

Pondweeds:

Potamogeton and *Stuckenia*



Pondweeds:

Potamogeton and *Stuckenia*

- Alternate, entire leaves
- Leaves broad or narrow
- Floating or not floating (often both)
- Petioles (leaf stalks) or clasping
- Lacunae present or not
- Sometimes have glands
 - Little doorknob-like structures on stem at base of leaves
- Stipules
- Winter buds and nutlets

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Alternate leaves



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Leaves broad to narrow

Leafy pondweed
P. foliosus



Large-leaf pondweed
P. amplifolius

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Floating leaves only



Floating-leaf
pondweed
P. natans

Submersed
Leaves only



Fries pondweed
P. friesii

Variable pondweed
P. gramineus



Both floating and
submersed leaves

Variable pondweed
Potamogeton gramineus



- Especially variable
- Leaves may be small or quite large
- Plant may be bushy or not

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A photograph of a stem of Clasping-leaf pondweed (P. richardsonii) against a white background. The stem is thin and light brown, with several pairs of green, lanceolate leaves. Each leaf is clasping the stem, meaning the leaf base wraps around the stem without a distinct petiole. The leaves are arranged in opposite pairs along the stem.

Clasping-leaf pondweed
P. richardsonii

Leaves Clasping

A photograph of a stem of Large-leaf pondweed (P. amplifolius) against a white background. The stem is thicker and more robust than the one in the first image. It has several large, rounded, brownish-green leaves. Each leaf is attached to the stem by a distinct, broad petiole. The leaves are arranged in opposite pairs along the stem.

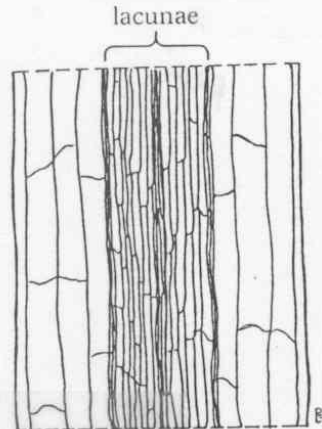
Large-leaf pondweed
P. amplifolius

Leaves with Petiole

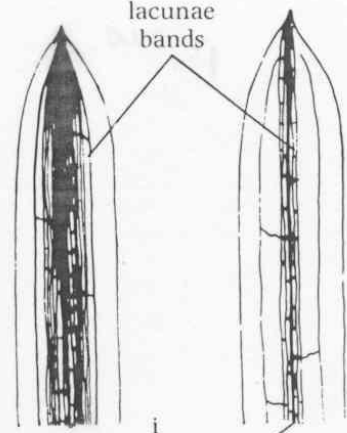
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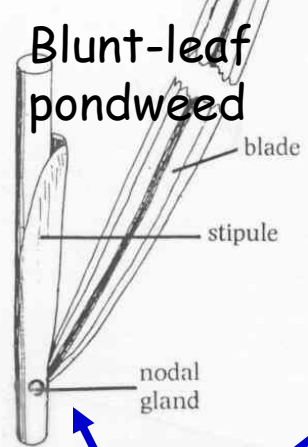
Lacunae



