



The Sabal

April 2019

Volume 36, number 4

In this issue:

April program p1.
This issue: "DYCs: Damned Yellow Composites!"
Preparing for City Nature Challenge p2
Discriminating between similar yellow composite blooms occurring in deep south Texas p3-6
LRGV Native Plant Sources & Landscapers, NPP Sponsors, Upcoming Meetings p7
Membership Application (cover) p8

Plant species page #s in the Sabal refer to: "[Plants of Deep South Texas](#)" (PDST).

Native Plant Project (NPP) Board of Directors

President: Ken King
Vice Pres: Jann Miller
Secretary: Angela Rojas
Treasurer: Bert Wessling

Drew Bennie
Raziel Flores
Carol Goolsby
Eleanor Mosimann
Christopher Muñoz
Rachel Nagy
Ben Nibert
Joe Lee Rubio
Kathy Sheldon
Ann Treece Vacek

NPP Advisory Board

Mike Heep
Benito Trevino

Editor:

Christina Mild
<mild.christina@gmail.com>
Submissions of relevant articles and/or photos are welcomed.

Editorial Advisory Board:

Mike Heep, Jan Dauphin
Ken King, Betty Perez
Eleanor Mosimann
Dr. Alfred Richardson
Ann Vacek

NPP meeting topic/speaker:

"Tree Biogeography: a window into the subsurface of the South Texas Sand Sheet"

by *Christopher J. Muñoz*

Tues., April 23rd, at 7:30pm

Christopher J. Muñoz is a researcher who focuses on plant-water dynamics, plant biogeography, sedimentology and stratigraphy. His talk will cover the link between the geology of the South Texas Sand Sheet and the distribution patterns of dominant plant species. This will be a close look at a region you may not have experienced.

The meeting is at: **Valley Nature Center**,
301 S Border, (Gibson Park), Weslaco. 956-969-2475.

Right: Eastern Sleepy Daisy, *Xanthisma texanum* var. *orientale*. PDST 136. Occurs in sandy soils. Texas endemic. 1.25" wide blooms open in afternoon. Leaves ~1" long, lanceolate. Photo by Javi Gonzalez.



The Sabal is the newsletter of the Native Plant Project.

It conveys information on native plants, habitats and environment of the Lower Rio Grande Valley, Texas.

Previous **Sabal** issues are posted on our website [www.NativePlantProject.org].

Electronic versions of our **Handbooks** on recommended natives for landscaping are also posted there.

Change of address, missing issue, or membership: <bwessling@rgv.rr.com>

President - Ken King - <wk_king01@yahoo.com>

DYCs: Those Damned Yellow Composites

Preparing for City Nature Challenge 2019—by Christina Mild

Last year's NPP training by John Brush for iNaturalist' City Nature Challenge was life-changing for this editor. It has resulted in a several-times-weekly check for unidentified and recently posted plants. It's nice to know what's happening out and about without personally experiencing ticks, chiggers, spines and aching body.

No less than 10 times in two weeks, page 2 of the March Sabal "Pinky-Purple-Blooming Sprawling Verbenaceae" has been vital for me to complete identifications. Side-by-side photos are sometimes essential for certainty.

The **City Nature Challenge 2019** will take place from **April 26th thru 29th**, with several days after to complete as many identifications as possible in order to do well in the competition. The LRGV did great in 2018!

In advance of this coming challenge, many photographers have been out and about frantically posting observations during the past month.

It's a bit tiring as an Identifier to see scores of unidentified cowpen daisy and common sunflower images. On the opposite end of that spectrum are the scores of daisy-like yellow composites which beg for identity. Many of those Observations provide a single photo of a bloom, the only important phenomena in the eye of the "Observer" who posted them.

Can we resist the urge to race frantically about snapping the biggest, brightest and most blooms in evidence?

Let us hope so.

It isn't necessary to capture every important character in just one photo. That is often utterly impossible.

Multiple photos can (and should be) submitted and combined to complete one "Observation."

Thus, the theme for this issue.

"Discriminating between similar yellow composite blooms occurring in deep south Texas"

One cannot hope to completely address our wealth of yellow composites in one issue of The Sabal.

