



## Invasive Exotics of the Southeastern U.S.

While there are three to four dozen non-indigenous plant species which have escaped into natural areas and have caused varying degrees of problems in the southeastern U.S. (exclusive of south Florida), ten species stand out as being particularly devastating to Gulf and Atlantic coastal plain habitats. They are Japanese climbing fern (*Lygodium japonicum*), Chinese privet (*Ligustrum sinense*), Japanese honeysuckle (*Lonicera japonica*), Chinese tallow tree (*Sapium sebiferum*), Brazilian vervain (*Verbena brasiliensis*), vaseygrass (*Paspalum urvillei*), dallisgrass (*Paspalum dilatatum*), bahia-grass (*Paspalum notatum*), water hyacinth (*Eichhornia crassipes*), and kudzu (*Pueraria lobata*). Due to the long growing season, relatively mild winters, and high level of artificial disturbance (road building, logging operations, livestock grazing, etc.), incidences of infestation are exceedingly high, including many cases where three or more of these species converge to totally wipe out many woodland and grassland habitats.

Workers are urged to exercise caution when developing eradication plans for the majority of these species, as many species of resident and migratory birds and mammals have come to heavily utilize these plants in light of vanishing natural habitats. Bill Fontenot, Curator of Natural Sciences, Lafayette Natural History Museum.—Ed.'s note: The above article is a report made to the Eastern Native Plant Alliance at the June meeting

### Ground Cherries: A Tasty Wild Food

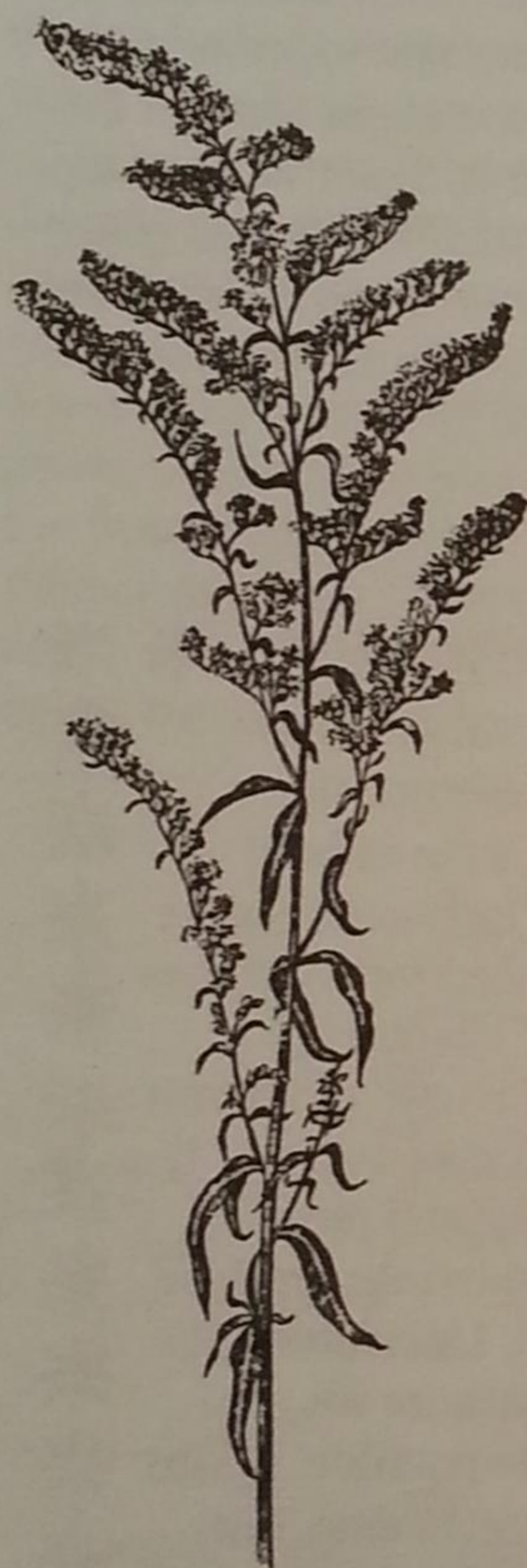
by Dr. R. Dale Thomas

While on a collection expedition recently in Arkansas, I was reminded again of one of my childhood delicacies. While collecting along the Arkansas River in Arkansas and Desha Counties, Dr. Eric Sundell, Carl Amason and I were able to sample ripe fruits of several different