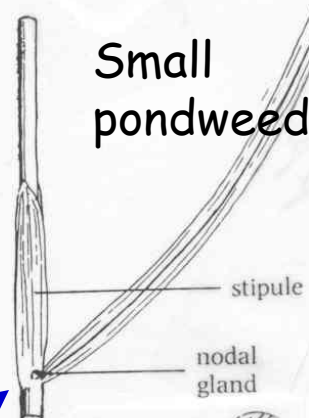
Ribbon-leaf pondweed



Small pondweed

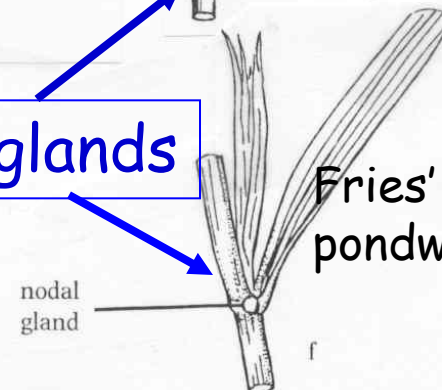


Blunt-leaf pondweed



Small pondweed

Nodal glands



Fries' pondweed

Pondweeds

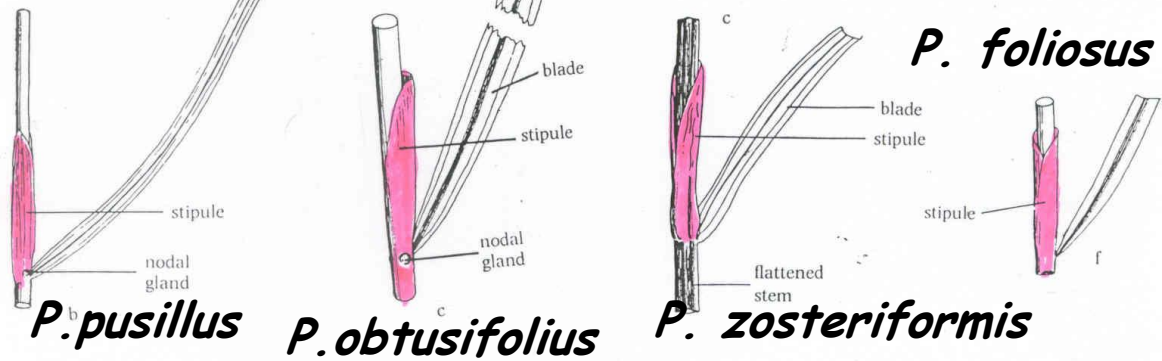
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Stipules on Pondweeds

- **Stipules:** little bits of leafy tissue where leaf meets stem
 - Free: **stipule** attached to, and often hugging, stem but not attached to leaf
 - Adnate: **stipule** attached to leaf at least part of **stipule's** length
 - In a few species of *Potamogeton*, **stipule** is attached to leaf a short way
 - In *Stuckenia*, stipule attached to leaf a long way

