



The Sabal

www.nativeplantproject.org

Botanists, ecologists, students, and even gardeners will find a bumper crop of information at PLANTS. The U.S. Department of Agriculture's online encyclopedia profiles some 43,000 species and varieties of native and introduced plants, emphasizing their role in soil conservation. Entries feature images and taxonomic information, and some include an exhaustive list of the plant's characteristics, from maximum height to flowering time to soil pH preference. Range maps usually break down distribution to the county level. Separate sections let you quickly find noxious invaders, endangered species, and wetland residents. The gallery is an eyeful, displaying more than 30,000 photos and drawings of species such as the *Opuntia engelmannii* Salm-Dyck ex Engelm. var. *lindheimeri* (Engelm.) Parfitt & Pinkava - Texas pricklypear a native of

Texas and the surrounding states. Go to plants.usda.gov.

Source: *Science* 18 August 2006: Vol. 313. no. 5789, p. 895



Sticking it to the South American Cactus Moth

by the USDA-Agricultural Research Service
Agricultural Research, Sept. 2006, vol. 54, #9

In 1957, the cactus moth was introduced to the island of Nevis in the West Indies, at the request of the host government. There, it successfully controlled pest cactus, but it didn't stay put. It spread to the surrounding islands and later landed in the Florida Keys in 1989, threatening prickly pear cacti in the United States and in Mexico. Since arriving in Florida, the cactus moth has rapidly moved along both the Atlantic and Gulf coasts. It is also found along barrier islands in South Carolina and Alabama. But it has not been found in the southwestern United States or Mexico—yet.

Since 2003, USDA's ARS and Animal and Plant Health Inspection Service (APHIS) have teamed up with other stakeholders, like the Nature Conservancy, the U.S. Department of the Interior, the International Atomic Energy Agency, and Mexico, to develop a strategy to contain the cactus moth's westward advancement. ARS entomologist James Carpenter, in the Crop Protection and Management Research Unit in Tifton, Georgia, has been studying use of the sterile insect technique (SIT) to establish a barrier along the U.S. Gulf Coast. Before 2001, Carpenter, along with ARS's Stephen Hight, APHIS's Kenneth Bloem, and Stephanie Bloem, formerly from Florida A&M University, had been applying SIT to several moth species. In 2001, they began using it with the cactus moth. The moths are mass-reared on an artificial diet and irradiated to cause sterility.

“The irradiated cactus moths would be released in large numbers. Mating between irradiated and wild moths would result in fewer and sterile offspring,” says Carpenter. The goal of SIT is to overwhelm the expanding population with sterile individuals, which drastically reduces the probability of wild females mating with fertile, wild males. To induce sterility, a fairly high dosage of radiation is required—but that can leave the insects less competitive than un-sterilized moths. Though this method does

reduce populations, Carpenter has some interesting findings regarding the radiation levels. Lower radiation levels sterilize female insects but produce males with reduced fertility instead of sterility. Their offspring, however, are sterile, and insects treated with lower doses of radiation are more competitive. “This may prove to be a more effective solution, since the moths with reduced fertility are not only more competitive in occupying the attention and efforts of the target population, but they also produce sterile offspring that further reduce the population of the following generation,” says Carpenter. “The SIT trial is being conducted at the leading edge of the infestation on Dauphin Island, Alabama, to test the ability to create a barrier against the breeding moths,” says Carpenter. “Based on a field cage study, releasing only five times more sterile insects than fertile insects was enough to substantially lower the reproduction of fertile insects. Also, releasing both sterilized males and females was more effective than releasing only sterilized males.” A pheromone for the cactus moth is in development by Robert Heath and others at ARS's Subtropical Horticulture Research Station in Miami, Florida.

Though not a major U.S. crop, prickly pear cactus has significant value as an ecological plant, adding to wildlife habitat, ecosystem structure, and biodiversity. “It is important to prevent the moth from advancing to the Southwest, where the cactus is used as emergency forage for cattle during the winter months,” says Joel Floyd, who is with APHIS's Pest Detection and Management Program. “The cactus is also part of the landscape nursery industry in the western United States and is in limited production in California.”

