SWAMP MILKWEED

Whenever Milkweeds are mentioned, most people will think of the Common Milkweed (*Asclepias syriaca* L.). However, there are other species of Milkweeds that are also native to Ohio. One of them is the Swamp Milkweed (*Asclepias incarnata* L.).

Swamp Milkweed is a member of the Milkweed Family (*Asclepiadaceae*) and of the Subfamily *Asclepiadoideae*. The generic name, *Asclepias*, is from *Aesculapius* or *Asklepios*, who was the Greek and Roman god of medicine. The specific epithet, *incarnata*, is Latin for "flesh-colored" or "flushed with pink", which is the color of the flowers. *Carn* is Latin for "flesh" and *atus* is Latin for "like".

At different times and places, Swamp Milkweed was listed under other common names. Some of them are Flesh-colored Asclepias, Flesh-colored Silkweed, Marsh Milkweed, Pink Milkweed, Rabbit Milk, Red Milkweed, Rose-colored Silkweed, Rose Milkweed, Rose Silkweed, Silkplant, Swamp Silkweed, Water Nerveroot, Water Silkweed, and White Indian Hemp.

DESCRIPTION OF THE SWAMP MILKWEED

Perennial

Height: Swamp Milkweeds are about 1-7 feet tall.

Stem: Their stems are long, smooth, rarely hairy, shreddy, flexible, and either solitary or clustered. They branch near the top. If broken, these stems exude a milky latex sap. This milky sap emits a strong odor that is lost when the sap dries. The Yellow Milkweed Aphis (*Aphis nerii* Boyer de Fonscolombe) often attacks these stems.

The stems contain threadlike fibers that are used in building birds' nests. Yellow Warblers (*Dendroica petechia* L.) and Northern Orioles (*Icterus galbula* L.) are 2 bird species that use these fibers.

Leaves: The leaves are simple, opposite, narrow, oblong, lanceolate or oblanceolate. They are about 2¾-7 inches long, about ½-2 inches wide, and have short petioles. Their margins are entire. Their tips are pointed and their bases are narrowed, cordated, blunt, or round. Their ascending veins form acute angles with the midribs. Their tops have soft hairs and their undersides are wooly. If broken, these leaves also exude that milky sap. Monarch Butterfly larvae (*Danaus plexippus* L.) often eat these leaves.

Flowers: The flowers are arranged in many small, loose, umbelled, terminal clusters. These clusters are about 1-2½ inches wide and may be flattened or shallowly rounded.

Each flower is radially symmetrical, about ¼ inches wide, and is a deep or dull pink, magenta, rose, purple-red, or rarely white. These flowers have a white center and a mild fragrance. The flower has a corolla of 5 united petals with reflexed lobes and 5 reflexed green sepals. This flower also has a central, elevated crown (corona) with hooded nectaries. The crown is composed of 5 stamens that are united with the 2 styles. The filaments are fused into a tube and the anthers adhere to the stigma. The hoods are erect, scoop-shaped, about 1/8 inch long, and each enclose horn-like appendages. These horns are composed of soft tissue, are curved, and project outward from the hoods. The horns both secrete the nectar and act as an obstacle for gathering the nectar. Flowering season is usually June to September.

Fruit: The fruit consists of 1-2 erect, spindle-shaped, smooth, follicled pods that are joined at their styles. Each pod is elongated, about 2-4½ inches long, tapered at both ends, and opens along 1 side.

Each pod is filled with numerous seeds that are attached to tufts of silk flossy parachutes. The seeds are light to dark brown, flat, and marginal. These seeds are dispersed by both wind and water. Mallards (*Anas platyrhynchos* L.) and Northern Pintails (*Anas acuta* L.) often eat these seeds.

After the seeds are gone, the pod becomes light colored, papery, and wrinkled. These seedless pods may persist throughout the winter.

Rootsystem: Swamp Milkweeds have a deep taproot. Their rhizomes are oblong, knotted, about 1 inch thick, about 4-6 inches long, have many rootlets, and send up only a few stems. These rhizomes have thin bark, are yellow-brown on the outside, and are white on the inside. Muskrats (*Ondatra zibethicus* L.) often eat these rhizomes.

Habitats: Swamp Milkweeds prefer open wet areas, such as swamps, marshes, moist meadows, pond and stream shorelines, ditches, damp thickets, and wet prairies.

Range: Swamp Milkweeds are found in the eastern U.S. and in southeastern Canada, as far west as the center of the Rocky Mountains. However, they are more common east of the Mississippi River.