*We never cultivated any ground cherries, but we encouraged them to grow in the edges of our garden and our corn fields.*

*Physalis* (ground cherry) species. This unique taste brought back many memories of gathering these fruits as a child on a Tennessee hillside "farm". We never cultivated any ground cherries, but we encouraged them to grow in the edges of our gar-

(Continued on page 3)



Sweet goldenrod, *Solidago odora*, is one of the more delightful species of the genus that heralds the coming of autumn.

### Fall Field Trip

September 23-24, Southwestern Louisiana, Cajun Prairie, and the Gulf Coast. Maps and schedule were in previous newsletter. If you need information, contact either Charles Allen at 318-342-1814 or Beth Erwin at 318-874-7777. Leave your name, address, and phone # on either machine & they will respond to your request.



## Note from the president...Dr. Charles Allen

Summer is about over and our fall field trip is just about here. Hopefully, all of you can make it. We should see lots of the sunflower or composite family, a few mints, and of course lots of grasses. Big bluestem should be 5-6 ft tall. Am looking forward to seeing the prairie and the pine flatwoods again and all of the flowers that should be there. And, of course, all of you.

My summer was quite interesting. I was fortunate to be invited to present a talk on native grasses at Cullowhee. Those of you that have been to Cullowhee can relate to this. Imagine 400+ people all interested in native plants being brought together at the same time. Native plants were discussed everywhere and were the major topic of discussion even during meals. Even my trip up and back was filled with native plant topics. I would highly recommend that you add Cullowhee as one of your lifetime goals.

I have lined up speakers for the Winter meeting and here is a sneak preview. Propagating perennials by Gail Barton and butterfly gardening by Dr. Malcolm Vidrine.

### Are Your Dues Due?

Check your mailing label. If Au94 appears after your name, your dues are due with this issue. Dues should be sent to the treasurer, Jessie Johnson, 216 Caroline Dormon Rd., Saline, LA. 71070. Dues schedule is as follows:

Student or Sr. Citizen	\$5
Individual	\$10
Family	\$15
Organization	\$25
Sustaining	\$50
Corporate	\$100

\* \* \* \* \*  
 \* The Louisiana Native Plant \*  
 \* Society News is published four \*  
 \* times per year. It is the official \*  
 \* publication of the Louisiana Native \*  
 \* Plant Society. The editor welcomes \*  
 \* articles, notices of upcoming \*  
 \* events, and book reviews of interest \*  
 \* to native plant folks, as well as \*  
 \* illustrations, poems, and prose. \*  
 \* Deadlines for submissions are June \*  
 \* 1st, September 1st, December 1st, \*  
 \* and March 1st. Because we mail \*  
 \* bulk rate whenever possible, please \*  
 \* keep you address up to date, lest \*  
 \* you miss an issue. Send any \*  
 \* address changes to LNPS News, \*  
 \* P.O. Box 126, Collinston, LA. \*  
 \* 71229. Address changes may also \*  
 \* be sent to the treasurer, Jessie \*  
 \* Johnson, 216 Caroline Dormon \*  
 \* Road, Saline, LA. 71070.—Terry \*  
 \* Erwin, editor \*  
 \* \* \* \* \*

