

Systematic Botany. Lecture 2

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Outline

Questions and answers

Compositae, Aster family
Description

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Compositae, Aster family

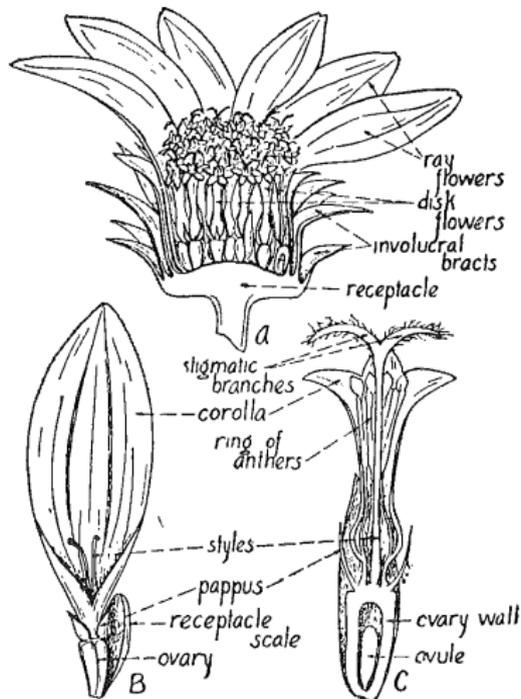
Description

Previous final question: the answer

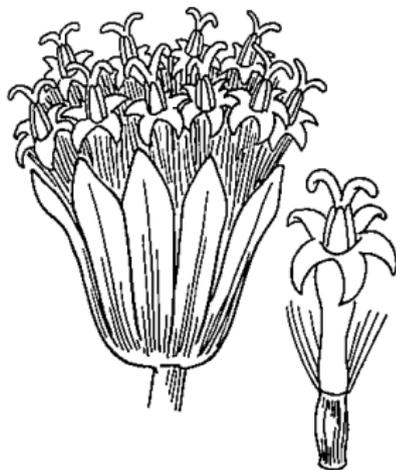
What is *Haptanthus*?

- ▶ Rare Central American plant from boxwood family (Buxaceae) with highly modified reproductive organs.

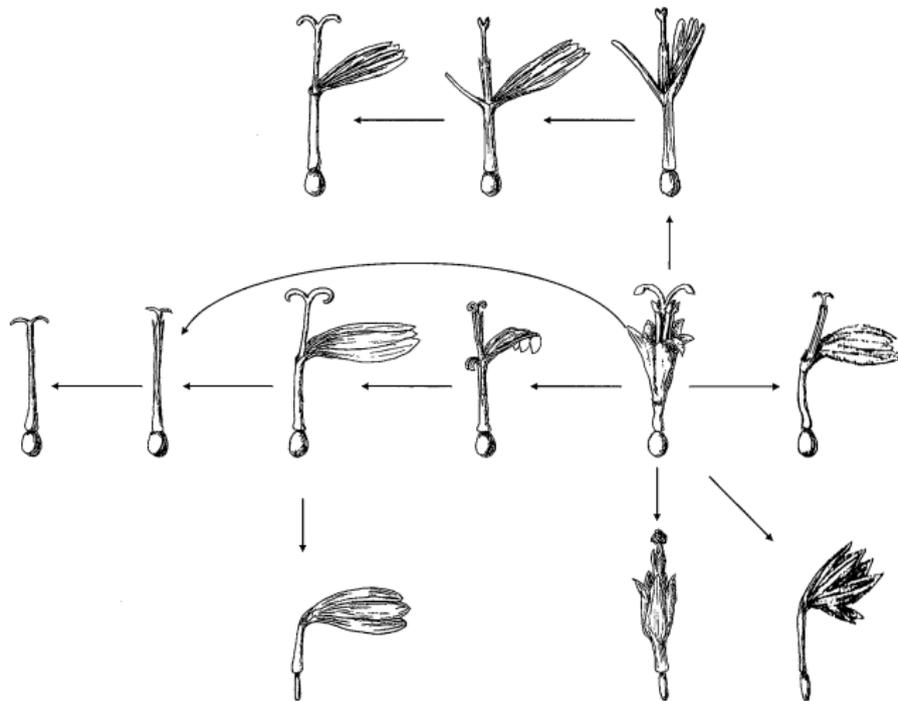
Sunflower (*Helianthus*) head



Disk flower vs. disk + ray flower



Evolution of flower types

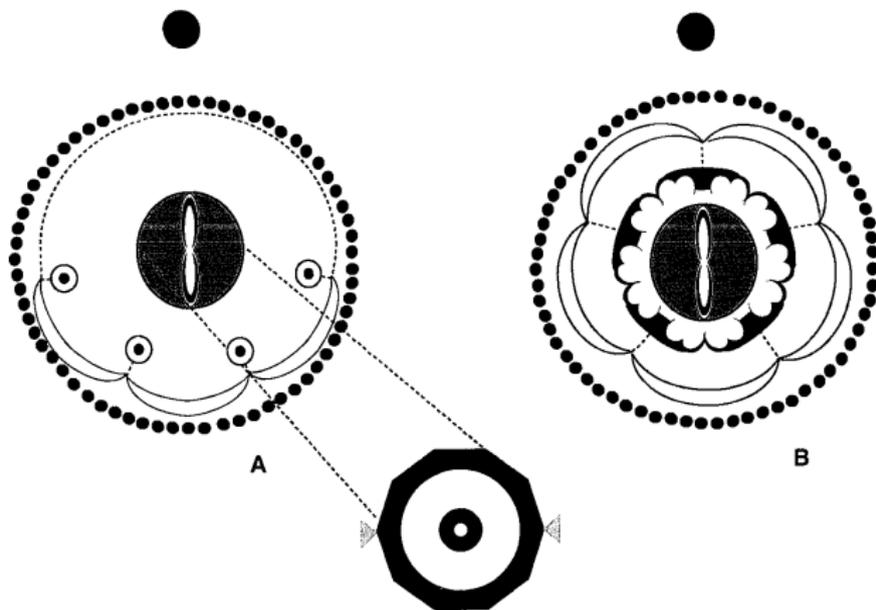


Morphology of Compositae

- ▶ Herbs, rarely woody plants; store carbohydrates as **inulin** (not starch), sometimes have resin or laticifers (subfamily Cichorioideae)
- ▶ Leaves **alternate or opposite**, without stipules, with pterodromous venation
- ▶ Flowers (disk and ray) are in involucrate heads which mimic one flower
- ▶ Calyx reduced to hairs or bristles (**pappus**), petals fused in tube or ligula (with 5 or 3 teeth)
- ▶ Stamens 5, fused by anthers
- ▶ Pistil has 2 carpels, ovary **inferior**
- ▶ Fruit is **achene**, mature seed has almost no endosperm

Formula and diagram

Compositae flower



* $K_{\infty}C_{(5)}A_{(5)}\overline{G_{(2)}}$ (tubular flower) or $\uparrow K_{\infty}C_{(3\vee 5)}A_{(5)}\overline{G_{(2)}}$ (ligulate flower)

Final question (1 point)

What is a main character of Compositae? (List only one).

For Further Reading



O. A. Stevens.

Handbook of North Dakota plants. 3rd edition.

NDSU, 1963.

Bellflower, Lobelia and Aster families. P. 264–299.