

What to Document

Differences in Caulophyllum (Blue Cohosh)

What to look for and document to ID Blue Cohosh (Features are listed In order of importance)

Size and shape of style on the carpel (this is diagnostic - need go no further)

In *C. thalictroides* the carpel is smaller and abruptly transitions to the style, giving the appearance of "shoulders" supporting the style. The style is less than 1 mm in length; in *C. giganteum* the style exceeds this, and the carpel tapers gradually to form the style.

Length of sepals (petaloid)

The sepals that appear as petals are shorter in *C. thalictroides*; generally, less than 6 mm; In *C. giganteum* the petaloid-sepals are 6 mm plus.

Size of plant and branching of leaflets

Although the species overlap, *C. thalictroides* tends to be a smaller plant with more leaflets. The number of branches of the primary leaf may be different, but there is overlap. With more branching there are more leaflets in each leaf, so this could be a parameter to document, with *C. thalictroides* having more leaflets.

Size of terminal leaflets

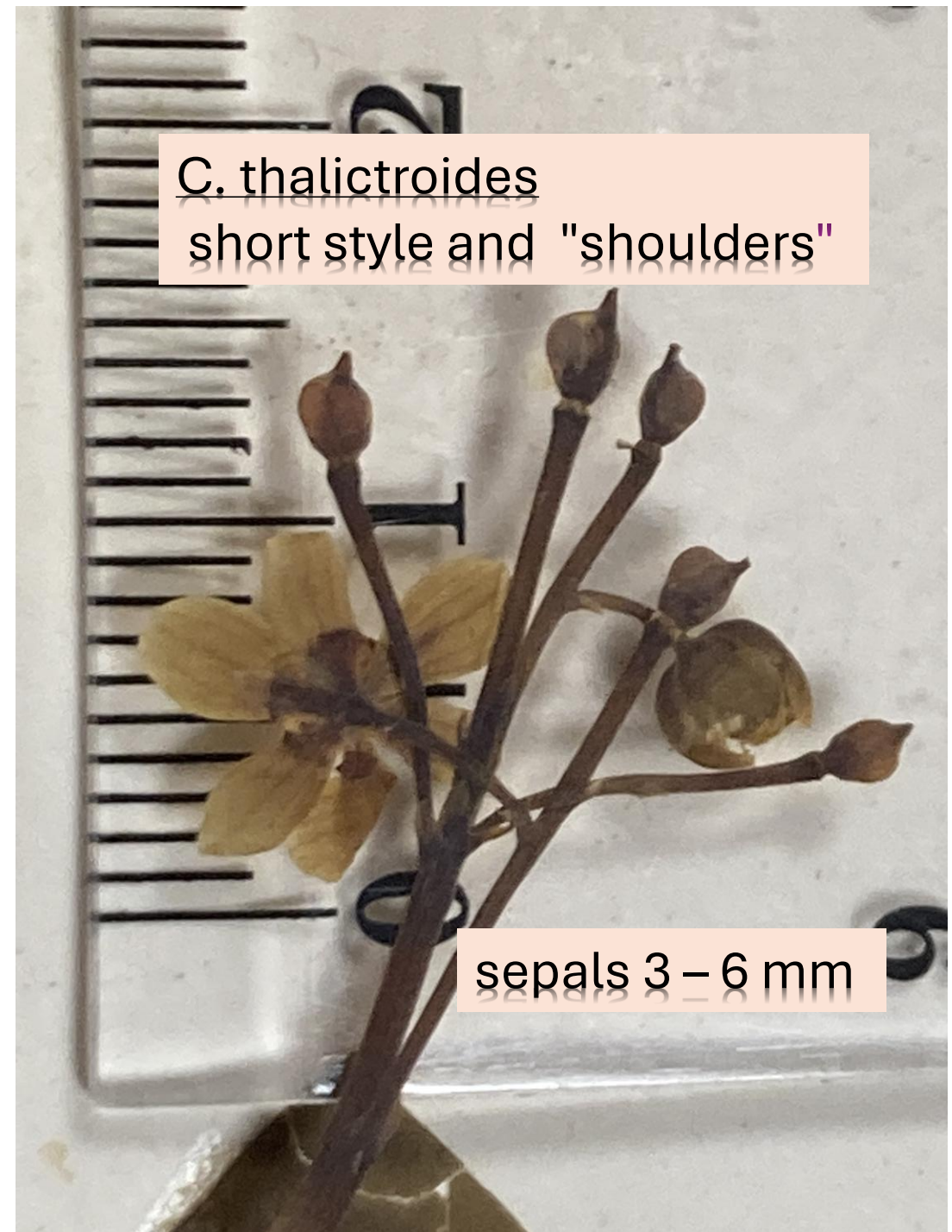
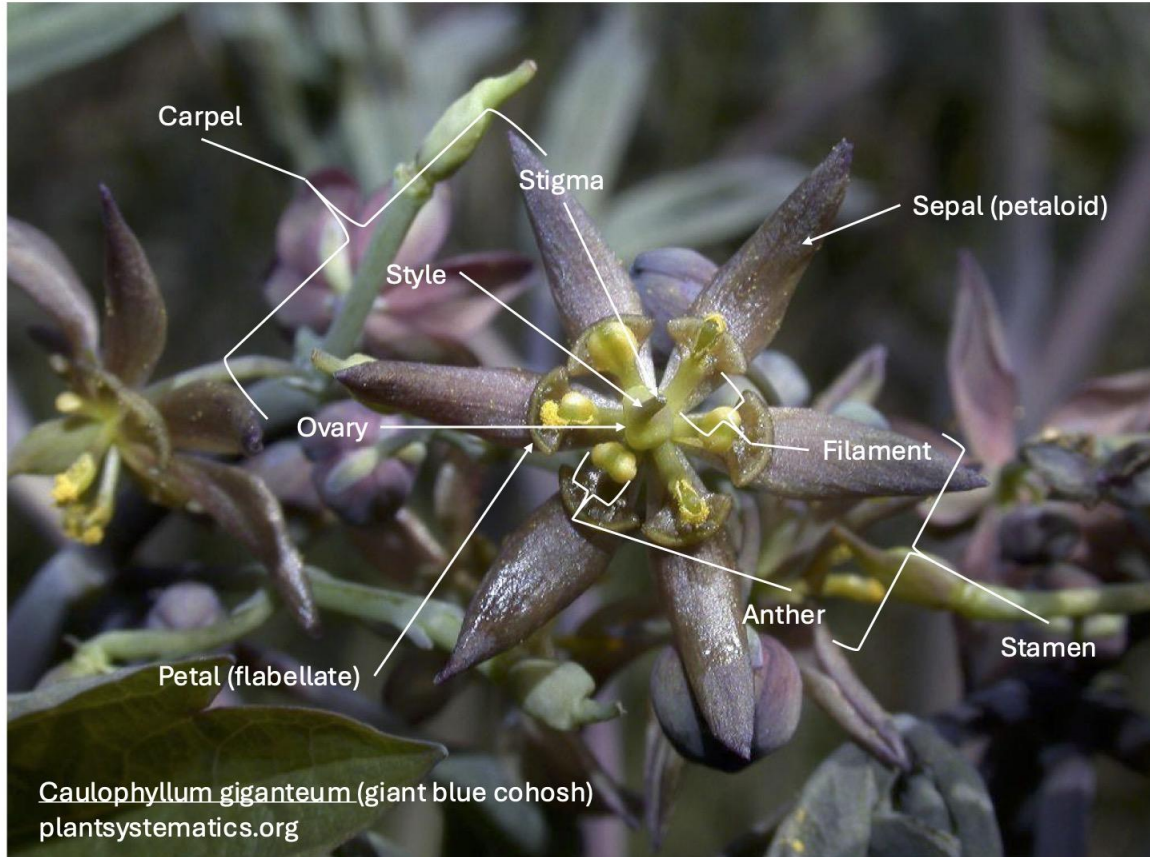
Although the species overlap, *C. thalictroides* tends to have smaller leaflets.