We will consider a few especially confounding species, pointing out important characters for making an I.D.

Al Richardson, Jan Dauphin and Mike Heep provided helpful suggestions regarding what should be considered here. Al was especially helpful in pointing out the "thumb test:" what one feels upon touching a leaf.

Some leaves feel leathery. Some split in two when you attempt to fold them. Some are scratchy, even stinging or prickly. Some are soft. Are the leaves thick, succulent, thin, tiny, indented, toothed, divided? How large are they?

Smell is important also: not only a scent from the bloom (chocolate sunflowers in Utah smell like chocolate), but the scent of crushed leaves. Anything smelly probably has tiny, but glands made visible by good focus and enlarging.

Leaf shape and color are essential characters: leaf arrangement at the base of the stem and along the stem are important to photograph and note. Leaf undersides may be completely different in color and other details.

Close-up photography can reveal the shape, size, length and arrangement of hairs, along the stems, leaf surfaces (upper and under), leaf edges, venation and structures beneath the bloom.

Like a fancy cup holding the bloom is an arrangement of green structures: the phyllary. Photograph it. It is always important, and may provide a vital key to an ID.

This photo posted on iNaturalist by Javi Gonzalez shows sharp brown structures between the elongated yellow ray flowers and green phyllary. This is *Xanthisma texanum* var. *orientale*. taken May 2016 on Brush Line Rd, Linn, TX. See PDST 136. **Eastern Sleepy Daisy**. This is one of the yellow daisies of sandy soils.

And how about developing seeds? The "exploding" seedheads of Indian Blanket are characteristic, as are the seedheads of "Tickseed Coreopsis."

Beautiful blooms are often difficult to capture in focus. They reflect light, which attracts pollinators, but makes good focus almost impossible. Shade is called for.

Standing over the plant might provide some shade, especially while wearing a wide-brimmed hat. A white umbrella filters light without altering colors: you'll probably

need an assistant to hang onto it in our windy clime. A black umbrella can substitute: white ones are difficult to find.

One might consider a "city nature challenge" as a silly undertaking. Especially silly observations include out-of-focus trees somewhere distant or multiple blooming species growing intermingled. (Your hat can be placed strategically to provide background, bringing one subject plant away from a confusing jumble of other growing things.)

Despite some silliness, a wealth of locally useful information is being compiled on iNaturalist. John Brush is encouraging us to use "Annotations" which include blooming, fruiting and budding. John has also begun a project compiling occurrence of invasive exotic species. Ernest Herrera works on "Biological Interactions of the RGV," one of this editor's favorite subjects.

Keep up the good work, everyone! We can always do better!



“Discriminating between similar yellow composite blooms occurring in deep south Texas”

A sunflower may not be just a sunflower. Along almost every cultivated field in deep south Texas are tall yellow composites, our common sunflower, *Helianthus annuus*, PDST 105. Closer inspection of sunflowers growing in less-disturbed areas or different soil types may yield beautiful surprises: less-common but equally lovely sunflower species. Cultivating these is not a bad idea.

Several species included in this issue have not been “Observed” from this area on iNaturalist. Let’s change that!



Silverleaf Sunflower, *Helianthus argophyllus*, PDST 106.

Annuals up to 13’ tall, branched above. Appearing silver-white from a distance. Leaves roughly heart-shaped, up to 8” long. Flower up to 4” broad. Ray flowers yellow. Disc flowers brown. Blooming late summer and fall. Hidalgo and Willacy counties. Seeds are eaten by Lesser Goldfinches.

From Eason’s **Wildflowers of Texas**, p205: Silvery (*argo*) leaves (*phyllus*).

Found in sandy soils along Texas coast from Mexico north to Houston, inland following San Antonio and Guadalupe River drainages.

Small populations were found by Al Richardson and Ken King in June of 2005, in northern Hidalgo and Willacy counties, growing with *Helianthus praecox*, Runyon’s Premature Sunflower. (See page 4.) Some plants appeared to be hybrids of the two.

