



QUARTERLY

SPRING • 1988
Volume XXVII No. 2



Jan

*Bank
Swallow*

SPRING '88



APRIL 2
Saturday

1:30 to 3:30 PM Wigwam Room - Potawatomi Inn
Pokagon State Park

GLACIAL GEOLOGY OF NORTHEASTERN INDIANA

Join Fred J. Wooley, Interpretive Naturalist, for a slide show and two-mile walk to see examples of MORaine - ESKER - KETTLE HOLE - KAME!
Dress appropriately for the field... rain-or-shine.

APRIL 3
Sunday

WING HAVEN Open House 1 to 5 PM Hostess: Pat Pichon

APRIL 16
Saturday

1:30 PM Izaak Walton League, Fort Wayne Chapter House
Griffin & Hollopeter Rds. Allen County, IN.

OUR PRAIRIE HERITAGE: REDISCOVERING A FORGOTTEN LEGACY

Join Dr. Larry Yoder, Assoc. Professor Goshen College and Director Merry Lea Environmental Center for a slide-lecture on prairie ecosystems. Followed by visit to the "Meadowlands" addition to the League lands (gift of Sam Ropchan) where a prairie restoration project is planned.

Dress appropriately for the field... rain-or-shine.

APRIL 30
Saturday

ACRES DISPLAY "Volunteer Fair" 1 to 4 PM
Allen County Library, Webster St. Fort Wayne-Gallery 2&3

WORK WEEK

ROPCHAN WILDLIFE REFUGE and WING HAVEN projects are scheduled to fit all ages, strengths and talents. Cleaning, chinking, staining, painting, trail signs, steps & boardwalk.

MAY
2 thru 7

WORK-WEEK MANAGER is Bob Weber CALL 747-6030

During Work-Week Bob can be reached (Eve.s) 665-3307

VOLUNTEER YOUR TIME AND TALENT ANY TIME MAY 2 through MAY 7.
"We will take time to enjoy the wildflowers too!"-Bob

MAY 1
Sunday

WING HAVEN Open House 1 to 5 PM Hosts: Larry & Barbara Rue

JUNE 4
Saturday

ACRES DISPLAY "Working For Wildlife" 9 to 5 PM
Fort Wayne Childrens Zoo, 3411 Sherman Blvd. In celebration of wildlife conservation during National Zoo and Aquarium Month.

JUNE 5
Sunday

WING HAVEN Open House 1 to 5 PM Hosts: Tom and Jane Dustin

A few notes - Second and third weeks of April, visit Spurgeon for wildflower display. Lonidaw for Marsh Marigold at that time and Celandine Poppy in May. First week in May, visit Acres Along the Wabash for Wild Hyacinth and Shooting Star and River Mallow in July.

TELL US IF YOU WOULD LIKE A BROCHURE TO LOCATE PRESERVES

ACRES COVER ARTIST is Jan Eberhardt. Jan coordinates educational programs at the Kellogg Biological Station at Battle Creek, MI. She also does small wooden sculptures of birds.

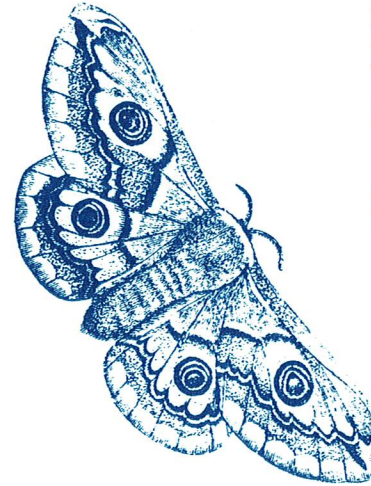
SPRING

MEMBERSHIP TIME

Your membership card is attached.
Select the membership category and remit to:

ACRES, INC.

1802 Chapman Road Box 141
Huntertown, Indiana 46748



You fill in the membership card and keep it. Return the address portion with your remittance in the return envelope provided.

Patron \$100; Sustaining \$50;
Share-the-Expense \$25; Family \$10; Regular \$5; Senior Citizen \$2; Student \$1.

Add your support to acquiring and preserving natural areas in north-eastern Indiana. **JOIN NOW**

Natural Areas Conference and Field Days

Celebrating the 20th
Anniversary of the
Division of Nature Preserves

April 30 & May 1, 1988

Turkey Run State Park

Marshall, Indiana

(317) 597-2211

Division of Nature Preserves
605B State Office Building
Indianapolis, Indiana 46204
(317) 232-4052

Presentations

Field Trips

PURPOSE

This year's conference will highlight the twentieth anniversary of the Division of Nature Preserves. It is meant to bring together individuals, organizations and government agencies interested in natural areas. It is hoped that this meeting will increase understanding of natural communities, rare plants and animals, and what can be done to preserve them.