Number of blossoms and length of peduncle

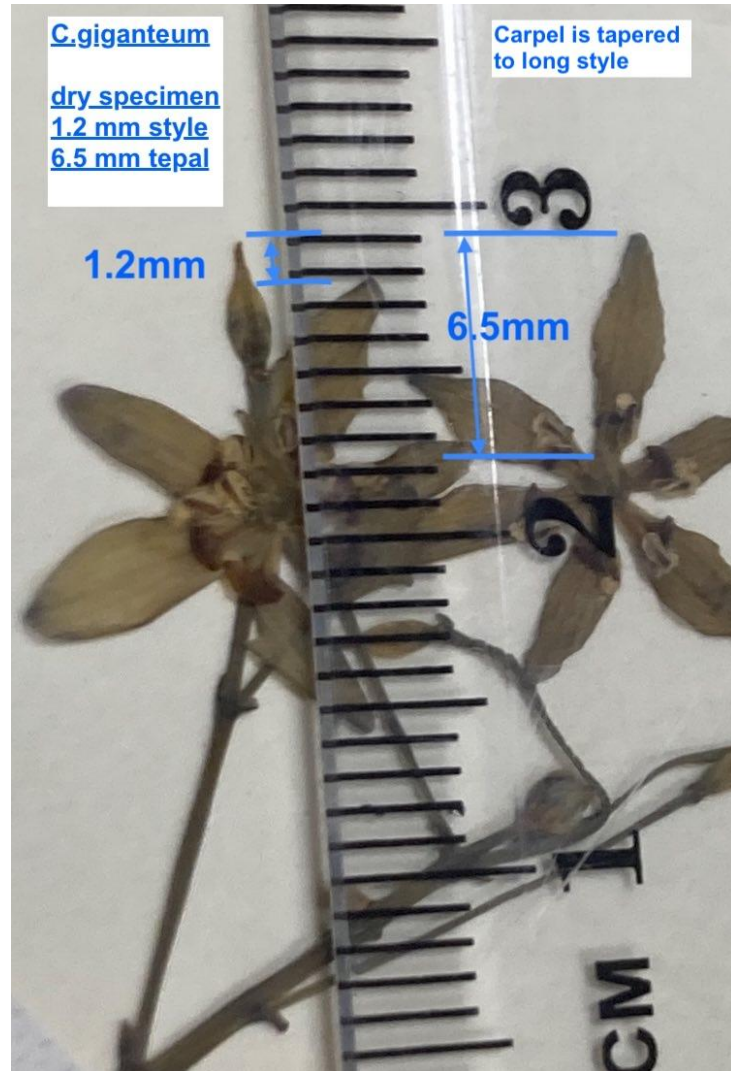
Although the species overlap, *C. thalictroides* tends to have more blossoms in a cluster that is less diffuse, thus the peduncles supporting the flowers are shorter, than in *C. giganteum*.

| | Species of Caulophyllum | |
|-----------------------------------|-------------------------|------------------|
| CHARACTER | C. giganteum | C. thalictroides |
| SIZE (LENGTH) OF CARPELS (PISTIL) | 3 - 5 | 1 - 3 |
| LENGTH OF STYLES | 1 - 2 | 0.5 - 1 |
| LENGTH OF SEPALS | 6 - 9 | 3 - 6 |
| TERMINAL LEAFLET LENGTH | 50 - 100 | 30 - 80 |
| FLOWERS IN INFLORESCENCE | 4-18 | 5 - 70 |
| LEAF BRANCHES | 2 (3) -ternate | 3(4) - ternate |
| NUMBER LEAFLETS | 9 - 27 | 27 - 81 |
| | | |
| source: Haines 2003 | LENGTH IN MM | |

