



September 2019 Newsletter

Welcome to the Friends of San Antonio Natural Areas (FOSANA) e-newsletter! We share natural areas news, the Friends' efforts, and opportunities to get involved in volunteering or educational programs at San Antonio's natural areas parks. Please check our website, www.fosana.org, for periodic updates and program information.

How to Beat the Heat!

As the heat continues to increase, humans prepare themselves for extreme temperatures and plan their time outdoors in order to avoid the hottest temperatures. Imagine what it's like to have to stay outside all the time—no matter how hot and/or dry it gets. As plants and animals face long periods of very high temperatures and drought, they rely on behavioral and physiological ways to conserve water and reduce the effect of heat.

Some [native plants of Texas](#) have specialized cells that can store water. Others avoid losing water by having leaves that are reduced to spines (for example, cacti) or by having leaf arrangements that limit surface area (like acacias). Plants such as the red buckeye, mesquite, or creosote bush may drop their leaves altogether. Stomata, the small pores through which plants exchange gases, also are the route of transpiration where water is lost, so xeric adapted plants may have stomata on the underside of the leaves. Or, as seen in the muhly grasses, the leaves are not only narrow, but also are folded and in-rolled to enclose the stomata. The leaves of agaves, yucca, and aloes are concave and are arranged in a rosette so any water from dew or rain flows to the roots.



[Agave americana](#)

Plant adaptations to heat stress are impressive, but animals also use some amazing ways to deal with heat. For example, birds have no sweat glands, so they [dissipate heat by panting or by a process called gular flutter](#). Panting involves opening the bill and increasing the respiratory rate. Gular fluttering is when a bird vibrates its throat and mouth in order to lose heat through the throat's mucus membranes. Birds also use behavioral strategies to manage heat. They do obvious things like bathing and reducing activity, but some birds (including black vultures) even [excrete onto their unfeathered legs to increase the heat](#)

[loss by evaporation](#)! Birds can also hold their wings away from their bodies or raise their feathers in order to reduce the effects of high temperatures.



[Red-tailed hawk](#)

Insects also have ways to deal with high temperatures. For example, dragonflies [change the orientation of their bodies](#). They raise their abdomen into the air, thus reducing the amount of body surface area exposed to the sun. They can get the same effect by lowering their abdomen, allowing them to hang down as they fly. So as the temperature rises, keep your eyes open to see how nature's creatures deal with the heat.



[Dragonfly in 'obelisk' position](#)

Upcoming Events

September

- ***Growing Up Wild: Bird Beak Buffet (ages 4-7)***
 - 10:00 a.m.-11:30 a.m. | Wednesday, September 4 | Friedrich Wilderness Park classroom
The shapes and sizes of a bird's beak can tell us about what it eats. This class will teach about the different functions of a bird's beak. Growing Up Wild builds on a child's sense of wonder about nature and invites them to explore wildlife and the world around them.
- ***Starting Out Wild: Owls (ages 1-3)***
 - 10:00-11:00 a.m. | Friday, September 6 | Friedrich Wilderness Park classroom
Learn how owls benefit the environment! These high energy, engaging programs are a perfect way to foster an appreciation of the natural world. Most classes take place outdoors.
- ***First Saturday Hike: KIDS ALIVE! Survival Class (recommended: ages 6 -13)***
 - 9:00 a.m.-11:00 a.m. | Saturday, September 7 | Friedrich Wilderness Park
Learn important survival skills, including what to do when lost on a trail, how to prepare for a hike, and awareness of safety hazards. Instructor: Joey Rios.
- ***Discover Nature at Lee's Creek Park (all ages)***
 - 9:00 a.m.-12:00 p.m. | Saturday, September 14
Join the San Antonio Parks and Recreation Department for another exciting FREE family-friendly festival that celebrates nature and wildlife through hands-on fun for all ages. Enjoy a special presentation on dinosaurs by Dino George, make nature inspired art, learn about honey bees and other pollinators, and so much more! Tree adoptions while supplies last!

For more information, visit saparksandrec.com.

- **Growing Up Wild: Bird Beak Buffet (ages 4-7)**
 - 10:00 a.m.-11:30 a.m. | Wednesday, September 18 | Friedrich Wilderness Park classroom
The shapes and sizes of a bird's beak can tell us about what it eats. This class will teach about the different functions of a bird's beak. Growing Up Wild builds on a child's sense of wonder about nature and invites them to explore wildlife and the world around them. your spot.
- **Starting Out Wild: Owls (ages 1-3)**
 - 10:00-11:00 a.m. | Friday, September 20 | Friedrich Wilderness Park classroom
Learn how owls benefit the environment! These high energy, engaging programs are a perfect way to foster an appreciation of the natural world. Most classes take place outdoors.

All programs (unless otherwise noted): RSVP required. Visit fosana.org to reserve your spot. Suggested donation: \$3 per person, \$6 per family. For more information, call 210-207-3782 or email nicole.mcleod@sanantonio.gov.

Are you connected to San Antonio Natural Areas on social media?

You can like us on [Facebook](#).
Find us on [Instagram](#) @sanaturalareas.

We're excited to announce that we recently joined with memberplanet to help manage our FoSANA memberships. We're looking forward to offering you a better hands-on system for overseeing your membership. It will allow us to keep track of members and membership renewal dates, allowing us to focus more on promoting the stewardship of our precious San Antonio natural resources. We're letting you know about this change now because you'll receive an email asking you to join memberplanet in the coming days. All you need to register is your name and email address. If you want to renew your membership, then you'll also need a credit card to quickly and easily register.

If you have any questions or concerns, please contact us at friendsofsanaturalareas@gmail.com. Of course, you're always welcome to renew your membership with a check made out to "Friends of San Antonio Natural Areas" and send to:
Friends of San Antonio Natural Areas
San Antonio, Texas 78256
21395 Milsa Drive

Sincerely,
FoSANA Board

Membership Update

Are you a member of Friends of San Antonio Natural Areas (FoSANA)?

Please support FoSANA on the preservation and educational outreach of natural areas around San Antonio by joining or renewing your membership [online](#) today.

Your membership this year will help us continue to

- offer over 400 environmental programs for families and adults at the Natural Areas.
- serve over 14,000 families and adults through education and outreach programs.
- coordinate over 400 volunteer programs and 7,500 volunteer hours supported trail maintenance, habitat conservation and restoration, and native landscapes and gardens.

Plus, when you renew your membership, you'll receive our monthly newsletter that provides updates on natural areas happenings and timely information on upcoming events.

Should you need any assistance or have any questions or comments about your membership, please feel free to email us at friendsofsanaturalareas@gmail.com.

Sincerely,
FoSANA Board

Friends of San Antonio Natural Areas is dedicated to promoting stewardship of San Antonio's Natural Areas, and to the understanding and appreciation of nature through educational and scientific programs.

For the latest updates and more activities, please see the calendar on the FOSANA website.

[Friends of San Antonio Natural Areas Website](#)
