 km N Baker @ SR 4
Leuctra rickeri	Blackwater R	Bone Ck	Okaloosa	A	11/12/1978	FAMU	
Leuctra rickeri	Blackwater R	E Fork Big Coldwater Ck	Santa Rosa	A	11/21/1996	INHS	1.5 km E Sellersville @ Sellersville Rd
Leuctra rickeri	Blackwater R	E Fork Big Coldwater Ck	Santa Rosa	N	11/21/1996	INHS	1.5 km E Sellersville @ Sellersville Rd
Leuctra rickeri	Blackwater R	Reedy Ck	Santa Rosa	A	12/6/1997	FDEP-Pensacola	Overstreet Road
Leuctra rickeri	Choctawhatchee Bay	Lafayette Ck	Walton	N	11/2/1976	FDEP-Pensacola	Hwy 20
Leuctra rickeri	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	10/28/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Leuctra rickeri	Escambia R	Mitchell Ck	Escambia	A	10/20/1995	INHS	0.32 km N McDavid @ US 29
Leuctra rickeri	Escambia R	Molino Branch	Escambia	A	12/3/1997	FDEP-Pensacola	Brickyard Rd
Leuctra rickeri	Perdido R	Churchhouse Branch	Escambia	A	10/20/1995	INHS	3.2 km SE Barrineau Park @ CR 97
Leuctra rickeri	Perdido R	Run Ck	Escambia	A	10/20/1992	INHS	4.8 km SSW Muscogee I-10 rest, 300m N I-1
Leuctra rickeri	St. Johns R (lower)		Clay			(Stark & Gaufin, 1979)	Gold Head Branch State Park
Leuctra rickeri	St. Johns R (lower)	Boggy Branch	Clay	A	12/1/1990	INHS	6.4 km NE Lawtey, E edge Dupont mine
Leuctra rickeri	St. Johns R (lower)	Gold Head Branch	Clay	A	12/10/1955	FAMU Ravine Study	Gold Head Branch State Park
Leuctra rickeri ?	St. Johns R (lower)	Gold Head Branch	Clay	A	12/22/1957	FAMU Ravine Study	Gold Head Branch State Park

FLORIDA PLECOPTERA

Family: Leuctridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Leuctra sp ? (nr. cottaquilla)	Chipola R	Whitewater Ck	Calhoun	A	11/26/1980	INHS	9.6 km NW Clarksville, 1.3 km S CR 274
Leuctra sp ? (nr. cottaquilla)	St. Marks R	Lloyd Ck	Jefferson	A	11/22/1996	INHS	7.9 km SE Lloyd @ Water Mill Rd
Leuctra sp. A	Blackwater R	Big Juniper Ck	Santa Rosa	A	12/6/1997	FDEP-Pensacola	Overstreet Road
Leuctra sp. A	Blackwater R	Reedy Ck	Santa Rosa	A	12/6/1997	FDEP-Pensacola	Overstreet Road
Leuctra sp. A	Perdido R	McDavid Ck	Escambia	A	10/20/1995	INHS	4.8 km N Barrineau Park @ SR 99
Leuctra triloba	Apalachicola R	Kelley Branch	Liberty	A	12/7/1994	FAMU Ravine Study	upper end, ABRP, 3 mi N Bristol
Leuctra triloba	Apalachicola R	No Name Ravine	Liberty	A	3/11/1999	BYUC	Apalachicola Bluffs & Ravines Preserve
Leuctra triloba	Ochlockonee R		Leon			(Stark & Gaufin, 1979)	12 mi W Tallahassee
Leuctra triloba	Ochlockonee R		Leon	A	11/30/1939	INHS	12 mi W Tallahassee
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	11/4/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	11/14/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	11/25/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	12/7/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	12/16/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	12/27/1998	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	1/6/1999	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	1/17/1999	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	1/27/1999	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	3/9/1999	BYUC	headwaters Quincy Ck
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	3/9/1999	FAMU Emergence Study	near ravine head
Leuctra triloba	Ochlockonee R	FAMU Farm St	Gadsden	A	11/11/1999	FAMU Emergence Study	near ravine head

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Nemouridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Amphinemura	Apalachicola R	Rock Ck	Liberty	N	2/6/1979	FDEP-Pensacola	Torreya State Park
Amphinemura	Apalachicola R	Sweetwater Ck	Liberty	N	2/12/1996	FDEP-Tallahassee	
Amphinemura	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Amphinemura	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Amphinemura	Apalachicola R	Trib. Flat Ck	Gadsden	N	3/2/2000	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Amphinemura	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	2/18/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Amphinemura	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	3/9/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Amphinemura	Chipola R	Bridge Ck	Jackson	N	2/21/1994	FDEP-Tallahassee	
Amphinemura	Chipola R	Bridge Ck	Jackson	N	11/21/1994	FDEP-Tallahassee	
Amphinemura	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Amphinemura	Choctawhatchee R	White Ck	Walton	N	2/16/1982	FDEP-Pensacola	SR 280
Amphinemura	Ochlockonee R	Hurricane Ck	Gadsden	N	4/12/1967	FAMU	7 mi E Quincy
Amphinemura	Ochlockonee R	unnamed Ck	Liberty	N	2/13/1973	BYUC	1 mi W Ochlockonee R
Amphinemura	Ochlockonee R	unnamed Ck	Liberty	N	3/27/1973	BYUC	1 mi W Ochlockonee R
Amphinemura	Ochlockonee R	unnamed Ck	Liberty	N	4/9/1973	BYUC	1 mi W Ochlockonee R
Amphinemura	Ochlockonee R	unnamed Ck	Liberty	N	2/25/1974	BYUC	1 mi W Ochlockonee R
Amphinemura	Ochlockonee R	unnamed Ck	Liberty	N	3/2/1974	BYUC	1 mi W Ochlockonee R
Amphinemura	Ochlockonee R	unnamed ck	Liberty	N	2/27/1973	FSCA	1 mi W Ochlockonee R at Hwy 20
Amphinemura	St. Marks R	Black Ck	Leon	N	2/21/1998	FAMU	Hwy 364
Amphinemura	St. Marks R	Burnt Mill Ck	Jefferson	N	4/1/1993	FAMU Biotic Index	CR 59
Amphinemura	St. Marks R	Lloyd Ck	Jefferson	N	2/6/1997	FDEP-Tallahassee	
Amphinemura nigritta			Leon			(Stark & Gaufin, 1979)	
Amphinemura nigritta			Leon		3/18/1939	(Berner, 1948)	
Amphinemura nigritta	Apalachicola R		Liberty		5/7/1933	(Berner, 1948)	Torreya State Park
Amphinemura nigritta	Apalachicola R		Liberty	A	5/7/1953	BYUC	Torreya State Park
Amphinemura nigritta	Apalachicola R		Liberty	A	4/13/1960	BYUC	Torreya State Park
Amphinemura nigritta	Apalachicola R		Liberty	A	4/9/1978	FSCA	Torreya State Park, on Florida Yew
Amphinemura nigritta	Apalachicola R		Liberty	A	3/24/1996	FAMU Ravine Study	Dupris tract, ABRP
Amphinemura nigritta	Apalachicola R	Rock Ck	Liberty	A	3/27/1954	BYUC	
Amphinemura nigritta	Ochlockonee R		Liberty			(Stark & Gaufin, 1979)	1 mi W Ochlockonee R at Hwy 20
Amphinemura nigritta	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	

FLORIDA PLECOPTERA

Family: Nemouridae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Amphinemura nigritta	St. Andrews Bay	Sandy Ck	Bay			(Stark & Gaufin, 1979)	

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Peltoperlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Tallaperla						(Stark & Stewart, 1981)	
Tallaperla	Choctawhatchee Bay	Alaqua Ck	Walton	N	4/5/1983	FDEP-Pensacola	
Tallaperla	Choctawhatchee Bay	SE Branch Sconiers Mill Ck	Walton	N	4/7/1982	FDEP-Pensacola	
Tallaperla	Escambia R	McCostill Mill Ck	Santa Rosa	N	12/6/1997	FDEP-Pensacola	
Tallaperla	Escambia R	Mitchell Ck	Escambia	N	2/20/1992	FDEP-Pensacola	
Tallaperla	Escambia R	Mitchell Ck	Escambia	N	1/24/1995	FDEP-Pensacola	Hwy 29
Tallaperla	Escambia R	Pine Barren Br	Escambia	N	1/30/1979	FDEP-Pensacola	SR 164
Tallaperla	Escambia R	Pine Barren Br	Escambia	N	2/23/1979	FDEP-Pensacola	Hwy 4
Tallaperla	Escambia R	Pine Barren Br	Escambia	N	4/7/1982	FDEP-Pensacola	
Tallaperla	Yellow R	Big Horse Ck	Okaloosa	N	6/23/1993	FDEP-Pensacola	Hwy 2
Tallaperla cornelia	Choctawhatchee Bay	Alaqua Ck	Walton	A	3/25/1982	FDEP-Pensacola	
Tallaperla cornelia	Escambia R	Pine Barren Br	Escambia	A	3/15/1979	(Stark, 1983)	

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria				N	2/25/1962	FSCA	near Chattahoochee
Acroneuria		unnamed ck	Jackson	N	2/6/1952	BYUC	
Acroneuria	Apalachicola R		Gadsden	A	5/20/1999	H. Kons, Jr.	Aspalaga Bluff
Acroneuria	Apalachicola R		Gadsden	A	5/22/1999	H. Kons, Jr.	Aspalaga Bluff
Acroneuria	Apalachicola R		Gadsden	A	5/23/1999	H. Kons, Jr.	Dolan Rd, 0.1 mi W Hwy 269
Acroneuria	Apalachicola R		Gadsden	N	7/28/1972	FSCA	stream at power house dam lake
Acroneuria	Apalachicola R	Beaver Dam Ck	Liberty	N	8/30/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N	5/2/1996	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N	11/2/1996	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N	11/20/1998	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N	6/7/1999	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N/A	4/12/1995	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N/A	4/18/1995	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Crooked Ck	Gadsden	N/A	2/19/1998	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria	Apalachicola R	Flat Ck	Gadsden	N	2/4/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria	Apalachicola R	Flat Ck	Gadsden	N	4/17/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria	Apalachicola R	Flat Ck	Gadsden	N	11/2/1996	FAMU Ravine Study	CR 270A
Acroneuria	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	SR 269, 8 km S of Chattahoochee
Acroneuria	Apalachicola R	Kelley Branch	Liberty	N	3/22/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria	Apalachicola R	Little Sweetwater Ck	Liberty	N	3/11/1994	FAMU Ravine Study	nr. confl. w/Apalach R, 3 mi N Bristol
Acroneuria	Apalachicola R	Little Sweetwater Ck	Liberty	N	3/11/1994	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria	Apalachicola R	Little Sweetwater Ck	Liberty	N	8/30/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria	Apalachicola R	Rock Ck	Liberty	N	4/9/1998	FAMU Ravine Study	upper end, Torreya State Park
Acroneuria	Apalachicola R	Rock Ck	Liberty	N	4/9/1998	FAMU Ravine Study	lower end, Torreya State Park
Acroneuria	Apalachicola R	Rock Ck	Liberty	N	11/20/1998	FAMU Ravine Study	lower end, Torreya State Park
Acroneuria	Apalachicola R	Rock Ck	Liberty	N	3/9/1999	FAMU Ravine Study	upper end, Torreya State Park
Acroneuria	Apalachicola R	Short Ck	Liberty	A	12/6/1995	FDEP-Pensacola	
Acroneuria	Apalachicola R	Sweetwater Ck	Liberty	N	11/20/1998	FAMU Ravine Study	CR 270
Acroneuria	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria	Blackwater R	Pond Ck	Santa Rosa	N	10/29/1952	BYUC	
Acroneuria	Chipola R	Bridge Ck	Jackson	N/A	2/25/1981	FDEP-Pensacola	Hwy 71

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria	Chipola R	Rocky Ck	Jackson	A	5/18/1994	FAMU	Hwy 71, 8 mi S Marianna
Acroneuria	Chipola R	Rocky Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Acroneuria	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	SR 282, 5 km N Portland
Acroneuria	Choctawhatchee Bay	Blount Ck	Walton	N	11/21/1998	FAMU Eglin Study	Off BR-201, 1 mi NE Pine Allen Bridge
Acroneuria	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, BR 221
Acroneuria	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	Eglin AFB, BR 221
Acroneuria	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	6/17/1999	FAMU Eglin Study	Eglin AFB, BR 221
Acroneuria	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	6/16/1999	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	N	10/27/1998	FAMU Eglin Study	BR-639, Eglin AFB
Acroneuria	Choctawhatchee Bay	Turkey Ck	Okaloosa	N	10/27/1998	FAMU Eglin Study	BR-637, Eglin AFB
Acroneuria	Choctawhatchee Bay	Unnamed trib, Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	steephead off BR-639, Eglin AFB
Acroneuria	Ochlockonee R	Bear Ck	Gadsden	N	6/9/1978	FAMU	
Acroneuria	Ochlockonee R	FAMU Farm St	Gadsden	N	4/7/1993	FAMU Ravine Study	near upper end
Acroneuria	Ochlockonee R	FAMU Farm St	Gadsden	N	2/24/1998	FAMU Ravine Study	near middle
Acroneuria	Ochlockonee R	Little R	Gadsden	N	8/12/1992	FAMU Biotic Index	Hwy 90
Acroneuria	Perdido R	Beaver Pond Ck	Escambia	N	6/16/1995	FDEP-Pensacola	I-10
Acroneuria	St. Andrews Bay	Econfina Ck	Bay	N	1/14/1980	FDEP-Pensacola	
Acroneuria	St. Andrews Bay	Trib. Econfina Ck	Bay	N	2/6/1997	FDEP-Pensacola	1st order trib., Scott Rd
Acroneuria	Suwannee R	Suwannee R	Hamilton/Suwannee	N	12/16/1992	FAMU Biotic Index	0.5 km E of US Hwy 129
Acroneuria	Suwannee R	Suwannee R	Madison	N	9/19/1991	FAMU Biotic Index	Suwannee R. St. Pk., 1 km N US 90
Acroneuria	Yellow R	Caney Ck	Walton	N		FSCA	8.2 mi NW jct. Rt. 331
Acroneuria	Yellow R	East Turkey Hen Ck	Okaloosa	N	5/22/1998	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	4/4/1971	(Stark & Gaufin, 1976)	
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	6/4/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	4/29/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	5/5/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	5/6/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria abnormis	Blackwater R	Blackwater R	Okaloosa	A	5/7/1986	FAMU	
Acroneuria abnormis	Chipola R	Chipola R	Calhoun	A	5/8/1972	(Stark & Gaufin, 1976)	
Acroneuria abnormis	Chipola R	Chipola R	Calhoun	A	5/8/1972	FAMU	SR 20
Acroneuria abnormis	Chipola R	Chipola R	Calhoun	N	8/14/1984	FDEP-Pensacola	Hwy 71
Acroneuria abnormis	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Acroneuria abnormis	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4
Acroneuria abnormis	Escambia R	Escambia R	Escambia	N	6/28/1983	FDEP-Pensacola	Hwy 4
Acroneuria abnormis	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	CR 159, 3 mi NW Havana
Acroneuria abnormis	Ochlockonee R	Smith Ck	Wakulla		6/5/1938	(Berner, 1948)	
Acroneuria abnormis	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Acroneuria abnormis	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria abnormis	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Acroneuria abnormis	Ochlockonee R	small stream	Leon		6/5/1938	(Berner, 1948)	
Acroneuria abnormis	Perdido R	Perdido R	Escambia	N	11/3/1981	FDEP-Pensacola	Hwy 184
Acroneuria abnormis	Perdido R	Perdido R	Escambia	N	7/26/1983	FDEP-Pensacola	
Acroneuria abnormis	St. Andrews Bay	Bear Ck	Bay	N	10/23/1990	FDEP-Tallahassee	Hwy 231
Acroneuria abnormis	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd.
Acroneuria abnormis	Yellow R	East Turkey Hen Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout Tower
Acroneuria abnormis	Yellow R	Shoal R	Okaloosa	N	2/17/1993	FDEP-Tallahassee	
Acroneuria arenosa	Apalachicola R	Crooked Ck	Gadsden	A	6/7/1999	FAMU Ravine Study	CR 270, 10 km W Greensboro
Acroneuria arenosa	Apalachicola R	Crooked Ck	Gadsden	N/A	3/30/1995	FAMU Ravine Study	CR 270
Acroneuria arenosa	Apalachicola R	Flat Ck	Gadsden	A	6/7/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa	Apalachicola R	Flat Ck	Gadsden	N/A	4/24/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa	Apalachicola R	Flat Ck	Gadsden	N/A	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa	Apalachicola R	Kelley Branch	Liberty	A	6/24/1996	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria arenosa	Apalachicola R	Little Sweetwater Ck	Liberty	A	6/24/1996	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria arenosa	Apalachicola R	Rock Ck	Liberty	A	6/8/1999	FAMU Ravine Study	lower end, Torreya State Park
Acroneuria arenosa	Apalachicola R	Sweetwater Ck	Liberty	A	6/24/1996	FAMU Ravine Study	CR 270, 15 km N Bristol
Acroneuria arenosa	Apalachicola R	Sweetwater Ck	Liberty	A	6/7/1999	FAMU Ravine Study	CR 270
Acroneuria arenosa	Apalachicola R	Unnamed trib, Sweetwater	Liberty	A	6/8/1999	FAMU Ravine Study	off CR 270, ABRP, Traveler's Tract

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	6/4/1971	(Stark & Gaufin, 1976)	
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	6/4/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	6/5/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/9/1972		FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/9/1972	(Stark & Gaufin, 1976)	
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	4/29/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/1/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/6/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/8/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/8/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/1/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	5/11/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Blackwater R	Okaloosa	A	6/13/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria arenosa	Blackwater R	Lake Carr	Santa Rosa	A	5/28/1987	FAMU	near Lake Carr
Acroneuria arenosa	Chipola R	Blue Springs Ck	Jackson		6/5/1940	(Berner, 1948)	Marianna
Acroneuria arenosa	Chipola R	Blue Springs Ck	Jackson	A	6/5/1940	(Stark & Gaufin, 1976)	Marianna
Acroneuria arenosa	Chipola R	Blue Springs Ck	Jackson	A	6/5/1940	INHS	3 mi E Marianna
Acroneuria arenosa	Chipola R	Bridge Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Acroneuria arenosa	Chipola R	Chipola R	Calhoun	A	5/18/1994	FAMU	Hwy 274, 15 mi S Marianna
Acroneuria arenosa	Chipola R	Chipola R	Calhoun	N/A	2/25/1981	FDEP-Pensacola	Altha boat ramp
Acroneuria arenosa	Chipola R	Rocky Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Acroneuria arenosa	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	BR-221, 0.8 mi E of SR 85
Acroneuria arenosa	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	BR-637, Eglin AFB
Acroneuria arenosa	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	3 mi NW Havana, CR 159
Acroneuria arenosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/28/1965	(Stark & Gaufin, 1976)	
Acroneuria arenosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/28/1968	FAMU	
Acroneuria arenosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/10/1970	(Stark & Gaufin, 1976)	
Acroneuria arenosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/10/1970	FAMU	dirt road 6 mi S SR 268
Acroneuria arenosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/30/1974	FAMU	2nd bridge Hwy 65B, 6 mi S SR 268

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa	Ochlockonee R	Turkey Ck	Gadsden	A	5/29/1980	FAMU	
Acroneuria arenosa	Ochlockonee R	Willacoochee Ck	Gadsden	A	6/11/1987	FAMU ORB Study	CR 161
Acroneuria arenosa	Pensacola Bay	East Bay R	Santa Rosa	A	5/17/1996	FAMU Eglin Study	Hurlbert Field
Acroneuria arenosa	Perdido R	Beaver Pond Ck	Escambia	N/A	6/16/1995	FDEP-Pensacola	
Acroneuria arenosa ?	Apalachicola R	Flat Ck	Gadsden	N/A	4/24/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa ?	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	SR 282, 5 km N Portland
Acroneuria arenosa ?	Escambia R	Mitchell Ck	Escambia	A	3/27/1995	FDEP-Pensacola	Hwy 29
Acroneuria arenosa/evoluta			Gadsden	N	3/17/1939	INHS	River Junction
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	3/22/1995	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	4/18/1995	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	3/6/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	3/29/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Flat Ck	Gadsden	N	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria arenosa/evoluta	Apalachicola R	Sweetwater Ck	Liberty	N	3/11/1999	Kondratieff (FL visit)	Hwy 271
Acroneuria arenosa/evoluta	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	2/18/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria arenosa/evoluta	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	3/9/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria arenosa/evoluta	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	4/1/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria arenosa/evoluta	Apalachicola R	Yon Ck	Gadsden	N/A	1/6/1996	FDEP-Pensacola	below I-10
Acroneuria arenosa/evoluta	Aucilla R	Aucilla R	Jefferson/Madison	N	2/19/1992	FAMU Biotic Index Study	US Hwy 27
Acroneuria arenosa/evoluta	Aucilla R	Aucilla R	Jefferson/Taylor	N	10/22/1991	FAMU Biotic Index Study	US Hwy 98
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	A	4/29/1977	FAMU	Peaden Br. 4.5 mi NW of Cannon Town
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	N	2/16/1974	FAMU	Kennedy Bridge, 6 mi W Blackman
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	N	12/28/1977	FAMU	Kennedy Bridge
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	N	3/18/1979	FAMU	Kennedy Bridge, 6 mi W Blackman
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	N	9/22/1983	FDEP-Pensacola	
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Okaloosa	N	3/28/1998	FAMU	
Acroneuria arenosa/evoluta	Blackwater R	Blackwater R	Santa Rosa	N	4/20/1977	FAMU	Cotton Bridge, 5.5 mi NW Good Hope
Acroneuria arenosa/evoluta	Blackwater R	Mare Ck	Okaloosa	N/A	3/3/1998	FDEP-Pensacola	Mattie Kennedy Rd

