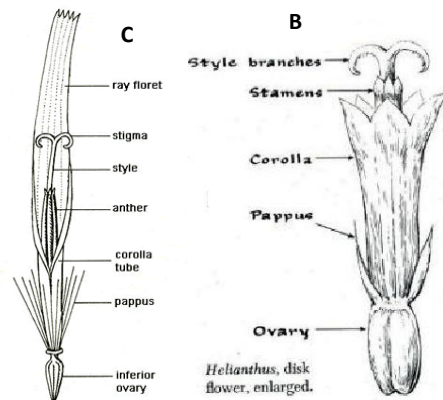
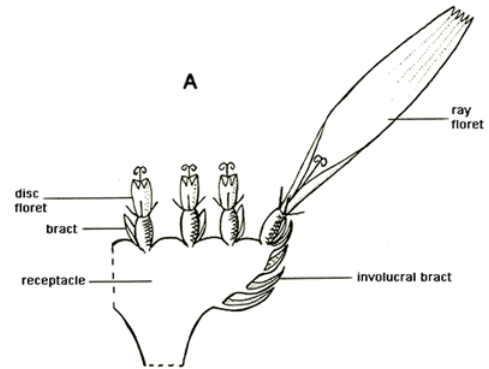


## Asteraceae (Aster Family, Daisy Family, Sunflower Family)

The Asteraceae is usually considered to be the largest plant family in the world, one represented virtually throughout the world. It is also one of the most varied, involving everything from trees to tiny ephemeral annuals. Species of economic importance include ornamentals such as marigold (*Tagetes*), *Chrysanthemum*, *Dahlia*, and *Zinnia* and food plants such as artichokes (*Cynara cardunculus*) lettuce (*Lactuca sativa*) and sunflower (*Helianthus* spp.).

The unifying features of the family are its inflorescence and flower types, both of which are so specialized terminology that they have a thesaurus of plant terms all their own. The inflorescence is, usually called either a capitulum or head, is so compact that it appears to be a single flower. At its center is the receptacle or involucre, which is encircled by a ring of bracts called phyllaries or involucre bracts (A). In some groups, another type of bract called a pale subtends the individual flowers within the head. Flowers are of two basic types, the disk or tube floret and the ray or ligulate floret. The disk floret has a long tube terminating in 5 shallow lobes (B); the ray floret has a short tube below that morphs into a flat strap shape above (C). The stamens are 5 in number; their anthers are fused (united). The single style is usually 2-branched. The fruit is a single-seeded indehiscent dry fruit called an achene or cypsela. The achene is capped by a cluster or bristles or scales called the pappus, which is thought to be a modified calyx. The pappus plays a huge role in seed dispersal via anemochory, zoochory or otherchory. And in the opinion of some botanists, the achene and pappus together are often a work of art that rivals anything else in the plant kingdom.



Molecular (genetic) data has recently forced the reclassification of the Asteraceae, mostly at the subfamily and tribe levels (between family and genus). The treatment of the Asteraceae in the Flora of North America ([http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=10074](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=10074)) is a great source of information about such changes.

Image credits:

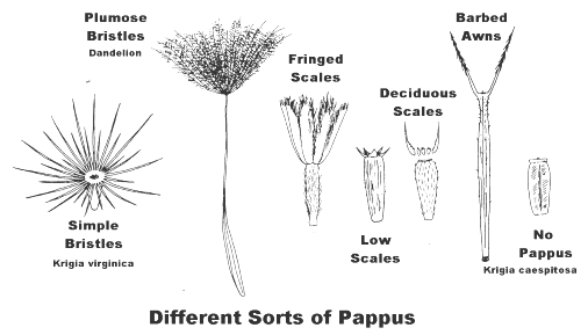
Disk floret: A View from Yallaroo:

[http://www.yallaroo.com.au/Daisy\\_flowers.htm](http://www.yallaroo.com.au/Daisy_flowers.htm)

Head and ray floret: Landcare Research website on Asteraceae in the South Pacific:

<http://www.landcareresearch.co.nz/resources/identification/plants/weedy-daisy-key/asteraceae-in-the-south-pacific>

Pappus types: Sparkleberry Spring website at <http://sparkleberrysprings.com/v-web/b2/index.php?m=200505>



Some local Asteraceae with heads containing both disk and ray florets:



red firewheel (*Gaillardia amblyodon*)



blackfoot daisy (*Melampodium leucanthum*)

Some local Asteraceae with heads containing only ray florets:



skeletonplant (*Lygodesmia texana*)



dandelion (*Taraxacum officinale*)

Some local Asteraceae with heads containing only disk florets:



gumweed (*Grindelia* sp.)



slope brickellbush (*Brickellia cylindracea*)