
Asteraceae (Compositae)

CNPS El Dorado Chapter 2016

Asteraceae

- One of the largest and most advanced of the dicot families
 - Has a unique floral and inflorescence structure
 - Is a “natural” family, long-recognised, with little or no dispute as to which genera should be included
 - Has a specific terminology, somewhat distinct from most other families
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Asteraceae

- Generally accepted as the largest dicot family
 - World-wide has approx. 1500 genera and 23,000 species
 - In USA there are nearly 500 genera and 4,700 species
 - In El Dorado County there are approx. 300 species
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Flora of California - largest families

- as regards endemic taxa

Asteraceae (341)

Fabaceae (190)

Polygonaceae (155)

Boraginaceae (123)

Polemoniaceae (116)

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Harrison (2013)

Asteraceae - floral structure

- Inflorescence :
 - has flowers in a capitulum, a head surrounded by an involucre of bracts (phyllaries)
 - two types of floret
 - tubular floret (often called a disk floret)
 - ligulate floret (often called a ray floret)
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Wyethia



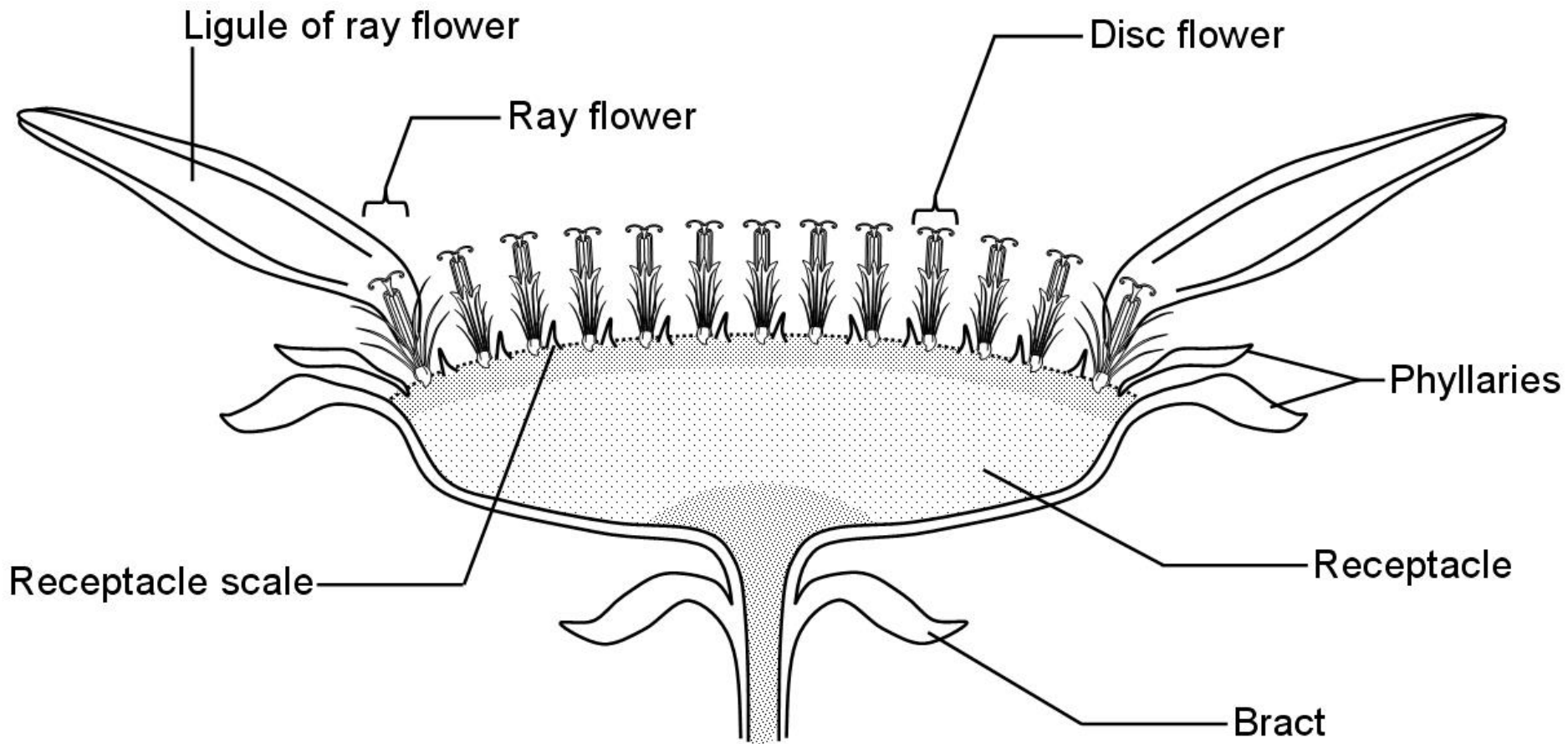
Wyethia



Wyethia

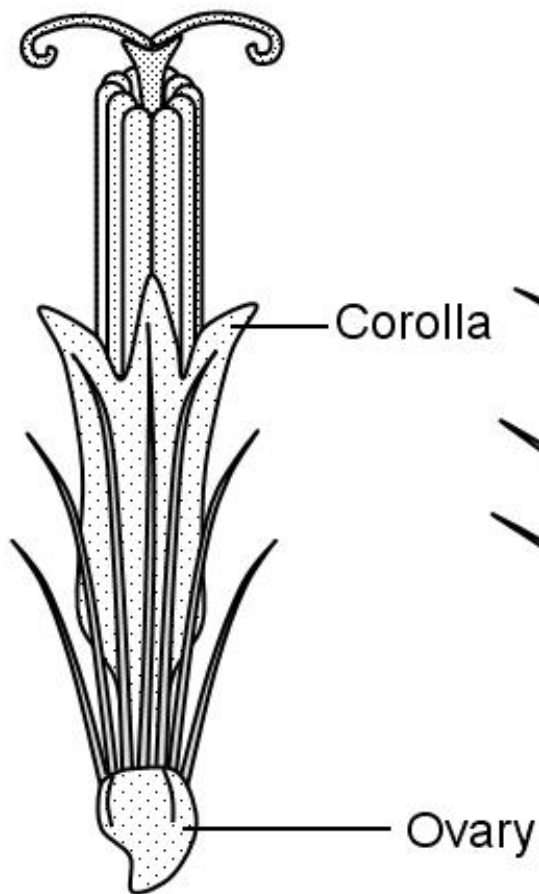


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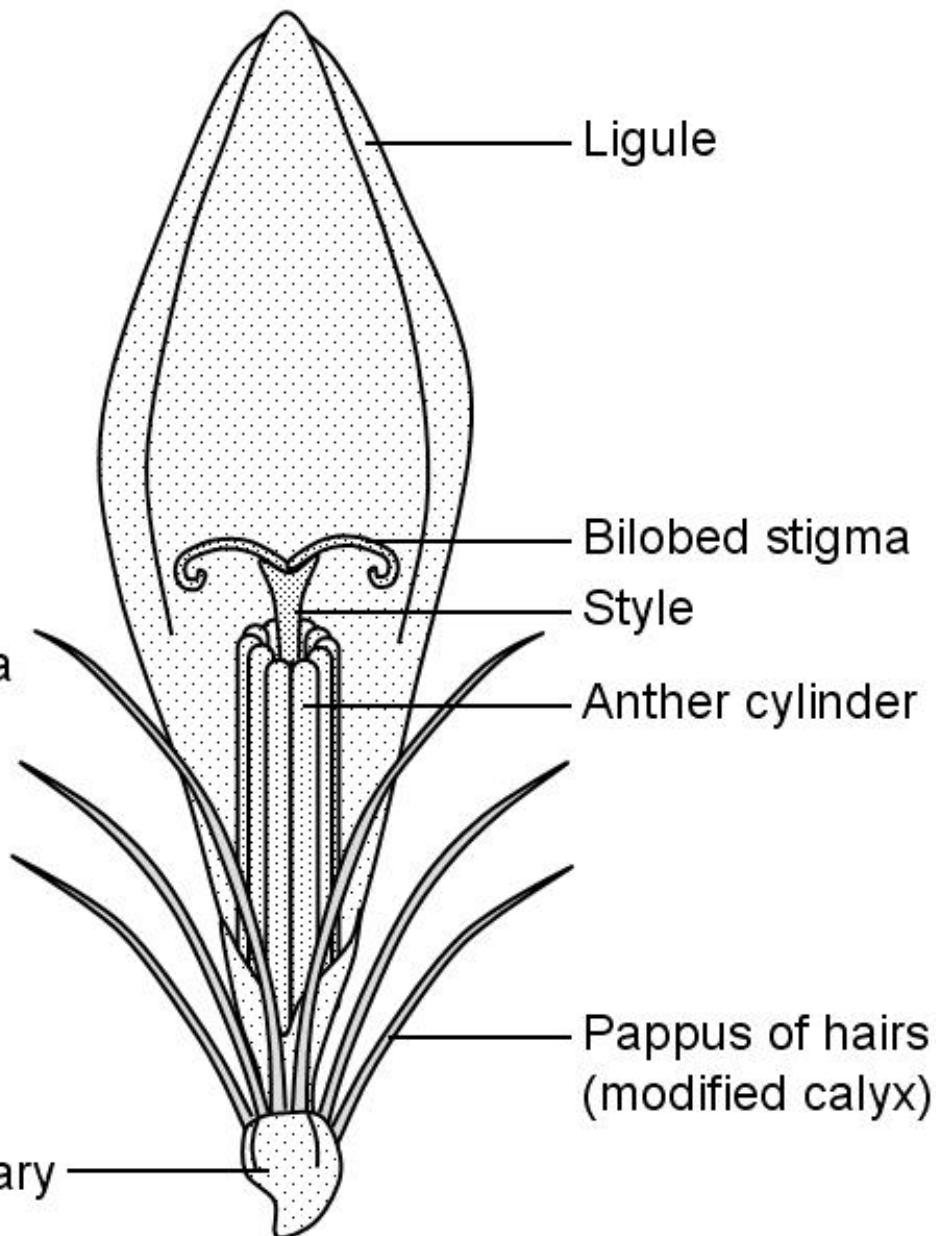


Composite Inflorescence
e.g. *Chrysanthemum*

Disc Flower



Ray Flower



Ligule

Bilobed stigma

Style

Anther cylinder

Pappus of hairs
(modified calyx)

Corolla

Ovary

Asteraceae - inflorescence form

Three main types of head, differing in the distribution and sexuality of the florets

- central disc of tubular florets; bisexual
outer ray of ligulate florets; female or sterile
often called a radiate head
 - tubular florets only; bisexual
outer ones rarely larger and sterile
often called a discoid head
 - ligulate florets only; bisexual
often called a liguliflorous head
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Wyethia -- mules ears

radiate head



Wyethia

radiate head



Madia -- tarweed

radiate head



Silybum marianum -- Milk Thistle

discoide head



Silybum marianum -- Milk Thistle

discoid head



Centaurea solstitialis -- yellow star thistle

discoid head



Cichorium -- chicory

liguliflorous head



liguliflorous head



Tragopogon -- salsify

liguliflorous head



Tragopogon