



Gaillardia

Oklahoma Native Plant Society

The purpose of the Oklahoma Native Plant Society is to encourage the study, protection, propagation, appreciation and use of Oklahoma's native plants.

Volume 32, Number 1

Spring 2017

INSIDE THIS EDITION

President's Column	2
New Members	2
Botanist's Corner	3
Milkweed Profiles	4,6,8
Germinating Milkweed	5
Anne Long Award	9
Connections	10
Monarch Initiative Update	10

ONPS website: www.oknativeplants.org

oknativeplants@yahoo.com

Gaillardia email: thegaillardia@gmail.com

COPY AND ART DEADLINE

FOR NEXT ISSUE IS

May 5th, 2017

Save the Date!

Wonders of Wildflowers will be held on April 28th and 29th at the Nature Conservancy's beautiful Tallgrass Prairie Preserve near Pawhuska.

More information will be posted on the website and mailed to ONPS members when details are finalized.

Spring flowers at the Tallgrass should be at their peak this time of year. Make plans now to attend!

Upcoming Events/Activities

(check the ONPS website for more details)

March 2 - 6:30 Central Chapter, OSU-OKC Horticulture Center, 400 N Portland, Bob Blasing will give a presentation on the historical use of native plants by Native Americans.

March 6 - 6:30, Tulsa Garden Center. Donna Horton is speaking on "Geocaching for Botanists"

April 6 - 6:30 Central Chapter OSU-OKC, Judy Kautz, Master Gardener, who will give a presentation on photographing native plants.

May 1 - 6:30 Northeast Chapter in Ballroom at the Tulsa Garden Center.

Note: all members are invited to all meetings, including board meetings, and are encouraged to bring guests



Asclepias tuberosa

WELCOME TO THESE NEW MEMBERS

Linda Bevens	Broken Arrow
Denise Palmer	Oklahoma City
Bethany Depue	Jenks
Patrick Durham	Tulsa
Norma Hughes	Edmond
Judy LaFrance	Sand Springs
Annie Napier	Oklahoma City
Donald O'Connor	Owasso
Kim Stanton	Norman
Pam Turnbull	Muskogee

DONATIONS

Dale & Sue Amstutz
 In memory of Evelyn Washburn
 Harriet G. Barclay Fund
 Mary Korthase, Paul Buck Fund

2017 Indoor/Outing

It was a sold out event when more than 230 people attended the Indoor Outing on February 4th at the Tulsa Garden Center. Speakers included Steve Owens of Bustani, Mark Howerly of the Oklahoma Department of Wildlife, Marilyn Stewart of Wild Things Nursery, Ben Stallings, permaculture specialist and Alyne Eiland who spoke about Flycatcher Trails. Twelve vendors and informational booths were also present.

Host and organizer of the event was the NE Chapter led by Alyne Eiland, Connie Murray and Kathy Supernaw.

“Tens of millions attempt the migration, but the death rate is appalling. During the months-long trip, each life depends on the late-blooming flowers at which it nectars: dots of yellow and purple, goldenrod and aster.”

Sara Stein writing about Monarchs in Planting Noah's Garden

President's Paragraph

Joe Roberts

What a fantastic Indoor Outing at the Tulsa Garden Center and organized by the NE Chapter. The crowd was literally standing room only, and there has been much positive feedback about it. Hope you were able to make it, but if not, plan to attend this year's Wonders of Wildflowers Weekend at the Tallgrass Prairie Preserve in Osage County **April 28th, 29th and 30th**. It promises to be a great weekend, whether you come for all or part of it.

This issue focuses on host plants, specifically plants in the milkweed family. If you read Doug Tallamy's book "Bringing Nature Home", you will see how most insects have very specific host plants on which they can lay their eggs. The most well-known of these is probably the Monarch-Milkweed relationship, but there are many more. In entomology class, Doc (Ken) Hobson taught us that insects are highly reliant on chemoreception, the sensing of chemical compounds in the air, usually through their antennae. They sense mere molecules of this chemical information given off by plants, follow the trail as it gets denser, picking up more and more of it, until finally they find the host plant on which they can lay their eggs. For us folks learning native plants, the metaphor should not be lost...

Keep checking the website for field trips and events in the next few months. They pop up quickly as locations and guides are organized. It's going to be a great spring! Got Milkweed?

ATTENTION ALL PHOTOGRAPHERS

Your nature sightings are needed.

The ONPS Photo Contest is changing for 2017. The Special subject is "Host Plants". These are plants which are hosts to butterflies, bees, flies, birds, mammals, etc., whether it be as a food source, or housing or any other use nature has developed.