SPONSORS

Indiana Department of Natural Resources
Division of Nature Preserves
Division of State Parks
Division of Fish & Wildlife
Division of Outdoor Recreation
The Nature Conservancy
Indiana Academy of Science
DePauw University
Wabash College



Hoosier Swallows

Barn
Swallow



As old man winter begins to fade and new life returns to the recently barren woods, so do the friendly species of birds known commonly as the swallows. Most of us are familiar with these agile sparrow-sized aviators and usually experience many sightings during the summer months. During September through April the swallows are wintering as far south as Brazil. Of the seventy-five known species worldwide, six spend at least part time in this area; the cliff, barn, tree, rough-winged, bank, and purple martin. Although many time the swifts, particularly the chimney swifts, are mistaken as swallows due to their similar appearance and flight habits, they are not related.



Tree Swallow

All swallows have slender bodies with pointed wings, and most have a forked or notched tail. Their bills are short and wide opening, designed for catching insects, which make up nearly 100% of their diet. Their streamline profile allows for speedy, graceful flight, enabling them to engulf food on the wing. They are often found together in flocks, resting on rooftops or on utility wires, but are seldom seen on the ground due to their small weak feet. The voices of the swallows are distinctive, once learned, but are difficult to describe and must be learned in the field. The following is a short description of the six species common in this area.

The purple martin (Progne subis) is the largest of the North American swallows. The male boasts a steel-blue body, gradually fading to near black at the wing tips. It is the only swallow with a dark underside. The female is more of a pale gray with a blue tint to the shoulder area and back of the head. The underside of the neck and the breast of the female are a much lighter gray. The juvenile of both sexes resemble the adult female. This species, as do most of the species, prefers open areas. It ranges from southern Canada to northern Mexico during the summer and winters in South America. It is often found in residential areas, open woodlands, and agricultural land but is rarely found in the deep woods. These friendly birds have had a close relationship with man for centuries and still do today. The southern Indian tribes are reported to have hung clusters of hollowed gourds near their gardens to provide nesting sites. Today many people still provide housing, usually in the form of large, multiple-unit martin houses, but numbers have been declining due to the introduction and proliferation of English sparrows and starlings. These birds compete directly with purple martins for nesting sites, and when this competition exists, the martin loses.

Both sexes of the tree swallow (Iridoprocne bicolor) are a dark, glossy, blue-green above with a clear white underside. The female is slightly duller overall. No other species of swallow in this area has

such a snowy white breast. The juvenile birds are gray-brown above and resemble the bank and rough-winged swallows; therefore the best way to discriminate them is their white breast. This species thrives in a wooded habitat, always near water, and usually nests in dead trees. They will also take up residence in bird houses if placed near water. Tree swallows are usually the first to arrive in the spring and range further north than the others. They range north from Alaska across Canada and south through the northern two-thirds of the lower forty-eight states in the summer and from the southern states into Central America in the winter. The ability of this species of swallow to inhabit areas further north than the other species is accomplished by their ability to feed on some berries, especially bay berries, along with their primary diet of insects.

The barn swallow (Hirundo rustica) is our only swallow with a deeply forked tail. Both sexes have dark, steel-blue upperparts with a cream-cinnamon underside. The fore of the head and throat are a rusty color, and the underside of the tail reveals two white tail spots. The female is a bit duller in color and the juvenile is paler with a shorter, less forked tail. The summer range includes southern Alaska, across central Canada and south to the Carolinas and Mexico. They winter in South America. The majority of this species nest in buildings or under bridges, but originally nested on cliffs and overhangs. They are swift agile fliers and have been estimated to travel up to six hundred miles per day in search of insects to feed their young.

The cliff swallow (Petrochelidon pyrrhonota), also known as the eave swallow, is similar in appearance to the barn swallow, but with a few distinct differences. The most noted is the square tail, as opposed to the forked tail of the barn swallow. The cliff swallow also has a buffy rump when seen from above and a dark throat when seen from below. They range across North America and winter in South America. Their name was acquired from the habit of building juglike dried mud and clay nests on building under eaves. These are the famed swallow of California's San Juan Capistrano Mission. The cliff swallows are also declining in numbers due to competition with English sparrows, who evict the swallows from their nests.

The rough-winged swallow (Stelgidopteryx ruficollis) is a brown backed bird with a dull whitish underside and a dusky throat. Both sexes look the same as do the juveniles. They nest in the sides of banks and cliffs, but usually do not dig their own burrows. They are also found nesting in cracks and crevices in bridges. Their range is the lower forth-eight states in the summer and Mexico through Central America during the winter. Their name comes from tiny hooks found on the outer primary, which gives the feathers a rough feel. The function of these hooks is unknown. They are shyer than the other species and are not usually found dwelling near humans.

