

BOTANY WORKSHOP

Head – a dense cluster of sessile or subsessile flowers; the involucre inflorescence of the Asteraceae (Compositae).

Involucre (involucral bracts) – a collection of bracts surrounding or subtending a flower cluster or a single flower. Also known as phyllary or phyllaries (plural).

Receptacle – the more or less expanded apex of a floral axis (stem, pedicel, peduncle) which bears the floral parts. Also known as the disk (disc) – the central portion of the involucre head bearing tubular or disk flowers.

Chaff – thin dry scales or bracts, as the bracts on the receptacle of the heads of the Asteraceae. Also known as the receptacular bracts!

Disk or tubular flowers – the central flowers of the disk or receptacle, shaped like a tube, usually perfect with both male & female flower parts, corolla usually 5-lobed at apex with 5 stamens united into a tube. A single inferior ovary. Fruit is an achene with one seed.

Ray or ligulate flowers – the outer strap-shaped flowers of the Asteraceae.

Pappus – the modified calyx lobes in the Asteraceae. This pappus can consist of scales, awns, short setae, capillary or plumose bristles, or a hyaline to chartaceous or coriaceous crown or ring, or by some combination of these or seldom wholly wanting.

Achene – the fruit in the Asteraceae family consisting of a single seed.

TYPES OF FLOWERS

Disk or tube flowers – flowers perfect (or functionally staminate), corolla tubular, with typically 5 short terminal lobes or teeth.

Ray or ligulate flower – flower is pistillate or neutral (without a style), tubular only at base, above which it is flat and usually bent backward so as to spread away from the center of the head. The flattened part of a corolla of this type is called a ray or ligule. Often the ligule exhibits traces of two or three corolla lobes as small terminal teeth.

Or – if head is composed of only ray or ligulate flowers then flowers are perfect and usually have 5 terminal teeth. In some species the ray or ligule does not develop therefore it is tubular, with no stamens, has no terminal teeth, and is more slender.

Bilabiate flower – found only in the Mutisieae (Chaptalia in our area) has a bilabiate corolla, with the outer lip generally the larger. These bilabiate flowers are generally perfect, and differ from ordinary disk flowers only in the shape of the corolla.

In some species of *Centaurea* the marginal flowers are neutral and have an enlarged, irregular, raylike corolla.

TYPES OF HEADS

Discoid – a head composed wholly of disk flowers.

Radiate – a head with both ray flowers and disk flowers.

Disciform – a head in which the ray or ligule of the marginal pistillate flowers does not develop.

Ligulate – a head that is composed wholly of perfect ray or ligulate flowers.