The entry deadline is December 1, 2017. This gives you lots of time to capture any host plant in any season in any use. Other changes include no entry fees, and winners will only be acknowledged for their excellence and appreciated for sharing their experience. Winners will be announced at the Indoor Outing in February 2018.

Watch our website and Facebook page for more details about entering.

Botanist's Corner
Mark Fishbein Phd, OSU

A Milkweed by Any Other Name

The plant name “milkweed” is evocative of color-splashed prairies and fluttering monarch butterflies. But it may not be much of a surprise to learn that milkweeds are so much more, and so much less (!) than the name might suggest. Take that name apart and you have “milk” and “weed”. One of the most conspicuous features of milkweeds is the eponymous white latex found in all parts of the plant. However, not all milkweeds have milky latex. For some species, like whorled milkweed (*Asclepias verticillata*), the latex is somewhat watery, and for one of most widely recognized species, butterflyweed (*A. tuberosa*), the latex is completely clear. And, though it is tempting to do so, one should avoid confusion by applying “milkweed” to species outside of the milkweed family Apocynaceae, notably other species with white latex, such wild lettuce and its relatives (*Lactuca* in the sunflower family, Asteraceae) and the numerous spurges (*Euphorbia*, Euphorbiaceae). Strictly speaking, all true milkweeds belong to the Apocynaceae, and comprise over 2500 species found on all continents except Antarctica. These diverse species include many tropical shrubs and vines, as well as more than 100 species of bizarre, cactus-like stem succulents with carrion-scented flowers, known as “stapeliads” and coveted by collectors. And, while a few species are legitimately weeds that have become invasive or agricultural pests, they are vastly outnumbered by exceedingly rare species that merit the concern of conservationists. Thus, the “weed” part of the name is largely a misnomer.

With all this diversity and confusion with other milky plants, what sets milkweeds apart? The most conspicuous feature is the milkweed pod (technically a type of fruit called a “follicle”), which splits on one side only and contains several to dozens of flat, narrowly-winged seeds with a tail of long, straight, white fibers. This tail expands when caught by the wind and carries the seeds to (hopefully) a suitable germination site in favorable habitat. Close examination of the flowers reveals the most distinctive milkweed features: 1) the pollen-producing stamens are fused in a ring and completely cover and are also fused to the pollen-receiving pistil, 2) there is an extra ring of parts in the flower called the corona (crown), and 3) the pollen grains are fused together in a rigid structure called a pollinium, which is found elsewhere only in the orchid family. These complex structures reveal much about the ecology and evolution of milkweed reproduction to the botanists who specialize on these plants.

In North America, the name milkweed almost always refers to species of *Asclepias*. The genus contains about 400 species, mostly in Africa and North America, but with a few in South America. Unlike the great majority of species in the milkweed family, those of *Asclepias* are never vines and only very rarely shrubs; most are perennial herbs.

Oklahoma is one of the richest states in the US when it comes to *Asclepias* diversity—24 species make their homes here. The most commonly seen species are green antelopehorn (*A. viridis*), spider antelopehorn (*A. asperula*), and butterflyweed. Less conspicuous, but still quite common, are green milkweed (*A. viridiflora*), Engelmann's milkweed (*A. engelmanniana*), narrowleaf milkweed (*A. stenophylla*), and whorled milkweed. Distinguishing the many milkweeds of Oklahoma takes some effort! Butterflyweed is instantly recognized by bright orange flowers. The antelopehorn species have distinctive, green, cup-shaped flowers with purple coronas, but are difficult to tell apart from each other. To identify milkweeds, it often takes close examination of the coronas and consideration of the shape and size of the fruit, the arrangement of the leaves (alternate, opposite or whorled), and the leaf shape, which can range from needle-like to nearly round. The beautiful flowers of these plants are well represented on reputable web sites. *Beware, however! Milkweed misidentification abounds on the internet and your local herbarium can always assist with a definitive ID.*

Cross-Timbers Chapter Report

The Cross-Timbers chapter held a business meeting on Sunday, January 22. Three people attended. There were a few people who contacted me to say they were interested but couldn't make the meeting. The three of us discussed how we could determine just how interested the members are in Cross-Timbers. We decided to mail out a short survey to the people on our mailing list. The survey asks if they think they would attend future presentations or field trips and what subjects and places they would be interested in. They are also asked to state if they think the chapter should continue. The survey was finished for mailing last night. I will give people a couple of weeks to respond and follow up with an email.

We also decided to try to set up a presentation with a good general interest speaker and promote it in the local papers. We felt that part of our problem could be a lack of knowledge about ONPS and our chapter. Getting the word out to the general population might pump up interest and attract more members. We discussed possible speakers and plan to approach Steve Dobbs to see if he would be willing to do it.