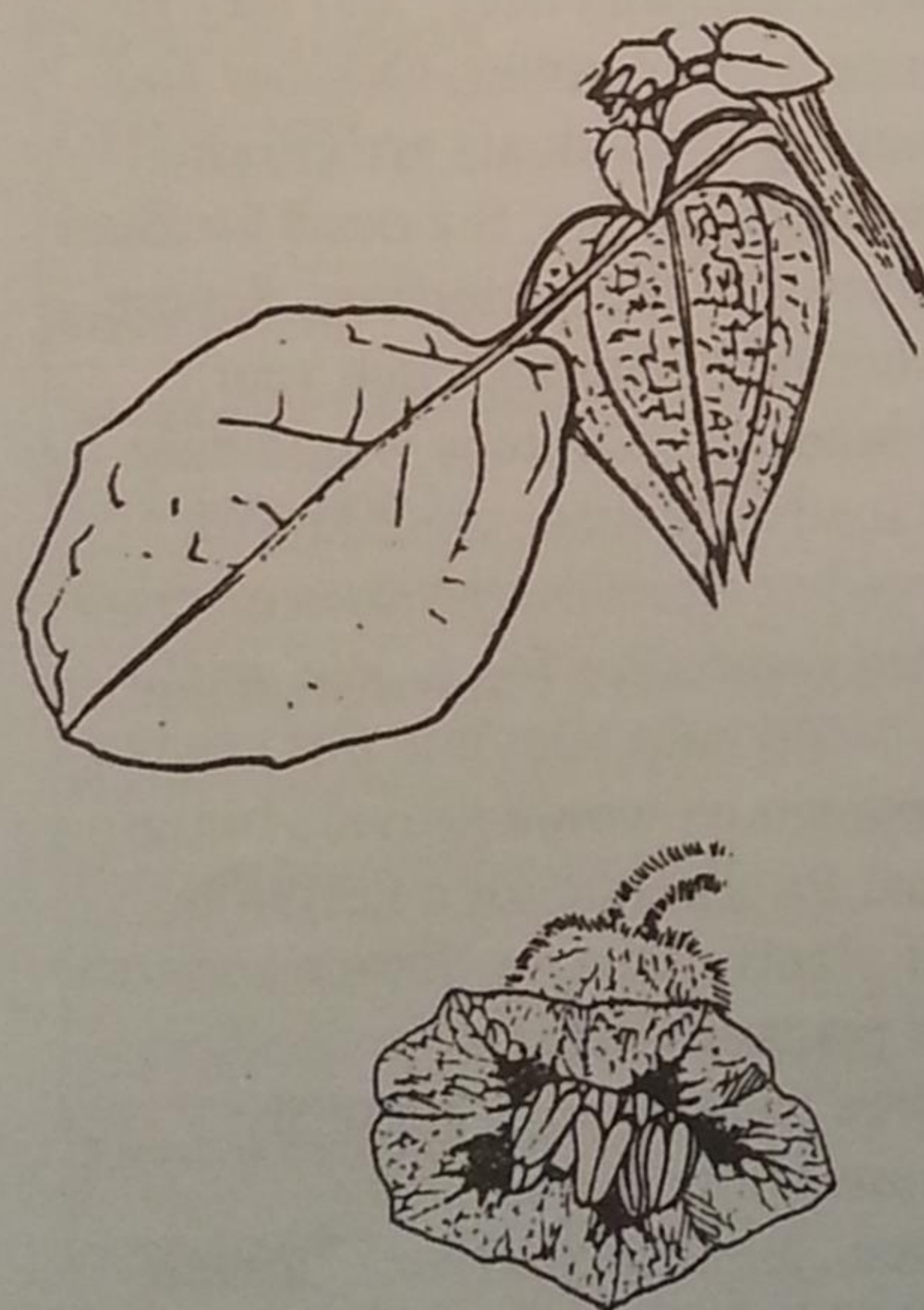


## Ground Cherries: A Tasty Wild Food *Cont'd*

(Continued from page 1)

den and our corn fields. We never cut down ground cherries from around the barn or in fence rows. Since our lawn was a carefully "broom-swept" hardened earth with no grass, we had only a scythe and sickle-bar mower for cutting hay and/or weeds. This made it easy to leave "desired" plants. We always collected the fruits of ground cherries after the calyx turned yellow or even dry and brown. They usually fall off the plant and can be gathered and allowed to ripen more. We never knew that the green ones were poisonous—we only knew that they were bitter and not at all edible. Although local folks talked about making pies from the fruits of ground cherries, I never tasted them in anyway except as freshly picked fruits.

In a recent study for his M.S. at NLU, Keith Cascio(1994) described and documented the distribution of sixteen different ground cherries in Louisiana. Some are annual and others are perennial. A particular kind of ground cherry can vary from being glabrous(smooth), to densely pubescent(very hairy). Some species are very easy to identify (such as *Physalis angulata* and *P. heterophylla*), while others seem to merge (*cordata*, *pruniosa*, etc.). The taste of the fruit varies greatly based on the plant, its growing conditions, and the degree of ripe-ness. I have not been able to consistently find ripe fruit on most of the commonly encountered taxa. The fruits are attacked by some type of insect larvae, and by the time the fruits are mature, most of them have been destroyed by the insects.