Pollination:

The central crown has 5 vertical, narrow, openings along its sides for pollination. Whenever a pollinating insect lands upon the crown to obtain the nectar, it places its legs into these openings.

Within each of these opening are 2 saddlebag-like sacs of miniature waxy masses of fused pollen grains (pollinia). When the insect places its legs inside of these openings, the legs often get tangled with the wire-like filaments that connect these 2 sacs.

When the insect pulls out its legs, it may have the sacs attached to its legs. When the insects place their legs into another opening upon another crown, the pollen from these sacs will pollinate that 2nd flower. If the insect cannot remove its legs from that opening, that insect becomes trapped and will eventually die upon that flower.

Several insect species pollinate these flowers. Some of them are Bumblebees (*Bombus* sp.), Honey Bees (*Apis* sp.), Monarch Butterflies, Swallowtail Butterflies (Family *Papilionidae*), and the Hummingbird Clearwing Moth (*Hemaris thysbe* Fabricius).

The pollen from each flower will only produce fertile offspring if the pollen is placed inside of a different flower. This other flower must also be part of another umbel.

Because this method of pollination is very complex, very few flowers are successfully pollinated. That is why there are very few seedpods.

Uses of the Swamp Milkweed:

Swamp Milkweed had many uses. Both the Native Americans and the early European settlers had their uses for the Swamp Milkweed.

Swamp Milkweed had numerous medicinal uses. The early New England colonists used this plant for treating asthma, rheumatism, syphilis, intestinal worms, and as a heart tonic. A root tea was used as a carminative, a diaphoretic, a diuretic, an emetic, and a purgative. It was also used as a tonic for treating weakened patients. The latex sap was used externally as an antiseptic or was rubbed upon warts to remove them.

Swamp Milkweed had some edible uses, too. The young shoots, about 4-8 inches high, and the top leaves, before the flowers bloom, were edible if boiled in several changes of water to remove the toxins. Before boiling, the 1st water should be cold. However, the subsequent changing waters should be boiling. The flower buds, immature seedpods, the flowers, and the seeds were also edible. The hardened latex sap could be chewed like gum but had a bitter taste. The latex has rubber and asclepain, a protein-digesting enzyme.

Swamp Milkweed had other uses as well. The stems were used as fiber for bowstrings, wampum belts, cordage, fishnets, twine, and burden straps. Some of these fibers have been uncovered while excavating prehistoric Native American sites, including those of the Ohio Hopewell.

Unfortunately, the latex sap is toxic. It contains the alkaloid glycoside asclepiadine, which affects the heart muscles. This plant is toxic to livestock as well as to humans

REFERENCES

MEDICINAL AND OTHER USES OF NORTH AMERICAN PLANTS
By Charlotte Erichsen-Brown

WILDFLOWERS AND WINTER WEEDS
By Lauren Brown

THE ENCYCLOPEDIA OF EDIBLE PLANTS OF NORTH AMERICA
By Francois Couplan, Ph. D.

COMMON FLOWERING PLANTS OF THE NORTHEAST
By Donald D. Cox

MISSOURI WILDFLOWERS
By Edgar Denison

THE BOOK OF SWAMP AND BOG
By John Eastman and Amelia Hansen

ROADSIDE PLANTS AND FLOWERS
By Marian S. Edsall

EASTERN/CENTRAL MEDICINAL PLANTS QAND HERBS
By Steven Foster and James A. Duke

WILDFLOWERS OF OHIO
By Robert L. Henn

ONTARIO WILDFLOWERS
By Linda Kershaw

ILLINOIS WILDFLOWERS
By Don Kurz

TALLGRASS PRAIRIE WILDFLOWERS
By Doug Ladd and Frank Oberle

EASTERN NORTH AMERICA'S WILDFLOWERS
By Louis C. Linn

NEWCOMB'S WILDFLOWER GUIDE
By Lawrence Newcomb and Gordon Morrison

WILDFLOWERS
By Roger Tory Peterson and Margaret McKenny

THE SECRETS OF WILDFLOWERS
By Jack Sanders

NATIONAL AUDUBON SOCIETY FIELD GUIDE TO WILDFLOWERS (EASTERN REGION)
By John W. Thieret, William A. Niering, and Nancy C. Olmstead

THE USES OF WILD PLANTS
By Frank Tozer

WILDFLOWERS OF NORTH AMERICA
By Frank D. Venning and Manabu C. Saito