

13. HUMAN LAND USE & LOST COWS

In the early 1900s, the area around Volo Bog was a dairy farm. Local folktales tell of cows and horses disappearing. Could they have wandered out onto the floating soils and broken through, never to re-surface?

The farmer sold his land to a sportsman's club in the 1940s. Go carts, skeet shooting, hunting and fishing (here in this excavated pond as well in the marsh moat) were popular. None of this was a threat to the ecology of Volo Bog.

In 1958 the newly formed Illinois Chapter of The Nature Conservancy purchased Volo Bog. It was turned over to the University of Illinois for management. Many students from U of I and other colleges visited and studied Volo Bog.

In 1970, following threats to Volo Bog from impending development, the State of Illinois took control of this treasure and designated it an Illinois Nature Preserve. 1973 saw the designation of Volo Bog as a National Natural Landmark. Today, the Illinois Department of Natural Resources manages Volo Bog

to protect the unique ecosystems and its inhabitants for the knowledge and enjoyment of today's and future generations.



Text & Design by Stacy Miller; Artwork by Diana Maxwell

A NATURE PRESERVE ETHIC

WALK QUIETLY

So as not to disturb others -
animals or humans.

PICK NO FLOWERS

so they may form seeds and so others may
enjoy their beauty. Also, pick no other plant
parts.

TREAD LIGHTLY

Stay on trails or in designated study areas.
Avoid stepping on plants.

RESPECT ALL LIVING THINGS

Do not disturb wildlife or their homes.

TAKE ONLY MEMORIES.

Leave only footprints.

Do not collect anything except litter.



ILLINOIS
NATURE PRESERVE
EVERYTHING IS PROTECTED BY LAW

SUMMER TRAIL GUIDE

VOLO BOG INTERPRETIVE TRAIL

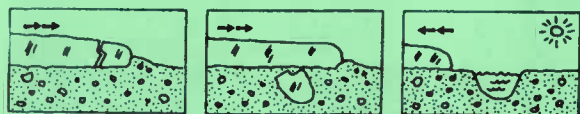


VOLO BOG STATE NATURAL AREA
28478 W. Brandenburg Rd.
Ingleside, Illinois 60041
(815) 344-1294
Ameritech Relay # 1-800-526-0844

An Illinois Department of Natural Resources Site
Printing funded by the Friends of Volo Bog

1. GLACIAL BEGINNINGS

Volo Bog began to form about 12,000 years ago when the Wisconsin glacier receded from northeastern Illinois. Large blocks of ice broke away from the glacier and were buried in clay, sand, gravel, and boulders (collectively called glacial till) that washed out of the melting glacier. As the climate warmed, these ice blocks melted, forming depressions called kettle-holes. Lakes, bogs, marshes, and other wetlands formed in the kettles.



The original lake here was very poorly drained with steep banks. Due to the stagnancy, anaerobic (low oxygen) conditions were created, causing slow, incomplete decomposition of organic debris, forming peat. The poor drainage also caused a build-up of acids which further inhibited decomposition. About 6,000 years ago, the lake began to fill in with organic sediments. Eventually, a floating mat of peat, supported by the roots of living plants, began to form and encroach upon the old glacial lake which now is filling in from the bottom up *and* from the top down.

2. THE EDGE OF A KETTLE

Notice the trees and shrubs extending to the left and right. These mark the edges of the old glacial lake. The marsh moat beyond is the outer ring surrounding Volo Bog. The wooden boardwalk will lead through this and four other unique vegetational communities. Passing from one community to the next is like walking backward in time.

3. CATTAIL CAFETERIA

Cattails dominate the marshlands of northeastern Illinois. They provide cover and food for a great variety of wildlife. Muskrats eat the roots, leaves and young shoots and build lodges with their leaves.



Insects eat cattails and are in turn eaten by red-winged blackbirds who build nests among the long, flowing leaves. Listen quietly for a few minutes to discover these and other inhabitants of the marsh zone.

