

## *Symphyotrichum* Species

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Several different species of the genus *Symphyotrichum* can be rather difficult to positively ID, in large part due to the possible variations for a single species in flower color, ray floret count, degree of hairiness of both the leaves and stem, variation in leaf shape on a single plant, as well as other characteristics, and of course the similarities between different species. There are also a number of hybrids between various species and varieties, which can greatly add to the difficulty of making a confident ID. In the northern midwestern states the typical bloom season for *Symphyotrichum* species is August-September to October.

The Flora of North American indicates that there are about 90 *Symphyotrichum* species in North America, of which about 26 species occur in the midwestern Great Lakes region.

There are many known hybrids between *Symphyotrichum* species. These are not included in the following tables. There are also a large number of varieties of the *Symphyotrichum* species, and these have also been excluded from the tables. Similar to the *Symphyotrichum* species (in at least some sense) are the species: *Boltonia asteroides* (False Aster), *Doellingeria umbellata* (Flat-topped White Aster), *Eurybia furcata* (Forked Aster, Midwestern White Heart-leaved Aster), *Eurybia macrophylla* (Large-leaved Aster), *Ionactis linariifolia* (Flax-leaved Aster, Stiff Aster), and others outside the Midwest range.

For the ray florets the principal color that occurs is given first, then secondary colors are indicated. Disc florets commonly change color with age, usually to a pinkish, reddish, or reddish-purple color. There is an advantage to observing species before this change occurs.

Extreme limits to counts are represented in the following table using the format (w-)x-y(-z), for example, a ray count of (10-)20-30(-40) would be read as typically 20 to 30 ray florets, but with extremes as low as 10 and as high as 40. Range data in this format is from Brouillet *et al.* Note that different sources often give slightly different estimates for ray floret counts, flower head sizes, plant heights, etc.

Flower sizes are in inches. Conversion factors are 1 inch = 2.54 cm, 1 cm = 10 mm, 1 cm = 0.39 inches.

The first table below orders the various *Symphyotrichum* species by flower size. The second table below provides additional information such as color for ray and for disc florets, number of ray florets, etc.

**Table 1. *Symphyotrichum* species ordered by increasing flower size (diameter of the flower head) in inches.**

|   |   |  |   |
|---|---|--|---|
| <i>S. ciliatum</i> (Rayless Aster)<br>0.1 – 0.2 across, 0.4 long                          | <i>S. subulatum</i> (Saltmarsh Aster)<br>0.13 – 0.25 (CG),<br>< 0.5 (FW)                    | <i>S. ericoides</i> (Heath Aster)<br>0.25 – 0.5 (CG),<br>0.33 – 0.5 (MN),<br>< 0.5 (IL),<br>0.5 – 1.0 (FW) | <i>S. lateriflorum</i> (Calico Aster)<br>0.25 – 0.5 (CG),<br>0.33 (IL),<br>0.5 (MN)               |
| <i>S. racemosum</i> (Small White Aster)<br>0.25 – 0.5 (CG),<br>0.5                        | <i>S. falcatum</i> (Western Heath Aster)<br>0.3 – 0.7                                       | <i>S. ontarionis</i> (Ontario Aster)<br>0.33 – 0.5 (MN),<br>0.5 (IL)                                       | <i>S. dumosum</i> (Bushy Aster)<br>0.38 – 0.63 (CG),<br>0.5 (IL)                                  |
| <i>S. robynsonianum</i> (Robyn's Aster)<br>0.38 – 1.0                                     | <i>S. pilosum</i> (Awl Aster)<br>0.38 – 0.75 (CG),<br>0.5 – 0.75 (MN), (IL)                 | <i>S. cordifolium</i> (Blue Wood Aster)<br>0.5 (MN) (IL),<br>0.67 – 0.75 (FW),<br>0.5 – 1 (CG)             | <i>S. praealtum</i> (Willow Aster)<br>0.5 – 0.75  |
| <i>S. lanceolatum</i> (Panicked Aster)<br>0.5 – 0.75 (MN), (IL),<br>0.75 – 1 (CG)         | <i>S. drummondii</i> (Drummond's Aster)<br>0.5 (IL), 0.75 (MN),<br>1 – 1.5 (FW)             | <i>S. urophyllum</i> (Arrowleaf Aster)<br>0.5 (IL),<br>0.5 – 0.75 (MN),<br>1-1.5 (FW)                      | <i>S. oolentangiense</i> (Sky-blue Aster)<br>0.5 (IL),<br>0.5 – 0.75 (MN),<br>0.75 – 1.33 (FW)    |
| <i>S. laeve</i> (Smooth Blue Aster)<br>0.5 – 1.0, (IL),<br>0.67 – 1.0 (FW),<br>1 (MN)     | <i>S. sericeum</i> (Silky Aster)<br>0.5 – 1.25 (CG),<br>0.75 – 1.0 (FW),<br>1.0 – 1.25 (MN) | <i>S. puniceum</i> (Purple-stemmed Aster)<br>0.5 – 1 (CG),<br>0.75 – 1.5 (FW),<br>1-1.5 (MN)               | <i>S. oblongifolium</i> (Aromatic Aster)<br>0.75 – 1.25 (FW),<br>1.0 – 1.25 (IL),<br>1 – 1.5 (MN) |
| <i>S. novae-angliae</i> (New England Aster)<br>0.75 – 1.5 (FW),<br>1 – 1.5 (MN), 1.5 (IL) | <i>S. shortii</i> (Short's Aster)<br>0.75 – 1.0 (MN),<br>1.0 – 1.5 (FW)                     | <i>S. prenanthoides</i> (Crooked Aster)<br>0.75 – 1.13 (FW),<br>1 (MN)                                     | <i>S. firmum</i> (Smooth Swamp Aster)<br>0.75 – 1.5 (FW)  |
| <i>S. boreale</i> (Northern Bog Aster)<br>1 (MN), 1 – 1.33 (FW)                           | <i>S. ciliolatum</i> (Lindley's Aster)<br>1 – 1.5 (MN), (FW)                                |  |   |