Everitt, et.al. from Weeds in South Texas and Northern Mexico: “...warm-season weeds in sandy pastures ... common in disturbed sites on N Padre Island.”



Maximilian Sunflower, *Helianthus maximiliani*, New species for PDST.

From Eason’s **Wildflowers of Texas**, p207: Rhizomatous perennial with rough stems to over 9’ tall. (Because of the rhizome, this plant is easily extirpated by plowing.)

Leaves are alternate, to 11” long and 2” wide. Flowers up to 2.5” wide.

Common throughout Central Texas.

Grows in areas with wet soils, such as depressions and swales. (Does not tolerate long-standing water, however.)

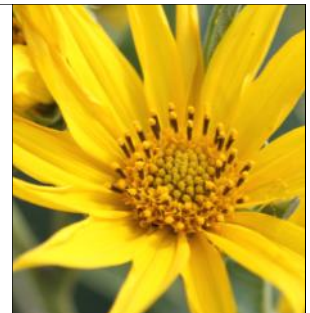
Al Richardson and Ken King found this species blooming on October 4, 2014 west of La Gloria tract.

Insets on right from top to bottom:

Dark red pollen-bearing stamens protrude from the floral disc.

Blooms sometimes appear in large clusters.

Delicate phyllaries surround the bloombuds.





Runyon's Premature Sunflower, Sand Sunflower.

Helianthus praecox subsp. runyonii, PDST 107.

Annual from a taproot. Up to 24" tall. Rough to the touch.

Resembles short plants of common sunflower. Stems erect and hairy. Leaves ovate to triangular, ~2" long. Surfaces appear glossy in sunlight but are hairy.

Blooms up to 3.5" broad.

Ray flowers orange-yellow; disk flowers purplish brown.

Blooms in spring, summer or fall. Hidalgo, Willacy, Starr counties.

A Texas endemic, growing in sandy soils in prairies and openings in the Rio Grande Plains and Coastal Prairies.

Leaves are eaten by white-tailed deer and cattle. Seeds consumed by bobwhite quail, mourning doves and Rio Grande turkeys.

See also the species comparison in Broad-Leaved Herbaceous Plants of South Texas by Everitt et. al. 1999, pp 48-49.



Fringed Sunflower, Blue Weed Sunflower,

Helianthus ciliaris, PDST 106.

Branching perennials up to 28" tall, often less. Plants spread from underground rhizomes.

Leaves and stem appear blue-green. Leaves are smooth above, with scattered hairs below.

Leaf margins entire or serrate. Glandular hairs occur near the leaf base.

Ray flowers yellow and rather short. Disk is relatively large, reddish-bronze, with obvious protruding pollen-bearing stamens.

Phyllaries in three rows, outermost with recurved tips and ciliate-hairy margins. (not shown)

Blooms occur in summer and fall.

Cameron and Hidalgo counties.

Occasional on clay soils in openings, fields, and waste places in the Rio Grande Plains and Coastal Prairies.

Found in western half of state, from Brownsville north into Panhandle and west to El Paso.

Occurs in wet soils near canals and other sources of water.

Also grows in dry, alkaline soils.

Leaves are eaten by white-tailed deer.

“Daisies” found along the coast (and elsewhere). These species are found in similar habitat and are often confused. They show different adaptations to a sometimes harsh environment. Sea Ox Eye has thickened leaves with a leathery surface. These hold water and reflect harsh sunlight. Camphor Weed discourages predation of larger leaves with camphor scent and a rough surface. Gray Golden Aster has smaller leaves covered with silvery hairs which disperse sunlight and may hold moisture droplets. The thick leaves of Camphor Daisy act much like those of Sea Ox Eye with the addition of a camphor odor and serrated edges.



Sea Ox Eye Daisy. *Borrichia frutescens*. PDST 90.
 Leaves are thick and smooth. Some will snap when folded.
 Large colonies occur in places which are periodically wet.
 Excellent plant for stabilizing soils from sand to clay.
 Tolerates high salt content.
 Woody plants up to 32” tall.
 Blooms are compact, just over 1” wide. Seedheads are stiff and sharp.
 Place your thumb against the floral disk: you’ll feel the points of many sharp-pointed scales (Al Richardson’s thumb test).