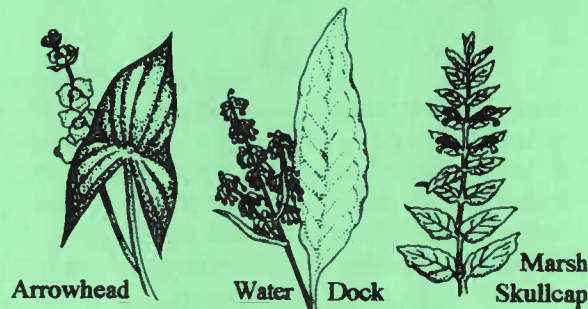
4. OTHER PLANTS OF THE MARSH



Jewelweed

Wool Grass

Water Plantain



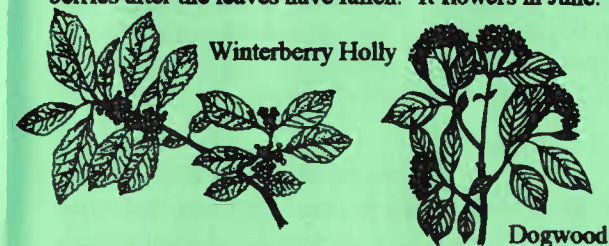
Arrowhead

Water Dock

Marsh Skullcap

5. TALL SHRUBS

Winterberry holly, the dominant plant in the tall shrub community, is so named due to the persistence of the berries after the leaves have fallen. It flowers in June.

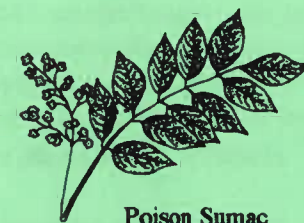


Winterberry Holly

Dogwood

CAUTION: DO NOT TOUCH POISON SUMAC

Oils throughout poison sumac may cause a rash worse than poison ivy. Learn to recognize the gray bark and compound leaves!

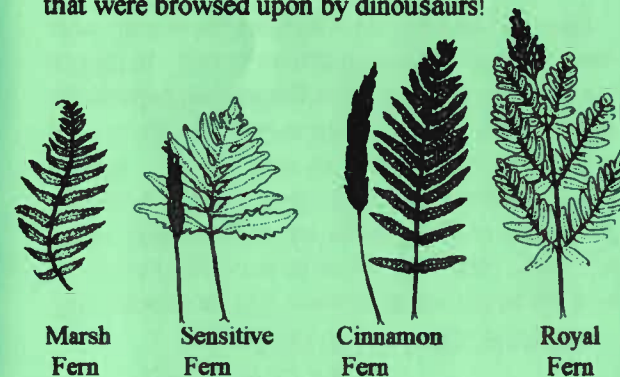


Poison Sumac

6. DEAD TREES & ANCIENT FERNS

The tamarack trees here drowned during times of high water. Living tamaracks lie ahead, growing on the floating mat that keeps them just moist enough but never too wet. Look for signs of life in the decaying wood.

Look for ferns, descendants of tree-sized plants that were browsed upon by dinosaurs!



Marsh Fern

Sensitive Fern

Cinnamon Fern

Royal Fern

7. TAMARACKS & SPHAGNUM MOSS

Tamaracks are unusual pines -- they're deciduous! Every fall, their needles turn golden and drop into the peat soils, releasing tannic acid. Notice how the water is stained brown by these acids. Feel the soft needles clustered on spur-shoots!



Tamarack (a.k.a. eastern larch)

The fact that these tamaracks are alive and well indicates that they are on the floating mat. Their shallow spreading roots receive a constant amount of soil moisture as the trees float up and down with the changing water levels. Tamaracks were valued by ship builders who used the trunk and a main root (which grows at a right angle to the trunk) as angles for the hulls.

Sphagnum moss carpets the ground here. Native American Indian moms took advantage of the absorptive properties of the dried moss, lining their cradle boards with it for a sort of diaper.



Sphagnum moss

Soldiers of early battles used sphagnum as a sterile field dressing, for the moss produces acids which inhibit bacteria.

8. CARNIVOROUS PLANTS

Look for carnivorous pitcher plants. Their leaves are modified like cups or *pitchers* to hold water. Insects are lured down inside by the glistening water within which they mistake for a meal of nectar. Instead, they become a meal themselves, trapped by the slippery leaf surface and the down-pointing hairs inside.