The chapter will again co-sponsor the Plants and People Botany Lecture later this spring. We have not heard if a speaker has been selected and a date set, but I expect to hear details this month.

Submitted by Elaine Lynch
Cross-Timbers Secretary/Treasurer

Asclepias viridis

Bill Farris
Prairie Wind Nursery

Asclepias viridis "Antelope Horn Milkweed" is probably the most important milkweed for Monarchs on the spring migration because it is the one most available at that time, according to Chip Taylor Professor of Ecology & Evolutionary Biology at The University of Kansas.

Native populations are found from Texas throughout Oklahoma, north to Nebraska, eastward to Ohio and south to Florida.

The plants are generally low growing with multiple stems. The flowers, while not as spectacular as *Asclepias tuberosa* at a distance, are much more interesting and beautiful on a closer examination. Bloom time is generally April, May into June and with a prescribed burn or mowing and a good rain a second bloom can be expected in the fall.

A. viridis is not particular about soil type, having been observed on eroded hillsides as well as tight bottomland. It is most often found in lighter sandy soils. It is mostly ignored by cattle and can be found in pastures, on roadsides and on open prairies.

The Antelope Horn Milkweed is recognized by pollination ecologists as attracting large numbers of native bees and as a plant that attracts predatory and parasitoid insects that prey on insect pests.

Moist seed stratification increases germination. When transplanting from pots or plugs to the garden or landscape it is best to handle gently and keep the root ball and soil intact as all *Asclepias* resent their roots being disturbed.

The genus name honors the Greek God Asklepios, the god of medicine.

The Not So Common Milkweed

Amy Morris
Oxley Nature Center Naturalist

Ralph Waldo Emerson wrote, "What is a weed? A plant whose virtues have not been discovered." What's in a name? Well, first impressions may lead some folks to think poorly about a plant that is named as both common and weed. On top of that, what if that plant tends to grow most happily in all types of soil along roadside ditches, railroad right of ways, waste areas and old fields? At one time, it was even considered an invasive noxious weed. Meet **common milkweed**, *Asclepias syriaca*.

This tall, conspicuous milkweed is one of over 100 species that occur in the Americas. It can be found in eastern Canada and most of the eastern United States. Common milkweed likes full sun and moist soil, but has eclectic tastes. It will tolerate drought, erosion, dry, or rocky soil. It spreads by rhizomes, forms clones, and establishes colonies.

Long before you come close enough to see them, the sweet scent of the nectar-filled flowers announce their

presence. Follow your nose to this miniature masterpiece and take a close look at the complex flowers. The pendulous pink globes have around 100 flowers per umbel. Now that you are here, watch what is going on. It is a veritable theater of activity.

The milkweed is teeming with life. Hundreds of insects feed on its nectar: butterflies, bees, moths, flies, beetles, ants, wasps, and more. Up to 10 species, including the monarch butterfly, feed on the foliage, rhizomes, seeds, or sap. Leaves and stems both release a milky latex that contain toxic cardiac glycosides. At least 6 species, including the monarch butterfly *Danaus plexippus*, sequester the glycosides to deter predators from feeding on them.

Native Americans used common milkweed medicinally, as a food, and as a source of fiber. In WWII children were asked to collect seed pods that were processed for their coma or floss to use as floatation in life vests. Coma was also be used to stuff pillows, mattresses, and other things for its insulating properties.

In the past few years, research has explored properties of common milkweed, using the coma in particular for its amazing attributes. One company is selling insulated outdoor jackets as a superior alternative to synthetic or goose down. Others are using it for thermal and acoustical insulation. A company in Quebec has contracted with Parks Canada to provide oil spill kits. The floss commercially grown from common milkweed pods will absorb 4 times more oil than polypropylene, an artificial product currently being used to clean up oil spills. The University of Vermont is encouraging farmers to explore the benefits of growing common milkweed as a profitable commercial crop. Think of the pollinator habitat this would provide as a side benefit!

In Emerson's words, "What is a weed? A plant whose virtues have not been discovered." We are well on our way to discovery, and only just beginning. Give me a common weed any day! The possibilities are only limited by our minds and imaginations.



Asclepias syriaca

Photo: Courtesy Monarch Watch

Successfully Germinating and Growing Milkweed Seeds

Sandra Schwinn, Monarch Watch Conservation Specialist – Oklahoma

Germinating different species of milkweed seeds can be challenging. Finding what works best for each individual is key. Some people swear by winter sowing; others plant directly in the ground in the fall; and some refrigerate stratified seeds.

