

How to Distinguish the Aquatic Bladderworts

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DEP Standards and Assessment Section

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Utricularia

- 14 Species in Florida, all native
- 7 species commonly found in lakes
 - CAN be identified without flowers!!
- Distinguishing characteristics
 - Growth form
 - Flower color and features
 - Size
 - Branching pattern
 - Bladders

Species Matrix for Aquatics

(modified from Denson)

Species	Habit	Flower	Lf branching
<i>U. inflata</i>	floating, floating petioles	Yellow, 9-14 fls/raceme, scape below float 15-35 cm long	Primary divisions of leaflike branches unequal
<i>U. radiata</i>	floating, floating petioles	Yellow, 3-4 fls/raceme, scape below float <13 cm long	Primary divisions of leaflike branches equal
<i>U. foliosa</i>	floating, large and leafy	Yellow	Thick flat main stem , then fernlike leaves (bladder & lf)
<i>U. floridana</i>	Rooted, appears floating	Yellow	Round stems, foxtails, bladder and leafy branches
<i>U. purpurea</i>	floating	Purple	Whorls of 4
<i>U. gibba</i>	Grows freely on bottom or other veg, usually tangled mat	Yellow	Thin strands with single short leaves
<i>U. olivacea</i>	Free in water, single strands with bladders, confused with <i>U. gibba</i>	White (1 mm)	Thin strands with single short leaves- tiny plant

Species Matrix for “Terrestrial”

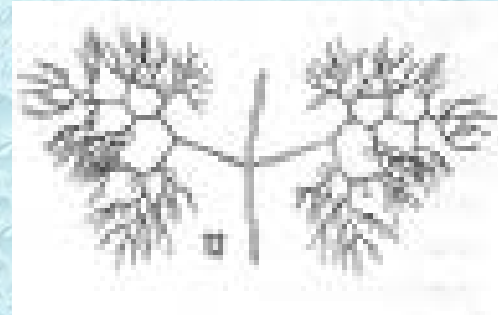
Bladders in soil or sediment

Species	Habitat	Fl color	Lf branching
<i>U. gibba</i>	Grows in stands, flowers when stranded	Yellow	Thin strands with single short leaves
<i>U. resupinata</i>	Ponds, ditches, can be caught on froth	Purple, 1 fl/scape	Lvs grass-like w/ segments, green above and white w/ bladders near rhizome
<i>U. cornuta</i>	Lake margins, pine flatwoods	Yellow	
<i>U. subulata</i>		Yellow	Lvs paddle-like
<i>U. simulans</i>	Pine flatwoods	Yellow, bracts and sepals fimbriate	Lvs paddle-like
<i>U. amethystina</i>	Pine flatwoods	Purple/white, > 1 fl/scape	Lvs in rosette