The bank swallow (Riparia riparia), our smallest species, is a close relative of the rough-winged but is smaller in size and a dark breast band is on the bank swallow. The flight pattern of this smaller species is somewhat more fluttery than the others and like the rough-winged it prefers to remain at a distance from humans. They nest in colonies in the sides of sandy banks or pits, inhabiting cavities which are excavated up to four feet deep. The bank swallow ranges withing the lower two-thirds of Canada and the upper two-thirds of the U.S. in the summer and winters in South America.

All swallows are beneficial to humans and should be protected. It seems that unlike most wild animals, the swallows have learned to adapt to mankind. Nevertheless, two of man's imported fiascos, the English sparrow and the English starling, have made the future numbers of swallows somewhat uncertain. Yet with the control of these foreign aggressors and dangerous chemical pesticides, here and in their wintering range, we should be able to enjoy these elegant, graceful birds for years to come.

By Jim Griggs

Tree Flowers

In spring, many trees bloom with small, inconspicuous flowers. The tree flowers are seldom noticed by people because many of their blooms are green and blend in with the foliage. There are exceptions to this--the Tulip Tree with its beautiful cream petals, the Dogwood, Redbud, and many fruit trees.

We tend to notice the fruits of trees, whether horse chestnuts, acorns, apples, or pinecones. The flowers which produce these fruits are less well-known. There is a good reason why some tree flowers are showy and others drab. It has to do with how the different species are pollinated.

Large, brightly colored flowers attract insects, bats, and hummingbirds. An example is the Dogwood--whose white or pink bracts (modified leaves) help attract insect pollinators to its stamens. When the insect arrives, it gets a thorough dusting with pollen as it drinks the nectar the tree produces as a reward. The pollen comes from the stamens or male parts of the flower. When the insect leaves to go to another flower it carries the pollen with it. This way the pollen reaches the pistils or female parts of another flower. After receiving the pollen, the flower develops a fruit within the ovary at the base of the pistil. This fruit becomes the seed that may later sprout into a tree.

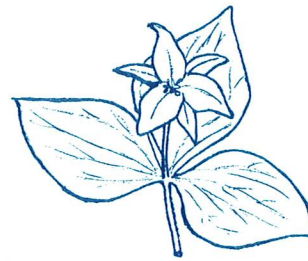
In contrast, the conifers are entirely wind-pollinated. They do not have flowers with showy petals. The male flowers that produce the pollen resemble catkins and are built up of many small stamens that shed millions of small golden pollen to the wind. The pollen is never carried by insects.

The cones come from small, soft female flowers which gradually become hard, brown, and woody after pollination. The seed develops on a scale of the cone, and when it is ripe the cone opens and the seed falls out. Many conifer seeds have thin wings encircling them so they will be blown by the wind away from the shade of their parent tree.

Most of the broadleaved trees have complete flowers, but they are small. Some examples are the elm, oak, and walnut. The oak bears its flowers as catkins, which are clusters of simple flowers. Each catkin is either male or female and they grow on the same tree. Since wind does the pollinating, these trees have no petals, no perfume, and no nectar. The male and female flowers bloom a brief time before withering.

Because trees live for a long span of years, they usually postpone flowering and seed-bearing until they are well grown. This period can vary from as soon as 10 years for a quick-growing tree like the Sycamore, to as much as forty years for the Oaks. Once a tree begins to flower, it may do so annually or every few years for decades after. A single tree may be the producer of thousands of saplings.

by Carolyn McNaggy



TRILLIUM TRAILING

Trilliums, along with violets, ashes, and hickories, have long bothered me with uncertainty about exact species identification. With that problem propelling me, I have prepared the following abbreviated key to Trillium species by using Charles Deam's Flora of Indiana to guide. I invite you to join me in testing the key on these lily-family plants with their usually showy single flowers of three petals, three sepals, six stamens, and a whorl of three leaves atop the stem. A report of your success, with any suggestions, would be appreciated.