Much is written about winter sowing—using containers to create miniature greenhouse environments to expose seeds to cold temperatures over the winter, and in the spring, to produce warmth to help with germination. I tried this and wasn't very successful using this method. I attribute my lack of success to user ineptitude and our crazy Oklahoma climate. People who swear by this generally live in areas where winters are cold, and spring comes at a set time, but it is a method worth exploring. I've also tried direct planting in the fall. This has been hit and miss. I planted a lot of *Asclepias syriaca* (Common Milkweed) one fall, and not one seed emerged in the spring. I have experienced success with both *Asclepias tuberosa* (Butterflyweed) and *Asclepias incarnata* (Swamp or Rose Milkweed) coming up from sown and self-sown seeds.

The method that I have had the best success with involves stratification in the refrigerator. However, there were still seeds that just refused to germinate. One in particular was a rare milkweed, *Asclepias variegata* (Redring Milkweed). This milkweed is native to NE Oklahoma, but has become difficult to find in the wild in our region. I have tried germinating this seed several times with minimal success.

Dr. Shaun McCollum, while he a doctoral student at OSU, shared a tip that made all the difference in germinating difficult milkweed. I had begun soaking seeds for improved germination, as I read this would help. Dr. McCollum shared that he had had improved germination rates by adding a drop of dishwashing detergent, such as Dawn, to a hot water soak.

He had observed how detergent allowed permeation of insect bodies and thought it might work on seed coats. For milkweeds, the soaking water should be about 140 degrees. I use the hottest tap water, then add a very small drop of detergent. Seeds are added last. Soak should last until the seeds plump and sink for 24 hours. Dr. Chip Taylor recently shared that the water could be changed out with fresh hot water every 8 hours.

After soaking, the seeds are rinsed and added to a baggie containing sterile sand or vermiculite. I like sand as it's easy to see the seeds. It needs to be sterile though, as it can contain a fungal disease that causes damping off in new plants. Moisten the sand so it just barely clumps. Gently knead the contents to incorporate the seeds into the damp sand. Force the air out of the baggie and seal. Write the date seeds were placed in the refrigerator on the baggie. I use Prairie Moon's Cultural Guide, which is found in their catalog, for stratification times for different species and you can request a free catalog from their website. Some seeds can be forced to germinate after soaking, including *Asclepias incarnata* and *Asclepias tuberosa*. If you want better germination rates, use cold stratification on all seeds where stratification is recommended.

Once seeds have been refrigerated for the recommended of time, move them to a sunny window or under lights. My under-cabinet lights work well for germinating seeds that are placed close to the lights. I leave the seeds in the baggies until I see roots and after roots form, the seeds are planted in starter pots in a quality, light seed starting mix. Once you have seedlings, growing milkweed isn't much different than growing other plants, a good light source and an oscillating fan will help keep the plants from becoming leggy. Judicious use of an organic fertilizer helps them grow more quickly. Be sure to harden plants by introducing them to the outdoors gradually. They can experience sunscald and wind damage easily.

Below is a sample of my planting record

Scientific name	Common name	Where obtained	Soaked?	Stratified	Stratification time	Time to 1st germination & continuing germination
asperula	Spider	Purchased seed	y	yes	*60 days	no soak and 30 day stratification, 3-5 days
hirtella	Tall Green	Purchased seed	y	no		4-14 days
incarnata	Swamp or Rose	Seed purchased and collected	y	yes and no	30 days	3-14 days
latifolia	Broadleaf	Seed purchased	y	yes	90 days	
pumila	Plains	Seed purchased and collected	y	no		3-5 days
purpurascens	Purple	From a friend, OK grown	y	yes	90 + days	3-14 days
speciosa	Special	Seed purchased	y	yes	*45 days	no soak and 30 day stratification, 3-5 days
sullivanti	Sullivan's	Seed purchased	y	yes	60 + days	3-5 days
syriaca	Common	From a friend, purchased	y	yes and no	45 - 60 days	3-14 days
tuberosa	Butterflyweed	From a friend/collected	y	yes and no	30 days	3-10 days
variegata	Redring	From a person in MO	y	yes	90 days	3 -
verticillata	Whorled	Purchased	y	no		3-14 days
viridis	Green antelopehorn	Collected	y	yes	8+ weeks	5-

Those marked yes and no for stratification successfully germinated both ways after soak.

**Asperula* and *speciosa* did not germinate well with soak, did better with stratification only in damp sand.

Asclepias tuberosa

Ray Moranz, Xerces Society

A long-lived, herbaceous perennial in the Apocynaceae, *Asclepias tuberosa* L. (butterfly milkweed or butterfly weed) is native to the eastern half of the U.S. and the Desert Southwest. As an iconic plant of prairies, it has been recorded in all but seven of Oklahoma's counties. It typically sends up 1 to 12 stout stems from the crown of its long, fibrous rootstock, but I once found a plant with 99 flowering stems! Stems reach a length of 50 to 100 cm, and bear densely arranged, hirsute leaves. Unlike most other milkweeds, *A. tuberosa* lacks milky sap, and has few of the toxic cardiac glycosides that protect milkweeds from herbivores. It is unmistakable in bloom, due to its BRIGHT orange flowers in flattened or rounded umbelliform cymes. In my Stillwater garden, *A. tuberosa* begins blooming in early or mid-May, and peaks in late May, though some produce blooms as late as early September (irrigation probably helps extend blooming). This species does not spread rhizomatously, and in native ecosystems, recruitment of new individuals from seed appears rare.

