

The Midden

Photo by Steve Upperman

Galveston Bay Area Chapter - Texas Master Naturalists

October 2011

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10 Years and Counting by Diane Humes, President 2011

Fall bird migrants have been spotted and temperatures finally seem to be dropping. Seems like summer might be ending, after all. Hope you are all rested, because the next few months promise to be very busy.

First of all, the Education team is sponsoring the first-ever fall teacher training workshop - an extension of Treasures of the Bay. Getting teachers excited about nature and passing it along to all their students is a potentially much more efficient way for us to reach the next generation. So, we are giving this a try with the help of Wendy Reistle (Class of 2011) and the Environmental Institute of Houston.

Second, please look at the calendar for the many AT opportunities arranged by the AT team. Likewise, check out the many Volunteer activities at our partner organizations. And the State Meeting will be held at Mo Ranch, October 21 - 23, with many AT and Volunteer opportunities. Registration will open the middle of September. Please keep up with postings about this, because there may be a mad rush to sign up for classes.

This is the time to think about whether you would like to serve on the Board for next year (or help nominate somebody else!) and whom to nominate for Treasures of the Bay awards to be given at our December meeting. Please give thought to those outstanding individuals or organizations that further our chapter's mission of education and stewardship of the Galveston Bay environment.

AND, saving the best for last, do not forget our 10-year Celebration shindig on October 6! Please RSVP by the last day of September to VervaDensmore; we are asking \$5.00/person to save your place and help defray costs. This is going to be a wonderful evening to celebrate and reminisce with all our partners and friends. See you there!



Next Chapter Meeting

October 6th

10Year Celebration

6pm

Dinner provided.
RSVP to VervaDensmore
Tickets \$5

Wayne Johnson
Community Center
Carbide Park

October and November Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - 10 Year Celebration

6:00 Social/Dinner, 7:00 Activities,
8:00 business meeting
Dinner provided. Tickets \$5RSVP to VervaDensmore
Wayne Johnson Community Center Carbide Park

Shorebirds with Winnie -October 4

Leaving from Ferry Parking Lot in Galveston
8:30 AM - 1:30 PM 4.5 Hours AT
Cost: Free Presenter: Winnie Burkett.
Birding expedition on Bolivar Peninsula
For more information, contact Shirley
Foster mfoster689@aol.com

Master Naturalists Monitor Mother Nature - Nov. 3

Carbide Park -Extension Office Building
6:30-9:00 PM 2.5 Hours AT
Cost: Free
Expo highlighting monitoring done by our members
For more information, contact Louise Bell
ltbell2@comcast.net

Ongoing

Galveston Island State Park

Every Saturday- Beach Explorations
Every Sunday- Bay Explorations
10 am. Meet at the Welcome Center
Tours are 1 to 1 ½ hours long.
Prepare for sun and mosquitoes.
Bring water and family.

Heritage Book Study Group

First Monday of every month
Texas City Prairie Preserve
10am-Noon 2 hours AT
Contact: Elsie Smith (409)945-4731
We are currently reading:
Texas Earthquakes by Frohlich and Davis

STEWARDSHIP OPPORTUNITIES

Project of the Year:

Prairie and Wetland Restoration Horseshoe Marsh

The Project of the Year at Horseshoe Marsh will continue through out the year. We are restoring island habitats ravaged by Hurricane Ike. If you can attend please, contact Dick Benoit rbenoit@aol.com

Ongoing Activities:

Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon crandtr@sbcglobal.net
- Texas City Prairie Preserve, Contact: Marybeth Arnold mbarnold@aol.com

Wednesdays - Wetland Restoration Team, Contact:

Marissa Sipocz m-sipocz@tamu.edu

Fridays- Prairie Friday, ABNC, 9 - Noon Contact: Dick

Benoit RBenoitTEX@aol.com

EDUCATION-OUTREACH VOLUNTEER OPPORTUNITIES

Bay & Island Adventures - Volunteers teach six in-class hands-on modules (water, Galveston Bay, wetlands, coastal prairies, birds, Gulf of Mexico) on a once a month basis in Dickinson and Galveston Schools. Presenters and helpers are needed for eleven 4th and 5th grade classes. Contact: Sara Snell snellsw@verizon.net.

