



# Bayou *and* Marsh

Newsletter of the Greater New Orleans Iris Society

## Fall is (almost) here!

### The Iris Cycle Is About to Begin

Fall is the beginning of the iris year, not the end. New growth starts in the fall, extends through winter, and culminates with the burst of bloom in March through April. Summer is iris down time when the plants sometimes look scruffy and not much is happening.

The same has been true with GNOIS. But the fall season is here and there will be several activities of interest to members and the public.

#### Fall Meeting

The fall meeting, on September 17, will be a double treat: a special program on Louisiana irises in the wild. Benny Trahan of Slidell and Tyrone Foreman of New Orleans will comprise a panel to discuss their experiences in tramping through swamps and other places where the Louisiana iris is home.

Collecting Louisiana irises was the horticultural phenomenon of the 1930s, 1940s and into the 1950s. It is a fascinating story that has been retold in various publications of the Society for Louisiana Irises, most recently in the book, *The Louisiana Iris: The Taming of a Native American Wildflower*, published by Timber Press.

In time, hybridizing replaced collecting as the method of choice to get new

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### Autumn Activities Cranking Up Soon

#### Fall Meeting and Plant Swap

7 PM, September 17, 2002

#### Longue Vue House and Garden

The fall meeting of GNOIS will feature a panel discussion on Louisiana irises still in the wild and a plant swap among members. **Benny Trahan** of Slidell and **Tyrone Foreman** of New Orleans will lead the discussion. Both have extensively explored the habitat of Louisiana irises and found that interesting -- and surprising -- native irises remain, even though their natural haunts have been and continue to be greatly diminished by "progress."

Members should bring irises they want to trade. Like the first annual swap a year ago, this will be a chance to get new cultivars and perhaps some of the species.

The meeting will be in the Playhouse at Longue Vue. Drive in and look for a sign.

#### Booth at NOBG Fall Show

October 19-20

#### New Orleans Botanical Garden

GNOIS will sponsor its booth at the NOBG Fall Show again this year. The show is a prime opportunity to promote Louisiana irises and our organization. Volunteers are needed to work a few hours on Saturday or Sunday. Call Patrick O'Connor, 456-6060, if you can help.

#### GNOIS Fall Iris Sale

#### Longue Vue House and Garden

October 26, 2002, 10 AM - 2 PM

GNOIS is sponsoring its First Annual Iris Sale. This is an important activity that hopefully that will raise the funds needed to support club activities. Plants sold will be contributed by members, so please take stock of what you might be able to contribute. Remember, Louisiana irises need to be dug and thinned every few years anyway!

# Wetlands Loss and the Depletion of Louisiana Iris Populations

BY JOSEPH K. MERTZWEILLER

In a previous article,\* effects of municipal and rural expansion on depletion of wild Louisiana iris populations were considered. This is a simple cause-effect relationship. Increasing population leading to necessary expansion of New Orleans and other municipalities, and even rural areas, simply obliterated the wild iris habitat. Losses were 100 percent in such places.

Another and perhaps leading cause of depletion is the “loss of the wetlands.” Many factors are involved and the problem is very complicated. While this has had a devastating effect on the irises, it is critically important to the state of Louisiana. Much publicity has been given and many articles written about coastal erosion, and this is of far greater environmental significance than such things as global warming and ozone problems. Only effects on iris depletion will be considered here, but the reader should be aware this is a small part of a big problem.

A few facts about the Louisiana wetlands follow:

Wetlands are areas inundated or saturated with surface or ground water for a frequency and duration to support vegetation typically adapted to growth in saturated soils. Freshwater marshes and forested wetlands are most important as Louisiana iris habitat. The irises will not tolerate salt marshes or strong brackish

conditions. Dominant vegetation in freshwater marshes is typically grasses, rushes and cattails, while water tupelo, gum and bald cypress are associated with forested wetlands. These kinds of vegetation are well known to iris collectors.

*“Wetlands loss, caused by weather catastrophes and human intervention, has decimated the stands of native Louisiana irises (I. giganticaerulea) which once grew in abundance in southern Louisiana.”*

Extensive losses of both freshwater marshes and forested wetlands have occurred during the past century. Today, slightly more than 1.6 million acres of freshwater marsh and 6.8 million acres of forested wetlands remain in Louisiana. Unfortunately the losses are continuing, particularly the loss of freshwater marsh.