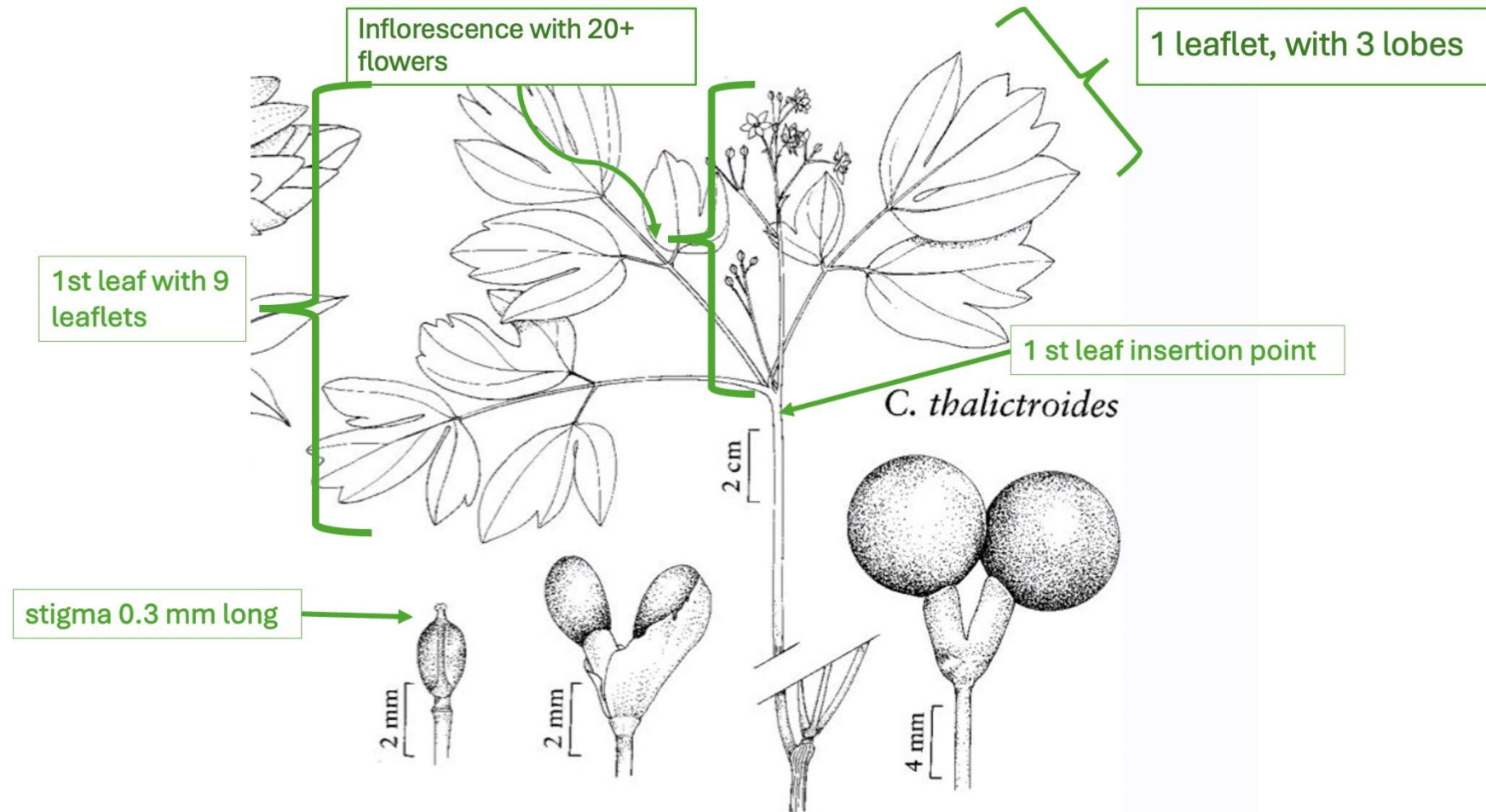
LENGTH OF (PISTIL) CARPELS LENGTH OF STYLES



LENGTH OF (PISTIL) CARPELS LENGTH OF STYLES



Plant habit, etc.



What to look for and document to ID Blue Cohosh

(Features are listed In order of importance)

| Feature | Priority | <i>C. thalictroides</i> (Blue Cohosh) | <i>C. giganteum</i> (Giant Blue Cohosh) |
|----------------|----------------|---|---|
| Carpel & Style | 1 (Diagnostic) | "Shouldered" appearance; abrupt transition; style < 1 mm. | Tapered appearance; gradual transition; style > 1 mm. |
| Sepal Length | 2 | Petaloid sepals are shorter (< 6 mm). | Petaloid sepals are longer (6 mm+). |
| Inflorescence | 3 | More blossoms; denser cluster; shorter peduncles. | Fewer blossoms; diffuse cluster; longer peduncles. |
| Leaflet Size | 4 | Smaller terminal leaflets. | Larger terminal leaflets. |
| Plant Habit | 5 | Trends smaller; more leaflets. | Trends larger; fewer leaflets. |