Education and Outreach Committee - Lots of work to do and we can use your help developing a speakers bureau; responding to requests for exhibit booths, fieldtrip guides and presenters, planning Camp Wild and Treasures of the Bay; and developing a library of education-outreach materials. Contact Sara Snell snellsw@verizon.net.

Partner and Associate Programs Many organizations sponsor guided walks and education programs or need volunteers to man their nature center. Go to www.gbamasternaturalist.org click on "Volunteer Opportunities," then click on "Partners, Sponsors and Associates" for the list, then click on their website for information and contact



Prairie Ponderings by Dick Benoit

Drought is the thought for the season. Not uncommon in Texas, but the deepest here in recorded time. The prairie plants have survived them in the past mainly due to their extensive root systems that reach down into the water table. Rather than wait it out with inactivity we are taking a page out of the plan book that was seen by wetland managers after Hurricane Ike. At the Restore Americas Estuary Conference held in Galveston this year, coastal managers noted that most of the plant stocks for coastal plants were devastated by the Hurricane, and little thought was given to how to replace the plant population if such a disaster occurred.

It was suggested that nurseries should have been established away from the coast with adequate plants would be grown for just such an event. Similarly we are continuing growing plants in nurseries and bumping them up into gallon containers so they can develop the extensive root systems that when watered with seek the water table when carefully planted into their augured, watered hole. Rather than wait the drought out, we are nurturing and cautiously growing and planting the prairie.

Present Prairie Pioneer Profile

Barb Nowakowski has been active in prairie work since her Master Naturalist training in 2002. At Armand Bayou Nature Center she has been an active member of the Prairie Friday Team, doing transects, working on the burn team, Tallow whacking, Pandemonium planter, worked as manager of the Prairie Demonstration Garden, and currently with her husband John, has been on the



potting team. She also was active in restoring the prairie at Galveston Island State Park after Hurricane Ike, gathering seeds at various prairies, and in general a prairie restoration mainstay. Thanks for your dedication Barb.

Wetland Wanderings by Diane Humes

Surface water, freshwater, groundwater, salt water, rainwater, wastewater, runoff - just a few varieties of the liquid water that defines and sustains life on planet Earth.

Every spot of land on Earth belongs to a watershed - the concept of place defined by the path of a drop of rainwater falling on the land to its ultimate destination, usually the sea. A watershed is circumscribed by its topography and soil. Tributary watersheds are subsets of major river drainages and, therefore, larger watersheds.

I live in the Armand Bayou watershed and as I write this, rain has fallen - two inches! - in the midst of this drought, and I am wondering how much water this actually is and

how much more we need to balance the watershed water budget.

The Armand Bayou watershed encompasses 59 square miles; slightly more than half of the watershed is undeveloped land. Over the entire watershed, this two inches of rain equals two billion gallons of surface water. Assuming that the developed half of the watershed, with impervious roofs, roads, driveways and sidewalks, has near total runoff, the first one billion gallons have gone straight down the storm drains into the bayou. This has given a burst of freshwater to dilute record high salinity.

The second billion gallons remaining on the land have given life support to plants and animals. Is it enough? Not



Treated wastewater discharged into Armand Bayou accounts for 3+ billion gallons of freshwater in the stream each year. If you drink bottled water, this discharge may transfer water from even more exotic watersheds and locations than Dallas, depending on the source of your water. Groundwater connections to streams are not always well-known, but could contribute some portion of water to the watershed water budget.

Normally residents of our watersheds worry more about too much water. Most new construction requires a detention pond to ease flooding. Usually ugly, bare and surrounded by a fence, could a detention pond be beautiful, good wetland habitat, and clean the water? Team members helped install such a wetland on the UH-CL campus on August 27. Another is in the works for CCISD's League City Education Village, planting planned for fall - an opportunity to act locally. For information on how you can help, contact: Charriss York, cyork@tamu.edu.

yet. During the first three quarters of 2011, the watershed has received about one quarter of the expected yearly total of 50 billion gallons - only about 12 of the average 48 inches rainfall expected yearly - still a huge deficit for this year's water budget.

Does Armand Bayou depend solely on rainfall for its freshwater flow? Not exactly. Industries and people use water that most likely originates in the Trinity River. That is to say, my drinking water is borrowed from the Trinity River watershed, used by me, cleaned, and discharged into Armand Bayou and Clear Lake when I have finished with it. It travels to Galveston Bay through my watershed, instead of its own. Of course, Dallas has used the water already.