Pitcher Plant



The dead insect decomposes, releasing nitrogen and phosphorous to be absorbed by the leaf.

ORCHIDS & INDIAN PIPES

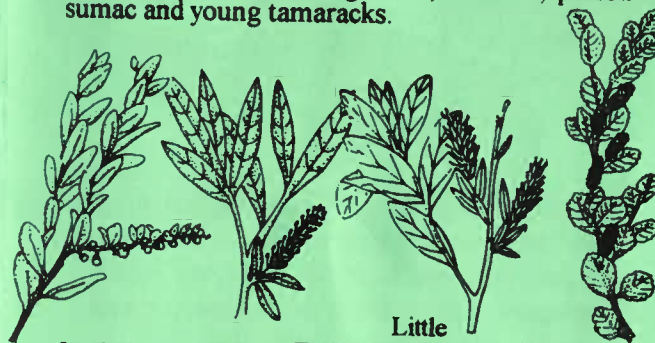
Six species of orchids have been documented in Volo Bog. Only the rose pogonia remains, blooming June through early July. Indian pipe, white because they lack green chlorophyll, obtain nutrients from decaying matter just under the surface of the moss.

Rose Pogonia (an orchid)



Indian Pipe

The tamarack forest grades gradually into a low shrub community of bog birch, willows, poison sumac and young tamaracks.



Leatherleaf Hoary Willow Little Bog Willow Bog Birch

9. OPEN WATER & NATURAL SUCCESSION

This pond is all that remains of the old kettle hole lake that once covered about 50 acres. Over the past 6,000 years it has been filling in with dead vegetation (peat) that is encroaching upon the middle. Today, Volo Bog is the only such peatland in Illinois still to have an open water center surrounded by floating soils. Eventually, even this will fill in. This is a natural process called succession. In nature, nothing stays the same for long.

PEATLANDS

BOG

FEN

MUSKEG

HEATHLAND
MOOR

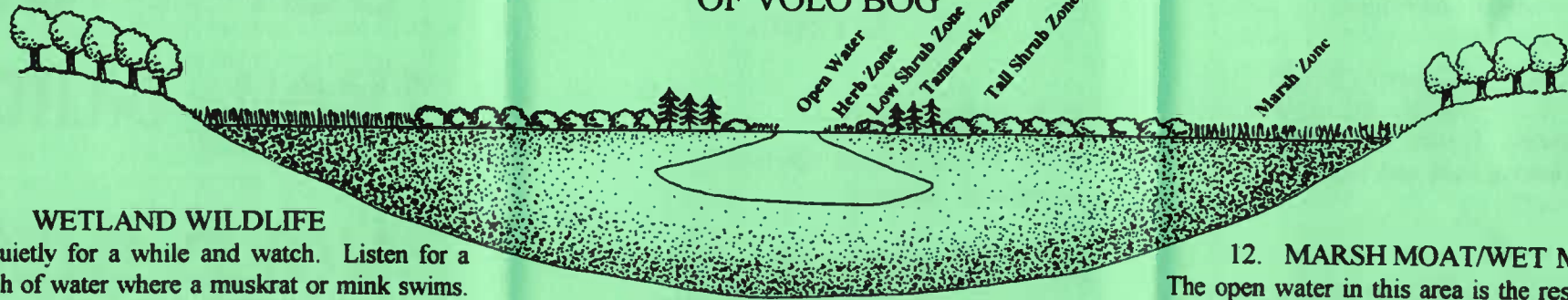
Terms used for peatlands have evolved over the years. They vary around the world and among disciplines.

WHEN IS A BOG NOT A BOG?

A true bog is mineral-poor, as it receives water only from the sky. By this definition, Volo Bog does not qualify. Because some runoff does feed into the wetland basin from the surrounding hills, Volo Bog can be classified as a fen. Furthermore, humans have altered the drainage, allowing for an inlet and at least a couple of outlets. The floating peat mat, however, may filter most of the minerals from the water before it reaches the center.