Prickly pear cacti are also important to Mexico's desert ecosystems, with 53 species occurring there. The cactus is a major agricultural commodity in Mexico, with significant acreage devoted to crop and forage. It is grown as a vegetable, and the pads taste something like green beans. Different prickly pear cactus species produce flowers in an array of colors. The resulting fruit can be eaten raw or cooked into jams and preserves.

This issue of the Sabal is sponsored by the following native plant nursery

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Harlingen, Texas 78552

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Common Name	Scientific Name	Common Name	Scientific Name
Shrubs			
Adelia*	<i>Adelia vaseyi</i>	Indian Mallow, Woody	<i>Abutilon abutiloides</i>
Baby Bonnets, Texas	<i>Coursetia axillaries</i>	Jann's Pink Mallow	<i>Abutilon hulseanum</i>
Amantillo	<i>Abutilon trisulcatum</i>	Kidneywood*	<i>Eysenhardtia texana</i>
Bastardia	<i>Bastardia viscosa</i>	Lantana, Claire's	<i>Lantana</i>
Amargosa, Bisbirinda	<i>Castela texana</i>	Lantana, Desert	<i>achyranthifolia</i>
Blue Sage*	<i>Salvia ballotiflora</i>	Lantana, Michelle's	<i>Lantana macropoda</i>
Brasil*	<i>Condalia hookeri</i>	Lantana, Texas*	<i>Lantana microcephala</i>
Brush Holly*	<i>Xylosma flexuosa</i>	Lantana, West Indian*	<i>Lantana horrida</i>
Bushy Lippia	<i>Lippia alba</i>	Lantana, Velvet*	<i>Lantana camara</i>
Carlowrightia	<i>Carlowrightia</i>	Lotebush, Clepene*	<i>Lantana velutina</i>
Chilipiquin	<i>parvifolia</i>	Malva Loca	<i>Ziziphus obtusifolia</i>
Colima*	<i>Capsicum annuum</i>		<i>Malvastrum</i>
Coyotillo*	<i>Xanthoxylum fagara</i>	Manzanita, Barbados	<i>americanum</i>
	<i>Karwinskia</i>	Cherry*	<i>Malpighia glabra</i>
	<i>humboldtiana</i>	Mistflower, Blue	<i>Eupatorium azureum</i>
Coral Bean*	<i>Erythrina herbacea</i>	Mistflower, Blue	<i>Eupatorium odoratum</i>
Croton, Cortes*	<i>Croton cortesianus</i>	(Crucita)	
Croton, Low, Dove*	<i>Croton humilis</i>	Necklace Pod*	<i>Sophora tomentosa</i>
Croton, Mexican	<i>Croton</i>	Oregano*	<i>Lippia graveolens</i>
	<i>ciliatoglandulifer</i>	Oreja De Raton*	<i>Bernardia</i>
Croton, Torrey	<i>Croton incanus</i>		<i>myricaefolia</i>
Crucillo*	<i>Randia rhagocarpa</i>	Purple Sage*	<i>Leucophyllum</i>
Dalea	<i>Dalea thyrsoiflora</i>		<i>frutescens</i>
Desert Yaupon*	<i>Schaefferia cuneifolia</i>	Pyramid Bush	<i>Melochia pyramidata</i>
Dicliptera	<i>Dicliptera vahliana</i>	Skeleton Bush,	<i>Viguiera stenoloba</i>
Elbowbush*	<i>Forestiera</i>	Golden Eye Daisy*	
	<i>angustifolia</i>	Snake Eyes*	<i>Phaulothamnus</i>
Fiddlewood*	<i>Citharexylum</i>		<i>spinescens</i>
	<i>berlandieri</i>	Sweet Stem	<i>Aloysia</i>
Granjeno, Spiny	<i>Celtis pallida</i>		<i>macrostachya</i>
Hackberry*		Torchwood, Sierra	<i>Amyris madrensis</i>
Hachinal	<i>Heimia salicifolia</i>	Madre*	
Heliotrope	<i>Heliotropium</i>	Torchwood, Texas*	<i>Amyris texana</i>
	<i>angiospermum</i>	Trixis, Mexican	<i>Trixis inula</i>
Hibiscus, Heart Leaf	<i>Colubrina texensis</i>	Turk's Cap*	<i>Malvaviscus arboreus</i>
Hog Plum	<i>Abutilon incanum</i>		<i>drummondii</i>
Indian Mallow,		Velvet Leaf	<i>Allowissadula lozanii</i>
Indian Mallow, Rio	<i>Abutilon hypoleucum</i>	Whitebrush*	<i>Aloysia gratissima</i>
Grande			