**Table 2. Additional information for *Symphyotrichum* species.**

| Species               | Common name(s)     | Color (ray)   | Color (disc)  | Number of ray florets                         | Number of disc florets   | Flower size (inches)              | Plant height (inches)                           |
|-----------------------|--------------------|---|---|---|--------------------------|-----------------------------------|---|
| <i>S. boreale</i>     | Northern Bog Aster | White, pink, blue, white to often pale rose, pale purple, or lavender                                     | cream or pale yellow becoming pink, or brown or purple                      | (15–)25–35(–41) (FNA), 20-50 (FW), 20-50 (MN) | (15–)25–30(–40)          | 1 – 1.33 (FW), 1 (MN)             | 6 – 32 (FW), 6 – 36 (MN), 5 – 34 (FNA)          |
| <i>S. ciliatum</i>    | Rayless Aster      | NA  | White, turning pink, whitish turning pink                                   | 0   | ca. 14, 14–25(–29) (FNA) | 0.4 long, 0.1 – 0.2 across        | 6 – 24 (MN)<br>3 – 28+ (FNA)                    |
| <i>S. ciliolatum</i>  | Lindley's Aster    | Pale blue; pale to deep blue or bluish purple   | Yellow turning red; yellow becoming reddish purple                          | (12–)14–20; 12-25 (MN)                        | 14–25(–29)               | 1 – 1.5 (MN)(FW)                  | 12 – 36 (MN)<br>6 – 48 (FW)<br>(4–)8 – 47 (FNA) |
| <i>S. cordifolium</i> | Blue Wood Aster    | white to pale blue to lavender; usually blue to purple, seldom whitish or pink                            | Cream-yellow turning red; cream-color or light yellow becoming purple       | (8–)10–16(–20)                                | (8–)10–15(–20)           | 0.5 (MN) (IL); 0.67 – 0.75 (FW);  | 12 – 48 (MN)<br>6 – 48 (FW)<br>8 – 47 (FNA)     |
| <i>S. drummondii</i>  | Drummond's Aster   | white or pale blue to bright blue or lavender; usually bright blue to purple or lavender, sometimes white | yellow turning red; cream to yellow, becoming deep purple or reddish purple | (8–)10–15(20)                                 | (10–)13–15(–22)          | 0.75 (MN); 1 – 1.5 (FW); 0.5 (IL) | 24 – 48 (MN)<br>18 – 48 (FW)<br>12 – 47 (FNA)   |
| <i>S. dumosum</i>     | Bushy Aster        | pale blue, pink, or lavender to white   | cream to pale yellow turning pink   | 15–33; 13 – 30 (CG)                           | 15–30                    | 0.5 (IL) 0.38 – 0.63 (CG)         | (8–) (12– 39) (FNA)                             |