You can do your own calculations:
 640 acres per square mile
 0.62 gallons water per square foot in 1 inch of rain
 43560 square feet per acre
 59 square miles in the watershed X 640 acres/ square mile X 43560 square feet / acre X 0.62 gallons / square foot / inch of rain X 2 inches of rain = 2,039,583,744 gallons of water across the watershed!

Think globally, act locally!

August Sky by Diane Humes

August Sky, a preview of stellar wonders sponsored by the AT committee, was held at Walter Hall Park in League City, Texas on July 28. Despite the threat of tropical storm Don, forty intrepid souls came to learn about constellations and other wonders of the night sky. Diane Humes and Allan Treiman, scientist at the Lunar & Planetary Institute, led a tour of the solar system, the Milky Way galaxy and the Perseid meteor showers,

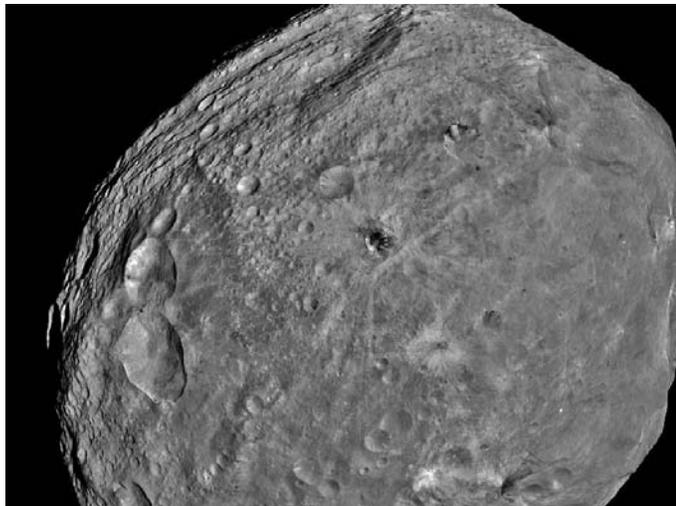
this year our visibility will be impaired by light from the full moon.

The Perseids are the most constant and reliable of meteor showers, occurring every year at this time. The Perseids, so-named because they appear to radiate from the constellation Perseus, are debris from comet Swift-Tuttle. The particles can make spectacular displays as they burn up in Earth's atmosphere, with sometimes 60+ "shooting stars" each hour. Peak nights are August 10 - 13, but any time from mid-July through August is possible. Viewing is generally are best after midnight;



Meteorite from Meteor Crater in Arizona

Our proximity to a large city with its bright night sky ("light pollution") makes great astronomical observing difficult. We would probably have to drive over 100 miles out from town to find truly dark skies, but Diane led us into the LPI's portable planetarium for great views of the summer AND winter stars and constellations.



Vesta (Photo by NASA)

An exciting, but hard-to-see object is the asteroid Vesta. It is visible with binoculars or a small telescope, but finding it is difficult in our skies. Vesta is one of the largest of the asteroids, with an unusually bright surface, and is currently at its brightest and closest approach to

Earth. The Dawn spacecraft, launched last year, has just made rendezvous with Vesta and is beginning to orbit right now. The spacecraft is sending back spectacular images.

Allan described Vesta and showed Dawn's most recent image of Vesta. He then passed around a meteorite sample believed to have come from Vesta. Hard to believe we could hold a bit of asteroid in our hands! Vesta is pocked with craters and Allan explained that an impact with another asteroid would be sufficient to eject rock from the surface and that the chemical composition and brightness indicate that his sample is from Vesta. He further described other types of meteorites and passed them around for all to hold and answered many excellent questions.

After "out of this world" refreshments, we packed up the planetarium and cleaned up the room, and those still in attendance adjourned to the outdoors and the real heavens. Tropical storm Don went south, our sky got as dark as it was going to get and the clouds parted enough to see the Big Dipper, Scorpio, and constellations of the Summer Triangle - Cygnus, Aquilla, and Lyra. And, even better, Saturn was visible and showed its rings (!) and a moon (Titan !!) through the telescope.

