FORT WORTH BOTANIC GARDEN | BOTANICAL RESEARCH INSTITUTE OF TEXAS

Herbarium On Wheels Activity

Help the herbarium identify these plants!

Objective: Using your characteristics chart, match each flower to the correct species.

Instructions:

1. Start at the top of the chart, and work your way through each trait of the flower you are trying to identify. Pick the trait from the following that matches the description of your flower (example: Pink Petals).
2. After matching one trait, follow the row to the right to see what step to move to next (example: Pink Petals…GO TO STEP 3).
3. After matching each trait, it should lead you to the scientific name of the flower. Repeat the above for each new flower.
4. Congratulations! You just successfully identified the plant! Thanks for your help, Field Biologist! :)

PUT ANSWERS BELOW:

A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

Characteristics Chart:

STEP ONE:	1A: It has tubular flowers.	Go to STEP THREE
	1B: It has flat flowers.	Go to STEP TWO
STEP TWO:	2A: It has petals in 2's.	Go to STEP FIVE
	2B: It has petals in 3's.	Go to STEP FOUR
STEP THREE:	3A: The flowers are reddish-orange.	Plant 4!
	3B: The flowers are in a spiral.	Plant 5!
STEP FOUR:	4A: There are 3 petals.	Plant 3!
	4B: It has a yellow center.	Plant 2!
STEP FIVE:	5A: The anthers are rectangular.	Plant 1!
	5B: The flowers are yellow with brown centers.	Plant 6!

Plants:

1. ***Oenothera speciosa*** **(Showy-Primrose)**
2. ***Sisyrinchium campestre*** **(Prairie blue-eyed grass)**
3. ***Tradescantia ohiensis*** **(Ohio Spiderwort)**
4. ***Castilleja indivisa*** **(Indian Paintbrush)**
5. ***Spiranthes lacera*** **var. *gracilis*** **(Slender Lady-Tresses)**
6. ***Engelmannia peristenia*** **(Engelmann's Daisy)**

Plant A.

Plant B.

Plant C.

Plant D.

Plant E.

Plant F.

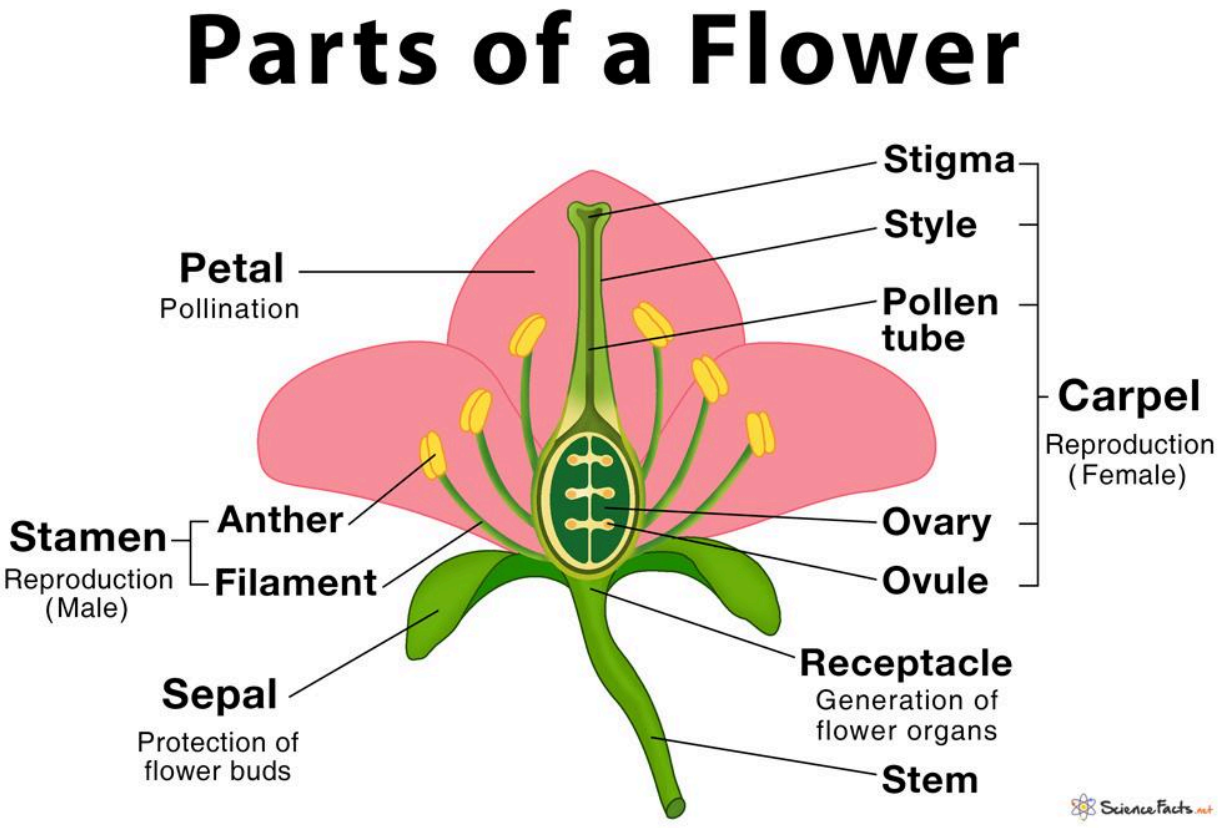
Native Plant Information Network, NPIN (2013).
Published on the Internet http://www.wildflower.org/plants/ [accessed April 24, 2024].
Lady Bird Johnson Wildflower Center at The University of Texas, Austin, TX.