Common Name

Shrubs

Wissadula, Mexican
Wolfberry, Berlandier
Yucca, Spanish
Dagger*

Trees

Anacua* **
Baretta **
Blackbrush*
Cedar Elm* **
Coma* **
Ebony, Texas**
Guajillo
Hackberry, Palo
Blanco
Huisache
Mesquite
Montezuma Bald
Cypress**
Paloverde
Poinciana, Mexican*
Potato Tree,
Salvadora*
Retama
Runyon Tree
Soapberry* **
Tenaza*
Wild Olive
Tepeguaje
Wright's Acacia

Vines

Apaac, Elm Leaf
Urvillea
Balloon Vine
Bloodleaf
Devil's Claw
Dewberry, Zarzamora
HempVine, Mexican
Madeira Vine
Milkweed Vine

Moonseed, Correhuela
Noseburn
Passion Vine, Blue

Passion Vine, Yellow
Passion Vine, Yellow
Serjania Vine
Tournefortia
Vine Mimosa

Scientific Name

Wissadula amplissima
Lycium berlandieri
Yucca treculeana

Ehretia anacua
Helietta parviflora
Acacia rigidula
Ulmus crassifolia
Bumelia celastrina
Pithecellobium ebano
Acacia berlandieri
Celtis laevigata

Acacia smallii
Prosopis glandulosa
Taxodium
mucronatum
Cercidium texanum
Caesalpinia mexicana
Solanum erianthum

Parkinsonia aculeata
Esenbeckia runyoni
Sapindus drummondii
Pithecellobium pallens
Cordia boissieri
Leucaena pulverulenta
Acacia wrightii

Urvillea ulmacea
Cardiospermum
halicacabum
Iresine palmeri
Pisonia aculeata
Rubus trivialis
Mikania scandens
Anredera leptostachys
Cynanchum
racemosum
Cocculus diversifolius
Tragia glanduligera
Passiflora foetida
gossypifolia
Passiflora filipes
Passiflora suberosa
Serjania brachycarpa
Tournefortia volubilis
Mimosa malacophylla

Common Name

Vines

Snapdragon vine

Ground Covers

Angel Trumpets
Celosia
Cherisse

Frog Fruit
Guapita, Pitillo
Lornatee
Milkberry, Perlilla
Orange Daisy
Padre Island
Mistflower
Rebequita, Bush
Sunflower
Selene
Water Clover

Grasses

Bluestem, Longspike
Silver
Balsamscale, Pan
American
Bristlegrass, Plains
Cupgrass, Louisiana
Cupgrass, Texas
Dropseed, Coastal
Feathertop
Gramma, Red
Panicum, Hall's
Pappusgrass,
Whiplash
Paspalum, Rustyseed
Sprangletop. Green
Threeawn, Roemer
Tridens, Lovegrass
Tridens, Slim
Tridens, Texas
Windmillgrass,
Hooded
Windmillgrass,
Slimspike
Witchgrass, Fall

Other

Axocatzin
Bone Bract,
Mexican
False Honeysuckle
False Honeysuckle

Scientific Name

Maurandia
antirrhiniflora

Acleisanthes obtusa
Celosia nitida
Tradescantia
micrantha
Phyla strigillosa
Plumbago scandens
Micromeria brownei
Chiococca alba
Wedelia hispida
Eupatorium
betonicifolium
Simsia calva

Salvia misella.
Marsilea macropoda

Bothriochloa
longipaniculata
Elyonuris tripsacoides

Setaria leucopila
Eriochloa punctata
Eriochloa sericea
Sporobolus virginicus
Pennisetum villosum
Bouteloua trifida
Panicum hallii
Pappophorum
vaginatum
Paspalum langei
Leptochloa dubia
Aristida roemeriana
Tridens eragrostoides
Tridens muticus
Tridens texanus
Chloris cuculatta

Chloris
subdolichostachya
Leptoloma cognatum

Sida rhombifolia
Sclerocarpus
uniserialis
Siphonoglossa greggii
Siphonoglossa pilosella