The stars aligned to make this a truly memorable evening.

Water Monitoring Crucial to Texas by Shirley Foster

Drought! The topic of the day. Water, this life affirming essential, is in such short supply that we all feel the need to conserve. What seems to be lost in the present situation is the ever growing need to protect the purity of this vital resource. Enter the Texas Stream Team.

Saturday August 13 saw 20 GBAC members participating in the annual Water Monitoring Training sponsored by the Houston-Galveston Area Council of the Texas Clean Rivers Program. The course was ably taught by Terri Macarthur of the TMN Heartwood Chapter with the assistance of our own Frank Budny, Gib Larson and Mel Measeles.

After viewing a video on the state of our Texas waters and the need for monitoring, the class entered into the training segment. They were trained in the use of the equipment in the monitoring case. There are visual elements including field observations and measurements along with testing, using chemicals, for oxygen, pH and salinity values.

After being certified in the field ALL members of this class will be given location assignments. They will test their site once a month, twelve months of the year. The information collected will be relayed to the Texas Commission on Environmental Quality (TCEQ). Currently over 400 Texas Stream Team Volunteers are also collecting data. This data then is used to determine areas of concern in implementing the water management strategies and projects required to meet Texas's future water needs.

If Texas does not implement the State Water Plan, about 85% of the projected population in 2060 will not have enough water when drought occurs. Protecting our watersheds and producing quality water is everyone's concern.

Master Naturalists Finish Fifth Season of Sea Turtle Patrols by Steve Alexander

For the fifth year in a row, Master Naturalists have participated in sea turtle patrols on the Upper Texas coast. For five years, they have walked and driven beaches from Bolivar Peninsula to Surfside from April 1-July 15 looking for sea turtle tracks in the sand.



Photo by Ellen Hufft

Starting with only a handful of volunteers in 2007, participation has grown steadily, with volunteer numbers well into the twenties this past season. And for the past several seasons, Master Naturalists have filled at least one-half of all patrols.

The 2011 nesting season set a new record along the Texas coast with 199 Kemp's ridley nests. On the Upper Texas coast, 22 nests were found this year, another record.

Unfortunately, the future of patrols on the Upper Texas coast is uncertain. Both Dr. Andre Landry and Jeanine Stewart have left TAMUG. Carole Allen, founder of HEART and Gulf Coast Director of the Sea Turtle Restoration Project (STRP), is presently looking for funding and ways to keep the patrols ongoing. In addition, I propose the Master Naturalist sea turtle workshop be discontinued. With the newly added GINTC sea turtle workshop in Galveston, offered the past two years on the same date as ours, the Master Naturalist workshop seems a duplication of effort. Participation in

the GINTC workshop next year is encouraged and should be sufficient to prepare us for the nesting season if patrols continue.

In closing, I would like each of you who have participated in sea turtle patrols to know just how much your help has been appreciated.

In May 2011, I attended a meeting of everyone locally involved in sea turtle work, including personnel from TAMUG, NMFS, FWS, TPWD, STRP, Houston Zoo, and Moody Gardens. During his presentation to those gathered, Dr. Landry paused and looked toward me and told everyone in the room that the sea turtle patrols would not have been the success they were without the help of Master Naturalists. I have heard the same comment repeated often from his graduate students, first Christi Hughes and later Jeanine Stewart.



Photo by Ellen Hufft

So, whatever the future holds for sea turtle patrols, please know that you have done an outstanding job over the last five years and your help has been acknowledged and is greatly appreciated.

Top 10 Galveston Bay Area Milkweeds by Diane Humes

Milkweeds or Silkweeds are the primary food source for Monarch, Queen, Southern, and Soldier butterflies - the Milkweed butterflies. Because of DNA testing and cladistic analysis, botanists are revising their ideas of taxonomic relationships between plants. As new

information becomes available, changes become necessary in plant names and even family groupings.

The Milkweed plant family, formerly Asclepiadaceae, is named for the Greek god of medicine, Asclepias; some

members of this family were used in folk medicines. Milkweeds are now considered a member of the Dogbane family, Apocynaceae, and are placed in the subfamily Asclepiadoideae. Worldwide there about 130 genera of milkweeds, with 2000 species, mostly found in warm regions.