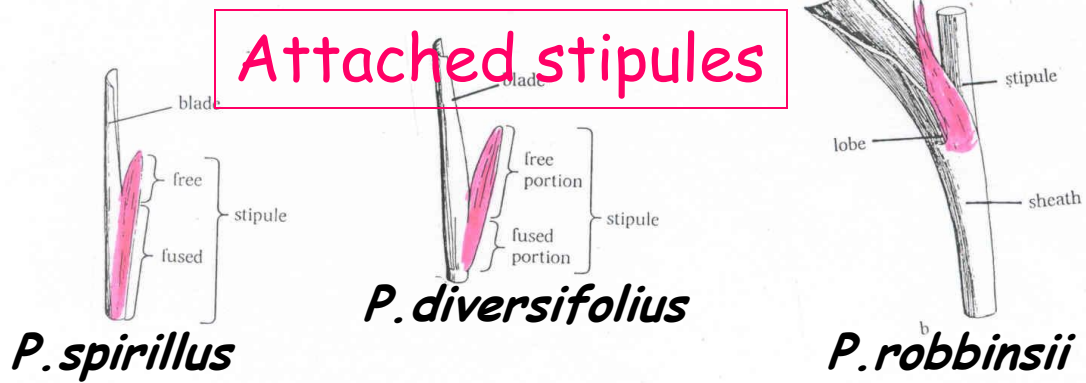
Free stipules

Stipules

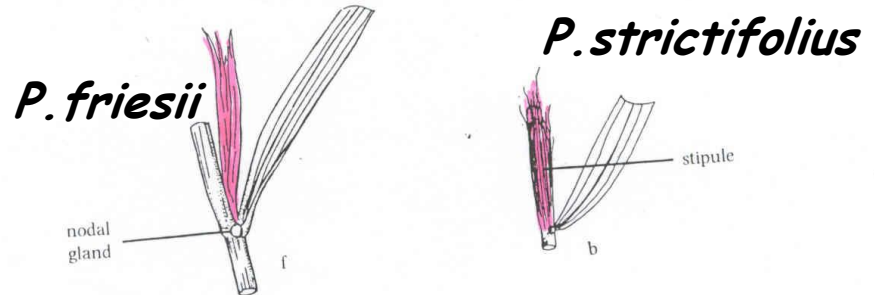


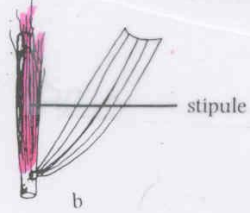
P. foliosus

Attached stipules



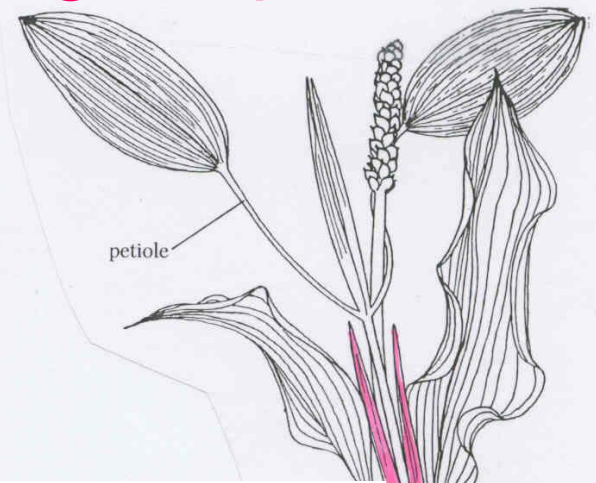
"Shreddy" stipules





Large stipules

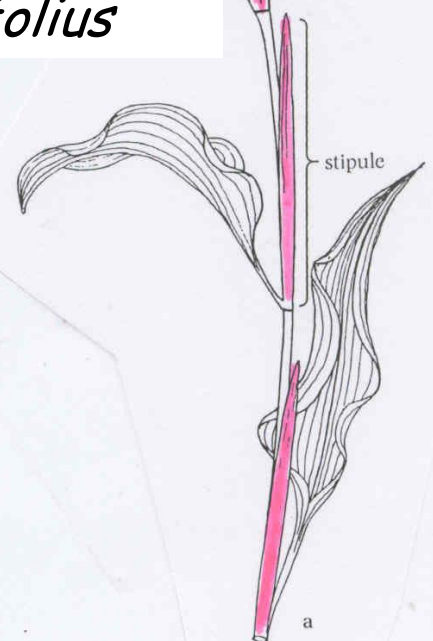
Fibrous,
shreddy
stipules

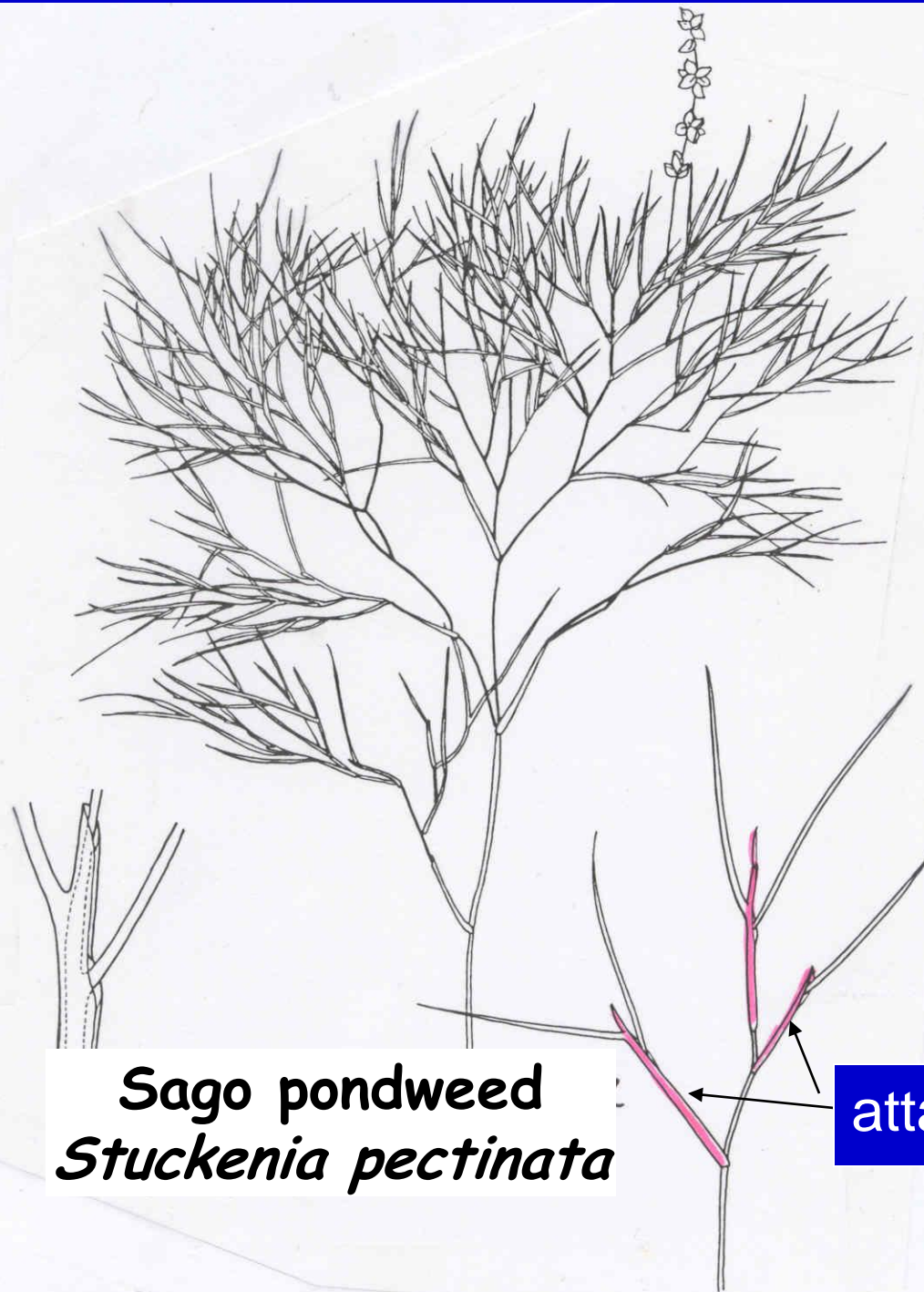


Large-leaf pondweed
P. amplifolius



Stiff Pondweed
P. strictifolius





Sago pondweed
Stuckenia pectinata

attached stipule

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Winter buds
(turions)



P. crispus



P. freisii

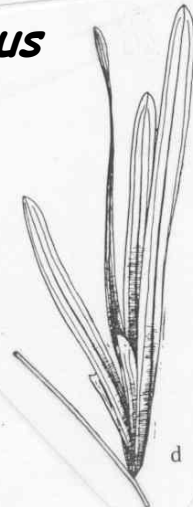


P. foliosus

Nutlets



P. zosteriformis



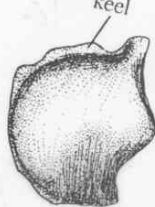
P. obtusifolius

P. bicupulatus

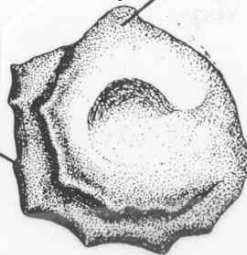
P. sprillus



P. foliosus



keel
h



P. pusillus



Spiral-fruited pondweed
Potamogeton spirillus

- Narrow leaves
- Stipules attached a short ways
- Nutlets with ridged keel



Blunt-leaf pondweed
P. obtusifolius

- Narrow leaves
- Stipules free
- Glands present
- Leaf tips blunt



➤ Leaves somewhat broad

