



12 Steps in Botanical Identification

7Song, Director

Northeast School of Botanical Medicine

P.O. Box 6626 Ithaca, NY 14851

607-539-7172 www.7Song.com

The following 12 questions are a preliminary botanical examination in identifying a particular plant species. Draw comparative samples from a few places on the same plant and from nearby plants to avoid getting caught up in individual aberrations.

1. **Monocotyledon or Dicotyledon?** This information will direct you to which of the two major subdivisions of the plant kingdom the plant is in.
2. **Flower: Regular or Irregular?** Is the flower radially symmetrical and divisible (symmetrically) through two opposite planes, or is it asymmetrical with opposite halves unlike?
3. **Flower: Corolla: How many petals? How many lobes?** Do not count the ray flowers of the Asteraceae.
4. **Flower: Calyx: How many sepals? How many lobes?** Be sure the calyx subtends an individual flower.
5. **Polypetalous or gamopetalous? Polysepalous or gamosepalous?** Are the petals (or sepals) separate and distinct (except for being attached at the base), or are the corolla and/or calyx fused together? If the perianth is of only one series, it is considered the calyx (not corolla).
6. **Flowers: Stamen: How many? Where is the point of attachment?** What are the number of stamen in the flower, if any? Where within the flower do the stamen attach: basally, to the corolla, elsewhere? Make certain that the count is accurate to the plant, and not unique to one flower which may be damaged. Do the stamen appear fertile, or vestigial?
7. **Flowers: Pistil: How many? How many styles, stigma, ovaries and carpels per individual flower?** What is the number of pistils in the flower? Pay attention to the number of separate parts, the pistils may be joined into one structure.
8. **Flowers: Ovary: Superior, inferior, or partially so?** Where is the ovary located in relation to the perianth?
9. **Inflorescence: Terminal, axillary, umbel, capitate or otherwise?** Are the flowers individually placed, or clustered? Where do the flowers appear on the plant? If clustered, what type of formation?
10. **Leaves: Basal only, alternate, opposite, whorled, sessile or absent?** How are the leaves placed on the plant?
11. **Leaves: Simple, or compound?** If compound, are the leaves pinnate or palmate?
12. **Bracts or bract-like parts: How many, are they individual or in series?** Bracts subtend inflorescences, and lie below the calyx. They are a major feature for identification in the Asteraceae (where they are called an involucre).