Asclepias tuberosa is most commonly found in dry to mesic prairies, savannahs, and roadsides. This plant responds to prescribed fire by producing more flowering stems. Cattle eat this plant on occasion; if cattle are stocked heavily during spring or summer, they sometimes eat this plant to the ground (remember: this species lacks the toxins that make *Asclepias viridis* unpalatable to cattle).

All Oklahoma pollinator gardens should have *A. tuberosa*, because it is a fantastic source of nectar and pollen for bees and butterflies. *Asclepias tuberosa* is also a host plant for monarch and queen butterfly caterpillars, and for a moth (*Cycnia inopinatus*). It prefers sandy or loamy soils, but can tolerate some clay soils. When growing it from seed, the main challenge is getting the small seedlings to survive the first summer.

I've spent five summers studying this plant in Iowa, but don't have much experience with it in Oklahoma ecosystems. I'd love your answers to the following questions regarding *A. tuberosa* populations in Oklahoma:

Where can one find large stands of this plant?

What is the bloom period in prairies and other native ecosystems?

Is it frequently used as a monarch host plant in OK ecosystems?

Are there any butterfly species that depend on this plant for nectar?

How can cattle herds be managed to minimize damage to this species?

Please send your answers and any comments to:
ray.moranz@xerces.org





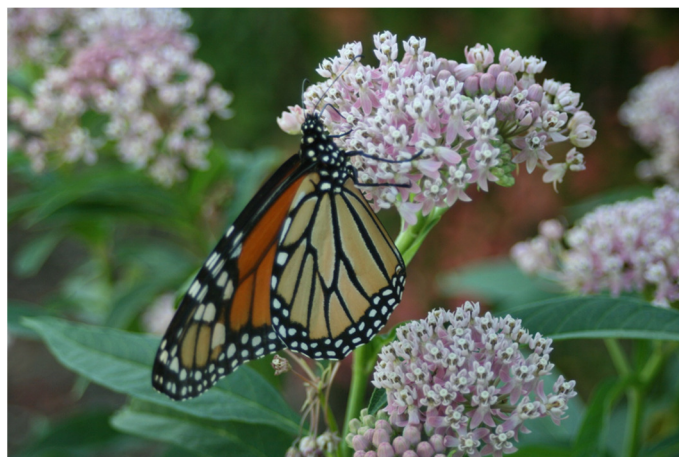
Funastrum cynanchoides

Photo: C.R. Ledford



Asclepia viridis

Photo: Ken Stewart



Asclepias incarnata

Photo: Marilyn Stewart



Cynanchum laeve

Photo: Marilyn Stewart



Oleander Aphids and Ladybug Beetle on Milkweed

Photo courtesy MonarchWatch

Fringed Twine Vine
Funastrum cynanchoides (Decne.) Schltr.
 C.R. Ledford

Unlike the milkweed “honey vine”, this native perennial vine exudes a white sap if injured. The plant stinks; not an understatement. Some have compared the smell to burning rubber, but my nose said strong body odor. However, it does attract insects including pollinators such as the monarch and queen butterflies.

I discovered the plant in Pawnee County and collected few tear-shaped fruits (follicles) and vine portions to use as a specimen for documentation. Unfortunately, I was not wearing gloves. With long twining stems it grew along a fence with a length of about 20 feet, under partial shade, in a disturbed area having less than fertile soil. I think I saw a sign that read “I can be aggressive”. The white star-shaped flowers of late spring and early summer are in umbels and the leaves can be variable in shape, which include arrowhead to heart shaped. Once adequately established, it can tolerate droughty conditions. It is deer resistant.

The plant will now be documented in 15 Oklahoma counties. There are 9 counties in extreme southern and southwestern Oklahoma that host the plant; otherwise distribution is very scattered. The USDA reveals the plant documented in 5 southern states.

Asclepias incarnata
 Meredith Franklin

Asclepias incarnata, or Swamp Milkweed, is one of the easier milkweeds to grow. Even though the common name makes you think it must have wet conditions an average garden soil which doesn't get bone dry will do. Like all other milkweeds it doesn't like to be transplanted once it is established. While you may see this recommended for full sun, in the hotter parts of the state it will do best in partial sun.