In Texas, there are five genera of the Asclepiadoideae - *Asclepias*, *Matelea*, *Sarostemma*, *Cynanchum*, and *Periploca*. Of these, *Matelea* is a shrubby genus, *Sarostemma*, *Cynanchum*, and *Periploca* are vines, while *Asclepias* is the genus of plants called milkweeds or silkweeds. For nomenclature, *Asclepias* considered a feminine word, so most species names, to agree in gender, end in "a".

Similar identifying characteristics are shared by members of the genus *Asclepias*. Members of this genus are herbaceous plants, rarely shrubby or even woody, most are perennials, and **lactiferous** - containing milky latex. Leaves are usually **decussate** - arranged in pairs along the stem, with each pair at right angles to the pair above or below. Sometimes the leaves are **whorled** or **irregularly approximate** - closer together, but not whorled or opposite.

Inflorescences are **usually terminal**, with the general appearance of an **umbel** - a flat-topped or rounded flower head with pedicels arising more or less from a common point, like the struts of an umbrella. Flowers follow the pattern of the type specimen, *Asclepias syriaca*, Common Milkweed, with parts in 5's, hoods, fused anthers, and pollen sacs called **pollinia**. The fruit is a **follicle** - a dry pod splitting on one side - and seeds usually have a long **coma** - a tuft of hairs - for wind dispersion.

In Texas there are 38 species of milkweed plants, of which 10 *Asclepias* species are recorded as found in either Harris or Galveston County:

A. asperula, *A. curassavica*, *A. linearis*, *A. oenotheroides*, *A. perennis*, *A. stenophylla*, *A. tuberosa*, *A. verticillata*, *A. viridiflora*, and *A. viridis*.

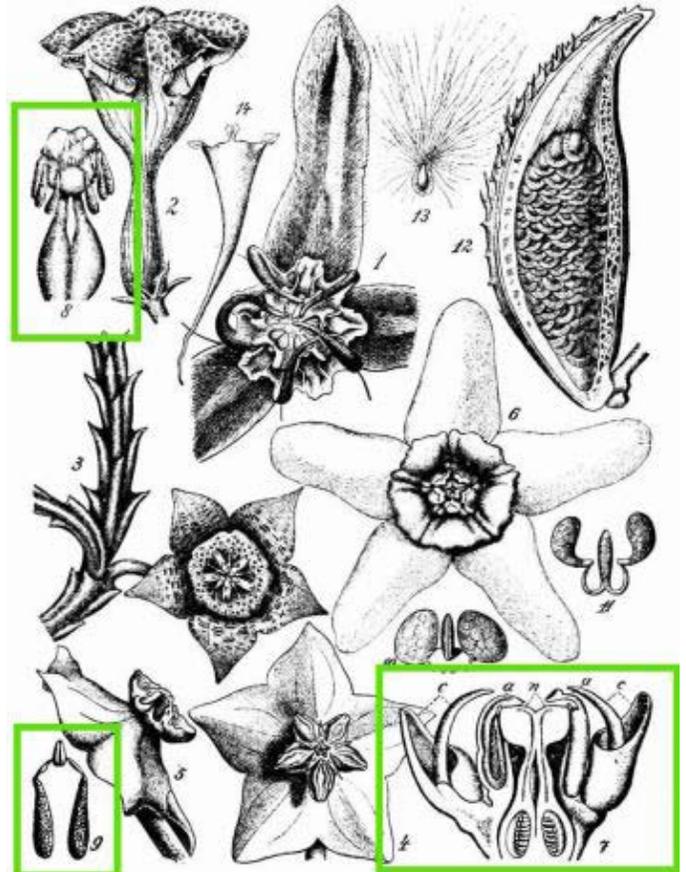


Abb. 573. Asclepiadoaceae. — Fig. 1. Teil der Blüte v. *Periploca graeca*. — Fig. 2. Blüte v. *Ceropegia Sandersoni*. — Fig. 3. Sproß mit Blüte v. *Stapelia* sp. — Fig. 4. Blüte v. *Hoya bella*; Fig. 5 dieselbe von der Seite. — Fig. 6. Blüte v. *Cynanchum Vinocbrizicum*. — Fig. 7—9. *Asclepias syriaca*; Fig. 7 Längsschnitt durch den inneren Teil der Blüte, das Gynoceum mit dem Narbenkopf n, die Antheren a und die staminale Corona c zeigend; Fig. 8 Gynoceum mit den dem Narbenkopfe anhaftenden Pollinien; Fig. 9 Translator m. d. Klemmkörper und den an den Enden der beiden Arme befindlichen Pollinien. — Fig. 10. Translator mit Pol-