Camphor Weed. *Heterotheca subaxillaris*. Syn. *H. latifolia*. PDST 108. Large annuals to 40” or taller.
 Leaves have a camphor smell when crushed or torn. Leaves are relatively thin, often larger than blooms and somewhat rough.
 Blooms about 5/8” wide, occurring in spring, summer and fall.



Gray (Hoary) Golden Aster. *Heterotheca canescens*. PDST 107.
 Rhizomatous perennial without glands, thus no camphor scent.
 A dense covering of silvery hairs is visible on close inspection (i.e. hoary).
 Grows up to 20” tall from a woody base.
 Blooms about 3/4” wide.
 Leaves are narrow, short, elongate.
Frequent on sandy soils in prairies and openings in the northern Rio Grande Plains and Coastal Prairies.
 Widely-spread through most drier parts of Texas in various habitats.
 Leaves are eaten by white-tailed deer.



Camphor Daisy. *Rayjacksonia phyllocephala*. Syn. *Machaeranthera phyllocephala*. PDST 122.
 Annual to 3’ tall from woody base, heavily-branched.
 Sometimes sticky. Camphor odor when bruised.
 Leaves are thickened with serrate edges which hurt.
 Blooms to 2” broad, appearing from spring through fall.
 Found along the Gulf Coast from Mexico to Louisiana, occasionally further inland in sandy soils.



Yellow Daisies with reduced-size leaves. One adaptation to dry climate is reduction in leaf size. Multiple species of yellow-blooming daisies have adapted in this way. In addition to species included on this page, see Eastern Sleepy Daisy on page 1, Gray Golden Aster on page 5, and Limoncillo on page 7. Leaf size in many species can vary greatly depending on moisture, but these species typically bear tiny leaves. In addition, they have other protective adaptations: hairs disperse harsh sunlight and hold on to moisture droplets in the air, stiff hairs, sticky or smelly glands and spines discourage predation in areas where plants are few.



Scratch Daisy, *Croptilon rigidifolium*, PDST 95.
Stiff outward-pointing leaves are distinctive.
In this enlarged photo, stiff hairs are visible on stems and leaf edges, thus the common name.
Habit varies from erect to leaning. Annuals up to 16" tall.
Blooms ~3/4" wide, spring thru fall.
Cameron, Hidalgo and Willacy counties.
Found most often on sandy soils.

This species has not yet been reported on iNaturalist for this area.

Shorthorn Jefeá, *Jefeá brevifolia*, PDST 111.
(Syn. *Xexmenia brevifolia*.)

Upright shrubs to 39" tall.
Small ovate leaves are rough to the touch due to densely-short hairs, grayish, ~1.25" long and entire or slightly toothed.
Yellow/orange blooms 1.25" wide, spring to fall.
Hidalgo and Starr counties.
Often occurs on rocky slopes or outcrops.
Should do well in xeriscape cultivation, as it is adapted to hot areas of low rainfall. It readily branches from the base, lending itself to trimming.



Spiny Goldenweed, *Xanthisma spinulosum*.
(syn. *Machaeranthera pinnatifida*.) PDST 136.
Perennials with woody bases, 20" or taller.
Leaves up to 1.25" long bearing minute spines.
Scent is lacking; glandular hairs may be present.
Blooms ~1" broad: summer and fall.
Grows in colonies. Starr County.
Various soil types.
Much variation occurs in the species and several varieties exist. Relatively common roadside weed in parts of the Trans-Pecos. Distribution includes Canada, West-central United States and Mexico.



LRGV Native Plant Sources

See also our
Sponsors on right

Perez Ranch Nursery

(Betty Perez)

12 miles north of La Joya, TX

(956) 580-8915

<PerezRanchNatives@gmail.com>

These vendors may sell exotics:

National Butterfly Center

Old Military Hwy/3333 Butterfly Pk Dr
Mission, TX 78572

office 956-583-5400x754 Max Munoz

<max@nationalbutterflycenter.org>

[http://www.nationalbutterflycenter.org]

Rancho Lomitas Nursery

(Benito Trevino)

P.O. Box 442

Rio Grande City, TX 78582

(956) 486-2576 *By appt. only

Valley Garden Center

701 E. Bus. Hwy. 83

McAllen, TX 78501

(956) 682-9411

M&G Double D Native Plants & Seeds of South Texas. (Gail Dantzker)

956-342-5979; <gdld@att.net>

7500 N 21st St; McAllen, TX 78504

[mandgdoubled.com]

Grown at The Woods, Willacy Cty., TX.