Common Name	Scientific Name	Common Name	Scientific Name
Other		Wetland Plants	
Garlic Weed	<i>Petiveria alliacea</i>	Brook Pimpernel	<i>Samolus ebracteatus</i>
Huaco	<i>Manfreda variegata</i>	Button Bush	<i>Cephalanthus salicifolius</i>
Lila De Los Llanos	<i>Echeandia chandleri</i>	Coreopsis	<i>Coreopsis tinctoria</i>
Pigeonberry, Coralito	<i>Rivina humilis</i>	Primrose Willow	<i>Ludwigia octovalvis</i>
Runyon's Huaco	<i>Manfreda runyonii</i>	Sea Ox-Eye Daisy	<i>Borrichia frutescens</i>
Scarlet Sage	<i>Salvia coccinea</i>	Spike Rush	<i>Eleocharis interstincta</i>
Wild Poinsettia	<i>Euphorbia cyathophora</i>	Umbrella Sedge	<i>Cyperus globosus</i>
Wild Petunia	<i>Ruellia occidentalis</i>	Umbrella Sedge	<i>Cyperus sp.</i>
Wild Petunia	<i>Ruellia nudiflora</i>	Water Clover	<i>Marsilea macropoda</i>
Wild Petunia	<i>Ruellia runyonii</i>	Water Willow, Runyon's	<i>Justicia runyonii</i>
		Willow, Black	<i>Salix nigra</i>
Common name	Scientific Name	Common name	Scientific Name
Grasses:			
Bristlegrass, Blue	<i>Setaria ramiseta</i>	Sprangletop, Tropic	<i>Leptochloa virgata</i>
Cordgrass, Marshhay	<i>Spartina patens</i>	Trichloris	<i>hloris pluriflora</i>
Gramma, Slender	<i>Bouteloua repens</i>	Wetland plants:	
Longtom	<i>Paspalum lividum</i>	Ammannia, Purple	<i>Ammannia coccinea</i>
Lovegrass, Creeping	<i>Neeragrostis reptans</i>	Arrow Head	<i>Sagittaria latifolia</i>
Panicum, Hairy	<i>Panicum hirsutum</i>	Germander	<i>Teucrium canadense</i>
Pappusgrass, Pink	<i>Pappophorum bicolor</i>	Rush	<i>Juncus marginatus</i>
Sea Oats, Inland	<i>Chasmanthium latifolium</i>	Spike Rush, Miniature	<i>Eleocharis minima</i>
Sprangletop, Nealleyi	<i>Leptochloa nealleyi</i>	Umbrella Sedge, Miniature	<i>Cyperus brevifolius</i>
		Umbrella Sedge	<i>Cyperus globosus</i>
		Umbrella Sedge	<i>Cyperus tenuis</i>

The separate listing of plants above are additions to Mike Heep's species selection published in *The Sabal* September, 2006.

Native Plant Rescue: The Valley Nature Center will rescue native plants about to be destroyed by construction companies, developers, or no longer wanted by home owners. Call 956-969-2475.

Exclusively Native plant sources:

Benito Trevino, Landscaper/Grower, Rio Grande City 956-487-4626

Valley Nature Center – Native Plants, Weslaco 956-969-2475

Mother Nature's Creations, Harlingen 956-428-4897

Heep's Nursery, Harlingen 956-457-6834

Nature Happenings in the Lower Rio Grande Valley, Texas

WILD IN WILLACY, Raymondville – 2006

The Raymondville & Port Mansfield, Willacy County, Texas Chambers of Commerce are having their annual nature festival entitled “Boot Fest” **October 27-28, 2006**. For a listing of events and registration information call **1-956-689-3171**, or visit the Raymondville Historical & Community Center, 427 South Seventh Street, Raymondville, Texas. Or go to www.wildinwillacy.com

RIO GRANDE VALLEY, BIRDING FESTIVAL, Harlingen – 2006

The Harlingen, Texas, Chamber of Commerce is having its ninth annual Birding/Nature festival **November 8-12, 2006**. For a listing of events and registration information call 1-800-531-7346, or visit the Harlingen Chamber of Commerce, 311 East Tyler, Harlingen, Texas. Or go to www.rgvbirdfest.com