|                         |   |  |  |                        |                 |   |   |
|-------------------------|---|--|--|------------------------|-----------------|---|---|
| <i>S. ericoides</i>     | Heath Aster                                 | usually white, rarely pink or bluish               | yellow becoming brown                                | (8-)10-18(-20)         | 6-12(-20)       | 0.25 – 0.5 (CG)<br>0.33 – 0.5 (MN);<br>0.5 – 1.0 (FW);<br>< 0.5 (IL)n | 12 – 36 (MN)<br>6 – 36 (FW)<br>8 – 32(-39)<br>(FNA) |
| <i>S. falcatum</i>      | Western Heath Aster,<br>White Prairie Aster | usually white, sometimes blue or pink              | yellow becoming brown                                | (15-)20-35             | (8-)18-30       | 0.3 – 0.7 (ref below)   | 4 – 32 (FNA)  |
| <i>S. firmum</i>        | Smooth Swamp Aster                          | usually blue to pale lavender, sometimes white     | yellow or cream becoming pink or purple              | 20-40;<br>30-60 (FW)   | 30-50           | 0.75 – 1.5 (FW)   | 16 – 98 (FNA)                                       |
| <i>S. laeve</i>         | Smooth Blue Aster                           | usually pale to dark blue or purple, seldom white  | yellow turning purplish red                          | (11-)13-23(-34)        | (17-)19-33(-43) | 1 (MN);<br>0.5 – 1.0; (IL);<br>0.67 – 1.0 (FW)<br>0.5 – 1.3 (CG)      | (6-)8-28(-48)<br>(FNA)                              |
| <i>S. lanceolatum</i>   | Panicled Aster                              | white to pinkish or pale blue-violet               | yellow becoming purple                               | 16-50                  | (13-)20-40(-52) | 0.5 – 0.75 (MN), (IL)<br>0.75 – 1 (CG)                                | 12-60(-79)<br>(FNA)                                 |
| <i>S. lateriflorum</i>  | Calico Aster                                | white, rarely pinkish or purplish                  | cream to light yellow turning pink or reddish purple | 8-15(-23)              | 8-16(-20)       | 0.5 (MN);<br>0.33 (IL)<br>0.25 – 0.5 (CG)                             | 8-48(-60)<br>(FNA)                                  |
| <i>S. novae-angliae</i> | New England Aster                           | dark rose to deep purple (pale pink or white)      | light yellow becoming purple                         | (40-)50-75(-100)       | 50-110          | 1 – 1.5 (MN);<br>1.5 (IL);<br>0.75 – 1.5 (FW), (CG)                   | 12-48 (FNA)   |
| <i>S. oblongifolium</i> | Aromatic Aster                              | light to dark rose-purple, lavender to deep purple | yellow turning brown or reddish purple               | (10-)25-35; 15-40 (FW) | (25-)30-40(-50) | 1 – 1.5 (MN);<br>0.75 – 1.25 (FW);<br>1.0 – 1.25 (IL)                 | 4-32(-40)<br>(FNA)                                  |
| <i>S. ontarionis</i>    | Ontario Aster                               | usually white, rarely pinkish or                   | cream or light yellow turning magenta or purple      | (10-)15-26             | 12-25           | 0.33 – 0.5 (MN); 0.5 (IL)   | 8-48 (FNA)  |