Most causes of wetlands loss can be attributed to a combination of natural causes and human activities. The following items or combinations of these items are the main causes: restricting or altering the flow of fresh water, wave erosion, salt water intrusion, canal and levee construction, and tropical storms and hurricanes.

## Coastal Wetlands Losses

Iris habitat in the coastal wetlands has always been restricted to more in-

land areas beyond the reach of salt water. This is the typical habitat of *I. giganticaerulea*. Dr. Small made this observation about the habitat in the 1920s: “This iris is quite daring. It will not tolerate saltwater but often makes its greatest development and showiest fields as close to saline influences as it can get without actually entering the salt marshes.” Small probably made this observation east of New Orleans in what was then part of the Frenchman Street fields.

There is no evidence Small ever reached the huge fields in southwest Louisiana (lower Cameron Parish) during his explorations. Although documentation is lacking, this was likely the most extensive area of natural growth in all of Louisiana. Important *I. giganticaerulea* varieties such as ‘Ruth Holleyman’ (triploid) and ‘Creole Can-Can’ (semi-double) were collected in this location. This is a very open area, actually a part of the Gulf marshes, but slightly elevated above the salt marshes on what is known locally as “cheniers”. An extremely small difference in elevation makes the difference between freshwater or slightly brackish marshes and salt marshes. This precarious condition allowed development of huge areas of *I. giganticaerulea* on the cheniers.

In the 1950-1954 period Fred Buchmann and I made several visits to the Cameron parish fields. Growth areas were mostly on the south side (Gulf side) of Louisiana highway No. 82 for a distance of 20-30 miles. This is the southernmost road in Louisiana, only a few miles north of the open water of the Gulf. Total iris growth could not really be estimated, but any guesstimate would be in square miles rather than acres. Growth was not continuous but in patches of fractions of an acre to several

*The late Joseph Mertweiller, a New Orleans native who lived in Baton Rouge, wrote many articles and other publications for the Society for Louisiana Irises. This article originally appeared in the SLI Newsletter in March 1994. “Frenchman Street” was published in the September 1993 issue and reprinted in Bayou and Marsh, Fall 2001).*

acres. It was undetermined just how far these fields extended southward toward the open Gulf, since this could not be estimated through binoculars. It was not possible to traverse these marshes to any extent on foot.

### **Hurricane Audrey**

The sad end to this phenomenal natural iris growth came with Hurricane Audrey in 1956. The tidal surge carried salt water several miles north of the coastal highway and was also responsible for loss of 500 lives. More than 99 percent of the irises were destroyed. Fred and I returned to the area about 1960 and observed only a few very small patches of irises. A question remained as to the possibility of the irises replenishing themselves. Such replenishment would depend mainly on distribution of seed by water and wind and would require untold centuries. Trips made in 1986 and 1992 convince me replenishment is impossible. It would seem this sad result can be attributed to the natural cause of Hurricane Audrey. Probably not so. Human activities likely played an equally important role. These human activities were at least two centuries in the making and were initiated by construction of the Mississippi river levees. Prior to the levees, most of south Louisiana was subject to annual flooding by the Mississippi and Atchafalaya rivers and these flood waters carried incredible amounts of silt to the coastal areas and out into the Gulf. This can be considered “negative erosion” and actually built the coastline into the Gulf much further than it exists today. The silt also built extensive barriers of small islands, sandbars and reefs into the deeper water. These barriers mitigated effects of wind, waves and storm tides, and probably allowed formation of the iris fields to develop over hundreds or thousands of years; once the levees were in place, only forces of erosion continued, and only about two centuries were necessary to reach the conditions we have today.

### **Forested Wetlands Losses**

Forested wetlands are more inland and more limited in size than coastal wetlands. Forested wetlands are widely distributed throughout Louisiana and are best thought of as discontinuous areas of limited acreage rather than square miles of fresh water marsh.

In terms of iris habitat, the species *I. fulva*, *I. nelsonii* and *I. brevicaulis* are native to forested wetlands, while *I.*

*giganticaerulea* is typical of coastal wetlands. This is not a hard and fast rule, and there is no sharp demarcation between the two. There are areas of overlap. Forested fresh water marshes below Houma and Morgan City sustain populations of *I. giganticaerulea*. The habitat of *I. nelsonii* around Abbeville is considered an overlapping area. All these habitats are subject to ever decreasing iris populations.