Texas State Park Tours/ World Birding Center, Mission, Texas — Lomitas Ranch Tours and other natural area tours 7:30 a.m. – 5 p.m. every Tuesday and Friday from Benson Rio Grande State Park/World Birding Center in Mission, TX. Outings focus on native plants and their uses. Fees: \$25 per person: reservations required - call 956-519-6448. Or go to www.worldbirdingcenter.org

Sabal Palm Grove Sanctuary— Native plant presentation and tour by Joseph Krause – every weekday at 10 a.m. Pre-registration required – call 956-541-8034. Or go to www.tx.audubon.org/centers/sabal

Laguna Atascosa NWR— Nature BIKE RIDES on Saturdays from 8 a.m. - 10:30 a.m. and Nature WALKS on Sundays from 8 a.m. - 10 a.m. Call for details: 956-748-3607.

Santa Ana NWR— Tram Tours of the park. Fees: \$3 for adults and \$1 for 12 years-old and under. Guided Nature WALKS are available. Call for details: 956-784-7500.

Edinburg Scenic Wetlands and World Birding Center — Native Plant Landscaping Series 1p.m. - 4 p.m. Oct. 21, Nov. 4 & 18, Dec. 9, Jan 6 & 20. Fee: \$5 members, \$7 non-members. 714 Raul Longoria Rd., Edinburg, TX (956) 381-9922.

Bentsen-Rio Grande Valley State Park & World Birding Center — **Butterfly Walk** every Wednesday, 1:30-3:30 p.m. 2800 Bentsen Palm Drive, Mission, TX (956) 584-9156.

Quinta Mazatlan - McAllen Wing of the World Birding Center— **Thursday “Evening Explorations”** September to November. 6:00 p.m. to 7:00 p.m. \$3.00. **Sunday “Family Excursions”** Sept. – Dec. 3:00 pm to 4:30 pm. \$2.00 adults and \$1.00 seniors and children. 600 Sunset Ave., McAllen, TX (956) 688-3370.



The Sabal is the Newsletter of the Native Plant Project and conveys information on the native habitats, and environment of the Lower Rio Grande Valley Texas. Co-editors: Gene Lester and Eleanor Mosimann. **You are invited to submit articles for *The Sabal*.** They can be brief or long. Articles may be edited for length and clarity. Black and white line drawings -- and colored photos or drawings -- with or without accompanying text are encouraged. We will acknowledge all submissions. Please send them, preferable in electronic form - either Word or WordPerfect - to: Native Plant Project, P.O. Box 2742, San Juan, TX 78589 or contact Gene Lester @ 956-425-4005, or g_lester48@msn.com. See *The Sabal* and our 5 handbooks on the website:

www.nativeplantproject.org

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Native Plant Project Annual Membership Application Form

Regular \$15 per year Contributing \$35 per year Lifelong \$250 one time fee per individual. Members are advised of meetings, field trips, and other activities through *The Sabal*. Dues are paid on a calendar year basis. Send checks to Native Plant Project, P.O. Box 2742, San Juan, Texas 78589.

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Comments/ suggestions/ speaker recommendations should be sent to: Native Plant Project, P.O. Box 2742, San Juan, TX 78589 or contact G. Lester @ 956-425-4005 or g_lester48@msn.com

Native Plant Project Meetings – October 24, 2006. Board meeting at 6:30 pm; **General meeting** at 7:30pm featuring: Kay Jenkins, leader of TPW’s Arroyo Colorado Habitat Restoration Work Group, will discuss their efforts to clean, identify problems and increase oxygen levels where necessary to restore aquatic life in the Arroyo Colorado.

Board and General Meetings 2006:

September 26
October 24
November 28

Board and General Meetings 2007:

January 23 April 24
February 27 May 22
March 27

SUMMARY OF THE MINUTES OF THE BOARD MEETING - September 26, 2006

The Board decided to give a donation in addition to the invoiced amount of \$148.70 to the Sharyland High School Future Farmers of America for the mesquite plaque made by FFA members. A check for \$250 will be sent to the FFA. The plaque will commemorate the first 25 years of the Native Plant Project and honor the founders and others who have made significant contributions to the NPP. **Sponsorship of *The Sabal*** will cost \$50 per page for a listing of native plant species for sale or \$100 per year for a business card ad.

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P.O. Box 2742
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