Facts about each plant:

- ➔ **Slender Lady Tresses** are in the family Orchidaceae, which means they are an orchid! They are one of the few orchids that are native to Texas.
- ➔ **Engelmann's Daisy** is in the family Asteraceae, along with all other sunflowers and daisies. But did you know that what looks like one flower is actually a large group of flowers called an "inflorescence"? A daisy consists of a bunch of tiny flowers in the center called disc flowers, and each petal of the daisy is actually what is referred to as a ray flower.
- ➔ The **Showy-Primrose** is in the Onagraceae family, sometimes called the "Evening-Primrose Family". This flower is pollinated by moths! (Moths like pale, fragrant flowers so they can find them in the dark.)
- ➔ The **Paintbrush** is in a family called Scrophulariaceae, the orange parts that look like the flower are actually what is called "bracts"! The true flower is a small tubular flower tucked within them.
- ➔ The **Ohio Spiderwort** is named for its sticky sap that resembles spider webs!
- ➔ **Prairie blue-eyed grass** is in Iridaceae, the same family as Irises. This species name, *Sisyrinchium campestre,* means "Iris-like" and "flat/country" for the genus and specific epithet respectively.

KEY:

A. *Engelmannia peristenia* (Engelmann's Daisy)
B. *Oenothera speciosa* (Showy-Primrose)
C. *Sisyrinchium campestre* (Prairie blue-eyed grass)
D. *Tradescantia ohiensis* (Ohio Spiderwort)
E. *Castilleja indivisa* (Indian Paintbrush)
F. *Spiranthes lacera* var. *gracilis* (Slender Lady-Tresses)