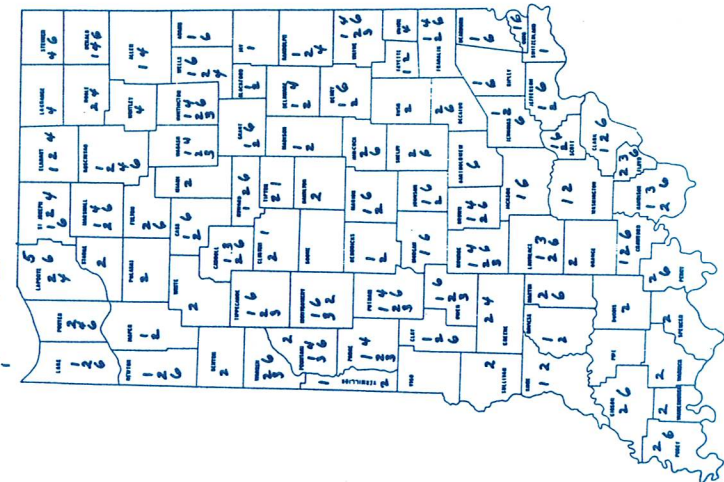
Bob Weber

KEY TO TRILLIUM SPECIES

- If flowers are sessile -
 -and leaves sessile, sepals not reflexed, petals maroon -
 1. I. sessile (Sessile flowered T. or Toadshade)
 (forma luteum, petals greenish-yellow reported from Adams, Allen, & Wells Counties by Deam)
 -and leaves petiolate, sepals reflexed, petals maroon -
 2. I. recurvatum (Reflexed-sepal T. or Prairie T.)
 (forma luteum, petals greenish-yellow reported from Monroe, Lawrence, Johnson, & Montgomery Counties by Deam)
 If flowers are pedunculate -
 3. I. nivale (Snow T.)
 -and leaves are sessile, or essentially so,
 -and stigmas are slender and of uniform diameter, petals usually very large and obovate, white, turning pink with age, their bases ascending, upper part spreading -
 4. I. grandiflorum (Large-flowered T.)
 -and stigmas short, stout, tapering from base to apex, petals lanceolate to obovate, spreading from base
 -and filaments half as long as the anthers or longer, ovary white, petals 10-17 mm wide -
 5. I. cernuum var. macranthum (Nodding T.)
 -and filaments very short, about a third as long as the anther, or less, petals white -
 6. I. gleasoni (Drooping T.) (same as I. flexipes)
 (If petals maroon: forma Walpolei, found with species)

The Distribution Map to the right is based upon the Floristic Atlas For Indiana by Keller, Crovello and Guild (1984). Species are designated with the numbers as used directly above.

If you should find one of the species in a county where it is not here marked, that information should be reported.



In Indiana, as in other parts of the United States, the plant world's triumphant comeback from winter is heralded by the skunk cabbage. Often appearing weeks before the calendar says winter has ended, the skunk cabbage's green to purplish-brown "hood" surrounding a knob-shaped cluster of flowers can be found in wet meadows and swampy woods.

Named for a strong, disagreeable odor which emanates from bruised portions of the plant, skunk cabbage is not a true cabbage. It is a member of the Arum family, with Jack-in-the-Pulpit being another family member.

Skunk cabbage is a herbaceous perennial. It's flowers emerge in late February from a thick, underground rhizome. When the plant pushes upward, it often melts the snow and ice around it. This is caused by the plant's ability to generate its own heat through the use of oxygen in the process of respiration.

Unless their habitat is disturbed, individual plants of eastern skunk cabbage could probably live indefinitely. In fact, it is believed that a large, mature skunk cabbage may be as old as a giant redwood, or older.

Although skunk cabbage is no "spring beauty", it is a wonderful sight to see in late February--you can be sure that spring's warmth is not far behind.



ACRES
P O BOX 141
1802 CHAPMAN ROAD
HUNTERTOWN, INDIANA 46748

Non-Profit Organization
U. S. POSTAGE
PAID
FORT WAYNE, IND.
PERMIT NO. 954

DIRECTORS: Ted Heemstra, President; Robert C. Weber, VP; James M. Barrett, VP; Ethyle R. Bloch, VP; Jane Dustin, Secretary; James L. Shearer, Treasurer; Edward H. Eberhardt; John Ellenwood; Arthur Eberhardt; Mary Anna Entwisle; Judy Esterline; James D. Haddock; Thomas M. Kimbrough; Tony Fraundorf; Tim McNitt; Patricia Pichon; Lee Casebere; Douglas Waldman. RECORDING SEC.: Marion Eberhardt and MEMBERSHIP SECRETARY: Mary Anna Entwisle. NATIONAL ADVISORY BOARD: Howard Michaud, Alton A. Lindsey, M. Graham Netting, Richard H. Pough, Durward L. Allen, Lynton K. Caldwell, Frank Kirschner, Robert H. Cooper, John W. Klotz. ACRES QUARTERLY is published by ACRES, Inc. at 1802 Chapman Road, Huntertown, IN for the interest of its members, friends and other similarly dedicated to the preservation of natural lands in northeastern Indiana. ACRES Inc. is a non-profit corporation, incorporated under the laws of Indiana. Contributions are deductible for tax purposes. Jane Dustin, Editor.

MEMBERSHIPS: Patron, \$100; Sustaining, \$50; Share, \$25; Family, \$10; Regular, \$5; Senior Citizen, \$2; Student, \$1. Payable annually. Membership yr. - July 1 to June 30

ACRES, INC. P O Box 141, 1802 Chapman Rd. Huntertown, IN 46748