U. inflata (big)



U. radiata (small)



U. inflata – Unequal branching

U. radiata – Equal branching

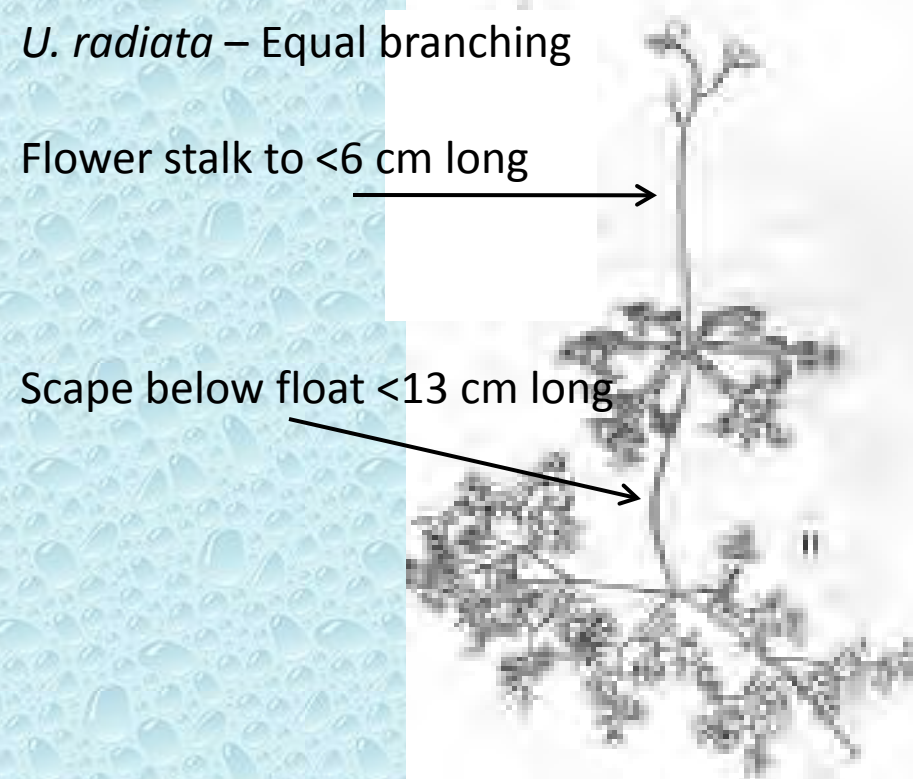
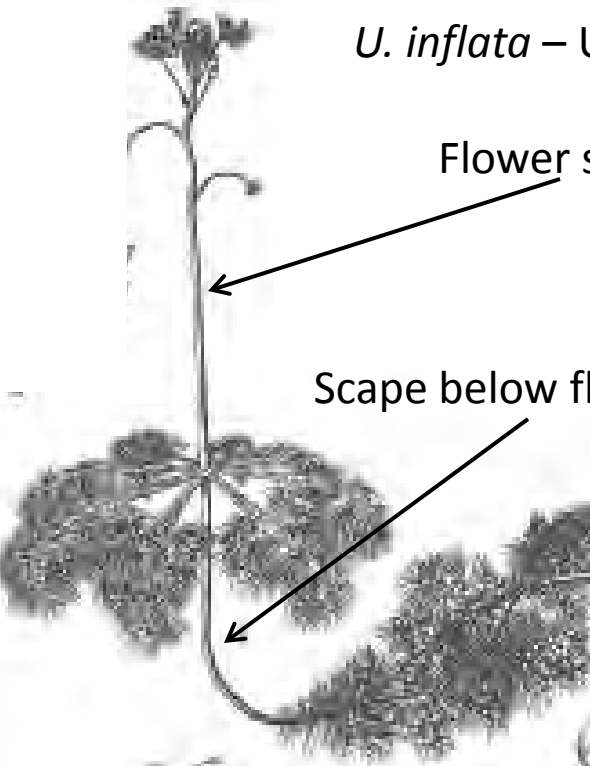
Flower stalk to 15 cm long

Flower stalk to <6 cm long

Scape below float 15-35 cm long

Scape below float <13 cm long

Bladders similar



Utricularia inflata

Photo by Shirley Denton



Utricularia inflata

Photo by Shirley Denton





***Utricularia
radiata***
**(little floating
bladderwort)**

Utricularia foliosa

- Leafy bladderwort
- Thick, strong, flat, slimy main stem
- Bladder branches and foliar branches



Utricularia floridana

- Foxtails, bladder branches and foliar branches
- Flowers appear to be floating, but stems rooted
- Locally abundant
- Coloration green to purple