A. asperula (ASAS) - SPIDER MILKWEED
 Found in 105 Texas counties, this is a low herbaceous perennial growing from very stout rootstalks. Stems usually clustered from the rootstalk, rather stout, with small rough hairs, leaves not opposite, but irregularly approximate, long and lance-shaped. Flowers large, inflorescences terminal and solitary, many pale-yellowish-green flowers, crowded, with slight purple flush. Erect follicles, seeds oval, coma about 3 cm long and pale-tawny



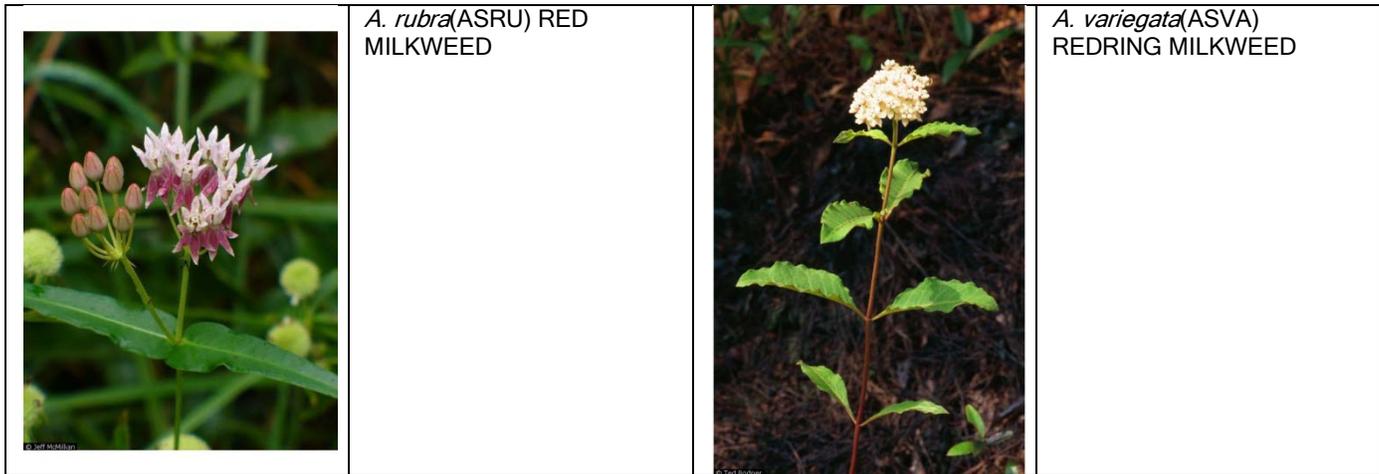
A. curassavica (ASCU) - BLOODFLOWER or VEINTIUNILLA
 Introduced from tropical America, but nearly ubiquitous. Found naturalized in 31 Texas counties. Herbaceous annual with stems 3-12 dm tall, frequently rather woody toward the base, simple or branched. Leaves opposite. Flowers showy and large, bright crimson (corolla) and deep yellow (gynostegium). Follicles erect on erect pedicels. Seeds broadly oval, coma white and 2-3 cm long.