➤ Stipule attached a short ways

➤ Leaves stiff-ish

Fern-leaf pondweed
P. robbinsii



Flat-stem pondweed
P. zosteriformis

➤ **Narrow, ribbon-like leaves**

➤ **Stem very flat**



Illinois pondweed
P. illinoensis

- Large, stiff stipules
- Top leaves opposite
- Floating and submersed leaves

Curly-leaf pondweed
P. crispus



- **Leaves like mini-lasagna noodles: wavy, parallel sides**
- **Leaves serrate (like a saw blade)**
- **Often gone by mid-July**
- **Invasive Exotic**

Curly-leaf pondweed
P. crispus



Clasping-leaf pondweed
P. richardsonii



← Leaf margin →

← Leaf tip →

Leaf attachment →

← Leaf color →



Large-leaf pondweed
P. amplifolius

Illinois pondweed
P. illinoensis

Variable-leaf
pondweed
P. gramineus

Similar floating leaves

Similar submersed and floating leaves



Fries pondweed
P. friesii



Leafy pondweed
P. foliosus



Stiff pondweed
P. strictifolius



**Spiral-fruited
pondweed**
P. sprillus

**Narrow-leaved pondweeds
look much alike, but can
be distinguished by
differences in nutlets,
stipules, turions, glands
and leaf qualities**



**Blunt-leaf
pondweed**
P. obtusifolius