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa/evoluta	Blackwater R	Panther Ck	Okaloosa	N		FDEP-Pensacola	John Riley Barnhill Rd.
Acroneuria arenosa/evoluta	Blackwater R	Riley Spring Branch	Santa Rosa	N	4/29/1973	FAMU	2nd stream W Riley Landing, 4.5 mi W Holt
Acroneuria arenosa/evoluta	Blackwater R	trib. E Fork Big Coldwater Ck	Santa Rosa	N	11/21/1996	INHS	1.5 km E Sellersville @ Sellersville Rd
Acroneuria arenosa/evoluta	Chipola R	Bridge Ck	Jackson	N	2/23/1993	FDEP-Pensacola	SR 71
Acroneuria arenosa/evoluta	Chipola R	Chipola R	Calhoun	N	7/21/1983	FDEP-Pensacola	Altha boat ramp
Acroneuria arenosa/evoluta	Chipola R	Chipola R	Calhoun	N	8/14/1984	FDEP-Pensacola	Juniper Ck confluence
Acroneuria arenosa/evoluta	Chipola R	Chipola R	Calhoun	N	8/14/1984	FDEP-Pensacola	Tenmile Ck confluence
Acroneuria arenosa/evoluta	Chipola R	Tenmile Ck	Calhoun	N	2/4/1999	FDEP-Tallahassee	SR 73
Acroneuria arenosa/evoluta	Choctawhatchee Bay		Walton	N	4/2/1939	INHS	Freeport
Acroneuria arenosa/evoluta	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Acroneuria arenosa/evoluta	Choctawhatchee R	Black Ck	Walton	N	2/27/1996	FDEP-Tallahassee	Hwy 20
Acroneuria arenosa/evoluta	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/24/1983	FDEP-Pensacola	Hwy 2
Acroneuria arenosa/evoluta	Choctawhatchee R	Wright's Ck	Holmes	N	2/25/1987	FDEP-Pensacola	Hwy 2
Acroneuria arenosa/evoluta	Escambia	Rest Area Run	Escambia	N	2/14/1996	FDEP-Tallahassee	I-10
Acroneuria arenosa/evoluta	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	CR 159, 3 mi NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	8/14/1986	FAMU ORB Study	CR 159
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	1/22/1988	FAMU ORB Study	CR 159, 4 mi NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	10/25/1988	FAMU ORB Study	CR 159, 4 mi NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	10/15/1991	FAMU Biotic Index Study	SR 159, 6.5 km NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/8/1992	FAMU Biotic Index Study	SR 159, 6.5 km NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Attapulgus Ck	Gadsden	N	10/14/1992	FAMU Biotic Index Study	SR 159, 6.5 km NW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Bear Ck	Gadsden	N	10/19/1973	FAMU	8 mi S SR 268, 1 mi N Hwy 65C
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	8/18/1986	FAMU ORB Study	CR 274
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	1/14/1987	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	6/7/1987	FAMU ORB Study	8 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	2/8/1988	FAMU ORB Study	CR 274
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Camp Ck	Gadsden	N	12/15/1988	FAMU ORB Study	CR 274, 8 mi S Quincy

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	3/3/1986	FAMU ORB Study	SR 12, 5 mi SW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	3/3/1986	FAMU ORB Study	6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	3/24/1986	FAMU ORB Study	6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	4/1/1986	FAMU ORB Study	6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	5/1/1986	FAMU ORB Study	6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	8/14/1986	FAMU ORB Study	SR 12
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	2/12/1987	FAMU ORB Study	6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	4/14/1987	FAMU ORB Study	SR 12
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU ORB Study	SR 12
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU ORB Study	SR 12, 5 mi SW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	4/22/1988	FAMU ORB Study	SR 12, 5 mi SW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	4/27/1988	FAMU ORB Study	SR 12, 5 mi SW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	9/21/1988	FAMU ORB Study	CR 268, 6.5 mi SE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	9/21/1988	FAMU ORB Study	SR 12
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	10/25/1988	FAMU ORB Study	US Hwy 90
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	12/17/1990	FAMU ORB Study	SR 12, 5 mi SW Havana
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	8/27/1991	FAMU Biotic Index Study	US Hwy 90
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	2/12/1992	FAMU Biotic Index Study	US Hwy 90
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	4/8/1992	FAMU Biotic Index Study	US Hwy 90
Acroneuria arenosa/evoluta	Ochlockonee R	Little R	Gadsden	N	12/7/1992	FAMU Biotic Index Study	US Hwy 90
Acroneuria arenosa/evoluta	Ochlockonee R	Monroe Ck	Gadsden	N	2/19/1996	FAMU	CR 268
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/3/1968	FAMU	dirt road 6 mi S Hwy 268
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/12/1973	FAMU	2nd bridge Hwy 65B, 6 mi S SR 268
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/3/1986	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	7/9/1986	FAMU ORB Study	CR 274
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	10/29/1986	FAMU ORB Study	CR 274
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1986	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	1/14/1987	FAMU ORB Study	CR 267
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	1/14/1987	FAMU ORB Study	CR 267
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/24/1987	FAMU ORB Study	CR 65B, 9.5 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/26/1987	FAMU ORB Study	CR 274, 5.3 mi SW Quincy

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/23/1987	FAMU ORB Study	CR 65B
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/25/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/8/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/13/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274
Acroneuria arenosa/evoluta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/15/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Gadsden	N	9/4/1986	FAMU ORB Study	2.5 mi E Bristol
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1987	FAMU ORB Study	CR 65D, 2 mi SE Greensboro
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Gadsden	N	5/6/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Gadsden	N	6/29/1988	FAMU ORB Study	CR 270A, 4.5 mi SW Gretna
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 271
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	3/7/1986	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	3/7/1986	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	6/18/1986	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	6/18/1986	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	10/8/1986	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	1/27/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	3/4/1987	FAMU ORB Study	6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	4/2/1987	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	4/8/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Telogia Ck	Liberty	N	10/8/1988	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/3/1986	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1986	FAMU ORB Study	SR65 & 65A
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/1/1986	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/1/1986	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/1/1986	FAMU ORB Study	CR 161, 6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/1/1986	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/23/1986	FAMU ORB Study	SR 65

FLORIDA PLECOPTERA

Family: Perlidae Page 6-9

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/12/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	CR 161
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	SR 65
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/14/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/14/1987	FAMU ORB Study	CR 161
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/13/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	8/14/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/22/1988	FAMU ORB Study	CR 161, 6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/27/1988	FAMU ORB Study	CR 161, 6 mi NE Quincy
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	8/18/1988	FAMU ORB Study	CR 161
Acroneuria arenosa/evoluta	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/27/1990	FAMU ORB Study	SR 65
Acroneuria arenosa/evoluta	Pea R	Limestone Ck	Walton	N	1/28/1997	FDEP-Tallahassee	Beck Ridge Rd
Acroneuria arenosa/evoluta	Pensacola Bay	Dean Ck	Santa Rosa	N	1/25/1995	FDEP-Pensacola	above SR 87
Acroneuria arenosa/evoluta	Perdido R	Beaver Pond Ck	Escambia	N	6/16/1995	FDEP-Pensacola	I-10
Acroneuria arenosa/evoluta	Perdido R	Perdido R	Escambia	N	5/3/1977	FDEP-Pensacola	Hwy 184
Acroneuria arenosa/evoluta	St. Andrews Bay	Bayou George Ck	Bay	N	12/18/1990	FDEP-Tallahassee	
Acroneuria arenosa/evoluta	St. Andrews Bay	Econfina Ck	Bay	N	10/23/1990	FDEP-Tallahassee	
Acroneuria arenosa/evoluta	St. Andrews Bay	Econfina Ck	Bay	N	2/24/1993	FDEP-Pensacola	Hwy. 388
Acroneuria arenosa/evoluta	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd
Acroneuria arenosa/evoluta	St. Andrews Bay	S Fork Bear Ck	Bay	N	2/8/1995	FDEP-Pensacola	Ed Lee Rd
Acroneuria arenosa/evoluta	St. Johns R (lower)	Black Ck	Clay	N	4/6/1977	FAMU	Hwy 16, 4.5 mi E Penny Farm Tower
Acroneuria arenosa/evoluta	Steinhatchee R	Econfina R	Taylor	N	10/22/1991	FAMU Biotic Index Study	US Hwy 98
Acroneuria arenosa/evoluta	Steinhatchee R	Econfina R	Taylor	N	4/15/1992	FAMU Biotic Index Study	US Hwy 98
Acroneuria arenosa/evoluta	Steinhatchee R	Econfina R	Taylor	N	4/14/1993	FAMU Biotic Index Study	US Hwy 98
Acroneuria arenosa/evoluta	Steinhatchee R	Econfina R	Taylor	N	2/28/1996	FDEP-Tallahassee	
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Hamilton/Suwannee	N	9/19/1991	FAMU Biotic Index Study	0.5 km E US Hwy 129
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Hamilton/Suwannee	N	10/29/1991	FAMU Biotic Index Study	0.5 km E US Hwy 129
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Hamilton/Suwannee	N	10/28/1992	FAMU Biotic Index Study	0.5 km E US Hwy 129
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Hamilton/Suwannee	N	4/28/1993	FAMU Biotic Index Study	0.5 km E US Hwy 129
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Madison/Suwannee	N	9/19/1991	FAMU Biotic Index Study	Suwannee R. St. Park, 1 km N Hwy 90
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Madison/Suwannee	N	4/22/1992	FAMU Biotic Index Study	Suwannee R. St. Park, 1 km N Hwy 90

FLORIDA PLECOPTERA

Family: Perlidae Page 6-10

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria arenosa/evoluta	Suwannee R	Suwannee R	Madison/Suwannee	N	2/25/1993	FAMU Biotic Index Study	Suwannee R. St. Park, 1 km N Hwy 90
Acroneuria arenosa/evoluta	Suwannee R	Withlacoochee R	Hamilton/Madison	N	8/28/1991	FAMU Biotic Index Study	3 km N SR 6
Acroneuria arenosa/evoluta	Suwannee R	Withlacoochee R	Hamilton/Madison	N	10/29/1991	FAMU Biotic Index Study	3 km N SR 6
Acroneuria arenosa/evoluta	Suwannee R	Withlacoochee R	Hamilton/Madison	N	4/22/1992	FAMU Biotic Index Study	3 km N SR 6
Acroneuria arenosa/evoluta	Suwannee R	Withlacoochee R	Hamilton/Madison	N	12/16/1992	FAMU Biotic Index Study	3 km N SR 6
Acroneuria arenosa/evoluta	Suwannee R	Withlacoochee R	Hamilton/Madison	N	2/25/1993	FAMU Biotic Index Study	3 km N SR 6
Acroneuria arenosa/evoluta	Yellow R	Shoal R	Walton	N	4/22/1977	FAMU	Hwy 285, 3 mi N Head
Acroneuria arenosa/evoluta	Yellow R	Yellow R	Okaloosa	N	2/20/1979	FDEP-Pensacola	SR 189
Acroneuria evoluta			Santa Rosa	A	5/23/1962	(Stark & Gaufin, 1976)	
Acroneuria evoluta	Blackwater R	Blackwater R	Okaloosa	A	4/4/1971	(Stark & Gaufin, 1976)	
Acroneuria evoluta	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	(Stark & Gaufin, 1976)	
Acroneuria evoluta	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria evoluta	Blackwater R	Blackwater R	Okaloosa	A	5/3/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria evoluta	Ochlockonee R		Gadsden	A	5/13/1957	(Stark & Gaufin, 1976)	Quincy
Acroneuria lycorias		Tenmile Ck		N	2/4/1999	FDEP-Tallahassee	
Acroneuria lycorias	Apalachicola R		Liberty	N	12/10/1937	INHS	Torreya State Park
Acroneuria lycorias	Apalachicola R	Beaver Dam Ck	Liberty	N	4/7/1994	FAMU Ravine Study	nr. confl. w/ Apalach. R., 3 mi N Bristol
Acroneuria lycorias	Apalachicola R	Beaver Dam Ck	Liberty	N	12/7/1994	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Beaver Dam Ck	Liberty	N	3/22/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N	3/22/1995	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N	3/29/1998	FAMU	CR 270
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N	4/27/1999	FAMU Ravine Study	CR 270, 10 km W Greensboro
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N/A	4/12/1995	FAMU Ravine Study	Cr 270
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N/A	4/18/1996	FAMU Ravine Study	CR 270
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N/A	5/2/1996	FAMU Ravine Study	CR 270, 10 km W Greensboro
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N/A	2/19/1998	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria lycorias	Apalachicola R	Crooked Ck	Gadsden	N/A	4/27/1999	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Acroneuria lycorias	Apalachicola R	Flat Ck	Gadsden	N	3/6/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Flat Ck	Gadsden	N/A	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Kelley Branch	Liberty	N	3/11/1994	FAMU Ravine Study	upstream at culvert, ABRP

FLORIDA PLECOPTERA

Family: Perlidae Page 6-11

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria lycorias	Apalachicola R	Kelley Branch	Liberty	N	12/7/1994	FAMU Ravine Study	upper end, ABRP, 3 mi N of Bristol
Acroneuria lycorias	Apalachicola R	Kelley Branch	Liberty	N	3/22/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Kelley Branch	Liberty	N	8/30/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty		6/10/1938	(Berner, 1948)	
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	6/10/1938	INHS	
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	3/11/1994	FAMU Ravine Study	upper end, ABRP, 3 mi N Bristol
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	12/7/1994	FAMU Ravine Study	nr. confl. w/Apalach. R., 3 mi N Bristol
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	12/7/1994	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	8/30/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Little Sweetwater Ck	Liberty	N	10/26/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Acroneuria lycorias	Apalachicola R	Rock Ck	Liberty	A	4/9/1998	FAMU Ravine Study	upper end, Torreya State Park
Acroneuria lycorias	Apalachicola R	Rock Ck	Liberty	N	6/8/1999	FAMU Ravine Study	lower end, Torreya State Park
Acroneuria lycorias	Apalachicola R	Short Ck	Liberty	N/A	12/6/1995	FDEP-Pensacola	I-10
Acroneuria lycorias	Apalachicola R	Sweetwater Ck	Liberty	N	4/18/1995	FAMU Ravine Study	CR 270
Acroneuria lycorias	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Trib. Flat Ck	Gadsden	N	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	2/18/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria lycorias	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	3/9/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria lycorias	Apalachicola R	Unnamed trib, Flat Ck	Gadsden	N/A	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Unnamed trib, Flat Ck	Gadsden	N/A	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias	Apalachicola R	Unnamed trib, Sweetwater	Liberty	N/A	4/1/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Acroneuria lycorias	Apalachicola R	trib. Mosquito Ck	Gadsden	N	7/26/1967	FAMU	
Acroneuria lycorias	Blackwater R	Blackwater R	Okaloosa	A	5/1/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Acroneuria lycorias	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Acroneuria lycorias	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	BR-221, 0.8 mi E of SR 85
Acroneuria lycorias	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	W side of BR-231, SE of Duke Field
Acroneuria lycorias	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	4/8/1999	FAMU Eglin Study	Eglin AFB, BR 221
Acroneuria lycorias	Choctawhatchee Bay	Rocky Ck	Walton	N	3/10/1982	FDEP-Pensacola	Windham Tower Rd
Acroneuria lycorias	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria lycorias	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Acroneuria lycorias	Choctawhatchee Bay	SE Branch Sconiers Mill Ck	Walton	N	4/7/1988	FDEP-Pensacola	SR 278

FLORIDA PLECOPTERA

Family: Perlidae Page 6-12

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria lycorias	Choctawhatchee Bay	Trib. Turkey Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	BR-639, Eglin AFB
Acroneuria lycorias	Choctawhatchee Bay	Unnamed trib, Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	steephead off BR-639
Acroneuria lycorias	Choctawhatchee R	Big Sandy Ck	Walton	N	12/4/1980	FDEP-Pensacola	SR 183
Acroneuria lycorias	Choctawhatchee R	Bruce Ck	Walton	N	7/31/1979	FDEP-Pensacola	SR 280
Acroneuria lycorias	Choctawhatchee R	Seven Runs Ck	Walton	N	1/27/1981	FDEP-Pensacola	SR 81
Acroneuria lycorias	Escambia R	Mitchell Ck	Escambia	A	3/26/1995	FDEP-Pensacola	Hwy 29
Acroneuria lycorias	Escambia R	Mitchell Ck	Escambia	N/A	2/13/1998	FDEP-Pensacola	Hwy 29
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	8/18/1986	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	9/24/1986	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	10/29/1986	FAMU ORB Study	CR 274
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	1/14/1987	FAMU ORB Study	CR 274
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	1/14/1987	FAMU ORB Study	CR 274
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	12/3/1987	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	2/8/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	2/8/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	10/12/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	Camp Ck	Gadsden	N	12/15/1988	FAMU ORB Study	CR 84 30 52274, 8 mi SW Quincy
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	A	5/6/1993	FAMU Ravine Study	near middle
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	N	6/12/1991	FAMU Ravine Study	near upper end
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	N	2/11/1993	FAMU Ravine Study	near upper end
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	N	6/16/1993	FAMU Ravine Study	near upper end
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near upper end
Acroneuria lycorias	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near upper end
Acroneuria lycorias	Ochlockonee R	Harvey Ck	Leon	N/A	4/14/1999	FDEP-Pensacola	SR 20
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	3/16/1986	FAMU ORB Study	SR 65
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	4/18/1986	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	6/2/1986	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	1/27/1987	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	1/28/1987	FAMU ORB Study	CR 65, 6.6 mi N Hosford

FLORIDA PLECOPTERA

Family: Perlidae Page 6-13

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	3/4/1987	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 65
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	2/8/1988	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	4/13/1988	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Ocklawaha Ck	Gadsden	N	4/13/1988	FAMU ORB Study	SR 267
Acroneuria lycorias	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	1/14/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Acroneuria lycorias	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Acroneuria lycorias	Ochlockonee R	Trib. Turkey Ck	Gadsden	A	4/24/1994	FAMU	4 mi S Quincy off 267A
Acroneuria lycorias	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd.
Acroneuria lycorias	Yellow R	Big Horse Ck	Okaloosa	N	4/22/1991	FDEP-Pensacola	SR 2
Acroneuria lycorias	Yellow R	Shoal R	Okaloosa	N	12/11/1937	INHS	
Acroneuria lycorias	Yellow R	Shoal R	Walton	N	4/22/1977	FAMU	Hwy 285, 3 mi N Head
Acroneuria lycorias ?	Apalachicola R	Unnamed trib, Flat Ck	Gadsden	N/A	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias ?	Apalachicola R	Unnamed trib, Flat Ck	Gadsden	N/A	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Acroneuria lycorias ?	Escambia R	Mitchell Ck	Escambia	N	2/20/1992	FDEP-Pensacola	above Hwy 29
Acroneuria lycorias ?	Ochlockonee R	Bear Ck	Gadsden	N	1/5/1968	FAMU	8 mi S Hwy 268, 1 mi N of Hwy 65C
Acroneuria lycorias ?	Ochlockonee R	FAMU Farm St	Gadsden	N	9/14/1995	FAMU Ravine Study	near lower end
Acroneuria nr. arenosa	Apalachicola R	Crooked Ck	Gadsden	N/A	4/18/1995	FAMU Ravine Study	CR 270
Acroneuria pr. arenosa	Apalachicola R	Flat Ck	Gadsden	N	3/29/1998	FAMU	CR 270A
Agnetina	Apalachicola R	Flat Ck	Gadsden	N	10/25/1978	FDEP-Pensacola	CR 270A
Agnetina	Ochlockonee R	Bear Ck	Gadsden	N	6/5/1969	FAMU	8 mi S Hwy 268, 1 mi N Hwy 65C
Agnetina	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	10/29/1986	FAMU ORB Study	CR 65B, 9.5 mi S Quincy, Sta. E
Agnetina	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	10/12/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy, Sta. 3
Agnetina	Pea R	Limestone Ck	Walton	N	12/12/1978	FDEP-Pensacola	
Agnetina annulipes	Apalachicola R		Gadsden		3/17/1939	(Berner, 1948)	
Agnetina annulipes	Apalachicola R		Liberty			(Stark & Gaufin, 1979)	Torreya State Park
Agnetina annulipes	Apalachicola R	Flat Ck	Gadsden	N	3/22/1995	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Agnetina annulipes	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Agnetina annulipes	Apalachicola R	Flat Ck	Gadsden	N	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Agnetina annulipes	Apalachicola R	Flat Ck	Gadsden	N/A	4/2/1997	FAMU Ravine Study	270A