*Physalis pubescens*, fruit(shown slightly smaller than lifesize), and flower, about 2.2X. Illustration from *Intermountain Flora*.

One fuzzy annual species, *Physalis pubescens*, is common in Louisiana in clear-cut woods (either bottomland or upland) during the first year of the clear-cut. The fruits begin to ripen in late July or August but by late October, one plant might cover a three-foot area and have hundreds of fruits on it. One fuzzy perennial, *P. heterophylla*, is very common and produces excellent fruit as well. Our most common weedy *Physalis* in Louisiana is *P. angulata*. This species is smooth throughout, and grows in waste areas. Sometimes it is common in late fall along herbicided roadways. Although this probably is the most consistent and easy-to-find source of fruit, I find the fruit of this species to be "barely edible" and not worth the effort. Perhaps if they were picked and allowed to ripen further, they might be more palatable. Dr. Thomas is professor of Biology at NLU and curator of the NLU Herbarium. He grew up in Eastern Tennessee. See his related article on page 6.

### Hilltop Arboretum

#### 12th Annual PLANTFEST

October 7  
9 a.m.-4 p.m.

October 8  
12 noon-4 p.m.

Hilltop Arboretum  
11855 Highland Road  
Baton Rouge, LA.



## Creating Butterfly Habitat...Dr. Malcolm Vidrine

Butterflies are rapidly disappearing from Louisiana. The number of butterflies has dramatically declined over the last twenty years. Renewed enthusiasm is direly needed in order to rebuild populations and prevent many species from further decimation. In many parts of the United States, such enthusiasm has sparked the building of major butterfly habitats, even commercial gardens as in Georgia, Florida and California. These gardens are currently attracting thousands of visitors yearly. Currently no plans are underway for a similar facility in Louisiana. However, individual interest in nature preservation and habitat restoration is causing a similar hope for resurgence in butterfly numbers.

The main problem causing the decimation of butterfly populations is the loss of native host plants for the caterpillars, which are very host specific for food plants. Many butterflies have larvae which feed only on a specific type of plant; the classical example is the Monarch, which feeds only on *Asclepias*, a group of plants commonly called milkweeds, milkweeds and pleurisy roots. Monarch adults and many other kinds of butterflies find these milkweeds to be a popular nectar source. However, only Monarch caterpillars eat these plants. The Monarch is also unusual for its tremendous migrations--they travel from central Mexico to Canada each year. Monarch migrate through Eunice on their way to Canada in March, April and May, and they return to Mexico through Eunice in September, October and November. Because the returning individuals are children and grandchildren of the Spring migrators, the need for food plants is essential for the survival of the butterflies. Severe reductions in Monarch numbers are reported each year.

It was first believed that roadside plantings would help alleviate this situation, but roadsides were planted with non-native plants which served as excellent sources of nectar but did not provide needed caterpillar food. We, in Eunice and the Acadiana area, could help alleviate this crisis by planting small garden plots which would provide butterfly habitat; nectar sources and food plants for caterpillars. This requires the planting of plants native to Eunice and surrounding areas. The best plants for caterpillar food are

sunflowers, peas, mints, grasses and milkweeds. The three most popular butterfly choices for nectiferous flowers are milkweeds, thistles and sunflowers.

*Malcolm Vidrine is a professor of Biology at LSU-Eunice. He is the author of **Fresh-water Mussels of Louisiana**. He will share his considerable knowledge of butterflies and possibly a bit about dragon and damselflies at the LNPS Winter Meeting in January. His address is Division of Life Sciences, LSU at Eunice, Eunice, LA. 70535.*





