

# Archaeological Evidence of the Carolina Parakeet in Ontario

by  
Rosemary Prevec

The identification of the bones of the Carolina Parakeet (*Conuropsis carolinensis*) on the Calvert site (Borden Number AfHg-1), provides the first confirmed evidence of this species in Ontario (Prevec 1984). Its presence suggests ceremonial implications to the archaeologist and a possible range extension to the naturalist.

The Calvert site, a Glen Meyer Indian site dating about 1100 A.D., is located in southwestern Ontario near London, Middlesex County (Figure 1). The site is complex, with many overlapping houses and a large number of storage pits containing great quantities of deer bone (Fox 1982). Located on the western edge of the Dorchester swamp, an excellent yarding area for deer, the site provided ready access to the local deer population; Fox (1982) suggests that the final phase of occupation may have been strictly as a hunting camp.

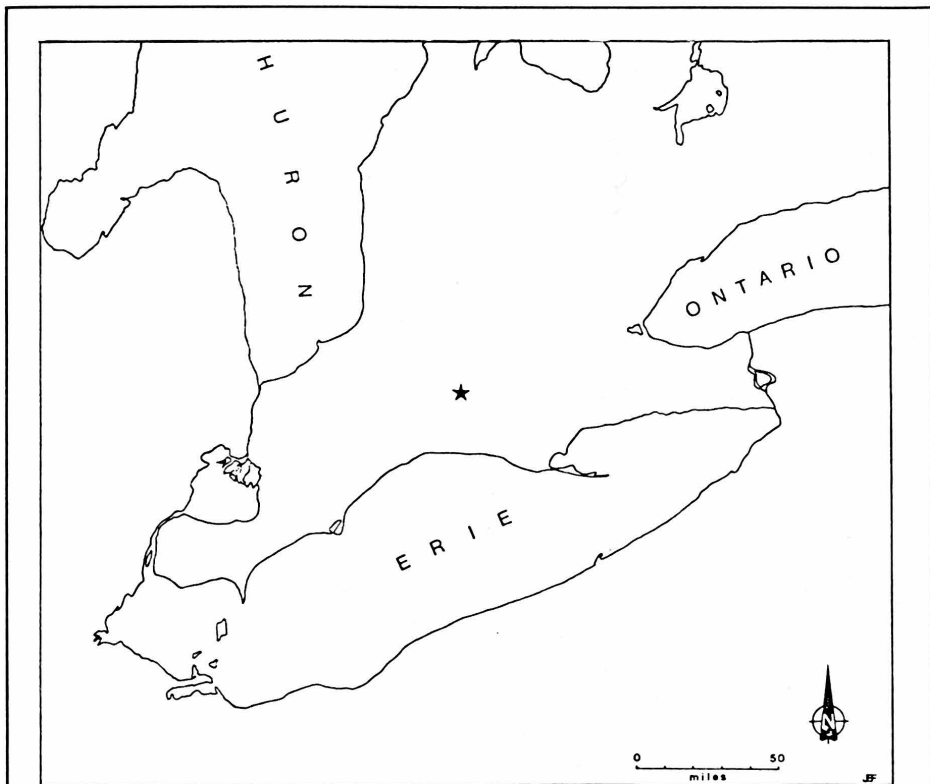
During the faunal analysis of the site, it was discovered that one of the 350 excavated features contained three Carolina Parakeet

bones (Prevec 1984). These small bones from the head, wing and tail (premaxilla, proximal half of the left carpometacarpus, and pygostyle; Figures 2 and 3) were found in association with three artifacts – an unusual stone pipe bowl, a ground slate knife and an antler prong tool.

The Carolina Parakeet, extinct since the 1930s, was the only North American breeding parrot (Bent 1964). Flying in flocks, it was considered a pest by farmers. It was also hunted for food, sport, use as a cage bird and for its bright green, yellow and red plumage (Hasbrouck 1891).