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Agnetina annulipes	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Agnetina annulipes	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	CR 159, 3 mi NW Havana
Agnetina annulipes	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Agnetina annulipes	Ochlockonee R	Camp Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274 (bridge)
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	A	5/31/1990	FAMU ORB Study	SR 12 at bridge, 5 mi SW Havana, Sta. 4
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	N	2/12/1987	FAMU ORB Study	SR 12
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	N	3/24/1987	FAMU ORB Study	SR 12, 5 mi SW Havana, Sta. D
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU ORB Study	SR 12, 5 mi SW Havana, Sta. 4
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	N	4/22/1988	FAMU ORB Study	SR 12, 5 mi SW Havana
Agnetina annulipes	Ochlockonee R	Little R	Gadsden	N	12/28/1989	FAMU ORB Study	SR 12, 5 mi SW Havana, Sta. 4
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/28/1968	FAMU	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	12/28/1968	FAMU	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/10/1970	(Stark, 1986)	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/10/1970	FAMU	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/18/1973	(Stark, 1986)	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/18/1973	BYUC	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/18/1973	FAMU	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	1/23/1969	FAMU	dirt rd 6 mi State Hwy 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/11/1969	FAMU	2nd bridge dirt rd, 6 mi so Hwy 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	11/5/1971	FAMU	
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	1/19/1972	FAMU	bridge 6 mi S Hwy 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/11/1972	BYUC	Hwy 65B
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	6/11/1972	BYUC	Hwy 65B
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/3/1974	FAMU	at 2nd br. Hwy 65B, 6 mi S SR 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/10/1974	FAMU	at 2nd br. Hwy 65B, 6 mi S SR 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/16/1974	FAMU	at 2nd br. Hwy 65B, 6 mi S SR 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/5/1976	FAMU	Hwy 65B, 4 mi SW Hwy 268
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	9/24/1986	FAMU ORB Study	SR 267, 6.7 mi S Quincy, Sta. D
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1986	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/25/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy, Sta. 3

FLORIDA PLECOPTERA

Family: Perlidae Page 6-15

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267 (bridge)
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/8/1988	FAMU ORB Study	SR 267, 6.7 mi. S Quincy, Sta. 3
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/13/1988	FAMU ORB Study	6.7 mi S Quincy
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/15/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy, Sta. 3
Agnetina annulipes	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/15/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy, Sta. 3
Agnetina annulipes	Ochlockonee R	Telogia Ck	Gadsden	N	4/2/1987	FAMU ORB Study	2.5 mi E Bristol, Sta. D
Agnetina annulipes	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/3/1986	FAMU ORB Study	6.5 mi N Quincy, Sta. B
Agnetina annulipes	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	SR 65
Agnetina annulipes	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	CR 161, 6 mi NE Quincy, Sta. 3
Agnetina annulipes	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/27/1990	FAMU ORB Study	SR 65
Agnetina annulipes	Pea R	Limestone Ck	Walton	N	1/3/1995	FDEP-Pensacola	Beck Ridge Rd
Agnetina annulipes	Yellow R	Shoal R	Walton	N	2/22/1978	FDEP-Pensacola	CR 393
Agnetina annulipes	Yellow R	Shoal R	Walton	N	3/10/1981	FDEP-Pensacola	CR 393
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/21/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/29/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/5/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/7/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/8/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/16/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/21/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/11/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/30/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/1/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	5/5/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Blackwater R	Blackwater R	Okaloosa	A	4/19/1991	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Attaneuria ruralis	Chipola R	Blue Springs Ck	Jackson		6/5/1940	(Berner, 1948)	Marianna
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	A	5/18/1994	FAMU	Hwy 274, 15 mi S of Marianna
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	A	3/28/1998	FAMU	boat ramp 5 km SW of Altha
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	9/2/1976	FDEP-Pensacola	Altha boat ramp
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	9/2/1976	FDEP-Pensacola	Altha boat ramp

FLORIDA PLECOPTERA

Family: Perlidae Page 6-16

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	4/25/1977	FDEP-Pensacola	Altha boat ramp
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	8/8/1978	FDEP-Pensacola	Altha boat ramp
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	5/10/1983	FDEP-Pensacola	Altha boat ramp
Attaneuria ruralis	Chipola R	Chipola R	Calhoun	N	5/4/1995	FAMU	boat ramp 5 km W of Altha
Attaneuria ruralis	Chipola R	Rocky Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Attaneuria ruralis	Choctawhatchee R	Choctawhatchee R	Holmes	N	3/22/1994	FDEP-Tallahassee	Hwy 2
Attaneuria ruralis	Escambia R	Escambia R	Escambia	N	8/16/1979	FDEP-Pensacola	Hwy 4
Attaneuria ruralis	Santa Fe R	Santa Fe R	Suwannee	A	6/13/1996	FAMU	Hwy 129
Attaneuria ruralis	Suwannee R	Suwannee R	Gilchrist/Dixie	N	12/8/1994	SRWMD	near Rock Bluff, CR 340
Attaneuria ruralis	Suwannee R	Suwannee R	Suwannee	A	4/13/1977	FSCA	Suwannee R State Park
Attaneuria ruralis	Suwannee R	Suwannee R	Suwannee	N/E	5/18/1993	SRWMD	Dowling Park (SUW120)
Attaneuria ruralis	Yellow R	Shoal R	Okaloosa	A	5/2/1970	FAMU	Dorcas
Attaneuria ruralis	Yellow R	Yellow R	Okaloosa	Ex	4/4/1983	FDEP-Pensacola	Hwy 90
Eccoptura xanthenes				N	2/25/1962	FSCA	near Chattahoochee
Eccoptura xanthenes	Apalachicola R		Gadsden	A	5/23/1999	H. Kons, Jr.	Dolan Rd, 0.1 mi W Hwy 269
Eccoptura xanthenes	Apalachicola R		Liberty			(Stark & Gaufin, 1979)	Torreya State Park
Eccoptura xanthenes	Apalachicola R		Liberty		12/10/1937	(Berner, 1948)	Torreya State Park
Eccoptura xanthenes	Apalachicola R		Liberty	A	5/18/1966	FSCA	Torreya State Park
Eccoptura xanthenes	Apalachicola R		Liberty	N	4/12/1930	(Frison, 1942)	Camp Torreya
Eccoptura xanthenes	Apalachicola R		Liberty	N	4/12/1930	BYUC	Camp Torreya
Eccoptura xanthenes	Apalachicola R		Liberty	N	12/10/1937	(Frison, 1942)	Torreya State Park
Eccoptura xanthenes	Apalachicola R	Kelley Branch	Liberty	N	3/11/1994	FAMU Ravine Study	upstream (culvert), ABRP, 3 mi N Bristol
Eccoptura xanthenes	Apalachicola R	Little Sweetwater Ck	Liberty	N	10/26/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Eccoptura xanthenes	Apalachicola R	Little Sweetwater Ck	Liberty	N	4/1/1999	FAMU Ravine Study	(at head), ABRP, 5 km N Bristol
Eccoptura xanthenes	Apalachicola R	Rock Ck	Liberty			(Stark & Gaufin, 1979)	
Eccoptura xanthenes	Apalachicola R	Rock Ck	Liberty	N	2/6/1979	FDEP-Pensacola	Torreya State Park
Eccoptura xanthenes	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	2/18/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Eccoptura xanthenes	Apalachicola R	Unnamed ravine stream	Liberty	N	3/11/1994	FAMU Ravine Study	just N of bluff overlook, 3 mi N Bristol
Eccoptura xanthenes	Apalachicola R	Unnamed ravine stream	Liberty	N	12/7/1994	FAMU Ravine Study	just N of bluff overlook, 3 mi N Bristol
Eccoptura xanthenes	Choctawhatchee Bay	Alaqua Branch	Walton	N	4/7/1982	FDEP-Pensacola	East Section 32
Eccoptura xanthenes	Choctawhatchee Bay	Alaqua Branch	Walton	N	4/5/1983	FDEP-Pensacola	East Section 32

FLORIDA PLECOPTERA

Family: Perlidae Page 6-17

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Eccoptura xanthenes	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	A	5/17/1994	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	A	5/16/1999	FAMU Emergence Study	near ravine head
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	6/12/1991	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	10/15/1991	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	10/15/1991	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	12/5/1991	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	6/10/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	6/10/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	8/12/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	8/12/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	10/14/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	12/7/1992	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	2/11/1993	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	9/28/1993	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	8/18/1994	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	3/30/1995	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	9/14/1995	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	6/18/1997	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	2/24/1998	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	12/10/1998	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	2/18/1999	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	3/9/1999	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N	3/31/1999	FAMU Ravine Study	near upper end
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N/A	5/23/1999	FAMU Emergence Study	70 m dwnstrm from ravine head, trap #2
Eccoptura xanthenes	Ochlockonee R	FAMU Farm St	Gadsden	N/A	6/7/1999	FAMU Emergence Study	70 m dwnstrm from ravine head, trap #2
Eccoptura xanthenes	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Eccoptura xanthenes	St. Andrews Bay	Econfina Ck	Bay	N	2/20/1991	FDEP-Tallahassee	Sta. 1, Deer Point Lake Study
Neoperla			Bay	N	6/8/1938	FSCA	26 mi N Panama City

FLORIDA PLECOPTERA

Family: Perlidae Page 6-18

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla			Hamilton	N	2/4/1938	FSCA	Jasper
Neoperla			Okaloosa	N	6/7/1938	FSCA	Niceville
Neoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	9/23/1987	FAMU ORB Study	CR 159
Neoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	1/22/1988	FAMU ORB Study	CR 159, 4.0 mi NW Havana
Neoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	9/28/1993	FAMU Biotic Index	SR 159, 6.5 km NW Havana
Neoperla	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU ORB Study	CR 268, 6.5 mi SE Quincy
Neoperla	Ochlockonee R	Little R	Gadsden	N	5/22/1988	FAMU ORB Study	CR 268, 6.5 mi SE Quincy
Neoperla	Ochlockonee R	Little R	Gadsden	N	2/12/1992	FAMU Biotic Index	US 90
Neoperla	Ochlockonee R	Little R	Gadsden	N	12/7/1992	FAMU Biotic Index	US 90
Neoperla	Ochlockonee R	Telogia Ck	Gadsden	N	6/18/1986	FAMU ORB Study	2.5 mi E Bristol
Neoperla	Ochlockonee R	Telogia Ck	Gadsden	N	11/24/1987	FAMU ORB Study	2 mi SE Greensboro
Neoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/23/1986	FAMU ORB Study	SR 65
Neoperla	Oklawaha R	Deep Ck	Putnam	N	2/8/1998	FDEP-Orlando	SR 315
Neoperla	Oklawaha R	Deep Ck	Putnam	N	8/11/1998	FDEP-Orlando	SR 315
Neoperla	St. Andrews Bay	Sandy Ck	Bay	N	2/27/1996	FDEP-Tallahassee	SR 22
Neoperla carlsoni			Bay	N	6/8/1938	FSCA	32 mi N Panama City
Neoperla carlsoni	Apalachicola R	Sweetwater Ck	Liberty	A	6/24/1996	FAMU Ravine Study	CR 270, 15 km N Bristol
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	(Stark & Baumann, 1978)	
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	6/28/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	7/28/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	8/22/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	8/23/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	A	8/2/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	N	6/14/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	N	7/28/1973	FAMU	Kennedy Br. 6 mi W Blackman
Neoperla carlsoni	Blackwater R	Blackwater R	Okaloosa	N	5/7/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla carlsoni	Blackwater R	Blackwater R	Santa Rosa			(Stark & Gaufin, 1979)	
Neoperla carlsoni	Blackwater R	Blackwater R	Santa Rosa	A	8/7/1971	(Stark & Baumann, 1978)	Riley Landing
Neoperla carlsoni	Chipola R	Chipola R	Calhoun	A	10/24/1974	BYUC	Hwy 20
Neoperla carlsoni	Choctawhatchee Bay	Alaqua Ck	Walton			(Stark & Gaufin, 1979)	

FLORIDA PLECOPTERA

Family: Perlidae Page 6-19

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla carlsoni	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/21/1971	(Stark & Baumann, 1978)	
Neoperla carlsoni	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	5 km N Portland @ SR 282
Neoperla carlsoni	Choctawhatchee R	Black Ck	Walton	N	9/19/1970	FAMU	Hwy 20
Neoperla carlsoni	Choctawhatchee R	Sandy Ck	Holmes	N	12/13/1970	FAMU	US 90, Ponce de Leon
Neoperla carlsoni	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Neoperla carlsoni	Ochlockonee R	Bear Ck	Gadsden	N	5/8/1967	FAMU	bridge on rd N Hwy. 65C, 8 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Camp Ck	Gadsden	N	4/19/1987	FAMU ORB Study	8 mi SW Quincy
Neoperla carlsoni	Ochlockonee R	Camp Ck	Gadsden	N	7/10/1987	FAMU ORB Study	CR 274
Neoperla carlsoni	Ochlockonee R	Camp Ck	Gadsden	N	6/14/1988	FAMU ORB Study	8 mi SW Quincy
Neoperla carlsoni	Ochlockonee R	Little R	Gadsden	N	5/1/1986	FAMU ORB Study	
Neoperla carlsoni	Ochlockonee R	Little R	Gadsden	N	3/22/1988	FAMU ORB Study	SR 12, 5 mi SW Havana
Neoperla carlsoni	Ochlockonee R	Ocklawaha Ck	Gadsden	A	8/24/1986	FAMU ORB Study	10 mi S Quincy, CR 267 (Stn-B)
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/16/1967	(Stark & Baumann, 1978)	7 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	8/10/1967	(Stark & Baumann, 1978)	7 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	5/4/1969	BYUC	bridge on dirt rd, 6 mi S Hwy 268
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/10/1970	(Stark & Baumann, 1978)	7 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/5/1968	FAMU	
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/11/1985	FAMU	Hwy 65B, 6 mi S Hwy 268
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	6.7 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	5 mi W Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	7/9/1986	FAMU ORB Study	SR 267
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/19/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/19/1987	FAMU ORB Study	9.5 mi S Quincy, Sta. E
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	6/14/1988	FAMU ORB Study	SR 267
Neoperla carlsoni	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Neoperla carlsoni	Ochlockonee R	Telogia Ck	Gadsden	N	5/6/1987	FAMU ORB Study	2 mi SE Greensboro
Neoperla carlsoni	Ochlockonee R	Telogia Ck	Gadsden	N	1/12/1988	FAMU ORB Study	CR 65D, 2 mi SE Greensboro
Neoperla carlsoni	Ochlockonee R	Telogia Ck	Gadsden	N	6/29/1988	FAMU ORB Study	CR 65D, 2 mi SE Greensboro
Neoperla carlsoni	Ochlockonee R	Willacoochee Ck	Gadsden	A	6/11/1987	FAMU ORB Study	CR 161

FLORIDA PLECOPTERA

Family: Perlidae Page 6-20

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla carlsoni	Ochlockonee R	Willacoochee Ck	Gadsden	N	6/9/1978	FAMU	Hwy 65
Neoperla carlsoni	Perdido R	Perdido R	Escambia	A	8/11/1975	FSCA	Barrineau Park
Neoperla carlsoni	Yellow R	Shoal R	Okaloosa	A	9/4/1971	FAMU	Cox Br., Hwy 85
Neoperla carlsoni	Yellow R	Shoal R	Okaloosa	N	4/25/1967	FAMU	Dorcas, CR 393
Neoperla clymene			Alachua		1/8/1938	(Berner, 1948)	Gainesville
Neoperla clymene			Alachua		1/16/1938	(Berner, 1948)	Gainesville
Neoperla clymene			Alachua		2/3/1938	(Berner, 1948)	Gainesville
Neoperla clymene			Alachua	N	1/8/1938	INHS	Gainesville
Neoperla clymene			Alachua	N	1/16/1938	FSCA	
Neoperla clymene			Alachua	N	2/3/1938	FSCA	Gainesville
Neoperla clymene			Bay		6/8/1938	(Berner, 1948)	26 mi N Panama City @ Hwy 77
Neoperla clymene			Gadsden	A		(Stark & Baumann, 1978)	
Neoperla clymene			Gadsden	A	5/26/1958	FSCA	Quincy
Neoperla clymene			Hamilton			(Stark & Gaufin, 1979)	
Neoperla clymene			Hamilton		2/4/1938	(Berner, 1948)	Jasper
Neoperla clymene			Highlands			(Stark & Gaufin, 1979)	
Neoperla clymene			Hillsborough			(Stark & Gaufin, 1979)	
Neoperla clymene			Liberty	A		(Stark & Baumann, 1978)	
Neoperla clymene			Okaloosa		6/7/1938	(Berner, 1948)	Niceville
Neoperla clymene			Okaloosa		5/31/1940	(Berner, 1948)	9.1 mi W Walton Co. line @ Hwy 20
Neoperla clymene			Okaloosa	A		(Stark & Baumann, 1978)	
Neoperla clymene		Sandy Ck	Alachua			(Stark & Gaufin, 1979)	
Neoperla clymene	Alafia R	Bell Ck	Hillsborough		3/26/1938	(Berner, 1948)	
Neoperla clymene	Alafia R	Bell Ck	Hillsborough	N	3/26/1938	INHS	Tampa
Neoperla clymene	Apalachicola R		Gadsden	A	5/20/1999	H. Kons, Jr.	Aspalaga Bluff
Neoperla clymene	Apalachicola R		Gadsden	A	5/22/1999	H. Kons, Jr.	Aspalaga Bluff
Neoperla clymene	Apalachicola R		Liberty			(Stark & Gaufin, 1979)	Torreya State Park
Neoperla clymene	Apalachicola R	Big Gully Ck	Liberty	N	7/30/1996	FDEP-Tallahassee	
Neoperla clymene	Apalachicola R	Flat Ck	Gadsden	A	6/7/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Neoperla clymene	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Neoperla clymene	Blackwater R	Blackwater R	Okaloosa	A	6/3/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlidae Page 6-21

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla clymene	Blackwater R	Blackwater R	Okaloosa	A	7/26/1990	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla clymene	Blackwater R	Blackwater R	Okaloosa	A	6/20/1991	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Neoperla clymene	Blackwater R	Blackwater R	Santa Rosa			(Stark & Gaufin, 1979)	
Neoperla clymene	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	5 km N Portland @ SR 282
Neoperla clymene	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	BR-221, 0.8 mi E of SR 85
Neoperla clymene	Choctawhatchee Bay	Little Alaqua Ck	Walton	A	6/25/1996	FAMU	SR 282, 5 km N Portland
Neoperla clymene	Choctawhatchee R	Pine Log Ck	Bay			(Stark & Gaufin, 1979)	
Neoperla clymene	Escambia R	Escambia R	Santa Rosa			(Stark & Gaufin, 1979)	
Neoperla clymene	Manatee R	Manatee R	Manatee	N	2/21/1996	FDEP-Orlando	
Neoperla clymene	Manatee R	Manatee R	Manatee	N	4/9/1996	FDEP-Orlando	SR-64
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	3 mi NW Havana, CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/14/1986	FAMU ORB Study	4 mi NW Havana
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	6/4/1986	FAMU ORB Study	CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	10/23/1986	FAMU ORB Study	CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/24/1987	FAMU ORB Study	CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/12/1987	FAMU ORB Study	CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	6/23/1988	FAMU ORB Study	CR 159
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	8/18/1988	FAMU ORB Study	CR 159, 4.0 mi NW Havana
Neoperla clymene	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/19/1994	FAMU Biotic Index	SR 159, 6.5 km NW Havana
Neoperla clymene	Ochlockonee R	Little R	Gadsden	A	5/31/1990	FAMU ORB Study	5 mi SW Havana, Sta 4
Neoperla clymene	Ochlockonee R	Little R	Gadsden	A	5/31/1990	FAMU ORB Study	SR 12, 5 mi SW Havana, Sta. 4
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	2/12/1987	FAMU ORB Study	5 mi SW Havana
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	1/22/1988	FAMU ORB Study	CR 268
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU	SR 12, 5 mi SW Havana
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU ORB Study	SR 12
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	4/27/1988	FAMU ORB Study	5 mi SW Havana
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	6/23/1988	FAMU ORB Study	SR 12
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	9/21/1988	FAMU ORB Study	6.5 mi SE Quincy
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	12/28/1989	FAMU ORB Study	SR 12, 5 km SW Havana
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	4/8/1992	FAMU Biotic Index	US 90
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	12/7/1992	FAMU Biotic Index Study	US Hwy 90