|                          |  |  |  |                                    |                 |   |                        |
|--------------------------|--|--|--|------------------------------------|-----------------|---|------------------------|
|                          |  | light purple to blue   |  |                                    |                 |   |                        |
| <i>S. oolentangiense</i> | Sky-blue Aster                                 | pale to azure blue to violet-purple, (rarely rosy, white or bluish white)        | light yellow turning deep purple                       | (10-)13-20(-25)                    | (15-)20-25(-30) | 0.5 – 0.75 (MN); 0.75 – 1.33 (FW); 0.5 (IL) | 8-60 (FNA)             |
| <i>S. pilosum</i>        | Awl Aster                                      | usually white, rarely pinkish or bluish  | light yellow becoming reddish purple or brown          | (10-)16-28(-38)                    | (13-)17-39(-67) | 0.5 – 0.75 (MN), (IL), 0.38 – 0.75 (CG)     | (2-)8-48(-60+) (FNA)   |
| <i>S. praealtum</i>      | Willow Aster                                   | pale blue-violet to lavender or rose-purple, rarely white; less often white (IL) | cream or light yellow turning pinkish purple           | (6-)20-35                          | 20-30(-35+)     | 0.5 – 0.75 (IL)                             | (4-)20-60(-80) (FNA)   |
| <i>S. prenanthoides</i>  | Crooked Aster                                  | lavender to blue, rarely white   | cream colored or light yellow becoming purple or brown | 17-25(-30); 20-35 (MN); 20-35 (FW) | 39-50(-65)      | 1 (MN) 0.75 – 1.13 (FW)                     | (8-)35-48 (FNA)        |
| <i>S. puniceum</i>       | Purple-stemmed Aster                           | usually pale to dark blue, lavender, or purple, seldom white or pink             | yellow or cream becoming pink or purple                | 20-50(-60); 30-60 (MN)             | 30-50 (-90)     | 1-1.5 (MN) 0.75 – 1.5 (FW) 0.5 – 1 (CG)     | (3-)40-100(-118) (FNA) |
| <i>S. racemosum</i>      | Small White Aster, Smooth White Oldfield Aster | usually white, rarely pink   | cream or pale yellow becoming pink or red              | (12-)16-20, 15 – 30 (CG)           | 10-20(-25)      | 0.5 (ref below) 0.25 – 0.5 (CG)             | 12-36(-40) (FNA)       |
| <i>S. robynsianum</i>    | Robyn's Aster, Long-leaved Aster               | dark blue-violet, seldom white   | yellow   | 20-35; 20-50 (FW)                  | (18-)23-40      | 0.38 – 1.0 (FW)                             | 4-32 (FNA)             |
| <i>S. sericeum</i>       | Silky Aster                                    | rose-purple to deep  | pink turning purple                                    | (10-)15-30                         | (15-)25-35      | 1.0 – 1.25 (MN)                             | (8-)12-28 (FNA)        |

|                      |                    |   |   |                             |                    |  |                         |
|----------------------|--------------------|---|---|-----------------------------|--------------------|--|-------------------------|
|                      |                    | purple,<br>rarely white   |   |                             |                    | 0.75 – 1.0<br>(FW)<br>0.5 – 1.25<br>(CG)     |                         |
| <i>S. shortii</i>    | Short's Aster      | usually<br>blue or<br>purple-<br>blue,<br>seldom<br>pinkish or<br>white | light yellow<br>becoming<br>reddish<br>purple | 13–15(–<br>20)              | 16–23(–<br>28?)    | 0.75 – 1.0<br>(MN)<br>1.0 – 1.5<br>(FW)      | 12-60<br>(FNA)          |
| <i>S. subulatum</i>  | Saltmarsh<br>Aster | white, pink,<br>lavender  | yellow  | 16–30(–<br>54)<br>< 20 (CG) | 4–10(–13)          | < 0.5 (FW)<br>0.13 – 0.25<br>(CG)            | (4-)12-<br>60<br>(FNA)  |
| <i>S. urophyllum</i> | Arrowleaf<br>Aster | white to<br>pale pink or<br>lilac or<br>light blue                      | whitish to<br>cream<br>becoming<br>pink       | 8–15(–20)                   | (8–)10–<br>15(–20) | 0.5 – 0.75<br>(MN)<br>1-1.5 (FW)<br>0.5 (IL) | 16-48(-<br>79)<br>(FNA) |

### Abbreviations

**CG** (Clements and Gracie)

**FNA** (Flora of North America: In particular, **Brouillet *et al.***)

**FW** (Online Virtual Flora of Wisconsin)

**IL** (Illinois Wildflowers)

**MN** (Minnesota Wildflowers)

### References

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3. Kenneth M. Cameron and Mary A. Feist (Online Virtual Flora of Wisconsin) <http://wisflora.herbarium.wisc.edu/index.php>

4. John Hilty, (Illinois Wildflowers) <https://www.illinoiswildflowers.info/index.htm>

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