	<p><i>A. linearis</i> (ASLI)- SLIM MILKWEED Found in 18 Texas counties, mostly in dry prairies. This is a herbaceous perennial from a short and rather superficial rootstalk, with slender stems, 2-5 dm tall, usually branching only at the base. Inconspicuous hairs and opposite leaves. Small, greenish-white flowers. Follicles erect on erect pedicels. Seeds broadly oval, about 5 mm long. Coma white, about 2 cm long.</p>		<p><i>A. oenotheroides</i> (ASOE)- HIERBA DE ZIZOTES, ZIZOTES MILKWEED Found in 107 Texas counties, in rocky, clay soils, llanos, mesas and hills, dunes, salt marshes, fields and thickets, along roadsides, western half of Texas. Low herbaceous perennial, moderately stout stems clustered from thick rootstalk, branched from base or simple. Flowers greenish-white. Follicles erect on downward-bent pedicels. Seeds oval 6-8 mm long, pale-tawny coma is 2-2.5 cm long.</p>
	<p><i>A. perennis</i>(ASPE)- AQUATIC MILKWEED Found in 20 Texas counties, in low swampy ground, frequently with bald cypress, alluvial woods, sloughs and ditches, mostly in s.e. Texas. Herbaceous perennial from rather short and superficial rootstalks. Stems slender, usually branching only from base. Leaves opposite, flowers small, white, suffused with pink. Follicles drooping on bent-down pedicels. Seeds oval, about 1.5 cm long, no coma.</p>		<p><i>A. stenophylla</i> (ASST)- SLIMLEAF MILKWEED Recorded in 7 Texas counties, in prairies and limestone glades, n.e. to Harris Co. Herbaceous perennial from almost turnip-shaped rootstalk. Stems slender, simple. Leaves irregularly approximate. Flowers pale greenish-white or yellow. Follicles erect on erect pedicels. Seeds oval, 5-6 mm long. Coma pale-tawny 3-3.5 cm long.</p>
	<p><i>A. tuberosa</i> (ASTU)- BUTTERFLY MILKWEED, ORANGE MILKWEED, CHIGGER-FLOWER Widespread in prairies, dry fields, thickets, open woods, canyons, dunes and hillsides, especially e. two thirds of TX. Herbaceous perennial from deep woody rootstalk. Stems rather stout and clustered from the crown, branching only at the inflorescence. Leaves irregularly approximate. Leaves and stems with firm, stiff hairs. Flowers moderately large, orange or reddish, yellow or red. Follicles erect on downward-bent pedicels. Seeds oval, 5-7 mm long. Coma white, 3-4-cm.</p>		<p><i>A. verticillata</i> (ASVE)- WHORLED MILKWEED Found in 67 Texas counties, in prairies, thickets, open woods, usually in rather dry soil, also in dunes and spreading to roadsides and fence corners, e. half of TX. Herbaceous perennial from rather short superficial rootstalks. Stems slender, simple, rarely with short sterile branches. Leaves chiefly 3-4 in whorls. Flowers small, greenish-white. Follicles erect on erect pedicels. Seeds oval, 5 mm long. Coma white, about 2.5 cm long.</p>

 <p>© Larry Allain</p>	<p><i>A. viridiflora</i>(ASVI) GREEN COMET MILKWEED Recorded in 80 Texas counties from glades, prairies, plains and rocky or sandy hillsides, spreading to old fields and roadsides, throughout most of Texas. Herbaceous perennial. Stems rather stout, simple, rarely branching at the base, often zigzag above to 9 dm tall. Leaves opposite. Flowers moderately large, pale green. Follicles erect on downward-bent pedicels. Seeds oval 6-7 mm long. Coma pale-tawny and 3-5 cm long.</p>		<p><i>A. viridis</i> (ASVI2) GREEN ANTELOPEHORN Recorded in 79 Texas counties from glades, prairies, dry hillsides and dry pine barrens in e. half of Texas. A low herbaceous perennial from a stout, spindle-shaped rootstalk. Stems erect, but reclining on the ground except for tip, stout, simple, or may branch from the woody base. Leaves irregularly approximate, yellowish-green. Flowers pale greenish-yellow or white, tinged with purple. Follicles erect. Seeds oval, about 5 mm long, white coma about 2.5 cm long.</p>
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Below are photos of six more species which may occur. They occur in Beaumont and Corpus Christi so it is possible for them to be here.

 <p>© Jim Stasz</p>	<p><i>A. amplexicaulis</i> (ASAM) CLASPING MILKWEED</p>	 <p>© William S. Justice</p>	<p><i>A. lanceolata</i>(ASLA2)FEWFLOWER MILKWEED</p>
 <p>© Larry Allain</p>	<p><i>A. longifolia</i>(ASLO) LONGLEAF MILKWEED</p>	 <p>© Gil Hamilton</p>	<p><i>A. obovata</i>(ASOB) PINELAND MILKWEED</p>



“Fortune favors the prepared mind”, said Louis Pasteur, or rather, “*Dans les champs de l’observation le hasard ne favorise que les esprits préparés.*”, with the implication that **only** with preparation may you become lucky. Keep your eyes open for these milkweeds.