The greatest depletion of forested wetlands is caused by the predominantly human activity of restricting or altering the flow of fresh water. Constructing and/or dredging of canals or small streams is the main cause. Dr. Small observed this during his explorations in the 1920s and documented it in “Vanishing Irises” (SLI Fiftieth Anniversary Publication, p. 28). This has likely caused the loss of more wild iris populations than all other causes combined.

## ***Preparing Louisiana Irises for the GNOIS Fall Sale***

***In preparing Louisiana irises to donate for the Fall Sale, the key is to Keep It Simple. No need to pot them up. The following is suggested:***

1. Dig the irises within a few days of the sale and wash the dirt off the roots.
2. Cut the leaves back to around six inches and remove any yellowed foliage.
3. For each rhizome, wrap a paper towel around the roots, wet it and place the roots and rhizome in a plastic bag.
4. Seal the bag with tape or a tie (the leaves can remain outside).
5. Label the plant with the cultivar name and/or the color (if you know it); it is easy to write on a dry leaf blade with a Sharpie marker.

That’s it. This process will assure that the irises are easy to handle at the sale and that buyers can get them home without having them dry out. Just bring the plants to the sale at Longue Vue on by 9 AM on October 26 (the sale starts at 10).

Other water-loving irises, such as *I. virginica* and *I. pseudacorus*, should be handled the same way as Louisianas. Bearded irises can dry out without harm at this time of the year, and they can simply be cleaned and labeled with no bag necessary.

We plan to price irises to sell, a few dollars per rhizome. Named varieties should be a bit more than those that cannot be identified by name or color. Our purpose is both to raise money to support our activities for the year and to make new and different Louisiana irises available to fellow gardeners.

The GNOIS Iris Sale will be an annual event. Please give what you can, and plan to add some new irises to your collection, too! Spread the word among your gardening friends!

Most dredging operations are for draining marshes and reclaiming land for agricultural use. Thousands of miles of canals were dug in the 1920-1950 period as development of the oil industry progressed. These “oil canals” allowed the heavy drilling equipment to be barged in to remote marshy areas. This method was very effective but also resulted in draining the marshes for miles around the canals. Extent of wetlands loss to these activities is not precisely known but amounted to many millions of acres.

### Prairieville

A typical example is an area around the small town of Prairieville, located about 15 miles southeast of Baton Rouge. This locale was well known to iris collectors prior to 1940 as habitat for *I. fulva*, *I. brevicaulis* and their hybrids. It is about 75 miles inland from the Gulf, with considerable forestation but low and marshy, a unique area of forested wetland.

Fred and I first visited this location in the late 1940s. We were both novices at collecting and were just beginning to think about propagation and hybridizing. We had no idea where to look and were scouting the area along a number of unimproved roads and paths. Finally we spotted a small clump of a single iris, mostly red on white background, small and obviously a *I. fulva*-*I. brevicaulis* hybrid. We collected a few rhizomes of “P-1” (Prairieville No. 1) for want of a better name. This iris was to become the pollen parent of my first introduction ‘Belle Helene’.

But this is getting ahead of the story. P-1 was collected along a narrow, shallow stream of flowing water. We followed this stream for about a mile in the direction of Prairieville. This led us to an open, wooded expanse, an acre or two, flooded to a depth of two to three inches. Irises, all apparently hybrids, were located randomly in the flooded area. There were no large clumps. The area was quite dark due to forestation and we concluded this was the reason for limited numbers and growth of irises. Over the next two years we explored in all directions, probably covering several square miles. Growth of irises was always limited and random. Most plants were hybrids, although we did find an occasional specimen of *I. fulva* and *I. brevicaulis*. Lack of more extensive growth and larger clumps was puzzling. We did observe some cattle in the area and a number of irises had been eaten.

By the mid 1950s the Prairieville location was devastated by dredging of the small stream where we found P-1. The stream was dredged to a depth of about six feet and a width about 12 feet with dredgings piled up on both sides. There was no evidence of navigation, and the most obvious reason was to drain the marsh and create farmland. Much forested area had been cut. Within three to five years the whole area had changed and evidence of wetlands had disappeared. So had the irises.

