Tribes of the Asteraceae in New Mexico
For the NPSNM-Albuquerque Chapter

The Asteraceae is the largest family of dicots in the New Mexico flora, with 169 genera and approximately 690 species.

The primary key characteristic is the flower-like inflorescence = head or capitulum or 'composite' structure subtended by bracts (phyllaries) and this feature allows, in most cases, relatively easy family recognition.

Typical flower morphology

‘Composite’ floral morphology

Subfamily Cichorioideae
Usually: large florets; disc florets deeply lobed; flowers commonly red, violet and blue; discoid, bilabiate, or ligulate florets.

Tribes of the Cichorioideae:
- Cardueae
- Lactuceae
- Mutiseae
- Vernonieae

Subfamily Asteroideae
Usually: small florets; disc florets shallow lobed; flowers commonly yellow; radiate (true ray florets).

Tribes of the Asteroideae:
- Anthemideae
- Astereae
- Eupatorieae
- Gnaphalieae
- Helenieae
- Heliantheae
- Plucheae
- Senecioneae
Tribes of the Cichorioideae

Cardueae (Thistles)
- Mostly herbaceous, spiny herbs with dissected leaves
- Predominantly discoid, florets 5-lobed
- Style has a ring of hairs on the shaft below the branches
- NM genera: Arctium, Carduus, Cirsium, Cnicus, Onopordum

Lactuceae (Lettuces)
- Mostly herbaceous with milky latex
- Usually dentate-pinnatifid to variously dissected leaves
- Florets ligulate, with a 5-lobed ligule
- Style slender, with hairs on shaft and along the branches
- NM genera: Cichorium, Lactuca, Stephanomeria

Mutiseae
- Herbs or shrubs, often serrate-dentate leaves, sometimes spiny
- Florets usually all bilabiate
- Style branches truncate
- South and Central American, rarely in North America
- NM genera: Acourtia (=Perezia), Trixis

Vernonieae
- Usually alternate-leaved herbs or shrubs, leaves entire or toothed
- Florets mostly discoid (deeply lobed), not yellow
- Styles slender with filiform, pilose style branches and a pilose upper shaft
- NM genus: Vernonia
Tribes of the Asteroideae

**Anthemideae**
- Leaves pinnately divided
- Florets disc + ray, white or yellow, though some disciform (*Artemisia*)
- Pappus scaly or none
- Involucral bracts with wide scarious margins
- Style with apically truncate and penicillate branches, with stigmatic areas in two separate lines
- NM genera: *Achillea, Artemisia, Tanacetum*

**Astereae**
- Aromatic herbs or shrubs
- Herbs and shrubs, leaves entire
- Numerous and slender ray florets
- Pappus generally of capillary bristles
- Style branch appendages sterile; stigmatic areas separated into two bands
- NM genera: *Baccharis, Chrysothamnus, Erigeron, Gutierrezia, Heterotheca, Machaeranthera, Solidago*

**Eupatorieae**
- Herbs or shrubs, leaves often opposite
- Discoid heads with white or blue-reddish florets (never yellow)
- Long, protruding and often colored style branch appendages
- NM genera: *Brickellia, Carpochaete, Conoclinium, Eupatorium, Liatris, Stevia*

**Gnaphalieae**
- Discoid heads
- The phyllaries are papery, often showy (these are not ray florets)
- Leaves woolly, entire
- Styles truncate with obtuse apical hairs; stigmatic areas in two lines
- NM genera: *Anaphalis, Antennaria, Evax, Filago, Gnaphalium*
Tribes of the Asteroideae—continued...

Helenieae
- Herbs with generally opposite, frequently trinerved leaves
- Rays mostly yellow or white
- Herbaceous involucral bracts (phyllaries) in few rows
- Fruit (achenes) black (except in *Gaillardia*)
- Pappus of scales
- Receptacle naked (no chaff)
- NM genera: *Bahia, Baileya, Dyssodia, Gaillardia, Helenium, Pectis, Psilostrophe*

Heliantheae
- Herbs or shrubs
- Leaves entire or dissected, with strigose (bristle hair and white-spotted) surface
- Corollas *generally* yellow and broad
- Receptacle generally chaffy
- Blackened anthers
- Achenes flattened
- Distribution: Mainly North and South America
- NM genera: *Ambrosia, Bidens, Encelia, Helianthus, Ratibida, Verbesina, Viguiera, Zinnia*

Plucheeae
- Herbs, shrubs or trees
- Leaves alternate, dentate to serrate or entire
- Disc heads; filiform and tubular (male) central florets, with outer disc florets (female)
- Tropical distribution; only one genus in NM, *Pluchea*

Senecioneae
- Recognized by single row of equal involucral bracts
- Radiate or discoid florets; yellow-flowered capitula
- Pappus of bristles
- Style branches with truncate tufts of hairs apically; stigmatic areas run in two ventromarginal bands along each style branch
- Largest tribe, worldwide distribution.
- NM genera: *Lepidospartum, Packera, Senecio, Tetradyinia*
- Poisonous alkaloids