It is native to the eastern and northeastern parts of Oklahoma and it is rare to find growing in the wild.

Asclepias incarnata is a good host for the Monarch and Queen butterfly larva as the leaves are soft and when in a garden bed they tend to stay viable most of the summer. The pink blooms are also attractive, not only to people, but to many pollinators.

Cynanchum laeve
 Marilyn Stewart

Cynanchum laeve, aka Bluevine and Honeyvine, is one of several vines in the *Asclepiasae* family and definitely one of those love it or hate it plants.

Let's get the negative over with first. It vines. It twines. It comes up from underground shoots no matter how many times you yank it out. It isn't particularly pretty.

However, if you are committed to planting for the survival of Monarchs this is one of those you don't want to be without in your yard or at least know where to find in someone else's yard. So many of our native milkweeds have gone dormant by fall and Bluevine, which is going strong and has soft, tender leaves is a great host plant.

It is native over all of the state with the exception of the panhandle. I find it growing most often in alleys and neglected gardens, often I will see it growing up through shrubbery. I've only seen it growing in the wild a couple of times and once you identify this plant you will begin to see it everywhere. Unlike other members of this family it doesn't have milky sap.

Central Chapter Report

Patrick Bell, *Chair, Central Chapter*

Central Chapter continues with its monthly meetings on the first Thursday of the month.

In January, Bruce Hoagland with the Oklahoma Natural Heritage Inventory and Department of Geography and Environmental Sustainability, O.U., spoke on the natural history of Oklahoma's native plants, past and present, as well as gave an overview of the Heritage Inventory.

The February talk was given by Jay Pruett who discussed wind energy generation in Oklahoma; its benefits, as well as impact on the local ecosystems, e.g. Lessor Prairie Chicken, raptors, owls, bats and migration.

Our next meeting will be March 2nd, 2017, at the OSU-OKC campus, horticulture building, room 196. Bob Blasing will give a presentation on the historical use of native plants by Native Americans:

“Prior to European settlement, many Native American Bands living in the Central Great Plains depended on farming for much of their food. These Bands are often depicted as living in small settlements, often referred to as villages. The villages are usually viewed as similar to European farming villages, where the inhabitants were dependent on the crops raised near their village. In contrast, the prehistoric Indian settlements were occupied for less than half of the year, and were part of a much more complex “Seasonal Round”. Indian Bands, who engaged in farming, maintained a semi-permanent settlement near their fields, but they also spent up to 2/3 of the year engaged in seasonal travel to gather a wide variety of resources. While big game animals (especially bison) were a major focus of this travel, there were also many wild plant resources that were gathered. Knowing where and when these plant resources would be abundant was a major factor in planning the “Seasonal Round.” This presentation describes some of those wild plant resources, focusing particularly on the ones that could be gathered in quantity and preserved for future use.

Our April meeting will feature Judy Kautz, master gardener, who will give a presentation on photographing native plants.

Meetings are open to all. Bring a friend and join us!

Asclepias amplexicaulis

Jeremy Clark

Asclepias amplexicaulis (clasping milkweed) is a unique species of milkweed. The has broad basal leaves, and a single terminal umbel. To me it resembles a shooting-star primrose, until the blooms open. I found the specimen pictured in a sandstone creek in rural Cleveland county. It is a little discolored due to huge numbers of aphids, and some mildew. This milkweed is more of an early-spring food source, and would not make it through a hot Oklahoma summer unless in a very shady and wet spot. As far as milkweeds go this one has my vote as most unique. The long pedicels make it stand out. It also contrasts extremely well with the sandstone environment. The bloom time pictured was May 14th. It had just started blooming, and I would assume it would last until mid-June.



Alyne Eiland receives the 2016 Anne Long Award

Alyne's contributions to the cause of native plants include co-founder of the Make Every Home a Wildlife Habitat tour in Tulsa, organizer of the Tulsa area Doug Tallamy event and the Pat Folley book signing at the Tulsa Garden Center, chief gardener at the Flycatcher Trail outdoor classroom at Jenks High School, publicist for numerous plant and garden-related events in the Tulsa area, and member not only of ONPS but Master Gardeners and several other Tulsa Garden Center affiliates organizations. The award which includes a monetary prize as well as a gaillardia embossed glass plaque was presented during the December meeting of the Northeast Chapter by Sue Amstutz, Chairman of the ONPS Awards Committee.