This was not the only example in and around Baton Rouge. The same general pattern, altering water flow and conditions by dredging, occurred at several other locations based on my observations during the 1945-1970 period. One point in com-

# Louisiana Iris Growing Tips

## Location

- Provide at least a half day of sun
- Avoid dense tree roots
- Regular beds are fine; boggy conditions not necessary

## Soil Preparation

- Dig in several inches (3-5) of compost or other organic matter
- Work in commercial or organic fertilizer (equivalent of 1 lb of 8-8-8 per 10 square feet of beds)
- If soil is very alkaline, increase acidity
  - Acid soils (around pH 6.5) generally recommend
  - Neutral and slightly alkaline N.O. soils seem okay

## Planting

- Space irises with room to “walk” – 9-12 inches apart
- Plant with rhizome just covered with soil – ½ to ¾ inch
- Mulch after planting
  - E.g., pine straw, ground leaves or bark
  - 2-3 inches

## Maintenance

- Fertilize established beds in *Sep-Oct* and again in *Feb*
  - In fall, 1 lb 8-8-8, or equivalent
  - In spring, half as much
- Discard foliage that yellows
  - Do *not* compost
  - Decomposed foliage may transmit a minor fungus disease called “rust”
- Keep beds moist
  - Irises in dry beds will go dormant and bloom will be reduced
- Replenish mulch as needed
- Remove seed pods before summer to avoid seedlings among existing plants
- Divide irises after 3-5 years or when they become crowded

mon: irises disappeared within five years after dredging. How many times was this pattern repeated during the past several decades?

Value of wetlands to Louisiana far exceeds that of most other coastal states. And the depletion of irises is but a small index. Commercial values, recreational values, wildlife habitat, water quality, storm buffers, erosion and flood control and scientific research are being depleted as well as iris populations. Awareness of these problems is increasing and hopefully some reversal is on the horizon.

The Federal Government has adopted a regulatory policy of "no net loss of wetlands". This means wetlands must be restored or created to make up for losses. It is an aggressive and very controversial approach. To cite one small problem: it limits uses of privately owned lands. It represents a start but is a long way from solving the problem.

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varieties, and as Louisiana iris habitat has diminished in the wild, the advisability of collecting has declined.

That is not to say, however, that the state no longer harbors interesting variants of the species as well as natural hybrids. These natives are part of our legacy, and GNOIS is fortunate to be able to hear from two latter day explorers who have been "out there."

### **Plant Swap**

Last year's plant swap made available for trade a number of different cultivars. Unfortunately, the meeting and swap was scheduled for 9/11, and the crowd was understandably small. Perhaps the meeting would have been cancelled altogether had there been a means to get the word out. Hopefully, more members can bring irises to this swap and more folks can go home with something new. Just bring what you want to offer, and at the end of the meeting we will have an informal opportunity to trade.

# Greater New Orleans GNO Iris Society

### **NOBG Fall Show**

Our principal educational activity since we were organized last year has been to sponsor a booth at the New Orleans Botanical Garden Show in the spring and fall. On the weekend of October 19-20, we will be at it again. Many of you have seen the nifty booth designed by Julie O'Connor, and some of you have helped staff it. We need help again. We will pass around a sign-up sheet at the meeting on September 17, or you can call Patrick O'Connor, 456-6060, to volunteer. We do need help, and a few hours spread around is the way to go. Then we will all have time to look around the show.

### **1st Annual GNOIS Iris Sale**

GNOIS has led a hand-to-mouth existence during its first year. This is understandable for a new organization, and we have lived mainly on dues and a few generous contributions to pay for our activities, including the printing and mailing of *Bayou and Marsh*, the rent for the booth at the NOBG shows, and the printing of educational materials to hand out. Victoria Inn and Garden in Jean Lafitte has graciously helped with cost of the booth space, and Longue Vue has not charged for our nice meeting place.

The Iris Sale is being held to raise the money needed to fund the year's activities. Plant organizations frequently do this quite successfully, and GNOIS has an excellent prospect to establish a

regular and anticipated event in the community. It is apparent that the demand for Louisiana irises currently exceeds the local supply. Those who have worked the booth at the NOBG shows have heard a common question: where can I get these irises? Nurseries increasingly handle them, but generally only a limited number of varieties.

An annual sale can be a major fund-raiser for GNOIS, and it can help keep dues at a low level. The Central Arkansas Iris Society in Little Rock, for example, maintains dues at two or three dollars and raises virtually all its operating budget through sales. It is an well established organization that has developed

a public awareness of its annual fund-raising sale, a posture that GNOIS will have to earn. The Arkansas group actually buys irises from wholesalers and sells them at a low price. For now, we will depend on the contributions of members.

Hopefully, our members can contribute a few irises and help assure that we can continue to grow through the next year.

## *Bayou and Marsh*

NEWSLETTER OF THE  
GREATER NEW ORLEANS IRIS SOCIETY

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