FLORIDA PLECOPTERA

Family: Perlidae Page 6-22

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	2/11/1993	FAMU Biotic Index	US 90
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	4/7/1993	FAMU Biotic Index	US 90
Neoperla clymene	Ochlockonee R	Little R	Gadsden	N	11/11/1993	FAMU Biotic Index Study	Hwy 90
Neoperla clymene	Ochlockonee R	Ochlockonee R	Leon	A	5/13/1981	FAMU	Wildlife Mgt. Area, dnstrm fr Tower Rd
Neoperla clymene	Ochlockonee R	Ochlockonee R	Leon	N	5/23/1981	FAMU	Wildlife Mgt. Area, dnstrm fr Tower Rd
Neoperla clymene	Ochlockonee R	Ochlockonee R	Leon	N/A	5/23/1981	FAMU	Wildlife Mgt. Area, dnstrm fr Tower Rd
Neoperla clymene	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Neoperla clymene	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/10/1974	FAMU	2nd bridge Hwy 65B, 6 mi S SR 268
Neoperla clymene	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	1.5 mi S Hosford
Neoperla clymene	Ochlockonee R	Telogia Ck	Liberty	N	10/8/1986	FAMU ORB Study	CR 65, 1.5 mi S Hosford
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	A	6/11/1987	FAMU ORB Study	CR 161 (bridge)
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/1/1986	FAMU ORB Study	CR 161
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	CR 161
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/29/1988	FAMU ORB Study	CR 161, 6 mi NE Quincy
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/25/1988	FAMU ORB Study	CR 161
Neoperla clymene	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/26/1988	FAMU ORB Study	CR 161, 6 mi NE Quincy
Neoperla clymene	Oklawaha R	Hatchet Ck	Alachua	A	4/24/1948	FSCA	
Neoperla clymene	Oklawaha R	Hatchet Ck	Alachua	N	3/18/1952	BYUC	
Neoperla clymene	Oklawaha R	Hogtown Ck	Alachua		2/19/1934	(Berner, 1948)	
Neoperla clymene	Oklawaha R	Hogtown Ck	Alachua	N	2/19/1934	FSCA	
Neoperla clymene	Oklawaha R	Orange Ck	Marion	N	1/21/1997	FDEP-Tallahassee	SR 21
Neoperla clymene	Oklawaha R	Redwater Lake	Putnam			(Stark & Gaufin, 1979)	
Neoperla clymene	Perdido R	Perdido R	Escambia			(Stark & Gaufin, 1979)	
Neoperla clymene	Santa Fe R		Alachua	A	4/26/1977	FSCA	San Felasco Hammock
Neoperla clymene	Santa Fe R		Alachua	N	4/30/1971	FSCA	San Felasco Hammock, Millhopper Rd
Neoperla clymene	Santa Fe R		Alachua	N	6/20/1972	FSCA	San Felasco Hammock, Millhopper Rd
Neoperla clymene	Santa Fe R		Alachua	N/A	5/7/1973	FSCA	San Felasco Hammock, in small sandy strear
Neoperla clymene	Santa Fe R	Blues Ck	Alachua	A	3/20/1996	FAMU	NW Gainesville
Neoperla clymene	Santa Fe R	Blues Ck	Alachua	A	4/5/1997	FAMU	Gainesville, NW 71st Street
Neoperla clymene	Santa Fe R	Blues Ck	Alachua	A	5/13/1997	FAMU	NW 71st St nr Fisheries Unit
Neoperla clymene	Santa Fe R	Richard Ck	Union	N	9/25/1995	FDEP-Tallahassee	

FLORIDA PLECOPTERA

Family: Perlidae Page 6-23

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla clymene	Santa Fe R	Worthington Springs	Alachua		2/5/1939	(Berner, 1948)	
Neoperla clymene	Santa Fe R	Worthington Springs	Alachua	N	2/5/1939	INHS	Alachua
Neoperla clymene	St. Andrews Bay	Econfina Ck	Bay	N	4/9/1991	FDEP-Tallahassee	
Neoperla clymene	St. Johns R (lower)	Black Ck	Clay	A	7/2/1996	FAMU	Camp Blanding Train. Sta. Duval Rd. Ave D
Neoperla clymene	St. Johns R (lower)	Black Ck	Clay	N	4/6/1977	FAMU	Canoe Trail, SR 4, .5 mi Penny Farm Tower
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	5/1/1998	FAMU Ravine Study	Gold Head Branch St. Pk., old mill trail
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	5/1/1998	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	6/27/1998	FAMU Ravine Study	Gold Head Branch St. Pk., old mill trail
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	6/27/1998	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	10/3/1998	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	3/6/1999	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	A	6/5/1999	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	N	3/11/1997	FAMU Ravine Study	Gold Head Branch State Park
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	N	12/6/1997	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	N	2/28/1998	FAMU Ravine Study	Gold Head Branch St. Pk., nr. ravine head
Neoperla clymene	St. Johns R (lower)	Gold Head Branch	Clay	N	6/27/1998	FAMU Ravine Study	Gold Head Branch St. Pk., old mill trail
Neoperla clymene	St. Johns R (lower)	Thomas Ck	Clay	N	2/21/1997	FDEP-Tallahassee	
Neoperla clymene	St. Marks R	Burnt Mill Ck	Jefferson	N	12/2/1992	FAMU Biotic Index	US 27
Neoperla clymene	St. Marks R	Caney Ck	Jefferson	N	3/13/1996	FDEP-Tallahassee	
Neoperla clymene	St. Marks R	Caney Ck	Jefferson	N	4/17/1998	FAMU	US 90
Neoperla clymene	Suwannee R	Suwannee R	Hamilton	A	7/14/1977	FSCA	Suwannee State Park
Neoperla clymene	Suwannee R	Suwannee R	Madison/Suwannee	N	4/22/1992	FAMU Biotic Index	Suwannee State Park
Neoperla clymene	Suwannee R	Withlacoochee R	Hamilton/Madison	N	8/28/1991	FAMU Biotic Index	
Neoperla clymene	Suwannee R	Withlacoochee R	Hamilton/Madison	N	4/22/1992	FAMU Biotic Index	3 km N SR 6
Neoperla clymene	Suwannee R	Withlacoochee R	Hamilton/Madison	N	6/3/1992	SRWMD	above Suwannee R, 92051489
Neoperla clymene	Suwannee R	Withlacoochee R	Hamilton/Madison	N	12/16/1992	FAMU Biotic Index	3 km N SR 6
Neoperla clymene	Tampa Bay	Six Mile Ck	Hillsborough		3/26/1938	(Berner, 1948)	
Neoperla clymene	Tampa Bay	Six Mile Ck	Hillsborough	N	3/26/1938	INHS	Tampa
Neoperla clymene	Waccasassa R	Waccasassa R	Levy	N	2/26/1997	FDEP-Tallahassee	
Neoperla clymene	Yellow R	Pond Ck	Okaloosa	N	5/18/1967	FAMU	1.5 mi E of Dorcas
Neoperla clymene	Yellow R	Shoal R	Okaloosa			(Stark & Gaufin, 1979)	

FLORIDA PLECOPTERA

Family: Perlidae Page 6-24

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Neoperla clymene	Yellow R	Shoal R	Walton			(Stark & Gaufin, 1979)	
Neoperla clymene	Yellow R	Yellow R	Okaloosa	N	4/29/1967	FAMU	
Paragnetina	Apalachicola R	Apalachicola R	Gulf	N	12/8/1982	FDEP-Pensacola	Buoy 40
Paragnetina	Chipola R	Chipola R	Calhoun	N	11/13/1978	FDEP-Pensacola	SR 274
Paragnetina	Escambia R	Escambia R	Escambia	N	11/21/1978	FDEP-Pensacola	Hwy 4
Paragnetina	Escambia R	Escambia R	Escambia	N	10/20/1979	FDEP-Pensacola	Hwy 4
Paragnetina	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4
Paragnetina	Ochlockonee R	Bear Ck	Gadsden	N	6/9/1978	FAMU	
Paragnetina	Ochlockonee R	Little R	Gadsden	N	9/16/1987	FAMU ORB Study	SR 12 @ bridge 5 mi SW Havana LRD
Paragnetina	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	10/13/1987	FAMU ORB Study	SR 267 @ bridge, RC-3
Paragnetina	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/22/1987	FAMU ORB Study	CR 161 @ bridge, LR3
Paragnetina	Yellow R	Shoal R	Okaloosa	N	2/22/1978	FDEP-Pensacola	CR 393
Paragnetina fumosa			Okaloosa	N	7/7/1938	FSCA	Niceville
Paragnetina fumosa			Santa Rosa			(Stark & Gaufin, 1979)	Jay
Paragnetina fumosa			Santa Rosa	A	5/16/1962	FSCA	Jay
Paragnetina fumosa			Santa Rosa	A	5/29/1962	FSCA	Jay
Paragnetina fumosa			Walton	N	6/7/1938	INHS	Ebro
Paragnetina fumosa		Free Pond	Walton	N	4/2/1939	INHS	
Paragnetina fumosa	Apalachicola R		Gadsden	N	7/28/1972	FSCA	stream at power house dam lake
Paragnetina fumosa	Apalachicola R	Flat Ck	Gadsden	N	4/5/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Paragnetina fumosa	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	SR 269, 8 km S of Chattahoochee
Paragnetina fumosa	Apalachicola R	Rock Ck	Liberty	N	6/26/1996	FAMU Ravine Study	lower end, Torreya State Park
Paragnetina fumosa	Apalachicola R	Sweetwater Ck	Liberty	N	4/18/1995	FAMU Ravine Study	CR 270
Paragnetina fumosa	Apalachicola R	unnamed stream	Gadsden	N	7/28/1972	FSCA	power house dam lake
Paragnetina fumosa	Aucilla R	Welaunee Ck	Jefferson	N	3/13/1996	FDEP-Tallahassee	
Paragnetina fumosa	Blackwater R	Beaver Ck	Okaloosa	N	5/9/1996	INHS	10 km ESE Munson @ Martins Mill Rd
Paragnetina fumosa	Blackwater R	Big Juniper Ck	Santa Rosa	N	4/27/1967	FAMU	Hwy 4
Paragnetina fumosa	Blackwater R	Big Juniper Ck	Santa Rosa	N	3/1/2000	FAMU	Red Rock Rd, 10 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa			(Stark & Szczytko, 1981)	
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlidae Page 6-25

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/9/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/3/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	4/25/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/7/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/7/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/8/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/22/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	5/11/1994	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	A	7/1/2000	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	5/9/1972	FAMU	Bryant Bridge, 3 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	7/28/1973	FAMU	Kennedy Bridge, 6 mi W Blackman
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	4/21/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	4/26/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	4/26/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	5/11/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	5/7/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	10/17/1977	FDEP-Pensacola	Hwy 4
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	3/17/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Okaloosa	N	2/24/1983	FDEP-Pensacola	Hwy 4
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa			(Stark & Szczytko, 1981)	
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa	A	5/19/1967	BYUC	Deaton Bridge
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa	A	4/7/1971	BYUC	Riley Landing
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa	N	4/21/1972	FAMU	Riley Landing, 3 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa	N	4/27/1972	FAMU	Riley Bluff, 3 mi NW Holt
Paragnetina fumosa	Blackwater R	Blackwater R	Santa Rosa	N	4/20/1977	FAMU	Cotton Br. 5.5 mi NW Good Hope
Paragnetina fumosa	Blackwater R	Juniper Ck	Santa Rosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Blackwater R	Panther Ck	Okaloosa	A	6/8/1995	FDEP-Pensacola	John Riley Barnhill Rd
Paragnetina fumosa	Blackwater R	Sweetwater Ck	Santa Rosa	A	5/9/1996	INHS	1.6 km SE Munson @ Sandy Landing Rd
Paragnetina fumosa	Chipola R	Chipola R	Calhoun	N	4/22/1977	FDEP-Pensacola	SR 274
Paragnetina fumosa	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	Juniper Ck confluence

FLORIDA PLECOPTERA

Family: Perlidae Page 6-26

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina fumosa	Chipola R	Rocky Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Paragnetina fumosa	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	SR 282
Paragnetina fumosa	Choctawhatchee Bay	Alaqua Ck	Walton	N	8/28/1971	FAMU	1st bridge on dirt road N Hwy 282
Paragnetina fumosa	Choctawhatchee Bay	Blount Ck	Walton	N	11/21/1998	FAMU Eglin Study	Eglin AFB, unnamed BR off BR-201
Paragnetina fumosa	Choctawhatchee Bay	Little Alaqua Ck	Walton			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Choctawhatchee Bay	Little Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	5 km N Portland @ SR 282
Paragnetina fumosa	Choctawhatchee R	Black Ck	Walton			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Choctawhatchee R	Choctawhatchee R	Holmes	N	7/18/1985	FDEP-Pensacola	Hwy 2
Paragnetina fumosa	Choctawhatchee R	Holmes Ck	Washington			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Choctawhatchee R	Holmes Ck	Washington	N	4/23/1967	FAMU	1 mi W of Brock Crossroad
Paragnetina fumosa	Choctawhatchee R	Pine Log Ck	Bay			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Escambia R	Escambia R	Escambia	N	4/10/1978	FDEP-Pensacola	Hwy 4
Paragnetina fumosa	Escambia R	Escambia R	Escambia	N	11/4/1981	FDEP-Pensacola	Hwy 4 Upper Bluffs
Paragnetina fumosa	Escambia R	Thomas Ck	Santa Rosa	N	1/27/1997	FDEP-Tallahassee	Molino Bridge Rd
Paragnetina fumosa	Ochlockonee R		Gadsden	N			8 mi S Hwy 268, 1 mi N Hwy 65
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	A		FAMU ORB Study	CR 159, 4 mi NW Havana, Sta. 2
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	CR 159 @ bridge, 4 mi NW Havana
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	N	6/4/1986	FAMU ORB Study	CR 159 (bridge) LRA
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	N	6/4/1986	FAMU ORB Study	bridge 4 mi NW Havana, Sta A
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/24/1987	FAMU ORB Study	CR 159 bridge, LR2
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/14/1987	FAMU ORB Study	CR 159 @ bridge, 4 mi NW Havana, Sta A
Paragnetina fumosa	Ochlockonee R	Attapulgus Ck	Gadsden	N	11/18/1987	FAMU ORB Study	CR 159 @ bridge, 4 mi NW Havana, LR2
Paragnetina fumosa	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Ochlockonee R	Bear Ck	Gadsden	N	6/5/1969	FAMU	1 mi N CR 65C
Paragnetina fumosa	Ochlockonee R	Bear Ck	Gadsden	N	10/19/1973	FAMU	8 mi S SR 268, 1 mi N Hwy 65C
Paragnetina fumosa	Ochlockonee R	Camp Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 274, 8 mi SW Quincy
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	A	6/26/1986	FAMU ORB Study	SR 12 @ bridge 5 mi SW Havana
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	3/31/1986	FAMU ORB Study	SR 12 @ bridge 5 mi SW Havana, LRD
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	8/4/1986	FAMU ORB Study	SR 12 @ bridge, LR4
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	11/25/1986	FAMU ORB Study	SR 12 @ bridge, LR4
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	11/25/1986	FAMU ORB Study	SR 12 @ bridge

FLORIDA PLECOPTERA

Family: Perlidae Page 6-27

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	2/2/1987	FAMU ORB Study	SR 12 @ bridge
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	4/2/1987	FAMU ORB Study	SR 12 @ bridge 5 mi SW Havana
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	4/16/1987	FAMU ORB Study	SR 12 @ bridge, LR4
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	11/13/1987	FAMU ORB Study	SR 12 @ bridge 5 mi SW Havana, LR-4
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	3/21/1988	FAMU ORB Study	CR 268, 6.5 mi SE Quincy, Sta. 6
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	4/27/1988	FAMU ORB Study	SR 12 @ bridge, 5 mi SW Havana
Paragnetina fumosa	Ochlockonee R	Little R	Gadsden	N	7/19/1988	FAMU ORB Study	SR 12, 5 mi SW Havava, LR4
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck					
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Szczytko, 1981)	
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/28/1968	BYUC	bridge on dirt rd, 6 mi S Hwy 268
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	9/11/1969	FAMU	6 mi S, SR 268 @ bridge
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	8/1/1967	FAMU	
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	8/5/1968	FAMU	2nd bridge Hwy 65B, 6 mi S SR 268
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/11/1969	FAMU	
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	11/5/1971	FAMU	
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/26/1974	FAMU	2nd bridge Hwy 65B, 6 mi S SR 268
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/3/1986	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	7/9/1986	FAMU ORB Study	CR 65B @ bridge, RCE
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	7/9/1986	FAMU ORB Study	CR 65B, 9.5 mi S Quincy, Sta. E
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1986	FAMU ORB Study	SR 267 @ bridge, RC-3
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1986	FAMU ORB Study	SR 267, 6.7 mi S Quincy, RC3
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/23/1987	FAMU ORB Study	SR 267 @ bridge, RC-3
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/25/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267 @ bridge
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	CR 274
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/8/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/13/1988	FAMU ORB Study	SR 267 @ bridge, RC-3
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274

FLORIDA PLECOPTERA

Family: Perlidae Page 6-28

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina fumosa	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/15/1988	FAMU ORB Study	SR 267, 6.7 mi S Quincy
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Gadsden	N	1/27/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol, LRD
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Gadsden	N	4/2/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol, LRD
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	A	7/2/1986	FAMU ORB Study	2.5 mi E Bristol, SR 20 (bridge), TC-D
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	6.6 mi NW Hosford, Sta. C
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	5/6/1986	FAMU ORB Study	CR 271, 6.6 mi NW Hosford, LRC
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	6/18/1986	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	6/18/1986	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	12/16/1986	FAMU ORB Study	6.6 mi NW Hosford LRC
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	1/27/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	1/12/1988	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Paragnetina fumosa	Ochlockonee R	Telogia Ck	Liberty	N	10/30/1990	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/3/1986	FAMU ORB Study	SR 65 + 65A, 6.4 mi N Quincy
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/1/1986	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	1/7/1987	FAMU ORB Study	CR 161, 6 mi NE Quincy, Sta. 3
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU ORB Study	6 mi NE Quincy LR3
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/14/1987	FAMU ORB Study	CR 161 @ bridge, Sta 3
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/12/1987	FAMU ORB Study	SR 65 @ bridge, LRB
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	6/29/1987	FAMU ORB Study	CR 161 @ bridge, LR3
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	6/29/1987	FAMU ORB Study	SR 65 (bridge)
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	10/22/1987	FAMU ORB Study	CR 161 @ bridge, 6 mi NE Quincy
Paragnetina fumosa	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/27/1988	FAMU ORB Study	CR 161, 6 mi NE Quincy
Paragnetina fumosa	Pea R	Limestone Ck	Walton	N	12/12/1978	FDEP-Pensacola	Beck Ridge Rd
Paragnetina fumosa	Pea R	Limestone Ck	Walton	N	1/28/1997	FDEP-Tallahassee	Beck Ridge Rd
Paragnetina fumosa	Perdido R	Beaver Pond Ck	Escambia	A	6/16/1995	FDEP-Pensacola	I-10
Paragnetina fumosa	Perdido R	Beaver Pond Ck	Escambia	N	4/16/1995	FDEP-Pensacola	I-10
Paragnetina fumosa	Perdido R	Beaver Pond Ck	Escambia	N	6/16/1995	FDEP-Pensacola	I-10
Paragnetina fumosa	St. Andrews Bay	Bear Ck	Bay			(Stark & Szczytko, 1981)	
Paragnetina fumosa	St. Andrews Bay	Big Cedar Ck	Bay	N	11/20/1990	FDEP-Tallahassee	Deer Point Lake Survey
Paragnetina fumosa	St. Andrews Bay	Econfina Ck	Bay	N	2/24/1993	FDEP-Pensacola	SR 388
Paragnetina fumosa	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd

