

Ohio Buckeye, *Aesculus glabra*, on Walpole Island, Lambton County, Ontario

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We record, for the first time in Canada, possibly native, reproducing, populations of Ohio Buckeye, *Aesculus glabra*. These occur on the north end of Walpole Island.

Key Words: Ohio Buckeye, *Aesculus glabra*, native tree, Walpole Island, Ontario.

The range of the Ohio Buckeye (*Aesculus glabra* Willd.) is west of the Appalachian Mountains from western Pennsylvania and Kentucky through the mid-western states (var. *glabra*.) to eastern Kansas and south to central Texas (var. *arguta* (Buckl.) Robins) (Fowells 1965). At the northern limits of its range, Ohio Buckeye occurs in extreme northwestern Pennsylvania, throughout northern Ohio, and in southern Michigan as far north as Eaton and Oakland Counties. The tree is not considered to be native in Canada (Hosie 1969, Scoggan 1979).

In southern Ontario *Aesculus glabra* has occasionally been planted as an ornamental tree as far north as Thunder Bay and Ottawa, where at the National Arboretum (Central Experimental Farm) mature trees fruit successfully every year. Herbarium records indicate that it has escaped at a number of widely separated sites in southern Ontario (Figure 1). At a site along the Nith River near Ayr (Waterloo Regional Municipality), in the flood plain forest, young trees are growing having originated from trees planted at the top of the river valley (J. D. Ambrose and A. A. Reznicek personal communication). In Ontario climatic conditions matching the minimum values given for the natural range of Ohio Buckeye (Fowells 1965) occur within the 160-day isopleth (Brown, McKay and Chapman 1974) along the Lake St. Clair, Lake Erie, and western Lake Ontario shorelines (Figure 1).

During a trip to Walpole Island (42° 33'N, 82° 29'W) in the St. Clair River delta in September 1981 two mature trees were noted at the north end of the island (DAO 327137). The trees are in an area of scattered residences where a number of coniferous species, alien to the island's flora, have been planted. The local residents responsible for the tree-planting assured us that the two Ohio Buckeyes were part of the original forest. Further investigations in May 1982 revealed many trees growing throughout a large area of natural forest and adjacent roadsides in north central Walpole

Island (DAO 329838, 329854). In the northeast corner of the main colony it is a major component of the forest canopy with Red Maple (*Acer rubrum*), Cottonwood (*Populus deltoides*), Swamp White Oak (*Quercus bicolor*), Pin Oak (*Q. palustris*) and Red Oak (*Q. rubra*). The largest tree seen in 1982 had a girth measuring 242 cm at breast height. The age of this tree was estimated at 85 years from the core taken by an increment borer in May 1982. All mature trees flower and fruit prolifically every year and seedling growth is abundant and vigorous wherever large trees occur. The presence of many large trees, widely distributed in an area of natural woodland would seem to indicate that the species has been long established on the island and is probably native.

This population is about 60 km east of a disjunct population in Oakland County, Michigan and about 80 km northeast of the most northerly populations within the continuous range in southern Michigan (Figure 1). Although Ohio Buckeye could have been planted by the few white settlers that lived on the island prior to 1839 (Abraham 1924), this seems unlikely as the Horse Chestnut (*Aesculus hippocastanum* L.) was the tree of choice of early planters and gardeners in the northwestern Kent County and western Lambton County area. It is unlikely to have been planted by farmers as Ohio Buckeye is usually considered poisonous to livestock (Fowells 1965).

Three distinct branches of the Algonquin Indian Nation (Ottawa, Chippewa, and Pottawattamie) claim to have traditionally used the St. Clair River delta area for seasonal hunting, fishing and trapping on their yearly migrations (D. M. Jacobs, Land claims research paper. Walpole Island Indian Reserve. Report submitted to the Association of Iroquois and Allied Indians. 184 pp.). The Ottawa and Pottawattamie branches migrated through areas in Ohio and Michigan where present day, native populations of Ohio Buckeye occur. During the war of 1812

