

Note – red font items are concepts stressed when referring to the Key to Keys (Handout #4). See also Handout #13.

1. Intro
2. Diagnosis of family
3. Description of Family – a summary of most of the entire session.
4. **Plant Habit** (initial factor in Plant Analysis – also see 1<sup>st</sup> couplet on Handout #4) & also see #18 below - PA
5. **Receptacle (of head) – Naked Head vs. Chaffy** (couplet appears several times in Handout #4)
6. “Heady” or look alike examples from other plant families (atypical in those families)
7. Three structural types of flowers or florets (floret = diminutive) found in Heads (if you add sex, it’s 5 types)
8. Types of **typical or common heads in Asteraceae – Disk heads, Radiate heads, Ligulate heads (in SEUS flora)**
9. Three others **uncommon (to rare) head types (in our flora)**:
  - a. **Disciform head – *Palafoxia***
  - b. **Radiant head – new term to me Weakley uses) – head – See Key E Handout #4 and *Marshallia* too.**
  - c. ***Chaptalia tomentosa* – sunbonnets – species is not considered rare, but type head, trimorphic is. Note this term is not used in Weakley at present; see Wunderlin & Hansen 3<sup>rd</sup> ed. (2011).**
10. Connate anthers (syngenesious) – slide here because Chicory slide before it is a good visual example
11. Involucre Morphology – introduced here because has to do with heads (ends with **calyculus** “ka lick’ u lus”) – 3 genera in our SEUS flora – ***Coreopsis*, *Bidens* & *Cosmos*** (last is non-native)
12. Pappus (modified calyx) types including **3 types of pappus bristles** & the Cypsela (continued into the next topic) & **Cypsela beaked or beakless.**
13. ***Symphoytrichum*** (most of the former Asters in our SE Flora) **vs.** false aster (*Boltonia*) – note pappus on cypsela
14. **Sexuality variations in the Head – *Silphium* (rosinweed) as an example & e.g. of chaffy head (too).**
15. Summary slides (at least 2)
16. Tools
17. Steps to Plant ID (for Aster Family and in general)
18. Plant Analysis (do PA - before you Key)
19. HIPDAD Exercise – 5 minutes – using the BIGGIE – electronic only “handout” #5. How HIPDAD narrows choices.