FLORIDA PLECOPTERA

Family: Perlidae Page 6-29

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina fumosa	St. Andrews Bay	Econfina Ck	Bay	N	5/2/1997	FDEP-Tallahassee	Scott Rd
Paragnetina fumosa	St. Andrews Bay	Little Bear Ck	Bay			(Stark & Gaufin, 1979)	
Paragnetina fumosa	St. Marks R	Trib. Lloyd Ck	Jefferson	N	11/22/1996	INHS	7.9 km SE Lloyd @ Water Mill Rd
Paragnetina fumosa	Yellow R	Big Horse Ck	Okaloosa	N	4/22/1991	FDEP-Pensacola	Hwy 2
Paragnetina fumosa	Yellow R	Pond Ck	Okaloosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Yellow R	Pond Ck	Okaloosa	N	5/18/1967	FAMU	1.5 mi E of Dorcas
Paragnetina fumosa	Yellow R	Shoal R	Okaloosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Yellow R	Shoal R	Okaloosa			(Stark & Szczytko, 1981)	
Paragnetina fumosa	Yellow R	Shoal R	Okaloosa	A	4/26/1973	BYUC	Hwy 90
Paragnetina fumosa	Yellow R	Shoal R	Walton			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Yellow R	Shoal R	Walton	N	5/19/1967	FAMU	Hwy 4
Paragnetina fumosa	Yellow R	Shoal R	Walton	N	3/17/1977	FAMU	Hwy 285, 14 mi W DeFuniak Springs
Paragnetina fumosa	Yellow R	Yellow R	Okaloosa			(Stark & Gaufin, 1979)	
Paragnetina fumosa	Yellow R	Yellow R	Okaloosa			(Stark & Szczytko, 1981)	
Paragnetina kansensis			Bay			(Stark & Gaufin, 1979)	
Paragnetina kansensis			Bay		6/8/1938	(Berner, 1948)	26 mi N Panama City
Paragnetina kansensis			Gadsden			(Stark & Gaufin, 1979)	Quincy
Paragnetina kansensis			Gadsden			(Stark & Szczytko, 1981)	Quincy
Paragnetina kansensis			Gadsden	A	6/24/1958	FSCA	Quincy
Paragnetina kansensis			Gadsden	A	6/22/1959	FSCA	Quincy
Paragnetina kansensis			Jackson			(Stark & Gaufin, 1979)	
Paragnetina kansensis			Jefferson			(Stark & Gaufin, 1979)	Monticello
Paragnetina kansensis			Jefferson			(Stark & Szczytko, 1981)	Monticello
Paragnetina kansensis			Jefferson	A	7/6/1961	FSCA	Monticello
Paragnetina kansensis			Okaloosa		12/12/1937	(Berner, 1948)	Crestview
Paragnetina kansensis			Okaloosa		6/7/1938	(Berner, 1948)	Niceville
Paragnetina kansensis			Santa Rosa			(Stark & Gaufin, 1979)	Jay
Paragnetina kansensis			Santa Rosa			(Stark & Szczytko, 1981)	Jay
Paragnetina kansensis			Walton			(Stark & Gaufin, 1979)	
Paragnetina kansensis			Walton		6/7/1938	(Berner, 1948)	Ebro
Paragnetina kansensis			Walton		4/2/1939	(Berner, 1948)	Freeport

FLORIDA PLECOPTERA

Family: Perlidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina kansensis	Apalachicola R	Apalachicola R	Calhoun	A	5/8/1996	INHS	1.6 mi W Bristol, FL-20
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	12/7/1977	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	8/2/1978	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	11/15/1978	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	6/13/1979	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	8/15/1979	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Apalachicola R	Gulf	N	12/8/1982	FDEP-Pensacola	Buoy 40
Paragnetina kansensis	Apalachicola R	Little Sweetwater Ck	Liberty	A	6/24/1996	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Paragnetina kansensis	Apalachicola R	unnamed stream	Gadsden	N	5/7/1971	FSCA	stream @ powerhouse dam lake
Paragnetina kansensis	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Paragnetina kansensis	Blackwater R	Blackwater R	Okaloosa			(Stark & Szczytko, 1981)	
Paragnetina kansensis	Blackwater R	Blackwater R	Okaloosa	A	5/2/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina kansensis	Blackwater R	Blackwater R	Okaloosa	A	6/26/1990	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Paragnetina kansensis	Blackwater R	Blackwater R	Santa Rosa	A	5/16/1962	FSCA	
Paragnetina kansensis	Chipola R	Blue Springs Ck	Jackson		6/5/1940	(Berner, 1948)	Marianna
Paragnetina kansensis	Chipola R	Chipola R	Calhoun	N	2/7/1977	FDEP-Pensacola	SR 274
Paragnetina kansensis	Chipola R	Chipola R	Calhoun	N	4/22/1977	FDEP-Pensacola	SR 274
Paragnetina kansensis	Chipola R	Chipola R	Calhoun	N	5/25/1977	FDEP-Pensacola	SR 274
Paragnetina kansensis	Chipola R	Chipola R	Calhoun	N	8/14/1984	FDEP-Pensacola	SR 274
Paragnetina kansensis	Chipola R	Chipola R	Calhoun	N	8/15/1984	FDEP-Pensacola	SR 274
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R		N	6/23/1983	FDEP-Pensacola	
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	A	7/18/1983	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/16/1980	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	N	10/21/1981	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	N	5/19/1982	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	N	9/10/1982	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Holmes	N	7/18/1983	FDEP-Pensacola	Hwy 2
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Walton	N	2/15/1979	FDEP-Pensacola	Hwy 20
Paragnetina kansensis	Choctawhatchee R	Choctawhatchee R	Walton	N	1/14/1980	FDEP-Pensacola	Hwy 20
Paragnetina kansensis	Escambia R	Escambia R	Escambia	A	5/28/1980	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	A	5/28/1988	FDEP-Pensacola	Hwy 4

FLORIDA PLECOPTERA

Family: Perlidae Page 6-31

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	11/16/1971	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	3/4/1976	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	9/14/1976	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	10/20/1977	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	11/8/1977	FDEP-Pensacola	Hwy 4 Upper Bluffs
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	4/10/1978	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	7/11/1978	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	1/30/1979	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	5/24/1979	FDEP-Pensacola	Hwy 4 Upper Bluffs
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	6/26/1979	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	10/31/1979	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	2/26/1980	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	5/28/1980	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	7/22/1980	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	12/3/1980	FDEP-Pensacola	Hwy 4 Upper Bluffs
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	12/3/1980	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	7/21/1981	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	11/16/1981	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	5/5/1982	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	8/8/1982	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	6/28/1983	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	8/18/1983	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Escambia R	Escambia R	Escambia	N	7/21/1991	FDEP-Pensacola	Hwy 4
Paragnetina kansensis	Ochlockonee R	Camp Ck	Gadsden	N	12/3/1987	FAMU ORB Study	CR 274 @ bridge, Sta 2
Paragnetina kansensis	Ochlockonee R	Little R	Gadsden	N	3/3/1986	FAMU ORB Study	SR 12 @ bridge
Paragnetina kansensis	Ochlockonee R	Telogia Ck	Liberty	N	10/17/1985	FAMU ORB Study	CR 271 @ bridge
Paragnetina kansensis	St. Andrews Bay	Econfina Ck	Bay	N	1/20/1977	FDEP-Pensacola	SR 388
Paragnetina kansensis	St. Andrews Bay	Econfina Ck	Bay	N	2/14/1979	FDEP-Pensacola	SR 388
Paragnetina kansensis	St. Andrews Bay	Econfina Ck	Bay	N	1/14/1980	FDEP-Pensacola	SR 388
Paragnetina kansensis	St. Andrews Bay	Econfina Ck	Bay	N	2/24/1993	FDEP-Pensacola	SR 388
Paragnetina kansensis	Suwannee R	Suwannee R	Dixie/Levy	N	6/3/1991	SRWMD	Fowler's Bluff

FLORIDA PLECOPTERA

Family: Perlidae Page 6-32

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Paragnetina kansensis	Suwannee R	Suwannee R	Dixie/Levy	N	12/3/1992	SRWMD	Fowler's Bluff
Paragnetina kansensis	Suwannee R	Suwannee R	Dixie/Levy	N	6/3/1993	SRWMD	Fowler's Bluff
Paragnetina kansensis	Suwannee R	Withlacoochee R	Madison/Hamilton	N	6/7/1991	SRWMD	near confluence with Suwannee R
Paragnetina kansensis	Yellow R	Shoal R	Okaloosa		12/11/1937	(Berner, 1948)	
Paragnetina kansensis	Yellow R	Shoal R	Okaloosa	N	11/2/1976	FDEP-Pensacola	CR 393
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	2/22/1976	FDEP-Pensacola	SR 189
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	2/16/1979	FDEP-Pensacola	SR 189
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	2/20/1979	FDEP-Pensacola	SR 189
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	2/27/1980	FDEP-Pensacola	SR 189
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	9/17/1980	FDEP-Pensacola	Hwy 90
Paragnetina kansensis	Yellow R	Yellow R	Okaloosa	N	3/10/1981	FDEP-Pensacola	Hwy 90
Perlesta			Gadsden	N	3/17/1939	FSCA	River Junction
Perlesta			Gadsden	N	6/6/1940	FSCA	5 mi S River Junction
Perlesta			Hamilton	N	2/4/1938	FSCA	Jasper
Perlesta			Leon	N	3/16/1939	FSCA	Tallahassee
Perlesta		San Julia Branch	Gadsden	N	2/20/1997	FDEP-Tallahassee	
Perlesta	Apalachicola R		Gadsden	A	5/20/1999	H. Kons, Jr.	Aspalaga Bluff
Perlesta	Apalachicola R		Gadsden	A	5/23/1999	H. Kons, Jr.	Dolan Rd, 0.1 mi W Hwy 269
Perlesta	Apalachicola R		Liberty	N	6/10/1938	FSCA	Torreya State Park
Perlesta	Apalachicola R	Beaver Dam Ck	Liberty	N	4/7/1994	FAMU Ravine Study	nr. confl. w/Apalach. R. ABRP
Perlesta	Apalachicola R	Crooked Ck	Gadsden	N	3/22/1995	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	3/22/1995	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	4/18/1995	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	2/4/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	4/17/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Flat Ck	Gadsden	N	3/2/2000	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Little Sweetwater Ck	Liberty	N	3/11/1994	FAMU Ravine Study	nr. confl. w/Apalach. R. ABRP
Perlesta	Apalachicola R	Little Sweetwater Ck	Liberty	N	3/22/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlesta	Apalachicola R	Rock Ck	Liberty	N	6/26/1996	FAMU Ravine Study	lower end, Torreya State Park

FLORIDA PLECOPTERA

Family: Perlidae Page 6-33

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta	Apalachicola R	Rock Ck	Liberty	N	4/9/1998	FAMU Ravine Study	upper end, Torreya State Park
Perlesta	Apalachicola R	Rock Ck	Liberty	N	4/9/1998	FAMU Ravine Study	lower end, Torreya State Park
Perlesta	Apalachicola R	Rock Ck	Liberty	N	3/9/1999	FAMU Ravine Study	upper end, Torreya State Park
Perlesta	Apalachicola R	Sweetwater Ck	Liberty	N	6/10/1938	INHS	
Perlesta	Apalachicola R	Sweetwater Ck	Liberty	N	5/8/1971	FSCA	
Perlesta	Apalachicola R	Sweetwater Ck	Liberty	N	4/18/1995	FAMU Ravine Study	CR 270
Perlesta	Apalachicola R	Sweetwater Ck	Liberty	N	2/12/1996	FDEP-Tallahassee	
Perlesta	Apalachicola R	Sweetwater Ck	Liberty	N	3/11/1999	Kondratieff (FL visit)	Hwy 271
Perlesta	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Trib. Flat Ck	Gadsden	N	3/2/2000	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta	Apalachicola R	Trib. Sweetwater Ck	Liberty	N	3/9/1999	FAMU Ravine Study	off CR 270, ABRP, Travelers Tract
Perlesta	Aucilla R	Aucilla R	Jefferson	N	4/19/1993	FAMU	Hwy 27
Perlesta	Blackwater R	Beaver Ck	Okaloosa	N	5/9/1996	INHS	10 km ESE Munson @ Martins Mill Rd
Perlesta	Blackwater R	Big Juniper Ck	Santa Rosa	N	3/1/2000	FAMU	Red Rock Rd, 10 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	3/13/1971	FAMU	Hwy 4
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	4/15/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	4/16/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	6/4/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	5/3/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	5/7/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	4/29/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	3/17/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	3/18/1979	FAMU	Kennedy Bridge
Perlesta	Blackwater R	Blackwater R	Okaloosa	N	4/26/1994	FAMU	fish hatchery 15 mi W Crestview
Perlesta	Blackwater R	Blackwater R	Santa Rosa	N	4/24/1971	FAMU	Riley Landing
Perlesta	Blackwater R	Blackwater R	Santa Rosa	N	2/11/1972	FAMU	Riley Bluff
Perlesta	Blackwater R	Coldwater Ck	Santa Rosa	N	4/16/1997	FDEP-Tallahassee	
Perlesta	Blackwater R	Panther Ck	Okaloosa	N	2/22/1996	FDEP-Tallahassee	John Riley Barnhill Rd
Perlesta	Blackwater R	Reedy Ck	Santa Rosa	N	3/1/2000	FAMU	Overstreet Rd, 3.3 mi E McClellan
Perlesta	Blackwater R	Riley Spring Branch	Santa Rosa	N	3/21/1971	FAMU	
Perlesta	Blackwater R	Riley Spring Branch	Santa Rosa	N	4/24/1971	FAMU	2nd stream W Riley Landing

FLORIDA PLECOPTERA

Family: Perlidae Page 6-34

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta	Blackwater R	Riley Spring Branch	Santa Rosa	N	3/11/1972	FAMU	2nd stream W Riley Landing
Perlesta	Blackwater R	Sweetwater Ck	Santa Rosa	N	5/9/1996	INHS	1.6 km SE Munson @ Sandy Landing Rd
Perlesta	Chipola R	Chipola R	Calhoun	N	5/4/1995	FAMU	boat ramp 5 km W Altha
Perlesta	Chipola R	Chipola R	Jackson	N	3/27/1994	FAMU	2.5 km above Florida Caverns State Park
Perlesta	Chipola R	Tenmile Ck	Calhoun	N	6/25/1995	FAMU	SR 73
Perlesta	Chipola R	Tenmile Ck	Calhoun	N	2/4/1997	FDEP-Tallahassee	SR 73
Perlesta	Choctawhatchee Bay		Walton	N	4/3/1938	INHS	Portland
Perlesta	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, BR 221
Perlesta	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	10/28/1998	FAMU Eglin Study	Eglin AFB, BR 221
Perlesta	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	4/8/1999	FAMU Eglin Study	Eglin AFB, BR-221
Perlesta	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	4/9/1999	FAMU Eglin Study	Eglin AFB, at head, W side of BR-231
Perlesta	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Perlesta	Choctawhatchee Bay	Rogue Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Perlesta	Choctawhatchee Bay	Trib. Sconiers Mill Ck	Walton	N	3/3/2000	FAMU Ravine Study	S trib, SR 278, 4.5 mi SW DeFuniak Springs
Perlesta	Choctawhatchee Bay	Turkey Ck	Okaloosa	N	3/11/1999	FAMU Eglin Study	Eglin AFB, BR-232
Perlesta	Choctawhatchee Bay	Turkey Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	Eglin AFB, BR-232
Perlesta	Choctawhatchee Bay	Turkey Ck	Okaloosa	N	4/7/1999	FAMU Eglin Study	Eglin AFB, BR-637
Perlesta	Choctawhatchee Bay	Turkey Ck	Okaloosa	N	3/2/2000	FAMU Eglin Study	Eglin AFB, BR-637
Perlesta	Choctawhatchee R		Walton	N	5/31/1940	INHS	5.4 mi W Wash. Co. line @ Hwy 10
Perlesta	Choctawhatchee R	Black Ck	Walton	N	2/27/1996	FDEP-Tallahassee	Hwy 20
Perlesta	Escambia R	Fletcher Ck	Escambia	N	2/25/1997	FDEP-Tallahassee	
Perlesta	Escambia R	Mitchell Ck	Escambia	N	2/13/1996	FDEP-Tallahassee	Hwy 29
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden		4/8/1982	FAMU ORB Study	SR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/26/1987	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/14/1987	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	1/22/1988	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/22/1988	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	5/25/1988	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	6/23/1988	FAMU ORB Study	CR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/8/1992	FAMU ORB Study	SR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/7/1993	FAMU ORB Study	SR 159

FLORIDA PLECOPTERA

Family: Perlidae Page 6-35

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/7/1993	FAMU ORB Study	SR 159
Perlesta	Ochlockonee R	Attapulgus Ck	Gadsden	N	4/19/1994	FAMU ORB Study	SR 159
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	2/24/1986	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	4/23/1987	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	5/19/1987	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	5/19/1987	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	2/8/1988	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	4/13/1988	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Camp Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	4/7/1993	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	4/7/1993	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	6/16/1993	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near middle
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	1/27/1994	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	3/30/1995	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	7/2/1997	FAMU Ravine Study	near middle
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	2/24/1998	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	FAMU Farm St	Gadsden	N	3/9/1999	FAMU Ravine Study	near upper end
Perlesta	Ochlockonee R	Little R	Gadsden	N	5/13/1987	FAMU ORB Study	CR 268
Perlesta	Ochlockonee R	Little R	Gadsden	N	3/21/1988	FAMU ORB Study	SR 12
Perlesta	Ochlockonee R	Mule Ck	Liberty	N	7/9/1996	FDEP-Tallahassee	Hwy 12
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	4/18/1986	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	6/2/1986	FAMU ORB Study	CR 65
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	6/2/1986	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	7/9/1986	FAMU ORB Study	CR 65
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	1/27/1987	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	5/6/1987	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	7/1/1987	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Ocklawaha Ck	Gadsden	N	6/14/1988	FAMU ORB Study	CR 65
Perlesta	Ochlockonee R	Quincy Ck	Gadsden	N	3/22/1988	FAMU ORB Study	SR 12
Perlesta	Ochlockonee R	Quincy Ck	Gadsden	N	4/27/1988	FAMU ORB Study	SR 12

FLORIDA PLECOPTERA

Family: Perlidae Page 6-36

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta	Ochlockonee R	Quincy Ck	Gadsden	N	5/25/1988	FAMU ORB Study	SR 12
Perlesta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/29/1986	FAMU ORB Study	CR 274
Perlesta	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	5/19/1987	FAMU ORB Study	SR 267
Perlesta	Ochlockonee R	Telogia Ck	Gadsden	N	3/7/1986	FAMU ORB Study	bridge 2.5 mi E Bristol
Perlesta	Ochlockonee R	Telogia Ck	Gadsden	N	6/18/1986	FAMU ORB Study	bridge 2.5 mi E Bristol
Perlesta	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1987	FAMU ORB Study	bridge 2 mi SE Greensboro
Perlesta	Ochlockonee R	Telogia Ck	Gadsden	N	4/2/1987	FAMU ORB Study	CR 65D
Perlesta	Ochlockonee R	Telogia Ck	Liberty	N	3/7/1986	FAMU ORB Study	CR 65
Perlesta	Ochlockonee R	Telogia Ck	Liberty	N	3/7/1986	FAMU ORB Study	CR 271
Perlesta	Ochlockonee R	Telogia Ck	Liberty	N	3/7/1986	FAMU ORB Study	CR 65
Perlesta	Ochlockonee R	Telogia Ck	Liberty	N	6/4/1986	FAMU ORB Study	CR 271
Perlesta	Ochlockonee R	Three Pole Ck	Leon	N	4/3/1995	FDEP-Tallahassee	
Perlesta	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/1/1986	FAMU ORB Study	CR 161
Perlesta	Ochlockonee R	Willacoochee Ck	Gadsden	N	1/7/1987	FAMU ORB Study	SR 65
Perlesta	Ochlockonee R	Willacoochee Ck	Gadsden	N	4/14/1987	FAMU ORB Study	SR 65
Perlesta	Ochlockonee R	Willacoochee Ck	Gadsden	N	5/12/1987	FAMU ORB Study	CR 161
Perlesta	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/22/1988	FAMU ORB Study	CR 161
Perlesta	Ochlockonee R	unnamed ck	Liberty	N	2/27/1973	FAMU	SR 20, 1 mi W of Ochlockonee R
Perlesta	Pea R	Limestone Ck	Walton	N	1/28/1997	FDEP-Tallahassee	Beck Ridge Rd
Perlesta	Pensacola Bay	East Bay R	Santa Rosa	A	5/17/1996	FAMU Eglin Study	Hurlbert Field
Perlesta	St. Andrews Bay	Econfina Ck	Bay	N	2/21/1995	FAMU	Scott Rd
Perlesta	St. Andrews Bay	Econfina Ck	Bay	N	6/25/1996	FAMU	Scott Rd
Perlesta	St. Andrews Bay	Econfina Ck	Bay	N	2/5/1997	FDEP-Tallahassee	Scott Rd
Perlesta	St. Andrews Bay	Little Bear Ck	Bay	N	4/23/1967	FAMU	Hwy 388, 0.5 mi W of Youngstown
Perlesta	St. Andrews Bay	S Fork Bear Ck	Bay	N		FDEP-Tallahassee	Ed Lee Rd
Perlesta	St. Andrews Bay	Sandy Ck	Bay	N	2/27/1996	FDEP-Tallahassee	Hwy 22
Perlesta	St. Johns R (lower)	Thomas Ck	Clay	N	2/21/1997	FDEP-Tallahassee	
Perlesta	Steinhatchee R	Econfina R	Taylor	N	4/17/1997	FDEP-Tallahassee	
Perlesta	Steinhatchee R	Fenholloway R	Taylor	N	4/14/1994	FAMU	Fenholloway
Perlesta	Yellow R	Boiling Ck	Santa Rosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, BR-211

