

**Botany 401**

**Name:** \_\_\_\_\_

**Vascular Flora of Wisconsin**

**Exam 1 – take home portion**

[20 points out of 90 total; each question is 5 points] – due in lecture Tues March 13

1. Use the online key to ferns and relatives at UW-Green Bay to key this fern to species. These fronds (feature “a”) are about 3 feet long. Sporangia (feature “b”) are located in the darker tan areas.

species \_\_\_\_\_



2. Using resources you have learned about in lecture and laboratory, find 2 synonyms of the following species – *Aster modestus* Lindl. – sticky aster. Give the complete **scientific name** for both in correct format.

\_\_\_\_\_  
\_\_\_\_\_

Give one likely reason (of several) how such synonyms have arisen:

3. Using the Wisconsin State Herbarium Wisflora (<http://www.botany.wisc.edu/cgi-bin/GenusList.cgi>) and USDA Plants Database (<http://plants.usda.gov/java/>) websites, examine the distribution maps of the listed species below for more detailed distributions, give a common name for each, and answer the following questions:

- |                                    | <b>common name</b> |
|------------------------------------|--------------------|
| a. <i>Baptisia alba</i>            | _____              |
| b. <i>Gleditsia triacanthos</i>    | _____              |
| c. <i>Moneses uniflora</i>         | _____              |
| d. <i>Chamaesyce polygonifolia</i> | _____              |

\_\_\_\_\_ The species that basically honors the Wisconsin Tension Zone by being confined to the Northern Hardwood Province.

\_\_\_\_\_ The species that is confined to Great Lakes' sandy lakeshores.

\_\_\_\_\_ The species that is derived from the western "prairie element".

\_\_\_\_\_ The species that is derived from central North America but primarily restricted to "riparian" habitats.

4. Three of the important families you learned from the Wisconsin flora include the Ranunculaceae (buttercup family), Rosaceae subfamily Rosoideae (rose subfamily including raspberry, agrimony, cinquefoil), and the Fabaceae (legume family). Make a dichotomous key to these three families **using only vegetative or floral features from the following set**: stipules +/-, stamen number, hypanthium +/-, pistil number, fruit type.

A.  . . . . . \_\_\_\_\_

A.

B.  . . . . . \_\_\_\_\_

B.  . . . . . \_\_\_\_\_