

## Introduction to Plant Identification, Feb 23, 2017, Ricky Linex

Q: Did he say a variety is man-made?

A: No, a cultivar is manmade

Q: What is a clawed petal?

A: Key will usually have illustration to show character

Q: Might be useful to clarify for the audience that the database doesn't distinguish native state-to-state or by region within the lower 48 (i.e. any plant that is native to one state in the US will be listed as native wherever it occurs even though that may not be the case). Many states break out nativity by state or region and would not want this database used as a check for what is native.

Q: Your symbol: BOCU2 listed was not a Bouteloua plant?

A: That is true, BOCU2 is Borrchia xcubana, Seaside tansy which showed up with the other Bouteloua plants because it is BOCU and it was given a 2 after the four letters. Because it matches the other BOCU and BOCUC, BOCUC2 plants it was listed, but it is a forb and not a grass.

Q: Do you know of any good apps to help with identification you would recommend?

A: I am sorry to say that I have not kept up with the apps of recent. I'm sure there are some out there but to me working on the cellphone is slower than looking in a book. Once you have the plant named then you can go to Google and learn a lot about it, just getting the name is the holdup. INaturalist.org is one that I mentioned that does seem to be useful and involves other people who can offer suggestions on the ID of a photo submitted and shows the location of the plant.

Q: Is he using the Harris and Harris Plant ID book to do this primrose decision making tree?

A: No, I was using the Illustrated Flora of North Central Texas for the keying. I referenced a photo of the Harris & Harris book, Plant Identification Terminology - An Illustrated Glossary which offers drawings of the plant parts being described in the glossary.

Q: How does this compare with the Lady Byrd Johnson plant database?

A: The LBJ site does not have a distribution map but does list the states the plant is known to occur. It pulls some of the same data such as the plant symbol, plant characteristics, growing conditions, benefits, growing conditions and photos. So they have some overlap but they are different. The PLANTS Database offers fact sheets and planting guides on some plants while the LBJ site offers some amount of this type information on every plant. I'd suggest you check both out and see how you like them.

Q: Can a plant be identified through analyzing the root?

A: Not to my knowledge, some plants would have a distinct enough root to be identifiable if you dug and saw them often enough but again not to my knowledge.

Q: Can drones help to identify plant communities on a large property?

A: An interesting thought. Satellite photography has been used to isolate areas between being mesquite and juniper canopy by the color and texture of the plants. Perhaps drones could be used.

Q: Digital photography has done a lot to facilitate the identification of plants. What do you think?

A: The ability to be out in a very rural wild-scape and send a photo to dozens of friends to help with ID has come a long way. I once sent a photo of a west Texas species of Jimson weed that I was not familiar with taken north of Sierra Blanca in Hudspeth County to a co-worker in San Angelo and he identified it from the photo while I was still on the ranch.

Q: I just started working as a soil conservationist. Any advice for resources for eastern Washington state plant ID resources?

A: I would ask the local District Conservationist if he or she had a list of plant ID books or websites that they frequent. Then ask if you can also contact the area or zone office to request the same information

from the range management specialist and wildlife biologist if those positions are there. You will meet folks in the agency that are known as good plant id people, get to know them and communicate with them to learn more about plants. Good luck.

Q: What dpi did you say to scan plants at again?

A: Plants at 300 dpi up to 600 dpi and seeds at 600 or even better at 1,200 but the file sizes are huge at this higher resolution.

Q: Identification without seed head.

A: Without the flower or seed head identification is tougher but it might still be possible if there are enough other traits present, such as leaves being opposite or alternate, height of plant, etc.

Q: Is there a site to show what plants we should not handle with bare hands (toxic)

A: Most states have a list of toxic plants, Google Toxic Plants of your state and see what is available. In Texas this link shows toxic and poisonous plants:

<http://aggie-horticulture.tamu.edu/earthkind/landscape/poisonous-plants-resources/>

Q: Do you offer other courses like this?

A: These webinars cover a wide variety of subjects related to soil and water conservation so there might be future webinars on this subject and you can check out the webinars on file that have already been presented.

Q: What identification key would you recommend for perennial Texas grasses, particularly tall grasses (in Mason Co., TX)

A: The newest book out that has all grasses for Texas is Guide to Texas Grasses by Robert A. Shaw. It has good photos, line drawings and distribution maps of all grasses in Texas as well as a botanical key. Another is Grasses of the Texas Hill Country by Brian Loflin and Shirley Loflin, having very good photos and descriptions but not a key.

Q: Do many of the keys include information on time of year since plants may display different attributes or may not be developed when it is observed in the field?

A: The keys are developed using all parts of the plants from stems to leaves to flowers to fruits. You may have to wait until the plants flowers or produces fruits to gather enough information to make the ID.

Q: Thank you for an excellent presentation. I am a graduate forester and need more plant ID experience. I am familiar with keying trees and shrubs, which will help me with plants on our farm.

A: Thanks for the kind words.

Q: Great Presentation! Really appreciate the history, too.

A: Thank you.

Q: Is there a quick guide for wetland plants?

A: There are two older but very detailed books with line drawings and keys: Aquatic and Wetland Plants of Southeastern United States (in two volumes, monocots and dicots) by Robert K. Godfrey and Jean W. Wooten; and Aquatic and Wetland Plants of Southwestern United States (in two volumes) by Donovan S. Correll and Helen B. Correll. Newer books include Aquatic and Wetland Plants of the Western Gulf Coast by Charles D. Stutzenbaker with B&W photos; and A Guide to Moist-Soil Wetland Plants of the Mississippi Alluvial Valley by Michael L. Schummer et al., having numerous color photos of each plant and many of these are also found here in Texas.

Q: iNaturalist is a great resource, take a picture and expert will ID it.

Q: Please comment: plants are best left in the ground to grow, rather than be collected, unless one is an authority.

A: Most of the original botanists that I mentioned today were amateurs who were collecting to further the knowledge of the new lands. Collecting of plants is a renewable practice since many seeds will fill in

behind those plants removed. Collection of rare and endangered plants is another matter and best left where they are.

Q: To whom would I report a new plant sighting for a county record so that it could be updated in the USDA Plants Database?

A: On the PLANTS Database website under the PLANTS Topics is a button called Distribution Update. Here is a link: <https://plants.usda.gov/du/DistributionUpdate.html>. Following the guidance here will allow the National Plants Data Team to update distribution. It will take a while for the update to happen so have patience.

Q: What is the trend as far as the profession of botany? Are more students/people becoming botanists? Or is technology aiding the end of this profession when you can id plants using a computer?

A: Just personal opinion from what I have heard the profession is declining if judged by college enrollments. There will still be a need for traditional botanists but the market may be shrinking.

Q: Does the Plant database include trees or are trees not considered a "plant?"

A: Yes, The PLANTS Database covers all plant types.

And many of these...

Very good presentation. Thanks!  
Thank you!