FLORIDA PLECOPTERA

Family: Perlidae Page 6-37

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta	Yellow R	East Turkey Hen Ck	Okaloosa	N	10/29/1998	FAMU Eglin Study	BR-601, Eglin AFB
Perlesta	Yellow R	East Turkey Hen Ck	Okaloosa	N	3/11/1999	FAMU Eglin Study	Eglin AFB, BR-601
Perlesta	Yellow R	East Turkey Hen Ck	Okaloosa	N	4/8/1999	FAMU Eglin Study	Eglin AFB, BR-601
Perlesta	Yellow R	East Turkey Hen Ck	Okaloosa	N	6/17/1999	FAMU Eglin Study	Eglin AFB, BR-601
Perlesta	Yellow R	Jack Branch	Okaloosa	N	3/25/1997	FDEP-Tallahassee	
Perlesta	Yellow R	Shoal R	Walton	N	4/25/1967	FAMU	CR 393
Perlesta	Yellow R	Shoal R	Walton	N	4/22/1977	FAMU	Hwy 285
Perlesta nitida?	Ochlockonee R	Willacoochee Ck	Gadsden	N/A	4/27/1999	FAMU ORB Study	SR 65
Perlesta placida			Bay		6/8/1938	(Berner, 1948)	26 mi N Panama City @ Hwy 77
Perlesta placida			Gadsden		3/17/1939	(Berner, 1948)	River Junction
Perlesta placida			Gadsden		6/6/1940	(Berner, 1948)	5 mi S River Junction
Perlesta placida			Gadsden	A	5/6/1958	FSCA	
Perlesta placida			Gadsden	A	5/26/1958	FSCA	Quincy
Perlesta placida			Gadsden	A	5/4/1959	FSCA	Quincy
Perlesta placida			Hamilton		2/4/1938	(Berner, 1948)	Jasper
Perlesta placida			Leon		6/5/1938	(Berner, 1948)	Tallahassee
Perlesta placida			Leon		3/16/1939	(Berner, 1948)	Tallahassee
Perlesta placida			Liberty	A	5/18/1966	FSCA	Torreya State Park
Perlesta placida			Okaloosa		12/12/1937	(Berner, 1948)	Crestview
Perlesta placida			Okaloosa		5/31/1940	(Berner, 1948)	5.1 mi W Walton Co. line @ Hwy 20
Perlesta placida			Santa Rosa	A	5/2/1962	FSCA	Jay
Perlesta placida			Santa Rosa	A	5/23/1962	FSCA	
Perlesta placida			Walton		4/13/1938	(Berner, 1948)	Portland
Perlesta placida			Walton		4/2/1939	(Berner, 1948)	Freeport
Perlesta placida			Walton		5/31/1940	(Berner, 1948)	5.4 mi W Washington Co. line @ Hwy 20
Perlesta placida			Walton	A	5/31/1940	FSCA	9.5 mi W Portland
Perlesta placida	Apalachicola R	Beaver Dam Ck	Liberty	A	6/24/1996	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	A	4/18/1995	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	A	5/2/1996	FAMU Ravine Study	CR 270, 10km W Greensboro
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	A	4/27/1999	FAMU	CR 270
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	A	6/7/1999	FAMU	CR 270

FLORIDA PLECOPTERA

Family: Perlidae Page 6-38

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	N/A	4/27/1999	FAMU Study	CR 270, 10 km W of Greensboro
Perlesta placida	Apalachicola R	Crooked Ck	Gadsden	N/A	6/7/1999	FAMU Ravine Study	CR 270, 10 km W of Greensboro
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	A	4/24/1996	FAMU	
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	A	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	A	6/7/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	N/A	4/17/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	N/A	4/24/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta placida	Apalachicola R	Flat Ck	Gadsden	N/A	4/2/1997	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Perlesta placida	Apalachicola R	Kelley Branch	Liberty	A	6/24/1996	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Perlesta placida	Apalachicola R	Little Sweetwater Ck	Liberty		6/10/1938	(Berner, 1948)	
Perlesta placida	Apalachicola R	Little Sweetwater Ck	Liberty	A	6/24/1996	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Perlesta placida	Apalachicola R	Rock Ck	Liberty	A	6/4/1953	FSCA	
Perlesta placida	Apalachicola R	Sweetwater Ck	Liberty		6/10/1938	(Berner, 1948)	Torreya State Park
Perlesta placida	Apalachicola R	Unnamed trib. Sweetwater	Liberty	A	6/8/1999	FAMU Ravine Study	off CR 270, ABRP, Traveler's Tract
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/26/1967	FAMU	4.5 mi NW Cannon Town
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/14/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/23/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	6/5/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/7/1972	FAMU	3 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/23/1972	FAMU	Bryant Bridge
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	5/8/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	5/2/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	8/22/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	5/1/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	5/7/1976	FAMU	FAMU Bio. Sta. 4.5 mi Nw Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	4/21/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlesta placida	Blackwater R	Blackwater R	Santa Rosa	A	4/26/1997	(Stark, 1989)	Bryant Bridge
Perlesta placida	Blackwater R	Riley Spring Branch	Santa Rosa	A	3/19/1971	FAMU	
Perlesta placida	Chattahoochee R	Chattahoochee R	Gadsden	A	6/3/1953	FSCA	
Perlesta placida	Chipola R	Blue Springs Ck	Jackson		5/5/1939	(Berner, 1948)	Marianna

FLORIDA PLECOPTERA

Family: Perlidae Page 6-39

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta placida	Chipola R	Blue Springs Ck	Jackson		6/5/1940	(Berner, 1948)	
Perlesta placida	Chipola R	Blue Springs Ck	Jackson	A	5/5/1933	INHS	
Perlesta placida	Chipola R	Blue Springs Ck	Jackson	A	6/5/1940	INHS	3 mi E Marianna
Perlesta placida	Chipola R	Rocky Ck	Jackson	A	5/4/1995	FAMU	Hwy 71
Perlesta placida	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU	5 km N Portland @ SR 282
Perlesta placida	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	BR-221, 0.8 mi E of SR 85
Perlesta placida	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	W side of BR-231, SE of Duke Field
Perlesta placida	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	11/13/1997	FAMU Eglin Study	Base Rd 233, Eglin Air Force Base
Perlesta placida	Choctawhatchee Bay	Rogue Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	Eglin AFB, 0.4 mi S BR-232
Perlesta placida	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	Base Rd 232, Eglin Air Force Base
Perlesta placida	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	Eglin AFB, BR-637
Perlesta placida	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	3/2/2000	FAMU Eglin Study	Eglin AFB, BR-637
Perlesta placida	Choctawhatchee R	Holmes Ck	Washington		4/2/1938	(Berner, 1948)	
Perlesta placida	Choctawhatchee R	Holmes Ck	Washington	A	4/30/1946	FSCA	
Perlesta placida	Choctawhatchee R	Holmes Ck	Washington	A	4/23/1967	FAMU	1 mi W Brock Crossroad
Perlesta placida	Ochlockonee R	FAMU Farm St	Gadsden	A	6/21/1999	FAMU Emergence Study	70 m dwnstm ravine head, trap #2
Perlesta placida	Ochlockonee R	FAMU Farm St	Gadsden	N/A	6/18/1997	FAMU Ravine Study	near upper end
Perlesta placida	Ochlockonee R	FAMU Farm St	Gadsden	N/A	7/2/1997	FAMU Ravine Study	near middle
Perlesta placida	Ochlockonee R	Little R	Gadsden	A	5/31/1990	FAMU	SR 12
Perlesta placida	Ochlockonee R	Ochlockonee R	Leon	A	5/13/1981	FAMU	Wildlife Management Area
Perlesta placida	Ochlockonee R	Willacoochee Ck	Gadsden	A	6/11/1987	FAMU ORB Study	CR 161
Perlesta placida	Ochlockonee R	Willacoochee Ck	Gadsden	N/A	4/27/1999	FAMU	SR 65
Perlesta placida	Ochlockonee R	Willacoochee Ck	Gadsden	N/A	4/27/1999	FAMU ORB Study	SR 65
Perlesta placida	Oklawaha R	Hatchet Ck	Alachua			(Stark & Gaufin, 1979)	
Perlesta placida	Oklawaha R	Hatchet Ck	Alachua		10/11/1939	(Berner, 1948)	
Perlesta placida	Perdido R	Perdido R	Escambia	A	8/11/1975	FSCA	
Perlesta placida	Suwannee R	Suwannee R	Suwannee	A	5/26/1977	FSCA	Suwannee R State Pk
Perlesta placida	Yellow R	East Turkey Hen Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	at head, 0.3 km W Okaloosa Lookout tower
Perlesta placida	Yellow R	Gum Ck	Walton	A	3/10/1999	FDEP-Pensacola	SR 83
Perlesta placida	Yellow R	Indigo Ck	Santa Rosa	A	3/19/1998	FAMU Eglin Study	Eglin AFB, BR-213
Perlesta placida	Yellow R	Turkey Ck	Walton	A	3/4/1999	FDEP-Pensacola	East of Hwy 331

FLORIDA PLECOPTERA

Family: Perlidae Page 6-40

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlesta sp. A	Choctawhatchee Bay	Unnamed trib. Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	Eglin AFB, steephead off BR-639
Perlesta sp. B	Choctawhatchee Bay	Turkey Ck	Okaloosa	A	6/15/1999	FAMU Eglin Study	Eglin AFB, BR-637
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/30/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	3/28/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/19/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/28/1976	FAMU	Peaden Br. 4.5 mi NW Cannon
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/29/1977	FAMU	Peaden Br. 4.5 mi NW Cannon
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/30/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	5/7/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/21/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	4/29/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	5/2/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Blackwater R	Blackwater R	Okaloosa	N	5/14/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella	Choctawhatchee Bay	Alaqua Ck	Walton	N			Pine Allen Bridge
Perlinella	Choctawhatchee Bay	Blount Ck	Walton	N	11/21/1998	FAMU Eglin Study	Off BR-201, 1 mi NE Pine Allen Bridge
Perlinella	Ochlockonee R	Ocklawaha Ck	Gadsden	N	11/5/1986	FAMU ORB Study	SR 267
Perlinella	Ochlockonee R	unnamed ck	Liberty	N	2/25/1974	BYUC	Hwy 20, 1 mi W Ochlockonee R
Perlinella	Perdido R	Perdido R		N	3/2/1983	FDEP-Pensacola	
Perlinella	St. Andrews Bay	Econfina Ck	Bay	N	6/28/1993	FDEP-Pensacola	Scott Rd
Perlinella	St. Andrews Bay	Econfina Ck	Bay	N	6/28/1993	FDEP-Pensacola	Scott Rd
Perlinella	St. Andrews Bay	Sandy Ck	Bay	N	2/27/1996	FDEP-Pensacola	Hwy 22
Perlinella	Suwannee R	Alapaha R	Hamilton	N	2/8/1996	SRWMD	Jennings
Perlinella	Yellow R	Shoal R	Walton	N	3/27/1977	FAMU	Hwy 285, 14 mi W DeFuniak Springs
Perlinella drymo			Leon			(Kondratieff et al, 1988)	
Perlinella drymo			Liberty			(Kondratieff et al, 1988)	
Perlinella drymo			Okaloosa			(Kondratieff et al, 1988)	
Perlinella drymo			Walton			(Kondratieff et al, 1988)	
Perlinella drymo	Apalachicola R	Beaver Dam Ck	Liberty	A	4/7/1994	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlinella drymo	Apalachicola R	Beaver Dam Ck	Liberty	A	3/22/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlinella drymo	Apalachicola R	Kelley Branch	Liberty	A	3/22/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Perlinella drymo	Apalachicola R	Little Sweetwater Ck	Liberty	A	4/7/1994	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol

FLORIDA PLECOPTERA

Family: Perlidae Page 6-41

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlinella drymo	Apalachicola R	Little Sweetwater Ck	Liberty	A	4/7/1994	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlinella drymo	Apalachicola R	Little Sweetwater Ck	Liberty	A	3/22/1995	FAMU Ravine Study	lower end, ABRP, 5 km N Bristol
Perlinella drymo	Apalachicola R	Little Sweetwater Ck	Liberty	A	3/22/1995	FAMU Ravine Study	upper end, ABRP, 5 km N Bristol
Perlinella drymo	Blackwater R	Ates Ck	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella drymo	Blackwater R	Ates Ck	Okaloosa	N	3/20/1971	FAMU	below Lake Carr
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A		FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	4/26/1970	BYUC	Bryant Bridge
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/12/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	4/1/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/23/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/28/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/5/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/6/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/25/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/27/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/19/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/20/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/13/1982	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	A	3/27/1986	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	2/20/1971	FSCA	Bryant bridge
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	3/13/1971	FAMU	Hwy 4 bridge, 4 mi NW Baker
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	4/16/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	4/27/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	5/14/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella drymo	Blackwater R	Blackwater R	Okaloosa	N	9/22/1983	FDEP-Pensacola	Hwy 4
Perlinella drymo	Blackwater R	Blackwater R	Santa Rosa	A	3/10/1999	Kondratieff (FL visit)	Blackwater River State Park
Perlinella drymo	Blackwater R	Blackwater R	Santa Rosa	N	2/11/1972	FAMU	Riley Bluff from swamp 3 mi NW Holt
Perlinella drymo	Chipola R	Chipola R	Jackson	A	3/11/1999	Kondratieff (FL visit)	Florida Caverns State Park
Perlinella drymo	Choctawhatchee Bay	Alaqua Ck	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella drymo	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	5 km N Portland @ SR 282

FLORIDA PLECOPTERA

Family: Perlidae Page 6-42

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlinella drymo	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Perlinella drymo	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	3/19/1998	FAMU Eglin Study	Eglin AFB, BR 221
Perlinella drymo	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	4/8/1999	FAMU Eglin Study	Eglin AFB, at head W of BR-231
Perlinella drymo	Choctawhatchee Bay	Lafayette Ck	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella drymo	Choctawhatchee R	Black Ck	Walton	N	12/14/1970	FAMU	1st bridge W Bruce Hwy 20
Perlinella drymo	Escambia R	Thomas Ck	Santa Rosa	N	1/27/1997	FDEP-Pensacola	Molino Bridge Rd
Perlinella drymo	Ochlockonee R	Attapulgus Ck	Gadsden	A	5/14/1986	FAMU ORB Study	3 mi NW Havana CR 159
Perlinella drymo	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Perlinella drymo	Ochlockonee R	Bear Ck	Gadsden	A	4/15/1970	FAMU	8 mi S SR 65, 1 mi N SR 65C
Perlinella drymo	Ochlockonee R	Ochlockonee R	Liberty			(Stark & Gaufin, 1979)	
Perlinella drymo	Ochlockonee R	Ocklawaha Ck	Gadsden	N	3/4/1987	FAMU ORB Study	SR 267 @ bridge, 10 mi S Quincy
Perlinella drymo	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Perlinella drymo	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	3/29/1968	FAMU	bridge 6 mi S Hwy 268
Perlinella drymo	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/1/1970	FAMU	bridge 6 mi S SR 268
Perlinella drymo	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/27/1985	FAMU	bridge Hwy 65B, 6 mi S Hwy 268
Perlinella drymo	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/3/1985	FAMU ORB Study	Hwy 65B, 6 mi S Hwy 268
Perlinella drymo	Ochlockonee R	Telogia Ck		A	4/22/1987	FAMU ORB Study	Sta. C
Perlinella drymo	Ochlockonee R	Telogia Ck	Gadsden	A	4/29/1987	FAMU ORB Study	2.5 mi E Bristol Sta. D
Perlinella drymo	Ochlockonee R	Telogia Ck	Gadsden	N	3/4/1986	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	A	3/22/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	A	4/2/1987	FAMU ORB Study	bridge 6.6 mi NW Hosford Sta. C
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	A	4/22/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	N	4/7/1987	FAMU ORB Study	CR 271, 6.6 mi NW Hosford
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	N	8/26/1987	FAMU ORB Study	bridge 6.6 mi NW Hosford Sta. C
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	N	11/24/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Perlinella drymo	Ochlockonee R	Telogia Ck	Liberty	N/E	4/19/1988	FAMU ORB Study	bridge 6.6 mi NW Hosford Sta. C
Perlinella drymo	Ochlockonee R	unnamed ck	Liberty	N	2/27/1973	FAMU	Hwy 20, 1 mi W of Ochlockonee R
Perlinella drymo	Perdido R	Beulah Branch	Escambia	N	1/4/1978	FDEP-Pensacola	
Perlinella drymo	Perdido R	Perdido R	Escambia	N	7/26/1983	FDEP-Pensacola	Hwy 184
Perlinella drymo	St. Andrews Bay	Bear Ck	Bay	N	2/25/1993	FDEP-Pensacola	John Lee Rd
Perlinella drymo	St. Andrews Bay	Econfina Ck	Bay	N	2/21/1995	FAMU	US Hwy 231, 10 km N Fountain

FLORIDA PLECOPTERA

Family: Perlidae Page 6-43

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlinella drymo	St. Andrews Bay	Econfina Ck	Bay	N	7/11/1995	FDEP-Pensacola	Scott Rd
Perlinella drymo	St. Andrews Bay	Sandy Ck	Bay	N	2/8/1995	FDEP-Pensacola	SR 22
Perlinella drymo	Suwannee R	Withlacoochee R	Hamilton	A	3/12/1954	FSCA	
Perlinella drymo	Withlacoochee R	Withlacoochee R	Hamilton			(Stark & Gaufin, 1979)	
Perlinella drymo	Yellow R	Boiling Ck	Santa Rosa	A	3/20/1998	FAMU Eglin Study	Eglin AFB, BR 211
Perlinella drymo	Yellow R	Gum Ck	Walton			(Stark & Gaufin, 1979)	
Perlinella drymo	Yellow R	Shoal R	Okaloosa	A	4/24/1973	BYUC	Hwy 85
Perlinella drymo	Yellow R	Shoal R	Walton	N	4/25/1967	FAMU	Dorcas, CR 393
Perlinella ephyre			Escambia	A	5/13/1964	BYUC	Bratt
Perlinella ephyre			Liberty		12/10/1937	(Berner, 1948)	Torreya State Park
Perlinella ephyre			Okaloosa			(Kondratieff et al, 1988)	
Perlinella ephyre	Apalachicola R		Liberty			(Stark & Gaufin, 1979)	Torreya State Park
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/26/1967	FAMU	4.5 mi NW Cannon Town
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/23/1970	BYUC	Bryant Bridge
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/16/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/17/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/23/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/24/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/25/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/25/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/7/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/21/1972	FAMU	Bryant Bridge 3 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/23/1972	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/28/1972	FAMU	Bryant Bridge 3 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	3/23/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/2/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	3/25/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	3/27/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/23/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/1/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlidae Page 6-44

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/6/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/14/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/21/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/30/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/25/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	5/13/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	A	4/23/1981	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella ephyre	Blackwater R	Blackwater R	Okaloosa	N	4/28/1982	FDEP-Pensacola	Hwy 4
Perlinella ephyre	Blackwater R	Blackwater R	Santa Rosa			(Stark & Gaufin, 1979)	
Perlinella ephyre	Blackwater R	Blackwater R	Santa Rosa	A	11/28/1968	FAMU	3.5 mi NW Harold
Perlinella ephyre	Blackwater R	Blackwater R	Santa Rosa	A	4/20/1973	BYUC	above Carr's Fish Hatchery
Perlinella ephyre	Blackwater R	Blackwater R	Santa Rosa	A	4/26/1973	FAMU	
Perlinella ephyre	Chipola R	Chipola R	Calhoun	A	4/12/1972	BYUC	Hwy 20
Perlinella ephyre	Choctawhatchee R	Sandy Ck	Holmes			(Stark & Gaufin, 1979)	
Perlinella ephyre	Choctawhatchee R	Sandy Ck	Holmes		12/11/1937	(Berner, 1948)	
Perlinella ephyre	Yellow R	Shoal R	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella ephyre	Yellow R	Shoal R	Okaloosa	A	5/18/1967	FAMU	CR 393
Perlinella ephyre	Yellow R	Shoal R	Okaloosa	A	5/2/1970	BYUC	Dorcas
Perlinella ephyre	Yellow R	Shoal R	Okaloosa	A	4/24/1973	BYUC	Hwy 85
Perlinella ephyre	Yellow R	Shoal R	Okaloosa	A	4/26/1973	BYUC	Hwy 90
Perlinella ephyre	Yellow R	Shoal R	Walton			(Stark & Gaufin, 1979)	
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A		(Kondratieff et al, 1988)	Bryant Bridge
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	4/23/1970	BYUC	Bryant Bridge
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/1/1970	(Zwick, 1971)	Kennedy Bridge
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/9/1970	(Zwick, 1971)	Bryant Bridge
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	4/4/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	6/5/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/2/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/6/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlidae Page 6-45

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/8/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	4/21/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	6/3/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	4/30/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	5/13/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Blackwater R	Blackwater R	Okaloosa	A	6/13/1980	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Perlinella zwicki	Choctawhatchee Bay	Alaqua Ck	Walton	A	6/25/1996	FAMU Eglin Study	5 km N Portland @ SR 282
Perlinella zwicki	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	5/21/1998	FAMU Eglin Study	BR-221, 0.8 mi E of SR 85
Perlinella zwicki	Yellow R	Shoal R	Okaloosa	A	4/26/1973	BYUC	Hwy 90
Perlinella zwicki	Yellow R	Shoal R	Walton	A	5/26/1973	(Kondratieff et al, 1988)	Hwy 90

