



## Ethnobotanical Leaflets



# The Incredibly Usable Cattail

By Anthony Grahame

Is it possible that cattails were the reeds in which baby Moses was hidden? Their range does include nearly all the continents. And even though cattails are wide ranging, commonly known plants, few know of their versatility. Nearly the entire plant can be eaten, excluding the leaves. Cattails were used many different ways medicinally, from a topical ointment to an internal remedy. The plants have also been used in a wide variety of miscellaneous purposes. Mostly, they have been used for weaving, but they also have been used for filling and more (Coon 1960).

Although taxonomists have historically had trouble defining a couple species, North American cattail nomenclature is fairly straightforward. Cattails are monocots of the order Typhales, subdivided into two families: Sparganiaceae or the bur-reed family and Typhaceae. Typhaceae, the cattail family, is comprised only of the genus *Typha*. Four species of *Typha* occur in North America.

The four North American cattails are: *T. latifolia*, *T. angustifolia*, *T. glauca*, and *T. domengensis*. *T. latifolia* has a range including Europe and Asia (Mohlenbrock 1970). In North America, it ranges widely from Alaska, through Canada, throughout the U.S. and into Mexico (Hotchkiss & Dozier 1949). It is common in every county in Illinois (Mohlenbrock 1970). *T. angustifolia* grows in Africa, Europe, and Asia (Mohlenbrock 1970). In North America, it ranges from the Northeast to the Midwest and also California (Hotchkiss & Dozier 1949). In Illinois it occurs throughout most of the state (Mohlenbrock 1970). Besides North America, *T. glauca* and *T. domengensis* are also found in Europe. These two however, do not occur in Illinois. In the U.S., *T. glauca* ranges from the upper Midwest and Northeast down the Atlantic coast to Florida and into Alabama. It also occurs in California. *T. domengensis*, being well adapted to brackish waters, grows along the coast from Delaware to Mexico and also occurs in the Southwest.

Many common names are used for cattails. *T. latifolia* goes by the name broadleaf cattail, common cattail and soft flag. *T. angustifolia* has been called narrow leaf cattail and nail rod. Blue cattail and blue flag describe *T. glauca*. *T. domengensis* is commonly known as southern cattail. Other names include flagtail, marsh beetle, blackcap, water torch and candlewick, cat-of-nine tails and reed mace (Coon

1960). Some Native American names have been translated as prairie chicken feathers, eye itch, and roof grass.

*Typha's* wide range can be accounted for by several features both physiologically and anatomically. Although Cattails usually grow in fresh water conditions, alkali and brackish waters are also tolerated. It grows most commonly in low elevations but can be found in high elevations (Hotchkiss et al, Niethammer 1974). It can establish itself quickly on wet mud via light wind-blown seeds and then form dense colonies through shoot formation arising from rhizomes. Finally, the colonies remain over time because *Typha* is a perennial (Mohlenbrock 1970).

Although this plant's habit is quite simplified, it is considered by some to be highly advanced (Mohlenbrock 1970). Shoots arise from a stout rhizome. The stem terminates in a spike with unisexual flowers, the males being more terminal. The male flowers fall off after maturity and the fruits develop from the bottom of the spike upwards. Several flat cauline leaves up to 22mm wide, can reach four meters in length (Mohlenbrock 1970). The rhizome at the base of a plant tends to be somewhat enlarged.

Species can be identified by size, leaves, and flowers. *T. latifolia's* stem can reach four meters. Usually there are: eight or more leaves which are between waist to over head high. Leaves are wide, being between eight and 22mm. Male and female flowers are generally contiguous. Pollen grains are borne in groups of four (Mohlenbrock 1970, Hotchkiss *et al.*) The stem of *T. angustifolia* grows to 1.5 meters. Narrow leaves between four and eight mm are shorter than head height. Male and female flowers are separated. Pollen grains are borne singly (Mohlenbrock 1970, Hotchkiss *et al.*). *T. glauca* and *T. domengensis* are similar. Both grow taller than a person, have male and female flowers separated by a space and have leaves to 11mm wide. *T. glauca*, however, has eight to 12 bluish leaves and a reddish-brown female spike at maturity. The mature female spikes of *T. domengensis* are light-brown and generally have six to nine leaves lacking the blue tint (Hotchkiss *et al.*).