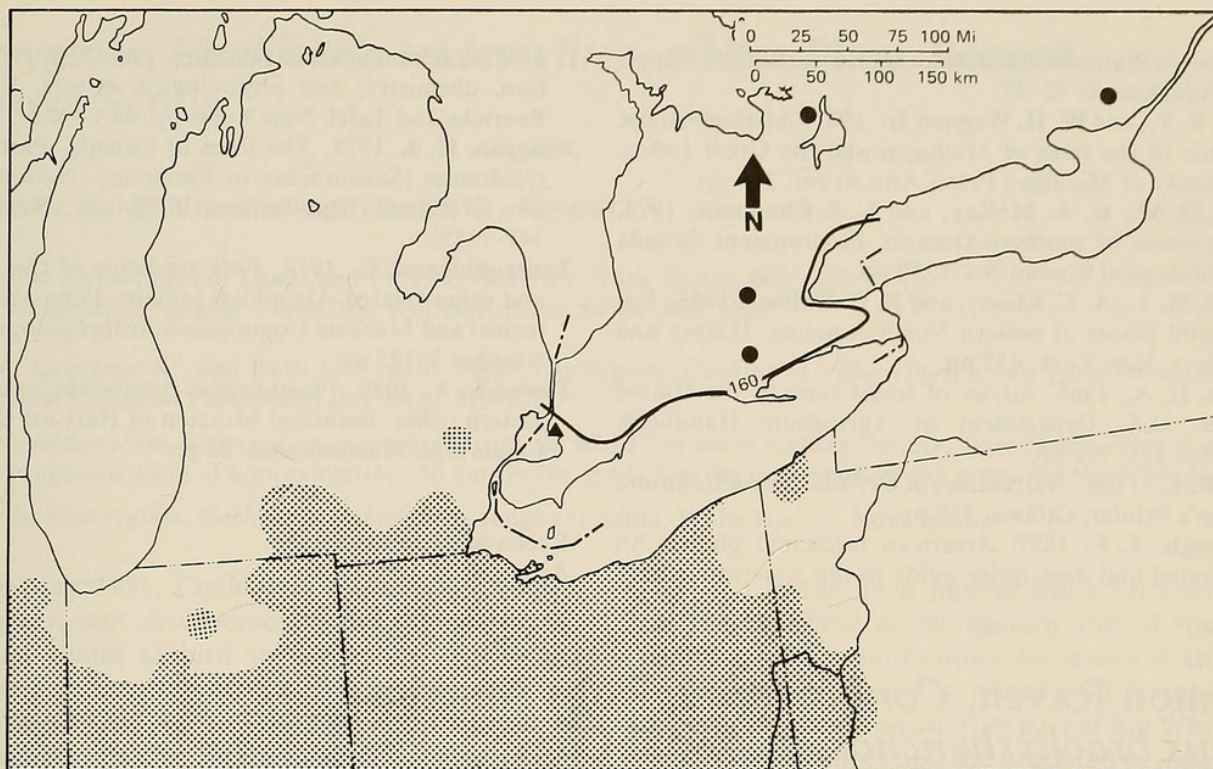


FIGURE 1. A map of southern Ontario indicating sites of escape of *Aesculus glabra* as documented by herbarium specimens (solid circles), the site of the possible native colony on Walpole Island (solid triangle), and the 160 day isopleth identified by Brown et al. (1974).

Walpole Island was established as an open reserve for any homeless, wandering Indians (Abraham 1924). Although it was settled mainly by Indians of the three Algonquin branches who fought on the side of the British Monarchy during the war, Walpole Island was at least a temporary home for many other loyalist Indians fleeing from the United States (Abraham 1924).

The medicinal use of *Aesculus glabra* and other members of the genus *Aesculus* by North American Indians has been reported by some authors (Taylor 1940; Fernald, Kingsley, and Rollins 1958; Tantaquidgeon 1972). Other ethnobotanical uses have also been reported (Millspaugh 1887; Fernald et al. 1958; Barnes and Wagner 1981). Local residents interviewed were unaware of any present day use. Ohio Buckeye may well have been planted on the island by humans in prehistoric or historic times but it seems equally possible that this is a natural, disjunct population. It is probably impossible to determine at this time whether the Ohio Buckeye is a native element of Walpole Island, or whether it has been introduced by man. It is, however, well established in native tree communities and should be considered as part of the Canadian flora. Because Horse Chestnut is increasingly found in native woodlots, the following key is provided to assist in distinguishing the two species in any season.

Key to *Aesculus glabra* and *A. hippocastanum*

- 1a Bark broken into thick plates; terminal buds less than 2 cm in length, scales glaucous; leaflets usually 5, usually less than 12 cm long, broadly lanceolate, attenuate apically, serrate, abaxially pubescent to glabrous, and with conspicuous tufts of hairs in vein axils; petals 4, yellow with a claw equalling or exceeding the calyx; fruit 3 to 4 cm in diameter *A. glabra*
- 1b Bark broken into thin plates; terminal buds 2 cm or more in length, scales conspicuously resinous; leaflets usually 7 to 9, usually more than 12 cm long, oblanceolate, abruptly acute apically, biserrate, abaxially glabrous, and without tufts of hairs in vein axils; petals usually 5, rarely 4, white with red spots, with a claw shorter than the calyx; fruit about 5 cm in diameter *A. hippocastanum*

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Common Raven, *Corvus corax*, Robs American Crow, *Corvus brachyrhynchos*, in Aerial Chase

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Kilham, Lawrence. 1985. Common Raven, *Corvus corax*, robs American Crow, *Corvus brachyrhynchos*, in aerial chase. Canadian Field-Naturalist 99(3): 372.

A Common Raven, *Corvus corax*, pursued, but did not overtake, an American Crow, *Corvus brachyrhynchos*, carrying a piece of carrion. The crow dropped the carrion, the raven retrieved it in the air following a steep dive.

Key Words: Common Raven, *Corvus corax*, American Crow, *Corvus brachyrhynchos*, kleptoparasitism.

In the fall of 1980 both American Crows and Common Ravens were coming to feed on the carcass of a cow in a pine wood in Lyme, New Hampshire. On 10 October I saw a crow fly above the treetops with what I supposed was a piece of carrion 2-3 cm in diameter. A raven pursued it, the distance between the two birds remaining about 8 m as though neither bird could gain on the other. The crow dropped the carrion at an altitude of possibly 70 m. The raven closed its wings immediately and retrieved the item in a spectacular dive.

In their extensive summary of kleptoparasitism in birds, Brockman and Barnard (1979) gave no reference to ravens robbing crows, nor to American Crows being robbed by any other bird. I have, however, (Kilham 1982), observed Red-shouldered Hawks (*Buteo lineatus*) robbing crows. Jollie (1976) stated that ravens seldom attack crows which can outclimb

and outmanoeuvre the larger bird, a finding not supported in present observations. The agility of ravens in the air is brought out by Bent (1946). Much needs to be learned about the interrelations of crows and ravens.

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