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Clioperla clio			Alachua	N	2/22/1970	FSCA	rapidly flowing stream, Gainesville
Clioperla clio	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Clioperla clio	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/19/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Clioperla clio	Apalachicola R	Trib. Flat Ck	Gadsden	N	2/18/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Clioperla clio	Apalachicola R	Trib. Flat Ck	Gadsden	N	3/2/2000	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Clioperla clio	Aucilla R	Welaunee Ck	Jefferson	N	3/13/1996	FDEP-Tallahassee	
Clioperla clio	Blackwater R	Blackwater R	Santa Rosa	N	7/28/1977	FAMU	5.5 mi NW Good Hope
Clioperla clio	Chipola R	Bridge Ck	Jackson	N	2/25/1981	FDEP-Pensacola	Hwy 71
Clioperla clio	Chipola R	Chipola R	Calhoun	N	2/7/1977	FDEP-Pensacola	Altha boat ramp
Clioperla clio	Chipola R	Chipola R	Calhoun	N	11/22/1977	FDEP-Pensacola	Altha boat ramp
Clioperla clio	Chipola R	Chipola R	Calhoun	N	1/26/1983	FDEP-Pensacola	Altha boat ramp
Clioperla clio	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	Tenmile Ck confluence
Clioperla clio	Chipola R	Chipola R	Calhoun	N	2/23/1984	FDEP-Pensacola	
Clioperla clio	Chipola R	Chipola R	Calhoun	N	3/28/1998	FAMU	Boat ramp 5 km SW of Altha
Clioperla clio	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/5/1979	FDEP-Pensacola	Hwy 2
Clioperla clio	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/16/1980	FDEP-Pensacola	Hwy 2
Clioperla clio	Choctawhatchee R	Trib. Holmes Ck	Washington	N	1/24/1984	FDEP-Pensacola	SR 79, 2 mi SW of Vernon
Clioperla clio	Choctawhatchee R	Wright's Ck	Holmes	N	2/24/1982	FDEP-Pensacola	CR 177A
Clioperla clio	Choctawhatchee R	Wright's Ck	Holmes	N	2/25/1987	FDEP-Pensacola	Hwy 2
Clioperla clio	Escambia R	Canoe Ck	Escambia	N	12/7/1978	FDEP-Pensacola	Hwy 29
Clioperla clio	Escambia R	Escambia R	Escambia	N	2/17/1977	FDEP-Pensacola	Upper Bluffs
Clioperla clio	Escambia R	Escambia R	Escambia	N	1/23/1979	FDEP-Pensacola	Upper Bluffs
Clioperla clio	Ochlockonee R	Black Ck	Leon	N	2/21/1998	FAMU	Hwy 364
Clioperla clio	Ochlockonee R	Monroe Ck	Gadsden	A	2/8/1996	FAMU	CR 268
Clioperla clio	Ochlockonee R	Monroe Ck	Gadsden	N	2/19/1996	FAMU	CR 268
Clioperla clio	Ochlockonee R	Monroe Ck	Gadsden	N	2/19/1997	FAMU	
Clioperla clio	Ochlockonee R	Ochlockonee R	Gadsden	N	2/10/1977	FDEP-Pensacola	SR 12
Clioperla clio	Ochlockonee R	Ochlockonee R	Liberty			(Stark & Gaufin, 1979)	
Clioperla clio	Ochlockonee R	Turkey Ck	Gadsden	N	1/1/1986	FAMU	
Clioperla clio	Ochlockonee R	Willacoochee Ck	Gadsden	N	1/7/1987	FAMU	SR 65 + 65A @ bridge
Clioperla clio	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/12/1987	FAMU	SR 65 @ bridge

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Clioperla clio	Ochlockonee R	Willacoochee Ck	Gadsden	N	11/18/1987	FAMU	CR 161 @ bridge
Clioperla clio	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/27/1990	FAMU	SR 65 @ bridge
Clioperla clio	Santa Fe R		Alachua	N	2/10/1968	FSCA	San Felasco Hammock, nr. Gainesville
Clioperla clio	Santa Fe R	Worthington Springs	Alachua			(Stark & Gaufin, 1979)	
Clioperla clio	Santa Fe R	Worthington Springs	Alachua		2/5/1939	(Berner, 1948)	
Clioperla clio	Santa Fe R	Worthington Springs	Alachua		3/5/1939	(Szczytko&Stewart, 1991)	
Clioperla clio	Santa Fe R	Worthington Springs	Alachua	N	2/5/1939	INHS	
Clioperla clio	St. Marks R	Burnt Mill Ck	Jefferson	N	12/2/1992	FAMU	CR 59
Clioperla clio	St. Marks R	Burnt Mill Ck	Jefferson	N	2/4/1993	FAMU	CR 59
Clioperla clio	St. Marks R	Caney Ck	Jefferson	N	3/13/1996	FDEP-Tallahassee	
Clioperla clio	St. Marks R	NFREC-Monticello	Jefferson	A	3/19/1998	FAMU	Hwy 90
Clioperla clio	St. Marks R	NFREC-Monticello	Jefferson	N	2/21/1998	FAMU	Hwy 90
Clioperla clio	Yellow R	Yellow R	Okaloosa	A	3/10/1999	Kondratieff (FL visit)	SR 2
Helopicus bogaloosa	Alapaha R	Alapaha R	Hamilton	N	2/10/1995	SRWMD	near Jennings @ SR 150
Helopicus bogaloosa	Blackwater R	Big Coldwater Ck	Santa Rosa	N	11/23/1976	FDEP-Pensacola	confluence of E & W Forks
Helopicus bogaloosa	Blackwater R	Big Coldwater Ck	Santa Rosa	N	3/14/1978	FDEP-Pensacola	confluence of E & W Forks
Helopicus bogaloosa	Blackwater R	Big Coldwater Ck	Santa Rosa	N	2/28/1979	FDEP-Pensacola	confluence of E & W Forks
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	A	4/17/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	1/31/1971	FAMU	Bryant Bridge
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	1/15/1976	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	2/15/1977	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	4/12/1978	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	2/1/1979	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	2/26/1980	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	11/2/1981	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Okaloosa	N	2/24/1983	FDEP-Pensacola	Hwy 4
Helopicus bogaloosa	Blackwater R	Blackwater R	Santa Rosa	A	4/20/1973	(Stark & Ray, 1983)	
Helopicus bogaloosa	Blackwater R	Blackwater R	Santa Rosa	N	2/11/1972	FAMU	Riley Bluff
Helopicus bogaloosa	Blackwater R	Clear Ck	Santa Rosa	N	10/29/1993	FDEP-Tallahassee	2 mi N Whiting Field NAS WWTP outfall
Helopicus bogaloosa	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	below Juniper Ck
Helopicus bogaloosa	Chipola R	Juniper Ck	Calhoun	N	1/20/1977	FDEP-Pensacola	CR 71 @ Frink

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Helopicus bogaloosa	Chipola R	Juniper Ck	Calhoun	N	2/12/1979	FDEP-Pensacola	CR 71 @ Frink
Helopicus bogaloosa	Chipola R	Tenmile Ck	Calhoun	N	2/7/1995	FDEP-Pensacola	CR 71
Helopicus bogaloosa	Choctawhatchee Bay	Little Alaqua Ck	Walton	N	11/15/1978	FDEP-Pensacola	Pine Allen Bridge Rd
Helopicus bogaloosa	Escambia R	Canoe Ck	Escambia	N	1/27/1969	FDEP-Pensacola	
Helopicus bogaloosa	Escambia R	Mitchell Ck	Escambia	N	1/24/1995	FDEP-Pensacola	Hwy 29
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	3/18/1976	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	2/16/1977	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	3/5/1977	FDEP-Pensacola	Bay Springs
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	2/7/1978	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	3/1/1978	FDEP-Pensacola	Bay Springs
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	3/7/1978	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	1/18/1979	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	3/1/1979	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N	11/3/1981	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	Perdido R	Perdido R	Escambia	N,A	4/5/1978	FDEP-Pensacola	Hwy 184
Helopicus bogaloosa	St. Andrews Bay	Econfina Ck	Bay	N	7/20/1977	FDEP-Pensacola	SR 388
Helopicus bogaloosa	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd
Helopicus bogaloosa	St. Andrews Bay	Econfina Ck	Bay	N	2/5/1997	FDEP-Tallahassee	Scott Rd
Helopicus bogaloosa	Yellow R	Shoal R	Okaloosa	N	2/22/1978	FDEP-Pensacola	CR 393
Helopicus bogaloosa	Yellow R	Shoal R	Okaloosa	N	2/20/1979	FDEP-Pensacola	CR 393
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	A	2/4/1981	(Stark & Ray, 1983)	SR 189
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	A	3/10/1981	(Stark & Ray, 1983)	Hwy 90
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	A	3/10/1981	FDEP-Pensacola	Hwy 90
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	N	2/22/1977	FDEP-Pensacola	SR 189
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	N	2/16/1978	FDEP-Pensacola	SR 189
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	N	2/20/1979	FDEP-Pensacola	SR 189
Helopicus bogaloosa	Yellow R	Yellow R	Okaloosa	N/A	2/4/1981	FDEP-Pensacola	SR 189
Helopicus subvarians	Chipola R	Chipola R	Calhoun	A	2/11/1981	FDEP-Pensacola	
Helopicus subvarians	Chipola R	Chipola R	Calhoun	A	2/25/1981	FDEP-Pensacola	1 mile N SR 274
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/22/1978	FDEP-Pensacola	Altha boat ramp
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	11/13/1978	FDEP-Pensacola	Altha boat ramp

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/13/1979	FDEP-Pensacola	Altha boat ramp
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/14/1980	FDEP-Pensacola	
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	10/22/1981	FDEP-Pensacola	
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	1/25/1983	FDEP-Pensacola	Rocky Ck confluence
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	1/26/1983	FDEP-Pensacola	
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	Tenmile Ck confluence
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	
Helopicus subvarians	Chipola R	Chipola R	Calhoun	N	2/23/1984	FDEP-Pensacola	
Helopicus subvarians	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/21/1977	FDEP-Pensacola	Hwy 2
Helopicus subvarians	Choctawhatchee R	Choctawhatchee R	Holmes	N	3/2/1977	(Stark & Ray, 1983)	Hwy 2
Helopicus subvarians	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4
Hydroperla phormidia	Blackwater R	Blackwater R	Okaloosa	A	4/14/1977	FAMU	Bryant Bridge
Hydroperla phormidia	Blackwater R	Blackwater R	Okaloosa	A	4/25/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Hydroperla phormidia	Blackwater R	Blackwater R	Okaloosa	A	4/12/1978	(Ray & Stark, 1981)	Hwy 4
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Holmes	A	3/2/1982	FDEP-Pensacola	Hwy 90
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/16/1980	FDEP-Pensacola	Hwy 2
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/23/1982	FDEP-Pensacola	Hwy 2
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	A	2/9/1981	(Ray & Stark, 1981)	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	A	3/8/1982	FDEP-Pensacola	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N	2/22/1977	(Ray & Stark, 1981)	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N	2/14/1979	(Ray & Stark, 1981)	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N	2/15/1979	FDEP-Pensacola	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N	1/14/1980	(Ray & Stark, 1981)	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N	1/14/1980	FDEP-Pensacola	Hwy 20
Hydroperla phormidia	Choctawhatchee R	Choctawhatchee R	Walton	N,A	2/9/1981	FDEP-Pensacola	Hwy 20
Hydroperla phormidia	Escambia R	Escambia R	Escambia	N	2/17/1977	(Ray & Stark, 1981)	Upper Bluffs
Hydroperla phormidia	Escambia R	Escambia R	Escambia	N	2/26/1980	(Ray & Stark, 1981)	Hwy 4
Hydroperla phormidia	Escambia R	Escambia R	Escambia	N	2/26/1980	FDEP-Pensacola	Hwy 4
Hydroperla phormidia	Escambia R	Escambia R	Escambia	N	12/3/1980	FDEP-Pensacola	Hwy 4
Hydroperla phormidia	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4
Hydroperla phormidia	Lower Suwannee R	Suwannee R	Suwannee	N	3/3/1993	SRWMD	Luraville, SR 51

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	A	2/27/1980	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	A	3/10/1981	FDEP-Pensacola	Hwy 90
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	A	3/10/1999	Kondratieff (FL visit)	Hwy 2
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/22/1977	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/22/1977	FAMU	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/22/1977	FDEP-Pensacola	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/16/1978	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/20/1979	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/20/1979	FDEP-Pensacola	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/27/1980	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/27/1980	FDEP-Pensacola	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	2/27/1980	INHS	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N	3/6/1980	(Ray & Stark, 1981)	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N,A	2/27/1980	FDEP-Pensacola	SR 189
Hydroperla phormidia	Yellow R	Yellow R	Okaloosa	N,A	2/4/1981	FDEP-Pensacola	SR 189
Isoperla	Alapaha R		Hamilton	N	2/4/1938	INHS	Jasper
Isoperla	Apalachicola R	Crooked Ck	Gadsden	A	5/2/1996	FAMU Ravine Study	CR 270, 10 km W Greensboro
Isoperla	Apalachicola R	Flat Ck	Gadsden	N	3/6/1996	FAMU	CR 270A
Isoperla	Apalachicola R	Flat Ck	Gadsden	N	3/6/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Isoperla	Blackwater R	Alligator Ck	Santa Rosa	A	3/10/1999	BYUC	Blackwater River State Forest
Isoperla	Blackwater R	Alligator Ck	Santa Rosa	A	3/10/1999	Kondratieff (FL visit)	Blackwater River State Forest
Isoperla	Blackwater R	Beaver Ck	Okaloosa	A	2/20/1998	FDEP-Pensacola	Hwy 4
Isoperla	Blackwater R	Big Coldwater Ck	Santa Rosa	N	3/14/1978	FDEP-Pensacola	confluence of E & W Forks
Isoperla	Blackwater R	Big Coldwater Ck	Santa Rosa	N	2/20/1980	FDEP-Pensacola	confluence of E & W Forks
Isoperla	Blackwater R	Big Juniper Ck	Santa Rosa	A	3/10/1999	BYUC	Blackwater River State Forest
Isoperla	Blackwater R	Big Juniper Ck	Santa Rosa	A	3/10/1999	Kondratieff (FL visit)	Blackwater River State Park
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/2/1971	FAMU	Bryant Bridge
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/16/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/23/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/23/1973	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/29/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/17/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/4/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/5/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/25/1976	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/19/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/14/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/21/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	5/6/1977	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	4/30/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	5/3/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/13/1982	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	A	3/27/1986	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	N	3/9/1960	FAMU	Hwy 4
Isoperla	Blackwater R	Blackwater R	Okaloosa	N	2/15/1974	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	N	3/17/1979	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla	Blackwater R	Blackwater R	Okaloosa	N	1/29/1980	FDEP-Pensacola	
Isoperla	Blackwater R	Blackwater R	Okaloosa	N	2/24/1983	FDEP-Pensacola	
Isoperla	Blackwater R	Blackwater R	Santa Rosa	N	2/11/1972	FAMU	Riley Bluff
Isoperla	Blackwater R	Blackwater R	Santa Rosa	N	7/28/1977	FAMU	Cotton Bridge
Isoperla	Blackwater R	Panther Ck	Okaloosa	A	2/24/1998	FDEP-Pensacola	John Riley Barnhill Rd
Isoperla	Blackwater R	Panther Ck	Okaloosa	N	2/22/1996	FDEP-Tallahassee	John Riley Barnhill Rd
Isoperla	Blackwater R	Red Wash Branch	Okaloosa	A	3/4/1998	FDEP-Pensacola	above Hwy 4
Isoperla	Chipola R	Juniper Ck	Calhoun	N	2/22/1984	FDEP-Pensacola	Hwy 73
Isoperla	Chipola R	Tenmile Ck	Calhoun	N	2/21/1994	FDEP-Pensacola	SR 73
Isoperla	Choctawhatchee Bay	Alaqua Ck	Walton	N	3/2/1992	FDEP-Pensacola	Pine Allen Bridge
Isoperla	Choctawhatchee R	Choctawhatchee R		N	1/24/1983	FDEP-Pensacola	Hwy 2
Isoperla	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/23/1982	FDEP-Pensacola	Hwy 2
Isoperla	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/25/1993	FDEP-Tallahassee	Hwy 2
Isoperla	Choctawhatchee R	Tenmile Ck	Holmes	N	2/4/1997	FDEP-Tallahassee	SR 71
Isoperla	Choctawhatchee R	Wright's Ck	Holmes	N	2/25/1987	FDEP-Pensacola	CR 179
Isoperla	Escambia R	Escambia R	Escambia	N	2/23/1983	FDEP-Pensacola	Hwy 4

FLORIDA PLECOPTERA

Family: Perlodidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Isoperla	Escambia R	Thomas Ck	Santa Rosa	N	1/27/1997	FDEP-Pensacola	Molino Bridge Rd
Isoperla	Escambia R	Thomas Ck	Santa Rosa	N	1/27/1997	FDEP-Tallahassee	Molino Bridge Rd
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/24/1987	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	1/22/1988	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	1/22/1988	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	3/29/1989	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	2/12/1992	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	2/11/1993	FAMU	CR 159
Isoperla	Ochlockonee R	Attapulgus Ck	Gadsden	N	2/11/1993	FAMU	CR 159
Isoperla	Ochlockonee R	Little R	Gadsden	N	2/29/1988	FAMU	Sta. 5
Isoperla	Ochlockonee R	Little R	Gadsden	N	2/12/1992	FAMU	Hwy 90
Isoperla	Ochlockonee R	Little R	Gadsden	N	2/11/1993	FAMU	Hwy 90
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	4/28/1968	FAMU	
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	3/27/1975	FAMU	SR 65B
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/13/1975	FAMU	SR 65B
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/25/1985	FAMU	SR 65B
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/11/1985	FAMU	SR 65B
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/26/1987	FAMU	CR 274
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/26/1987	FAMU	CR 274
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/23/1987	FAMU	SR 267
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/8/1988	FAMU	CR 274
Isoperla	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	2/8/1988	FAMU	SR 267
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/3/1986	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	1/7/1987	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/12/1987	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/12/1987	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	3/24/1987	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/27/1990	FAMU	SR 65
Isoperla	Ochlockonee R	Willacoochee Ck	Gadsden	N	2/27/1990	FAMU	CR 161
Isoperla	Perdido R	Perdido R	Escambia	N	1/14/1976	FDEP-Pensacola	Hwy 184
Isoperla	Perdido R	Perdido R	Escambia	N	2/19/1980	FDEP-Pensacola	Hwy 184

FLORIDA PLECOPTERA

Family: Perlodidae Page 7-8

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Isoperla	Santa Fe R		Alachua	A	4/2/1973	FAMU	San Felasco Hammock
Isoperla	Santa Fe R		Alachua	N	3/2/1973	FAMU	San Felasco Hammock
Isoperla	Santa Fe R	Blues Ck	Alachua	N	2/1/1997	FAMU	
Isoperla	Santa Fe R	New R	Union	N	2/15/1994	SRWMD	CR 18
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	2/5/1992	FAMU	CR 59
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	2/5/1992	FAMU	CR 59
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	4/1/1992	FAMU	CR 59
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	2/4/1993	FAMU	CR 59
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	4/1/1993	FAMU	Hwy 27
Isoperla	St. Marks R	Burnt Mill Ck	Jefferson	N	4/1/1993	FAMU	CR 59
Isoperla	St. Marks R	Burnt Mill Ck	Jeffeson	N	2/4/1993	FAMU	Hwy 27
Isoperla	St. Marks R	Caney Ck	Jefferson	N	3/13/1996	FDEP-Tallahassee	
Isoperla	St. Marks R	Lloyd Ck	Jefferson	N	2/6/1997	FDEP-Tallahassee	
Isoperla	St. Marks R	Sweetwater Ck	Jefferson	N	4/15/1997	FDEP-Tallahassee	
Isoperla	Suwannee R	Suwannee R	Suwannee	A	3/29/1977	FSCA	Suwannee R. St. Park
Isoperla	Suwannee R	Suwannee R	Suwannee	N	3/17/1997	SRWMD	Hwy 90 @ Ellaville
Isoperla bilineata	Blackwater R	Blackwater R	Okaloosa	A	5/1/1978	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla bilineata	Blackwater R	Blackwater R	Okaloosa	N	1/29/1990	FDEP-Pensacola	Hwy 4
Isoperla bilineata	Perdido R	Perdido R	Escambia	N	2/19/1980	FDEP-Pensacola	Hwy 184
Isoperla davisi	Oklawaha R	Hogtown Ck	Alachua	N	2/19/1934	INHS	
Isoperla davisi	Santa Fe R	Blues Ck	Alachua	A	3/20/1997	FAMU	
Isoperla davisi	Santa Fe R	Worthington Springs	Alachua	N	2/5/1939	INHS	
Isoperla davisi	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd
Isoperla davisi	St. Marks R	NFREC-Monticello	Jefferson	A	4/4/1998	FAMU	
Isoperla dicala	Apalachicola R	Crooked Ck	Gadsden	A	4/18/1995	FAMU Ravine Study	CR 270, 10 km W Greensboro
Isoperla dicala	Blackwater R	Blackwater R	Okaloosa	A		(Stark & Gaufin, 1979)	
Isoperla dicala	Choctawhatchee Bay	Alaqua Ck	Walton	A		(Stark & Gaufin, 1979)	
Isoperla orata	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Isoperla orata	Blackwater R	Blackwater R	Okaloosa	A	4/16/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla orata	Blackwater R	Blackwater R	Okaloosa	A	4/25/1971	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla orata	Blackwater R	Blackwater R	Okaloosa	A	5/7/1971	BYUC	FAMU Bio. Sta. 4.5 mi NW Holt