# Preferred Hosts for Larvae(Caterpillars) of Butterflies of the Cajun Prairie

BUTTERFLY	PREFERRED HOST(S) FOR LARVAE (CATERPILLARS)
BUCKEYE	FIGWORT FAMILY, VERVAIN FAMILY, AND PLANTAGO
CRESCENT, PEARL	ASTERS
CHECKERSPOT, GREAT PLAINS	PHYLA(LIPPIA)
FRITILLARY, GULF	MAY POPS
GOATWEED	GOATWEEDS(CROTON)
HACKBERRY	HACKBERRY
GRAY HAIRSTREAK	MINTS, LEGUMES(BEANS), & MALLOWS
MONARCH	MILKWEEDS
SLEEPY ORANGE	BEAN FAMILY(CASSIA)
COMMON WOOD NYMPH	GRASSES
AMERICAN PAINTED LADY	ASTER FAMILY, INCLUDING GNAPHALIUM
PAINTED LADY	ASTER FAMILY, INCLUDING THISTLES, ALSO MALLOWS
PEARLY EYE	ARUNDINARIA(BAMBOO)
QUEEN	MILKWEEDS
QUESTION MARK & RED ADMIRAL	NETTLES
RED SPOTTED PURPLE	WILLOWS, HAWTHORNS, CHERRIES
GEORGIA SATYR	INDIAN GRASS
LITTLE WOOD SATYR	GRASSES AND SEDGES
SOUTHERN SATYR	GRASS FAMILY
CHECKERED SKIPPER	MALLOWS
FIERY SKIPPER	GRASS FAMILY
FUNEREAL SKIPPER	BEAN FAMILY
LEAST SKIPPER	BLUEGRASS AND RICE
SILVER SPOTTED SKIPPER	DESMODIUM, WISTERIA
TWIN SPOT SKIPPER	GRASS FAMILY
TWO SPOTTED SKIPPER	CAREX
CLOUDLESS SULPHUR, LITTLE SULPHUR	LEGUMES-BEAN FAMILY-PARTRIDGE PEA
ORANGE SULPHUR	LEGUMES-BEAN FAMILY
EASTERN BLACK SWALLOWTAIL	CARROT FAMILY-QUEEN ANNE'S LACE
GIANT SWALLOWTAIL	CITRUS
PALAMEDES(LAUREL) SWALLOWTAIL	REDBAY, SASSAFRAS, SWEETBAY
PIPEVINE SWALLOWTAIL	PIPEVINE(ARISTILOCHIA)
SPICEBUSH SWALLOWTAIL	SPICEBUSH AND SASSAFRAS
TIGER SWALLOWTAIL	WILLOWS, COTTONWOOD, ASHES, TULIP POPLAR
ZEBRA SWALLOWTAIL	PAWPAW
TAILED BLUE	LEGUMES(BEANS)
VICEROY	WILLOWS, POPLARS, CHERRIES, PLUMS
WILD INDIGO DUSKYWING	BAPTISIA



## All About Ground Cherries...by R. Dale Thomas

Ground cherries are in the genus *Physalis* in the nightshade family, Solanaceae. This family also includes tomatoes, petunias, peppers, eggplant, Irish potato, tobacco, Jimson weed, horse nettles, belladonna, and many other plants. All members of this family contain poisonous chemicals grouped as solanine glycoalkaloids. Although the foliage and the green fruits of ground cherries contain these alkaloids, the mature fruits of all the known species are considered edible. The immature fruits of some species are used to make sauces in Mexican cooking and it is thought that all the alkaloids are destroyed by cooking. Green foliage or immature fruits of tomatoes, tobacco, potato, as well as most members of this family (except peppers and eggplant) contain alkaloids concentrated enough to make them so bitter and "foul-tasting" that they are not of much danger of being eaten except perhaps by young children. *Physalis* has been suspected but not confirmed in the poisoning of various livestock. Deer regularly browse *P. angulata* in Louisiana.

*Physalis* has its berry enclosed in a papery inflated calyx that looks somewhat like a Chinese lantern. One species (*P. alkekengi*) is cultivated for its large orange to red lantern-like calyces. It



The Irish potato, *Solanum tuberosum*, is a very familiar relative of the ground cherry.