The entire plant has many uses. Virtually all parts are edible. The rhizome, stem, leaf, and spike can all be used for consumption. Most of the plant has been used for medicinal purposes. Finally, parts of the plant including the leaves, spikes, and mature seeds or "fluff", have functioned for other miscellaneous purposes.

Even though parts of the plant are very fibrous, they can be edible. The enlarged portion of the rhizome at the base of each plant can be used in two ways. It is very starchy and when sliced can be used as a potato substitute. It can also be ground and used as flour. Niethammer (1974) reports that the average rhizome production per acre is ten times greater than that of potatoes. And that when it is ground into flour produces 32 tons per acre, greater than that of wheat, rye, and other grains. Rhizome shoots, young leaf shoots, the inner stem and immature spike can all be used like a vegetable. The pollen can be used as flour and the "fluff" when mixed with tallow was used like chewing gum (Niethammer 1974).

Different parts of cattails should be harvested at different times of the year and require different ways of processing. It is suggested to collect the rhizomes and rhizome shoots in late fall to early spring. The

fibrous outer layers should be peeled off while still wet. In spring, the "bulbous" base and shoots can be pickled. The shoot can be used raw as in salads or used in stew. Niethammer (1974) suggests to lightly cook them and are best when still crunchy. The enlarged base can be boiled, sliced, then fried. The Apache liked to use them in a stew. To make a flour, the rhizome is ground down and the fibers are removed. The flour can be dried and stored for later use (Niethammer 1974).

Also in early spring, young shoots can be readily pulled up, leaves and all. Leaves are peeled exposing a white center up to 18 inches long. This is known as "cossack asparaguso" (Niethammer 1974). In early summer, immature green flower spikes can cut off below the base. After removing the outer layers, boil the spike for 10 minutes and eat like corn on the cob. The flavor is good but the texture is unusual (Niethammer 1974). During summer, the inner stalk can be used by peeling the outer layers away, cutting it up into small sections, boil and serve with butter like a vegetable. Also during this time, the pollen may be collected.

Pollen can be used several ways. Collect by shaking spikes into a bowl or cloth. It can then be used like flour. But it resists wetting and is easier to use when mixed 50/50 with grain flour. Coon (1960) suggests mixing it with any pancake mix to make sunshine flapjacks. Pima natives made muffins with the pollen. Other uses of the pollen are as a soup thickener and by the Yumans as a hot cereal (Coon 1960, Niethammer 1974).

The fuzz or mature fruits was used by some Native Americans by mixing it with tallow to produce a chewing gum.

Cattails were used medicinally, by many Native American groups. Dakota, Omaha, Pawnee, and Winnebago used the fuzz on burns and like baby powder to prevent chafing. Chippewa, Ojibwa and Patawatomí applied crushed root topically to sores and for the treatment of inflammation. Delaware considered the root as a cure for kidney stones. The Houma treated whooping cough by steeping the flowering stem. The young flower heads were eaten by Washoe to cure diarrhea (Duke).

Cattails are just as variable in other purposes as they are a food and medicinal source. Antique chairs can still be found today with rush seating. Coon (1960) states cattails were one of the first plants used by the settlers for this purpose. Native Americans also used the leaves for weaving nearly 12,000 years ago (Schery 1972). They used the plant for weaving mats, baskets and roofing material. The leaves should be harvested in midsummer, air dried, then can be stored. To make the dried leaves pliable for weaving, they should be resoaked. Dried flower heads can be used in flower arrangements. The heads should be collected before they are fully mature and allowed to dry upside down. Mature flower heads can be wired to a stick, dipped in wax and used as a torch. Native Americans stuffed the feathery mature fruit into sleeping bags and lined their cradle boards with it. During WWII, the fluff was promoted to be used as toy stuffing and padding in tank and plane seats. It was also used in WWII life preservers. Finally, the entire plant itself compliments pond landscaping (Coon 1960).

None of the literature cited discussed the topic of cattail domestication. It is easy to see why cattails may

have never been domesticated. The modes of sexual and asexual reproduction make this plant highly productive without the aid of man. Any exposed mud from drought or flooding can be heavily seeded in by the feathery windborne fruits. Subsequently, asexual reproduction via rhizomes produces colonies which are densely packed into an area. Thus, where it occurs, it occurs abundantly. But despite its non-usage cattails have great potential to do many things.

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