FLORIDA PLECOPTERA

Family: Perlodidae Page 7-9

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Isoperla orata	Blackwater R	Blackwater R	Santa Rosa	A	4/20/1973	FAMU	above Carr's Fish Hatchery
Isoperla orata	Blackwater R	Blackwater R	Santa Rosa	A	4/26/1973	FAMU	
Isoperla sp. A	Blackwater R	Blackwater R	Okaloosa	A	4/7/1972	FAMU	Bryant Bridge
Isoperla sp. A	Blackwater R	Blackwater R	Okaloosa	A	4/18/1975	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla sp. A	Blackwater R	Blackwater R	Okaloosa	A	4/4/1988	FAMU	FAMU Bio. Sta. 4.5 mi NW Holt
Isoperla sp. B	Blackwater R	Alligator Ck	Santa Rosa	A	3/10/1999	FAMU	Bryant Bridge Rd
Isoperla sp. B	Blackwater R	Big Juniper Ck	Santa Rosa	A	3/10/1999	FAMU	Blackwater State Forest @ Red Rock Rd
Isoperla sp. C	Santa Fe R	Blues Ck	Alachua	A	3/20/1997	FAMU	

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Pteronarcyidae

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Pteronarcys	Alapaha R	Alapaha R	Hamilton	N	5/12/1995	SRWMD	near Jennings
Pteronarcys	Apalachicola R			N	2/25/1962	FSCA	near Chattahoochee, Florida
Pteronarcys	Apalachicola R	Flat Ck	Gadsden	N	4/17/1996	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Pteronarcys	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	SR 269, 8 km S of Chattahoochee
Pteronarcys	Apalachicola R	Flat Ck	Gadsden	N	3/31/1999	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Pteronarcys	Apalachicola R	Flat Ck	Gadsden	N	3/2/2000	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Pteronarcys	Apalachicola R	Flat Ck?	Gadsden	N	6/6/1940	INHS	5 mi S of River Junction
Pteronarcys	Apalachicola R	River Junction	Liberty		3/17/1939	(Berner, 1948)	
Pteronarcys	Apalachicola R	Sweetwater Ck	Liberty	N	4/18/1995	FAMU Ravine Study	CR 270
Pteronarcys	Apalachicola R	Sweetwater Ck	Liberty	N	2/12/1996	FDEP-Tallahassee	
Pteronarcys	Apalachicola R	Sweetwater Ck	Liberty	N	3/11/1999	Kondratieff (FL visit)	Hwy 271
Pteronarcys	Apalachicola R	Sweetwater Ck	Liberty	N	6/7/1999	FAMU Ravine Study	CR 270
Pteronarcys	Blackwater R	Blackwater R	Okaloosa			(Stark & Gaufin, 1979)	
Pteronarcys	Blackwater R	Pond Ck	Santa Rosa	N		(Bueler, 1984)	
Pteronarcys	Blackwater R	Sweetwater Ck	Santa Rosa	N	5/9/1996	INHS	Sandy Landing Rd
Pteronarcys	Chipola R	Chipola R	Calhoun	N	9/26/1979	FDEP-Pensacola	SR 274
Pteronarcys	Chipola R	Chipola R	Calhoun	N	7/21/1983	FDEP-Pensacola	SR 274
Pteronarcys	Chipola R	Chipola R	Calhoun	N	2/22/1984	FDEP-Pensacola	Juniper Ck confluence
Pteronarcys	Choctawhatchee Bay	Alaqua Ck	Walton	N	2/17/1994	FDEP-Tallahassee	Pine Allen Bridge
Pteronarcys	Choctawhatchee Bay	Juniper Ck	Okaloosa	N	3/20/1998	FAMU Eglin Study	Eglin AFB, BR 221
Pteronarcys	Choctawhatchee Bay	Little Alaqua Ck	Walton			(Stark & Gaufin, 1979)	
Pteronarcys	Choctawhatchee R	Choctawhatchee R		N	6/23/1983	FDEP-Pensacola	Hwy 2
Pteronarcys	Choctawhatchee R	Choctawhatchee R		N	7/18/1983	FDEP-Pensacola	Hwy 2
Pteronarcys	Choctawhatchee R	Sandy Ck	Holmes			(Stark & Gaufin, 1979)	
Pteronarcys	Escambia R	Canoe Ck	Escambia			(Stark & Gaufin, 1979)	
Pteronarcys	Escambia R	Canoe Ck	Escambia	N		(Bueler, 1984)	
Pteronarcys	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Pteronarcys	Ochlockonee R	Bear Ck	Gadsden	N	6/9/1978	FAMU	
Pteronarcys	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	3/11/1974	FAMU	SR 65B
Pteronarcys	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/9/1975	FAMU	SR 65B
Pteronarcys	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	4/23/1987	FAMU	SR 65B

FLORIDA PLECOPTERA

Family: Pteronarcyidae Page 8-2

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Pteronarcys	Ochlockonee R	Telogia Ck	Gadsden	N	7/1/1987	FAMU	CR 65D
Pteronarcys	Ochlockonee R	Telogia Ck	Liberty	N	2/6/1986	FAMU	CR 271
Pteronarcys	Ochlockonee R	Telogia Ck	Liberty	N	10/30/1990	FAMU	CR 271
Pteronarcys	Ochlockonee R	Willacoochee Ck	Gadsden	N	12/5/1985	FAMU	SR 65
Pteronarcys	Ochlockonee R	Willacoochee Ck	Gadsden	N	8/17/1987	FAMU	SR 65
Pteronarcys	Perdido R	Perdido R	Escambia			(Stark & Gaufin, 1979)	
Pteronarcys	St. Andrews Bay	Bear Ck	Bay			(Stark & Gaufin, 1979)	
Pteronarcys	St. Andrews Bay	Econfina Ck	Bay	N	1/20/1977	FDEP-Pensacola	SR 388
Pteronarcys	St. Andrews Bay	Econfina Ck	Bay	N	6/25/1996	FAMU	Scott Rd
Pteronarcys	Yellow R	Pine Log Ck	Walton	N	2/23/1993	FDEP-Pensacola	SR 2
Pteronarcys	Yellow R	Shoal R	Okaloosa			(Stark & Gaufin, 1979)	
Pteronarcys	Yellow R	Yellow R	Okaloosa			(Stark & Gaufin, 1979)	
Pteronarcys dorsata	Chipola R	Chipola R	Jackson	A	3/11/1999	BYUC	Florida Caverns State Park
Pteronarcys dorsata	Chipola R	Chipola R	Jackson	A	3/11/1999	Kondratieff (FL visit)	Florida Caverns State Park
Pteronarcys dorsata	Choctawhatchee Bay	Juniper Ck	Okaloosa	A	3/19/1998	FAMU Eglin Study	Eglin AFB, BR 221
Pteronarcys dorsata	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	3/15/1972	BYUC	bridge on dirt rd, 6 mi S Hwy 268

END OF DATA TABLE

FLORIDA PLECOPTERA

Family: Taeniopterygidae Page 9-1

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Taeniopteryx	Apalachicola R	Apalachicola R	Gulf	N	1/10/1979	FDEP-Pensacola	Buoy 40
Taeniopteryx	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	CR 270A, 8 km S of Chattahoochee
Taeniopteryx	Apalachicola R	Flat Ck	Gadsden	N	12/10/1998	FAMU Ravine Study	SR 269, 8 km S of Chattahoochee
Taeniopteryx	Aucilla R	Aucilla R	Jefferson/Madison	N	12/9/1992	FAMU Biotic Index Study	US Hwy 27
Taeniopteryx	Blackwater R	Big Coldwater Ck	Santa Rosa	N	11/23/1976	FDEP-Pensacola	confluence of E & W Forks
Taeniopteryx	Blackwater R	Big Juniper Ck	Santa Rosa	N	2/10/1978	FDEP-Pensacola	Hwy 4
Taeniopteryx	Blackwater R	Blackwater R		N	2/1/1979	FAMU	
Taeniopteryx	Blackwater R	Blackwater R	Okaloosa	N	1/15/1976	FDEP-Pensacola	Hwy 4
Taeniopteryx	Blackwater R	Blackwater R	Okaloosa	N	11/21/1978	FDEP-Pensacola	Hwy 4
Taeniopteryx	Blackwater R	Blackwater R	Okaloosa	N	2/1/1979	FDEP-Pensacola	Hwy 4
Taeniopteryx	Blackwater R	Blackwater R	Santa Rosa	N	2/11/1972	FAMU	Riley Bluff
Taeniopteryx	Chipola R	Chipola R	Calhoun	N	2/22/1977	FDEP-Pensacola	Hwy 20
Taeniopteryx	Chipola R	Chipola R	Calhoun	N	2/13/1979	FDEP-Pensacola	SR 274
Taeniopteryx	Choctawhatchee R	Choctawhatchee R	Holmes	N	12/6/1982	FDEP-Pensacola	Hwy 2
Taeniopteryx	Choctawhatchee R	Sandy Ck	Walton	N	2/6/1995	FDEP-Pensacola	SR 183
Taeniopteryx	Choctawhatchee R	Seven Runs Ck	Walton	N	1/27/1982	FDEP-Pensacola	SR 81
Taeniopteryx	Escambia R	Canoe Ck	Escambia	N	12/6/1978	FDEP-Pensacola	Sugar Hill
Taeniopteryx	Escambia R	Escambia R	Escambia	N	1/28/1976	FDEP-Pensacola	Upper Bluffs
Taeniopteryx	Escambia R	Escambia R	Escambia	N	1/30/1979	FDEP-Pensacola	Hwy 4
Taeniopteryx	Escambia R	Escambia R	Escambia	N	12/3/1980	FDEP-Pensacola	Upper Bluffs
Taeniopteryx	Escambia R	Escambia R	Escambia	N	11/16/1981	FDEP-Pensacola	Hwy 4 below BEC
Taeniopteryx	Escambia R	Escambia R	Escambia	N	12/14/1983	FDEP-Pensacola	Upper Bluffs
Taeniopteryx	Ochlockonee R	Attapulgus Ck	Gadsden	N	12/5/1985	FAMU ORB Study	CR 159
Taeniopteryx	Ochlockonee R	Little R	Gadsden	N	12/28/1989	FAMU ORB Study	SR 12, 5 mi SW Havana
Taeniopteryx	Ochlockonee R	Ocklawaha Ck	Gadsden	N	5/2/1986	FAMU ORB Study	CR 65, 6.6 mi N Hosford
Taeniopteryx	Ochlockonee R	Rocky Comfort Ck	Gadsden	N		FAMU	2nd bridge on dirt rd 6 mi S Hwy 268
Taeniopteryx	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	11/19/1967	FAMU	dirt rd 6 mi S Hwy 268
Taeniopteryx	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	11/5/1971	FAMU	at bridge 6 mi S Hwy 268
Taeniopteryx	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1986	FAMU ORB Study	CR 274
Taeniopteryx	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	CR 274, 5.3 mi SW Quincy
Taeniopteryx	Ochlockonee R	Telogia Ck	Gadsden	N	11/5/1986	FAMU ORB Study	CR 65D, 2 mi SE Greensboro

FLORIDA PLECOPTERA

Family: Taeniopterygidae Page 9-2

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Taeniopteryx	Ochlockonee R	Telogia Ck	Gadsden	N	12/16/1986	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Taeniopteryx	Ochlockonee R	Telogia Ck	Gadsden	N	1/26/1987	FAMU ORB Study	SR 20, 2.5 mi E Bristol
Taeniopteryx	Ochlockonee R	Telogia Ck	Liberty	N	9/4/1986	FAMU ORB Study	bridge, 6.6 mi NW Hosford
Taeniopteryx	Ochlockonee R	Willacoochee Ck	Gadsden	N	6/29/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Taeniopteryx	Ochlockonee R	Winkley Branch	Gadsden	N	12/28/1989	FAMU ORB Study	SR 12, 3.5 mi E Quincy
Taeniopteryx	Pea R	Limestone Ck	Walton	N	12/12/1978	FDEP-Pensacola	
Taeniopteryx	Perdido R	Perdido R	Escambia	N	11/22/1978	FDEP-Pensacola	Hwy 184
Taeniopteryx	Perdido R	Perdido R	Escambia	N	1/18/1979	FDEP-Pensacola	Hwy 184
Taeniopteryx	Perdido R	Perdido R	Escambia	N	11/19/1979	FDEP-Pensacola	Hwy 184
Taeniopteryx	Perdido R	Perdido R	Escambia	N	11/3/1981	FDEP-Pensacola	Hwy 184
Taeniopteryx	St. Andrews Bay	Econfina Ck	Bay	N	1/14/1980	FDEP-Pensacola	SR 388
Taeniopteryx	St. Andrews Bay	Econfina Ck	Bay	N	2/7/1995	FDEP-Pensacola	Scott Rd
Taeniopteryx	Suwannee R (lower)	Suwannee R		N	12/2/1992	SRWMD	Luraville, SR 51
Taeniopteryx	Withlacoochee N. R	Withlacoochee R	Hamilton/Madison	N	12/17/1991	FAMU Biotic Index Study	3 km N SR 6
Taeniopteryx burksi	Choctawhatchee R	East Fork Pittman Ck	Holmes	A	1/29/1997	FDEP-Pensacola	SR 177A
Taeniopteryx burksi	Choctawhatchee R	Holmes Ck	Washington	N	12/11/1937	INHS	
Taeniopteryx burksi	Ochlockonee R	Bear Ck	Gadsden			(Stark & Gaufin, 1979)	
Taeniopteryx burksi	Ochlockonee R	Bear Ck	Gadsden	N	12/21/1968	FAMU	8 mi S SR 268, 1 mi N Hwy 65C
Taeniopteryx burksi	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Taeniopteryx burksi	Ochlockonee R	Rocky Comfort Ck	Gadsden	A	6/29/1987	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Taeniopteryx burksi	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/3/1987	FAMU ORB Study	SR 267
Taeniopteryx burksi	Ochlockonee R	Rocky Comfort Ck	Gadsden	N	12/15/1988	FAMU ORB Study	SR 267
Taeniopteryx burksi	Ochlockonee R	Willacoochee Ck	Gadsden	N	12/5/1985	FAMU ORB Study	SR 65 + 65A, 6.5 mi N Quincy
Taeniopteryx lita	Blackwater R	Blackwater R	Santa Rosa			(Stark & Gaufin, 1979)	
Taeniopteryx lita	Choctawhatchee Bay	Alaqua Ck	Walton			(Stark & Gaufin, 1979)	
Taeniopteryx lita	Choctawhatchee R	Black Ck	Walton			(Stark & Gaufin, 1979)	
Taeniopteryx lita	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/20/1978	FDEP-Pensacola	Hwy 2
Taeniopteryx lita	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/23/1982	FDEP-Pensacola	Hwy 2
Taeniopteryx lita	Choctawhatchee R	Choctawhatchee R	Walton	A	2/9/1981	FDEP-Pensacola	Hwy 20
Taeniopteryx lita	Choctawhatchee R	Sandy Ck	Holmes			(Stark & Gaufin, 1979)	
Taeniopteryx lita	Ochlockonee R	Ochlockonee R	Gadsden	N	2/10/1979	FAMU	Hwy 12

FLORIDA PLECOPTERA

Family: Taeniopterygidae Page 9-3

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Taeniopteryx lita	Ochlockonee R	Rocky Comfort Ck	Gadsden			(Stark & Gaufin, 1979)	
Taeniopteryx lita ?	Choctawhatchee R	Choctawhatchee R	Holmes/Washingtor	A	3/2/1982	FDEP-Pensacola	Hwy 90
Taeniopteryx lita ?	Ochlockonee R	Ochlockonee R	Gadsden	N	2/10/1977	FDEP-Pensacola	Hwy 12
Taeniopteryx lita/lonicera	Apalachicola R	Mosquito Ck	Gadsden	N	7/1/1980	FDEP-Pensacola	Powerlines
Taeniopteryx lita/lonicera	Blackwater R	Blackwater R	Okaloosa	N	1/23/1993	FAMU	Cheshire Bridge
Taeniopteryx lita/lonicera	Choctawhatchee Bay	Alaqua Ck	Walton	N	12/14/1970	FAMU	Hwy 282, 1st bridge going E.
Taeniopteryx lita/lonicera	Choctawhatchee R	Big Sandy Ck	Walton	N		FDEP-Pensacola	SR 183
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/21/1977	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	A	2/26/1978	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/26/1978	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/5/1979	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/16/1980	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	N	2/10/1981	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Holmes	N	1/24/1983	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Walton	A	1/24/1978	FDEP-Pensacola	Hwy 20
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Walton	N	1/24/1978	FDEP-Pensacola	Hwy 20
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Walton	N	2/15/1979	FDEP-Pensacola	Hwy 20
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Walton	N	1/14/1980	FDEP-Pensacola	Hwy 20
Taeniopteryx lita/lonicera	Choctawhatchee R	Choctawhatchee R	Walton	N/A	2/9/1981	FDEP-Pensacola	Hwy 20
Taeniopteryx lita/lonicera	Choctawhatchee R	Sandy Ck	Holmes	N	12/13/1970	FAMU	Hwy 90
Taeniopteryx lita/lonicera	Choctawhatchee R	Sandy Ck	Holmes	N	1/25/1982	FDEP-Pensacola	I-10 Rest Area
Taeniopteryx lita/lonicera	Choctawhatchee R	Wright's Ck	Holmes	N	2/24/1982	FDEP-Pensacola	CR 177A
Taeniopteryx lita/lonicera	Escambia R	Escambia R	Escambia	N	2/14/1977	FDEP-Pensacola	Hwy 4
Taeniopteryx lita/lonicera	Escambia R	Escambia R	Escambia	N	1/23/1979	FDEP-Pensacola	Upper Bluffs
Taeniopteryx lita/lonicera	Escambia R	Escambia R	Escambia	N	12/3/1980	FDEP-Pensacola	Hwy 4
Taeniopteryx lita/lonicera	Pea R	Chestnut Ck	Walton	N	1/18/1982	FDEP-Pensacola	
Taeniopteryx lita/lonicera	Perdido R	Brushy Ck	Escambia	A	3/1/1979	FDEP-Pensacola	Nakomis Rd (SR 99)
Taeniopteryx lita/lonicera	Perdido R	Perdido R	Escambia	N	12/8/1978	FDEP-Pensacola	Hwy 184
Taeniopteryx lita/lonicera	Yellow R	Natural Bridge Ck	Walton	N	1/19/1982	FDEP-Pensacola	Hwy 2
Taeniopteryx lita/lonicera	Yellow R	Shoal R	Okaloosa	N	2/22/1978	FDEP-Pensacola	CR 393
Taeniopteryx lita/lonicera	Yellow R	Shoal R	Okaloosa	N	2/20/1979	FDEP-Pensacola	CR 393

FLORIDA PLECOPTERA

Family: Taeniopterygidae Page 9-4

Species	Basin	Waterbody	County	Stage	Date Coll.	Source	Locality description
Taeniopteryx lita/lonicera	Yellow R	Yellow R	Okaloosa	N	2/16/1978	FDEP-Pensacola	SR 189
Taeniopteryx lonicera	Escambia R	Pritchard Mill Ck	Escambia	A	2/11/1998	FDEP-Pensacola	Dawson Rd
Taeniopteryx lonicera	Escambia R	Pritchard Mill Ck	Escambia	N	2/11/1998	FDEP-Pensacola	Dawson Rd
Taeniopteryx lonicera ?	Escambia R	Canoe Ck	Escambia	N	12/6/1978	FDEP-Pensacola	Hwy 29
Taeniopteryx lonicera ?	Escambia R	Escambia R	Escambia	A	1/30/1979	FDEP-Pensacola	Hwy 4
Taeniopteryx lonicera ?	Escambia R	Escambia R	Escambia	N	1/30/1979	FDEP-Pensacola	Hwy 4
Taeniopteryx lonicera ?	Escambia R	Mitchell Ck	Escambia	N	12/6/1978	FDEP-Pensacola	Hwy 29

END OF DATA TABLE