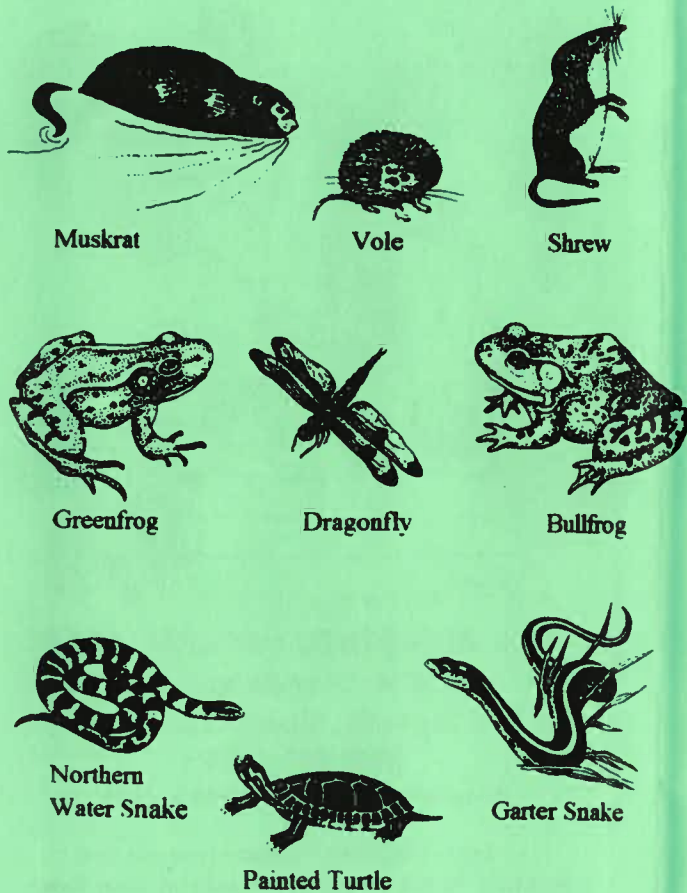
Why then, are snails occasionally seen? They need calcium to form shells. Could the gravel quarry a half-mile east of Volo Bog be contributing minerals as dust on the easterly winds? These are questions than have yet to be answered. Meanwhile, can we accept that nature does not always fit neatly into the categories we try to impose?

A SIMPLIFIED CROSS-SECTION OF VOLO BOG



10. WETLAND WILDLIFE

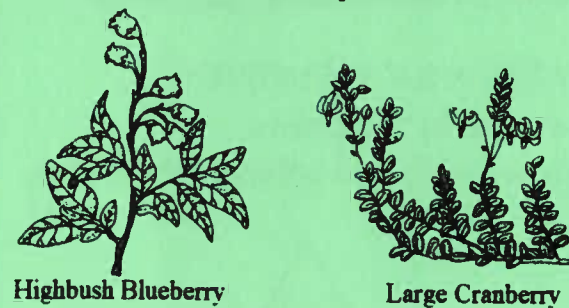
Sit quietly for a while and watch. Listen for a splash of water where a muskrat or mink swims. Bull frogs "rrrummm" in chorus and birds call to each other as insects buzz nearby.



11. EARLY BOGGERS

* Native Americans

As early as 10,000 years ago, people lived in northeastern Illinois. They probably settled along the Fox River and the Chain-o-Lakes areas. Volo Bog and other wetlands away from the big waterways would have been good hunting grounds and places to gather cattails, arrowhead roots, blueberries and other edible plants.



*Early Scientists & Explorers

W. G. Waterman (an appropriate name!) first described Volo Bog to the scientific community in 1920. Many scientists followed including William Beecher who first arrived to the outer edge of Volo Bog as a kid on a bicycle. Dr. Beecher's love of nature led him into the directorship of the Chicago Academy of Sciences.

12. MARSH MOAT/WET MEADOW

The open water in this area is the result of early attempts to control the water flow in and around Volo Bog. During wet years, the water is high and the wetland is a marshland mosaic of open water and emergent plants. In drier years, sedges and grasses cover the entire area like a meadow. Wildlife is often observed in this area. Here are just some of the animals that may be seen.