Please consider nominating an individual or group for the 2017 Anne Long Award. The Award is given at the Society's annual meeting in warm remembrance and honor of one of the ONPS founders, and an early advocate for wildflower protection. The Award recognizes those who have made outstanding contributions to the stated purposes of ONPS. The first recipient was the Ninnekah High School Science Club and the most recent, Alyne Eiland. Nominations are being accepted for the Award from now through August 31, 2017. Include complete names and addresses of both the individual(s) making the nomination and the nominee(s); a contact person if the nominee is an organization; and supportive documentation in writing for evaluation by the ONPS Awards Committee.

Send nominations directly to the Awards Chairman:

Sue Amstutz

4190 E. 46th Place

Tulsa OK 74135

or via email

d-s-amstutz@cox.net

Connections

Fred Schneider

Documented Native American Use of Milkweed in Oklahoma

Milkweed is documented for use by 6 tribes, and possibly a 7th tribe in Oklahoma. The documented tribes include the Apache, Cherokee, Choctaw, Delaware, Kiowa, and Choctaw, and possible use by the Ponca.

Asclepias tuberosa: Butterfly Milkweed

Apache: An unspecified medicine in the “old days”. Stomach medicine, Root used for snakebites

Cherokee: Analgesic, Antidiarrheal, Expectorant, Gynecological Aid, Heart Medicine, Laxative, Pulmonary Aid

Choctaw: Cold treatment

Delaware: Roots used for rheumatism, used to make drink taken by women after childbirth, and used for pleurisy.

Milkweed gathered in spring when about one foot tall. At this height it is still tender. Informant explained that there are four kinds of milkweed, three of which are not fit to eat. The edible sort blooms in June with an orange flower.

Kiowa: Young fruits cooked and eaten, dried pods used as spoons, dried pods used for decorative purposes.

Ponca: Root eaten for pulmonary and bronchial trouble.

Seminole: One boils the plant and drinks the infusion, also bathes in it, as a general tonic.

Asclepias stenophylla: Narrow-leaved Milkweed

Apache: Root used for chest medicine.

Asclepias viridis: Antelope-horn Milkweed

Seminole: The root of this milkweed is boiled and the tea is drunk for kidney trouble.

Asclepias viridiflora: Green Milkweed

Seminole: The plant is boiled in water, then a towel is soaked in the infusion and placed over a sore navel to reduce the soreness.

Asclepias verticillata: Whorled Milkweed

Choctaw: A tea was applied to the snakebite wound, the victim also chewed the root and swallowed the saliva.

Asclepias sp. Unknown species

Delaware: Infusion of pounded roots of five species used for epileptic fits.

Apache: Tender young pods of several species eaten raw

Note: Not all tribes used the same species for the same purposes. Most likely other tribes also made use of milkweed.

However, this use remains undocumented.

Monarch and Pollinator Update:

Patrick Bell

In recent decades, populations of the monarch butterfly and many other pollinators have plummeted. Conservation agencies and groups around the country, and in Oklahoma, are working hard to create and enhance habitats for monarchs and pollinators. However, Oklahoma has not had a collaborative statewide strategy to enhance and support those efforts. On November 15th & 16th, 2016 a joint monarch and pollinator summit was held in Oklahoma City. This summit, hosted by the Conservation Coalition of Oklahoma, The Nature Conservancy of Oklahoma, The National Wildlife Federation and Myriad Botanical Gardens, aimed to bring together landowners and representatives from agencies, non-governmental organizations and Oklahoma businesses to learn about each other's efforts and create the foundations for developing a statewide strategy for sustainable, voluntary habitat enhancement to assist in the recovery of the monarch butterfly and other pollinators in Oklahoma.

Over a day and a half of meeting at the Myriad Botanic Gardens, this group of nearly sixty participants:

- Learned about the latest science and existing recovery efforts in the Midwest and Oklahoma.
- Identified where local actions are already happening and can be coordinated for greater impact
- Identified scientific and geographic gaps and key challenges faced in the state.
- Explored what success would look like for a statewide collaboration and set priority actions to begin developing a coordinated statewide monarch and pollinator conservation plan.

The ONPS was represented by President Joe Roberts, as well as several of our members. Since the summit, a steering committee has been formed and is moving forward with the recommendations and goals established at the summit.

If you have ever grown milkweed then chances are you have seen clusters of bright yellowish-orange squishy looking insects with black legs. These are Oleander Aphids, brought into the US on—you guessed it—Oleanders. *Aphis nerii* is found in warm climates throughout the world and most likely originated in the Mediterranean region.

Adult aphids are all female and deposit nymphs instead of eggs. They can easily migrate to other plants and because they have a short generation span their numbers increase quite rapidly.

Tender shoots are the favored food, sap is ingested from the host plant. While they are certainly unsightly, they generally don't kill the plant. Good air circulation and avoiding fertilizers which encourage flushes of new growth can help keep them at bay and a strong blast of water will knock off most of the aphids. Because milkweeds, like other native plants, are important for pollinators one should not use any pesticides. There are many natural predators (such as Ladybugs and Lacewing larvae) which prey on aphids.