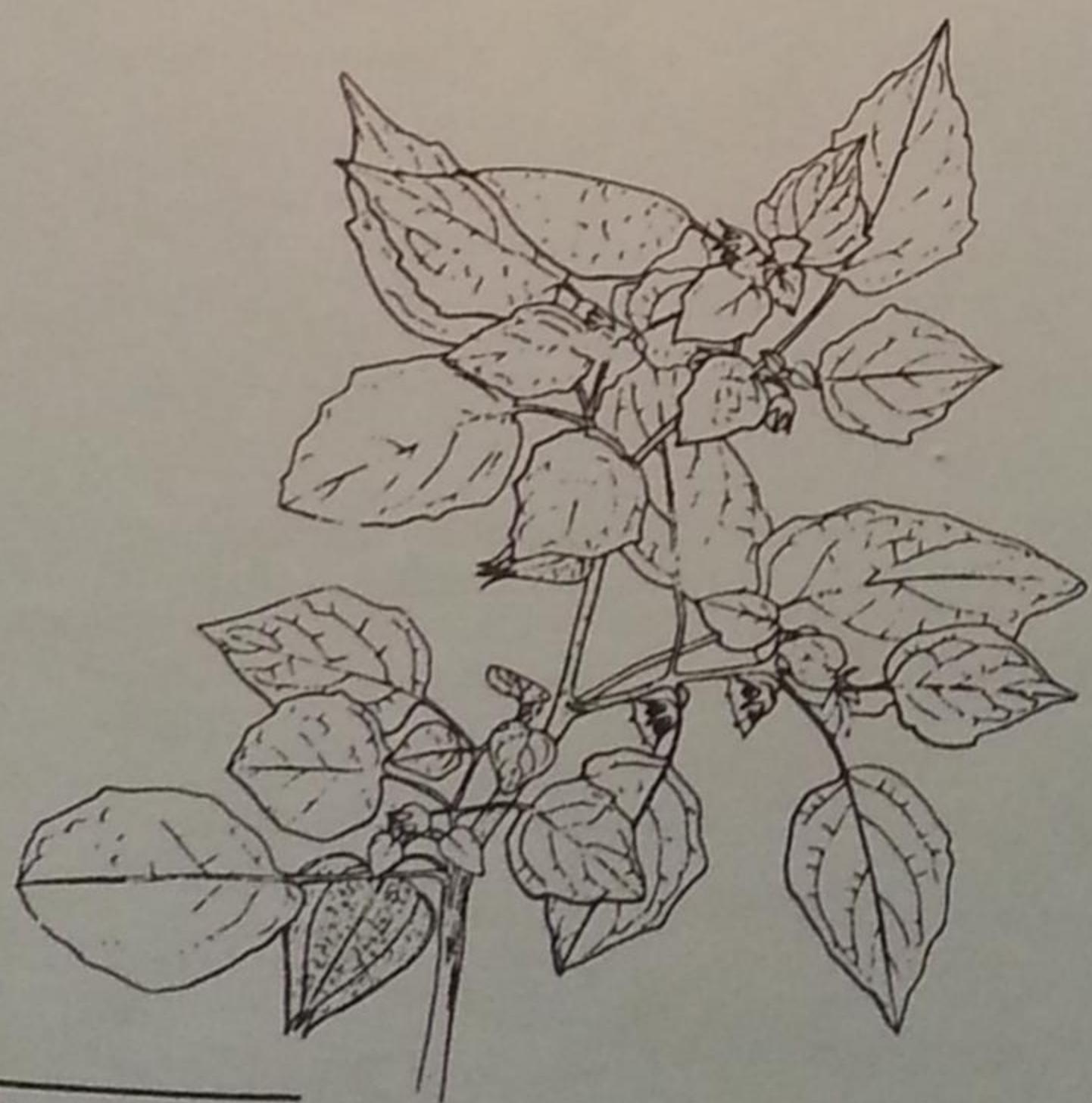
Horse Nettle, *Solanum carolinense*, is a common relative of the ground cherry.