Landscapers using Natives:

Landscaping, Etc. Inc.

Noel Villarreal

125 N. Tower Rd, Edinburg

956-874-4267, 956-316-2599

Sponsors (Native Plant Nurseries)

Heep's LRGV Native Plant Nursery

Owned and operated by Mike and Claire Heep

We grow plants suited to landscaping
and revegetation in south Texas.

1714 S. Palm Court Drive, Harlingen, TX 78552

(956) 457-6834 <heep0311@yahoo.com>

[www.heepsnursery.com]



Come visit the VNC:

301 S. Border Ave.

Weslaco, TX 78596

(956) 969-2475

info@valleynaturecenter.org

www.valleynaturecenter.org



Native Plants for Sale

*Watch Birds
& Butterflies*

*A Secret Garden
in the Heart of the
Rio Grande Valley*

Valley Nature Center
-6 acre Nature Park & Trails -Book & Gift Shop-
-Native Plant Nursery-Meeting Room-
-Environmental Education and Exhibit Hall-



Photo:

Limoncillo, *Pectis angustifolia* var. *tenella*. PDST 116.

Annuals to 4" tall. Strongly scented with reddish oil glands. Leaves ~1.6" long, linear, threadlike. Blooms ~.4" wide, spring and fall. Grows on rocky, gravelly hills in Hidalgo and Starr counties.

Similar in size to Tiny Tim, (*Thymophylla* sp. PDST 131).



NPP Board & General Meetings are held at Valley Nature Center

(4th Tues. each month, except thru summer)

Brd Mtgs 6:30pm — Speaker 7:30pm

5/28/2019 (last meeting until fall)

* 9/24/2019, 10/22/2019, 11/26/2019 *

(*No meetings during summer or in December.)



Left:

Pectis cylindrica.

New to PDST.

Photo near La Joya.

January 26, 2013.

Richardson photo.

FROM: NPP; POB 2742; San Juan, TX 78589

The **Native Plant Project (NPP)** has no paid staff or facilities. NPP is supported entirely by memberships and contributions.

Anyone interested in native plants is invited to join. Members receive 8 issues of **The Sabal** newsletter per year in which they are informed of all project activities and meetings.

Meetings are held at:

Valley Nature Center, 301 S. Border, Weslaco, TX.

Native Plant Project Membership Application

Regular \$20/yr. Contributing \$45/yr

Life \$250 one time fee/person

Other donation: _____

Please print:

Name _____

Address _____

City _____ State ____

Phone _____ Zip _____ - _____

I'm choosing the "green option!"

Send my SABAL via .pdf file to:

Email address: _____

*Please mail this form with dues check payable to:
Native Plant Project, POB 2742, San Juan, TX 78589-7742*

TO:

NPP meeting/speaker:

The Native Plant Project will present:

“Tree Biogeography: a window into the subsurface of the South Texas Sand Sheet”

by Christopher J. Muñoz

Tues., April 23rd, at 7:30pm

The meeting is held at
Valley Nature Center,
301 S Border, (in Gibson Park),
Weslaco. 956-969-2475.

We hope to see you there!
Feel free to bring a native plant for identification.
Native Plants are available for a donation!!

In this issue:

“DYCs: Those Damned Yellow Composites:
Discriminating between similar yellow composite blooms occurring in deep south Texas

Below: Ernest Herrera photographed this Beetle gathering pollen from *Ratibida* sp. PDST121.

Two similar species occur here: *R. columnifera*, Mexican Hat and *R. peduncularis*, Long Headed Coneflower.



City Nature Challenge 2019: April 26th thru 29th
Discussion on page 2.