Sources:

Plant Identification Terminology. An Illustrated Glossary. James G. Harris, Melinda Woolf Harris. Spring Lake Publishing. Payson, UT 2007

Manual of the Vascular Plants of Texas. Donovan Steward Correll, Marshall Conring Johnston. The University of Texas at Dallas. 1996

Stearn’s Dictionary of Plant Names for Gardeners. William T. Stearn. Timber Press. Portland, OR. 2002

USDA NRCA Plants Database <http://plants.usda.gov>

Guppies from Julie



Congratulations!

In July, the Galveston Bay Area Chapter was honored by Galveston Island Nature Tourism Council (GINTC) with their Partnership Award! The award was in recognition of your outstanding support of eco-tourism and GINTC endeavors.

GINTC sponsors Feather Fest and Master Naturalists contribute greatly to the success of the event with hours of friendly volunteer service.

Ellen Hufft was also honored with the GINTC FeatherFest Volunteer Service Award!

Congratulations Ellen and Galveston Bay Area Chapter!



New Partnership Leads to Saturday Workshops!

You never know when or how a partnership might form! Wendy Resitle, 2011 training class member, works for the Environmental Institute of Houston at the University of Houston-Clear Lake (UHCL-EIH). She coordinates workshops for local educators. Wendy also attended the Treasures of the Bay Educators Workshop, the four day, mini-Master Naturalist course offered to teachers.

Wendy was interested in forming a partnership with Galveston Bay Area Chapter (GBAC) to offer more "Treasures" type workshops. At the same time, Sara Snell and the Education Committee were looking for a way to offer more teacher workshops!

Well, Sara and Wendy got to talking and like any great combination - chocolate and peanut butter, marshmallows and graham crackers...

A series of four Saturday workshops for teachers was created! TaaDaa!

This fall the GBAC and UHCL - EIH are sponsoring four Saturday workshops! The workshops will be held from 9:00 a.m. to 3:00 p.m. on the following dates:

September 10, 2011 - Coastal Prairies 101 at UHCL-EIH
 October 8, 2011 - Bayou Ecology at Armand Bayou Nature Center
 November 5, 2011 - Exploring Habitats at UHCL- EIH
 December 3, 2011 - Mammals, Reptiles and More!
 (location TBA)

Teachers can earn six hours of continuing education hours at each workshop. They get to experience and learn about local natural resources and how to bring the outdoors into their classroom! They also get to enjoy GBAC's philosophy of Food, Fun and Friendship!

The teachers have filled our workshops! We would love to have you join us as a volunteer!

If you would like to help out, please contact Sara Snell at 281-309-0276 or snellsw@verizon.net.

Galveston Bay Area Master Naturalists 10 Years as a Chapter

Ten revolutions around the sun, 3650 days!
 14 training classes, new friends!
 Dedicated to restoration, education and monitoring! 184,556 hours of volunteer service!
 304,368 people educated!
 Exploring and leading!
 Food, fun & friendship!
 Summer mini-Master Naturalist courses for teachers!
 Camp Wild, more summer fun!
 Ten years as a Chapter!
 Food, fun & friendship!
 Congratulations, friends!

Let's celebrate!

**Master Naturalist
10th Celebration Party**
October 6, 2011
6:00 to 11:00 p.m.

This event will be fully catered. Fees - \$5.00 per person. Please RSVP by September 30, 2011.

Texas Master Naturalist 

Sea Grant
 Texas
 Coastal Science Serving Texans
<http://texas-sea-grant.tamu.edu>

Master Naturalist 

The Midden Deadline
 For the December Issue

November 6th

If you have Advanced Training or Volunteer opportunities, please submit information to Diane Humes treimanhumes@earthlink.net.

AgriLIFE EXTENSION
 Texas A&M System

Improving Lives. Improving Texas.

Texas AgriLife Extension Service programs serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Court of Texas cooperating.

The Midden

This newsletter is published by **Galveston Bay Area Chapter - Texas Master Naturalists**.
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For comments on this issue or to suggest content for future issues, please contact **Nathan Veatch at 281-480-6985** or by e-mail at nveatch@swbell.net.