is a beautiful perennial for a flower bed and it makes an excellent plant for cut dried arrangements. Ground cherries are delicious raw or made into pies or preserves. Elias and Dykeman (*Edible Wild Plants: A North American Field Guide*, 1990) describe the fruits as excellent for a trail snack or a desert. They suggest harvesting the fruits in mid to late summer and ripening them in their husks for a few weeks until yellow and sweet. Connie and Arnold Krochmal (*A Naturalist's Guide to Cooking with Wild Plants*, 1974) give recipes for pickled ground cherries, ground cherry desert sauce, ground cherry pie, and ground cherry preserves. Tomatillos, *P. philadelphica*, previously called *P. ixocarpa*, are a necessary part of Mexican cuisine. It grows well in Louisiana and can be cultivated like peppers. The fruits are used in making green sauces used on eggs, meat, or rice and are an essential part of enchiladas verde. According to Heiser, *Of Plants and People*, (1985), the sauce is made by mashing the fruits and adding onion or garlic, chili pepper, usually serano, but milder kinds can be used, coriander, salt, and

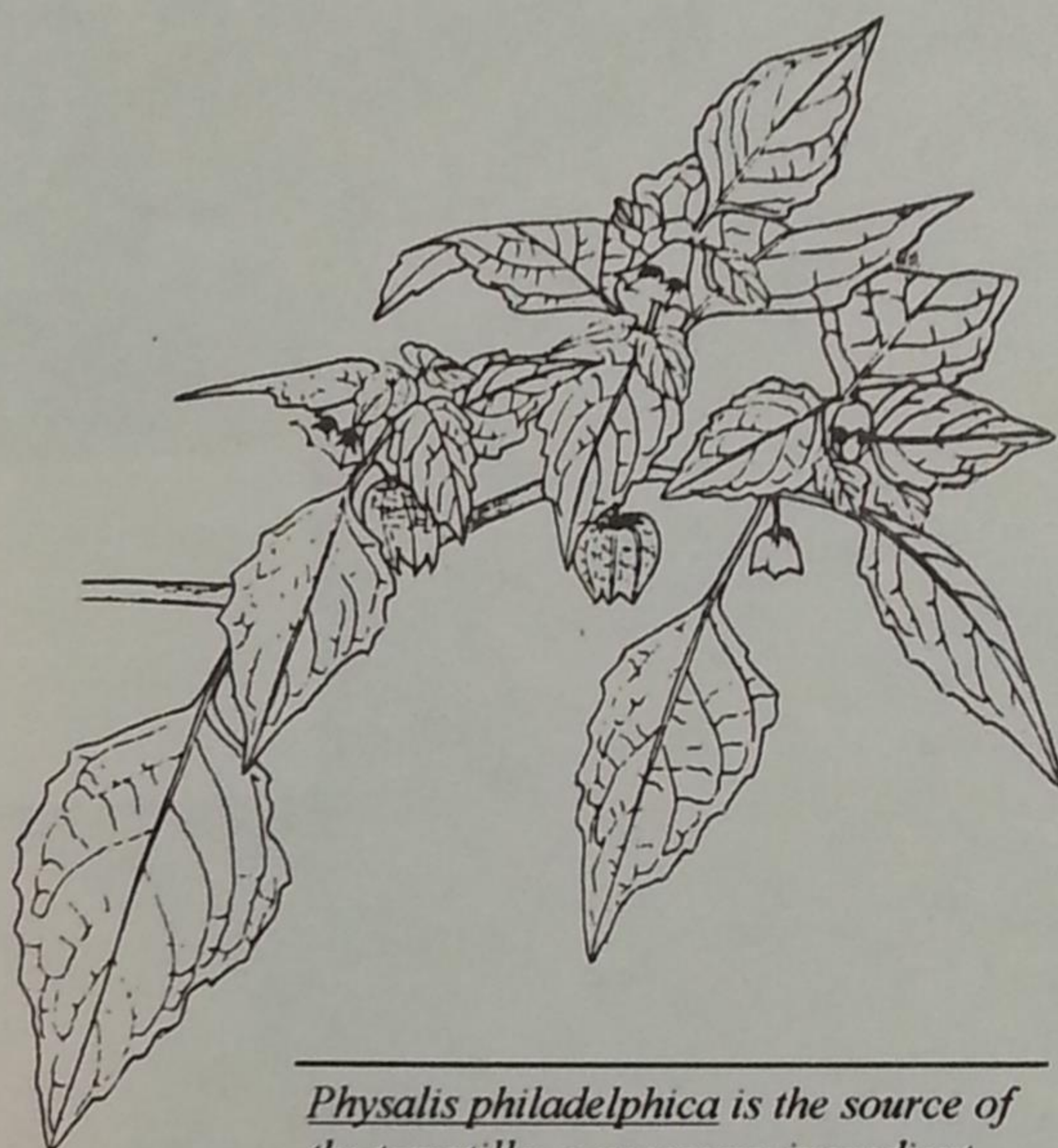


pepper, and then cooking the mixture. The sauce is available commercially usually under the name of green taco sauce (as opposed to the tomato based red sauce). The taste of a raw tomatillo has been described as "mawkish" or like that of a really green tomato.

