Light Trap Sample Arrival/Log-in Procedures

1. SCOPE AND APPLICATION

1.1 This procedure details the handling of light trap samples that are received for analysis in the Invertebrate Taxonomy Subsection.

2. SUMMARY OF METHOD

2.1 Samples for Invertebrate Taxonomic identification are logged in by the Receiving staff. Samples are either picked up from the Receiving room by Biology staff or are placed in the B227 walk-in refrigerator by Receiving staff.

2.2 Submittal forms and related paperwork are printed from Receiving's electronic folder by Invertebrate Taxonomy staff and placed in a sample folder. All log-in information is checked against the submittal paperwork and sample containers for accuracy. Any errors are reported to the Receiving staff to be corrected.

2.3 Biology staff log these samples into the invertebrate taxonomy's logbook to track the check-in date.

2.4 Samples are placed on a shelf to await prep and analysis.

3. SAMPLE COLLECTION, PRESERVATION, AND HANDLING

3.1 Samples are collected, preserved, and delivered to the lab according to Standard Operating Procedures (SOP) IZ-43.

3.2 For all samples, a submittal form **must** have the signature and date of the person who received the samples.

3.3 Receiving staff log samples into the Laboratory Information Management System (LIMS) and affix a LIMS sticker to each sample. Biology staff should check the backlog in LIMS periodically throughout the day for new samples. Transport sample bottles using a cart.

3.3.1 If samples are picked up from Receiving after log-in, samples must be checked out using an employee ID card; this transfers sample custody to Biology. If someone does not pick up the samples from Receiving, the samples are assigned to Biology's custody and placed in the B227 walk-in refrigerator.

3.3.2 Upon sample retrieval, Biology staff will immediately check for preservation. Ethanol (minimum 80%) will be added to any unpreserved samples.

3.4 For all new samples, print the corresponding submittal forms and related paperwork that Receiving scanned and saved in Receiving's electronic folder, DEAR\Labs\Receiving. Double check that the proper Test ID was assigned to each sample, as well as the Field ID, and date collected. If Receiving has already affixed a LIMS sticker to the sample container, check that the information is correct, and the proper sticker was affixed to the appropriate sample. Correct any errors with Receiving **immediately**.

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3.4.1 This is the time to make sure that all information has been logged in properly, both by Receiving and by Invertebrate Taxonomy. This information is very difficult (sometimes impossible) to recover once the samples have been processed.

3.4.2 Separate any samples that may be unusual (lacking information, etc.) and notify the appropriate supervisor.

3.5 Using the Laboratory/Receiving/Print Preparation Labels utility in LIMS, print out a logbook label for each sample and place it in numerical order in the appropriate location in the Bioassessment Sample Log-In logbook. This sticker lists: the LIMS Sample#, the Project, Site ID, Field ID, type of sample (test), sample date, and customer.

3.6 If a sample is represented by more than one container, tape these containers together. Once taped together, check that the containers belong to the same sample. Place each sample in the proper storage area to await sample preparation.

3.7 Create a file folder for the submittal forms and related paperwork and place in the file cabinet in the lab.

4. SAMPLE PREPARATION PROCEDURE

4.1 Samples are prepared for analysis per SOP IZ-42 (Light Trap EPT Sorting, Enumeration and Taxonomic Analysis).

5. SAMPLE ANALYSIS PROCEDURE

5.1 Samples are analyzed per SOP IZ-42 (Light Trap EPT Sorting, Enumeration and Taxonomic Analysis).

6. QUALITY CONTROL AND DOCUMENTATION

6.1 Bioassessment Sample Log-In logbook. Use a pen with black ink for all logbook and bench sheet entries.

6.2 Department of Environmental Protection (DEP) Laboratory Information Management System (LIMS)

6.3 To correct raw data entries, place a single line through the incorrect entry, write the corrected entry near the error, and initial and date the correction. If the correction requires an explanation, write a comment and reference the error.

6.4 If a problem occurs during sample processing, submit a nonconformance report (NCR) describing the problem and the corrective action. To create a NCR, open LIMS and go to Laboratory/Administrative/Non-Conformance Report. For a decision tree regarding issuance of NCR’s, refer to SOP LB-002.

6.5 Quality Control (QC) of Sorting is performed per SOP IZ-40

6.6 QC of Taxonomic Identification is performed per SOP IZ-13.

6.7 Refer to the Laboratory Quality Manual.

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7. SAFETY/HAZARDOUS WASTE MANAGEMENT

7.1 Lab coat, latex or vinyl gloves, and eye protection are required when working with ethanol.

7.2 Refer to the Material Safety Data Sheet (MSDS) for information about reagents and chemicals in this SOP.

7.3 Refer to the Laboratory Health and Safety Plan.

8. REFERENCES

8.1 DEP Laboratory Quality Manual, https://floridadep.gov/dear/florida-dep-laboratory/content/dep-laboratory-quality-assurance-manual-and-sops

8.2 DEP Laboratory Health and Safety Plan, https://www.floridadep.net/resources/health-safety-manual

8.3 Form IZ-LOG-(version #), *Macroinvertebrate Sample Logbook*

8.4 SOP IZ-09, *Preparation of 80% Ethanol*

8.5 SOP IZ-13, *Invertebrate Taxonomic Identification Quality Control*

8.6 SOP IZ-40, *Invertebrate Sorting Quality Control (QC)*

8.7 SOP IZ-42, *Light Trap Ephemeroptera, Plecoptera and Trichoptera (EPT) Sorting, Enumeration and Taxonomic Analysis*

8.8 SOP IZ-43, *Light Trap Deployment and Retrieval*

8.9 SOP LB-002, *Non-conformance Reporting System*

Appendix of Changes

12/13/2022 SOP Created.

07/25/2024 Updated link to Receiving folder; added SOP IZ-13 and IZ-43 to list of references.

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