See picture on page 7

For joining or renewing use this form

Fill out this form or supply the same information. Make checks payable to Oklahoma Native Plant Society and mail to: Oklahoma Native Plant Society, PO Box 14274, Tulsa, OK 74159.

Membership is for Jan. 1 – Dec. 31 of current year and dues include subscription to *Gaillardia*.

(Please Print Clearly)

Name: _____

Affiliation: (School, Business, or Avocation) _____

Address: _____

City: _____ State: _____ Zip: _____ - _____

Phone: Home: (_____) _____ Cell: (_____) _____

Work: (_____) _____ (Please don't list my phone in the directory: ____)

E-mail: _____

E-mail 2: _____

____ Renewal or ____ New Member

Dues are tax deductible

Add \$5 ____ to cover cost of copying and mailing a complete ONPS directory if desired.

Membership Levels:

____ Individual (\$20)

____ Family (\$25)

____ Life Individual (\$300)

____ Family Individual (\$350)

____ Student (\$10) (free with faculty sponsor.

Email: oknativeplants@yahoo.com for details)

Chapter affiliation:

____ Central (OKC area)

____ Northeast (Tulsa area)

____ Crosstimbers (Stillwater area)

____ Southwest (Lawton area)

____ Mycology (statewide)

You may sign up for multiple chapters if you like, to receive field trip and meeting notices from that chapter.

Order form for Volume 16 of Oklahoma Native Plant Record

Send order form with your check to:

Oklahoma Native Plant Society

P.O. Box 14274

Tulsa, OK 74159-1274

(Need an invoice? sastrawn@hotmail.com)

Name _____

Or institution _____

Mailing address _____

State and Zip code _____

E-mail address _____

Print Volume 1 (free on request) _

Print Volume 4 @ \$5.00 ____ (3 left)

Print Volume 5 @ \$5.00 ____ (4 left)

Print Volume 6 @ \$5.00 ____

Digital Volumes 1-16 @ \$10 ____

Shipping charge + \$2.00 ____

CD ____ USB ____

Total enclosed \$ ____

Print Volume 7 @ \$5.00

Print Volume 8 @ \$5.00

Print Volume 9 @ \$5.00

Print Volume 15 @ \$5.00

Print Volume 16 @ \$10.00

Also available online at <http://ojs.library.okstate.edu/osu/>

Oklahoma Native Plant Society

P. O. Box 14274

Tulsa, Oklahoma 74159

Non-Profit

U. S. Postage Paid

Tulsa, Oklahoma

Permit No. 357

Return Service Requested

IF YOUR LABEL DOES NOT SHOW

2017, PLEASE PAY YOUR DUES

Gaillardia

Published quarterly by the
Oklahoma Native Plant Society
P. O. Box 14274, Tulsa OK 74159

President	Joe Roberts
Vice-president	Adam Sarmiento
Secretary	Connie Murray
Treasurer	Mary Korthase
Historian	Adam Ryburn

Directors at Large:
2017: Elaine Lynch and Jay Pruett
2018: Bruce Smith and Fran Stallings
2019 Jacob Dyer and Kathy Supernaw

Chapter Chairs:

Lynn Michael	Northeast
Patrick Bell	Central
Elaine Lynch	Cross-Timbers
Helen Riley	Southwest

Committee Chairs:

Publicity and Merchandize	Alicia Nelson
Conservation	Chadwick Cox
TGC Liason, BKSA	Sue Amstutz
Awards	Sue Amstutz
Membership Database	Tina Julich
Photo Contest	Sandy Graue
Mailings/Printings	Karen Haworth
Color Oklahoma	Pearl Garrison
Native Plant Record	Shiela Strawn
Website	Adam Ryburn

Gaillardia articles, except those reprinted here with permission from other sources, may be reprinted at will. Please acknowledge source and author.

Send all mail, except contributions to the *Gaillardia*, to:

Oklahoma Native Plant Society
P. O. Box 14274
Tulsa, OK 74159
oknativeplants@yahoo.com

For *Gaillardia* material only, use the editor's address:

Marilyn Stewart
114 Quail Run
Seminole, OK 74868
Email: thegaillardia@gmail.com

- All material accepted is with the understanding that it can be freely copied.
- Submit as txt, rtf or word files by disc or email.
- If submitted by hard copy, use Times New Roman or other standard font types for OCR.

Looking for a way to contribute to ONPS? ONPS is in need of a webmaster. The site is designed, someone is needed to do updates and maintain the site. If you are interested or have questions please contact joeroberts13@cox.net