Ground cherries have also been used in medicine. The Chinese Lantern Plant's fruits are also known as bladder cherry. Old time herbalists, because of the doctrine of signatures, reasoned that since the fruit was bladder-like, it had to be useful to treat bladder diseases. It was used to treat kidney and bladder stones. The genus name comes from a Greek word that means bladder. The herbals of the 16th and 17th centuries praised the fruit's virtues as a diuretic, both to expel bladder stones and promote urine flow. Angier (*Field Guide to Medicinal Wild Plants*, 1993) calls *P. pruniosa* the strawberry tomato and says its fruit is pleasantly rich in vitamins A and C and in sodium, phosphorous, calcium, iron, potassium, thiamine, riboflavin, and niacin when raw. He says a tea made from the simmered root was used by the Indians and pioneers for stomach trouble, and in stronger potions, used in efforts to treat and heal open wounds. Foster and Duke (*Peterson Field Guides, Eastern/Central Medicinal Plants*, 1990)



*Physalis pubescens* is a hairy annual species of ground cherry common in Louisiana.



*Physalis philadelphica* is the source of the tomatillo, a necessary ingredient for green salsa.

report that the American Indians made a tea of the leaves and roots of Clammy Ground Cherry, *P. heterophylla*, for headaches, wash for burns, scalds; in herbal compounds to induce vomiting for bad stomach aches; root and leaves poulticed for

To preserve fruits, boil until clear and tender in syrup of 1 cup sugar, 2 cups water, 3 T. lemon juice and can. Pectin is necessary to make jam.

wounds. Seeds of this and other species were considered useful for difficult urination, fevers, inflammation, and various urinary disorders.

Since the seeds of ground cherry are long-lasting, they usually will continue to come up for years in the same area. I would suggest collecting mature fruit of the hairy annual species most common in Louisiana, *P. pubescens*, and planting it in the edge of a flower bed or on a lawn border. If one does not want to have the plant around the house then all "outdoor-types" should learn to identify this genus so that he or she can partake of the delicious fruits at a time of the year when all the blueberries and blackberries are no longer available. Encourage the survival of our wild food plants. *Illus. on this page and p.3 from Intermountain Flora* Arthur Cronquist, et al., Vol. 4., NY Botanical Garden. 1984.



LNPS News  
P.O. Box 126  
Collinston, LA. 71229-0126

Bulk Rate  
U.S. Postage  
PAID  
Collinston, LA.  
71229  
Permit No. 2

Dr. & Mrs. Charles Allen 95  
NLU Dept. of Biology  
Monroe, LA. 71209-0502

<b>inside...</b>	<b>Roots, Shoots, &amp; Fruits—Ground Cherries Creating Butterfly Habitat</b>	<b>pages 1,3,6-7 pages 4-5</b>
------------------	---	------------------------------------

**RETURN OF THE NATIVES**  
**CENTRAL SOUTH NATIVE PLANT CONFERENCE**

**OCTOBER 20-21, 1995**  
**BIRMINGHAM BOTANICAL GARDENS**

Registration fee of \$65.00 includes buffet supper and two lunches. Motel accommodations are nearby. For information, contact the Birmingham Botanical Society, (205)879-1227k 2612 Lane Park Road, Birmingham, AL. 35223

The Louisiana Native Plant Society was founded in 1983 as a state-wide, non-profit organization.  
Its purposes are:

- œ to preserve and study native plants and their habitats.
- œ to educate people on the value of native plants and the need to preserve and protect rare and endangered species.
- œ to promote the propagation and use of native plants in the landscape
- œ to educate people on the relationship between our native flora and wildlife.