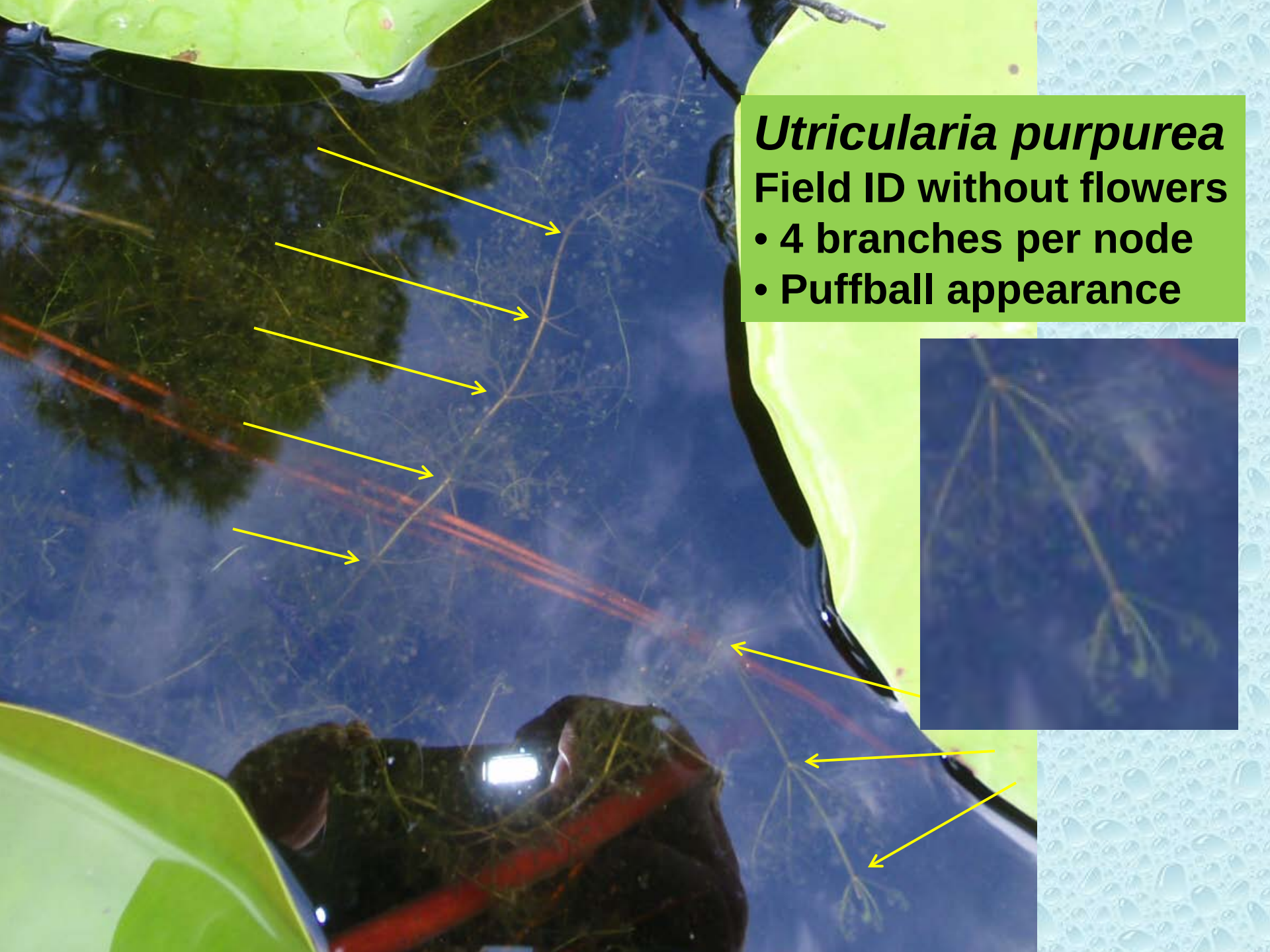


Utricularia floridana at Porter Pond, Jackson County, 2010

Utricularia purpurea

- Smaller in stature than *U. foliosa* and *U. floridana*
- Whorled branches, usually 4 per whorl (puff balls)
- Purple flowers
- Floating





