

Botany 401

Name: _____

Vascular Flora of Wisconsin

Exam 1 – take home portion [due in class Tue March 11]

[20 points out of 90 total; each question is 5 points]

1. Use the online key to ferns and relatives at UW-Green Bay to key this fern to species. These fronds (feature “a, b”) are less than 20cm long/wide. Sporangia (feature “c”) with no indusia are located on lower surface of fronds; lower surface of frond is smooth and not glandular. The online pdf version of the take home exam is in color and hot links, if those are helpful.

[http://www.uwgb.edu/biodiversity/herbarium/pteridophytes/pteridophytes_of_wisconsin01.htm]

species _____



2. Using resources you have learned about in lecture and laboratory, find 2 synonyms of the following species – *Silene vulgaris* (Moench) Garcke – bladder campion. 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:

- | | common name |
|------------------------------------|--------------------|
| a. <i>Anemone caroliniana</i> | _____ |
| b. <i>Gleditsia triacanthos</i> | _____ |
| c. <i>Abies balsamea</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. _____