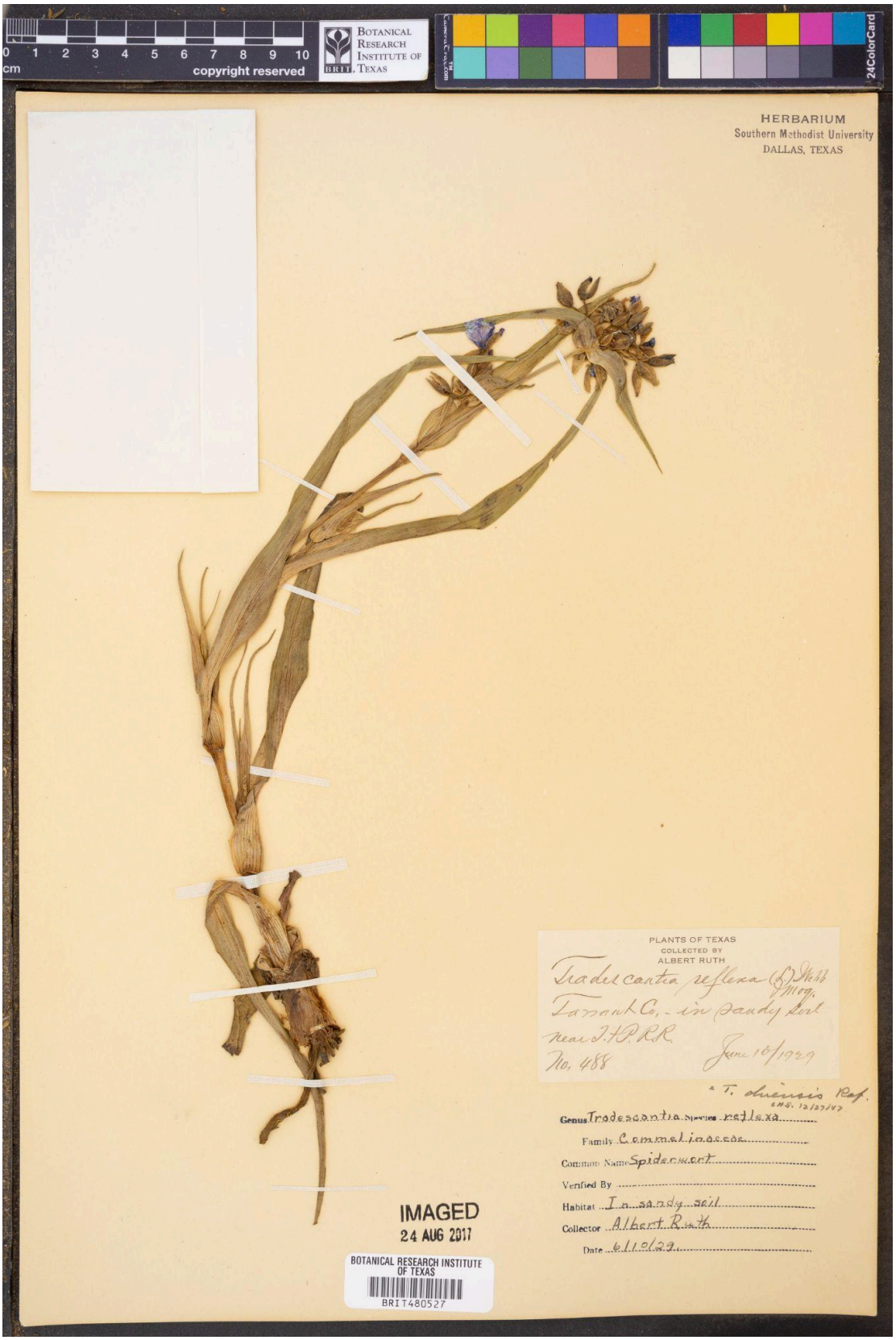


^^^Flower anatomy diagram to help identify parts of a flower^^^

- The herbarium houses the mounted/preserved counterparts of the alive flowers seen in the images from the activity, the images of the real actual specimens are found on pages 8-13. Or search the collection on the TORCH Portal by looking up the scientific name! https://portal.torcherbaria.org/
- Take a look for yourself, and see if you can spot which one is the oldest specimen shown here! (hint: check the primary label to see what date it was collected, it will be the one in the bottom right of the mounted sheet.)


0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT
24ColorCard
2082
Botanical Research Institute of Texas
=E. peristenia (Raf.) Goodman & Lawson Ast.
PLANTS OF TEXAS
Engelmannia pinnatifida Gray
dup. det. by L. H. Shinners, 14-XI-1961
Gonzales County: Highway 90A, .4 mi. E of intersection w. 443. Altitude: 240 feet.
Hillside near road. Tight shallow soil over buff-brown limestone. Herbaceous complex near Quercus virg.
Perennial herb, 65 cm. Narrowly bushy upright. Yellow rays and disk. Resinous rank odor.
Collected by Alfred Traverse, No. 2082 8-V-1961
IMAGED
06 MAY 2016
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT285515


copyright reserved
Botanical Research Institute of Texas
24ColorCard
15545
Botanical Research Institute of Texas
Spiranthes lacera gracilis
Determined by Joe Liggio 3/23/98
The Department of Biology Herbarium
Texas A&M University
PLANTS OF TEXAS
Spiranthes cernua (L.) L. C. Rich.
Autumn Tresses
Orchidaceae (51)
A few scattered specimens in rather poor soil (clay). Minter springs area about 3 miles southeast of Wellborn.
BRAZOS COUNTY
October 5, 1968
John J. Sperry
&
Harriett G. Sperry
No.
IMAGED
21 SEP 2017
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT408237


0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT
24ColorCard
HERBARIUM
Southern Methodist University
DALLAS, TEXAS
PLANTS OF TEXAS
COLLECTED BY
ALBERT RUTH
Tradescantia reflexa Raf.
Tarrant Co. - in Sandy Soil
near T.P.R.R.
No. 488
June 16/1929
T. ohiensis Raf.
Genus Tradescantia Species reflexa
Family Commelinaceae
Common Name Spiderwort
Verified By
Habitat In sandy soil
Collector Albert Ruth
Date 6/16/29
IMAGED
24 AUG 2017
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT480527


copyright reserved
BOTANICAL RESEARCH INSTITUTE OF TEXAS
HERBARIUM
Southern Methodist University
DALLAS, TEXAS
Sisyrinchium campestre Bicknell
Determined by Royce Oliver 1968
Missouri Botanical Garden
PLANTS OF TEXAS
HERBARIUM OF SOUTHERN METHODIST UNIVERSITY
Sisyrinchium albidum Raf.
Delta Co.: 9.4 miles northeast of Cooper.
Brown to black clay, roadside. Perianth large; tepals white to pale lavender-blue.
LLOYD H. SHINNERS 13885 4 April 1953
IMAGED
19 SEP 2017
BOTANICAL RESEARCH INSTITUTE OF TEXAS
BRIT406826
IRIDACEAE
Examined for
VASCULAR FLORA OF THE SOUTHEASTERN UNITED STATES
Sisyrinchium campestre Bickn.
K. L. Hornberger UARK Nov. 1985