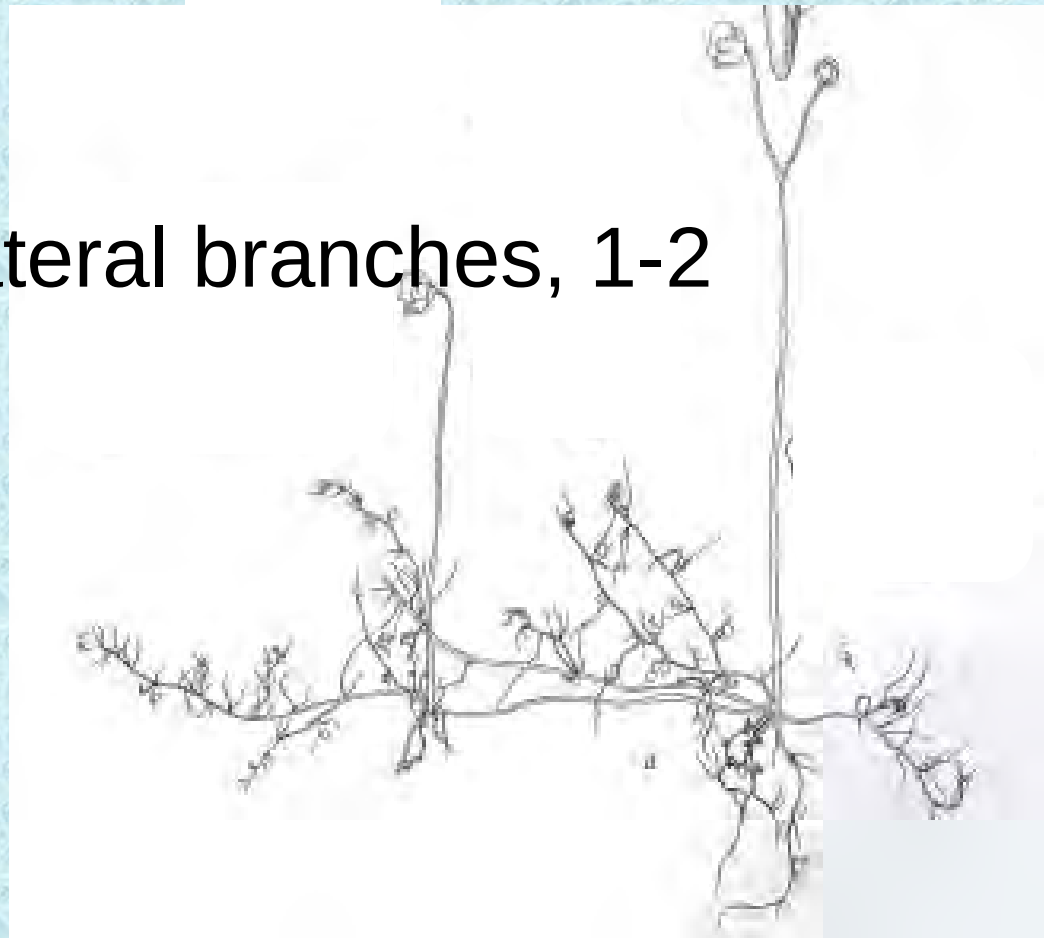
Utricularia purpurea
Field ID without flowers

- 4 branches per node
- Puffball appearance



Utricularia gibba (biflora)

- Very small stems, often seen in mats, with or without flowers
- Yellow fls in pairs
- Small leaves as lateral branches, 1-2 times forked



Utricularia gibba
(humped bladderwort)



Utricularia gibba



Utricularia olivacea

- TINY!!! Flowers 1 mm wide
- No leaves, just tiny stems with bladders
- Found tangled in other vegetation or stranded on mudflats



Utricularia resupinata

- Flowers in shallow waters, but found in deeper
- Froto catches it!



Bladderworts without flowers

- Don't be scared to try to ID them to species
- Branching patterns
- Growth form
- Bladders? (some drawings in G&W)



Utricularia cornuta at Grassy Prairie, by Dana Denson