In eastern North America the range of the Carolina Parakeet reached northward from Florida and the Gulf states to the Great Lakes and eastward from the Mississippi drainage system to the Atlantic coast (Bent 1964). It was plentiful in the south and along the Mississippi, Ohio and Illinois Rivers and their tributaries as far north as Lake Michigan. However, east of the Allegheny Mountains, it was seldom found north of

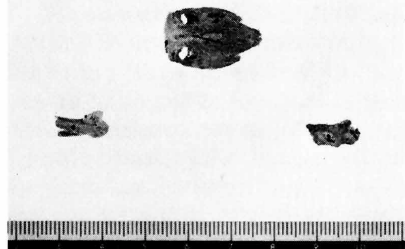
Rosemary Prevec, 944 LaSalle Park Road, Burlington, Ontario L7T 1M9.



*Figure 1: Location of the Calvert Village*



*Figure 2:* 1. Internal view of carpometacarpus (proximal half); greatest breadth of proximal extremity - 7.55 mm\*  
 2. Left of premaxilla; length of nares - 4.15 mm; width of nares - 4.60 mm  
 3. Right view of pygostyle; length - 12.80 mm; width at waist - 5.30 mm



*Figure 3:* 1. External view of left carpometacarpus  
 2. Dorsal view of premaxilla; width of septum  
 3. Left view of pygostyle

\*Guide to bone measurement taken from Von Den Driesch (1976)

Maryland (Wilson and Bonaparte 1878; Barton 1883; Greenway 1958; Bent 1964).

The species was of casual occurrence in New York and New Jersey. It was sighted in New York State on two occasions during the late 1700s and 1800s. In 1889, Bergtold (1927) received a report of 13 Carolina Parakeets observed years before on buildings in Buffalo. The same reporter also told him of many being captured in West Seneca, New York. The other sighting occurred 25 miles northwest of Albany when a large flock was seen in the middle of winter. The date is uncertain – January 1780 according to Barton (1883) and January 1795 according to DeKay (1844). It was suggested that they were blown into the area by a storm (De Kay 1844). An unconfirmed New Jersey sighting was made in East Orange, Essex County between 1850 and 1860 (Bent 1964). There is an unconfirmed report from London, Ontario (Saunders and Dale 1933). It was reported that in about 1877, Russell Burnett shot a Carolina Parakeet out of a tree at the head of Maitland Street, London. Since the specimen was not preserved, Saunders and Dale (1933) considered this a “hypothetical” sighting.

Wilson and Bonaparte (1878) and Greenway (1958) suggest that the parakeet preferred a habitat along river valleys and alluvial swamps, especially with groves of Bald Cypress (*Taxodium distichum*), Tupelos (*Nyssa sylvatica*) and Sycamore (*Platanus occidentalis*). It also used salines

(salt licks) regularly and showed a preference for certain seeds, particularly those of cockleburs (*Xanthium* spp.), thistles (*Cirsium* spp.), maples (*Acer* spp.), elms (*Ulmus* spp.), and pines (*Pinus* spp.) (Greenway 1958; Bent 1964). The latter author noted that the most dense populations occurred in areas that supplied these three requirements. The breeding range and nesting habits of the Carolina Parakeet are uncertain (Hasbrouck 1891; Greenway 1958; Bent 1964). Some say nesting occurred in tree hollows, while others claim the nests were in the forks of cypresses.

Because of predation by man, which coincided with the destruction of forests, the parakeets' numbers were reduced rapidly in the last half of the nineteenth century. The last specimen in the wild was taken in March 1913 on the north fork of the Sebastian River, Brevard County, Florida and in 1918, the last captive bird died in the Cincinnati Zoo (Greenway 1958). There were unconfirmed sightings in Florida in 1926 and in South Carolina in 1936 (A.O.U. 1983).

In analyzing the parakeet bones from the Calvert site, it was observed that they came from the extremity areas of the head, wing and tail. Since these bones are left in a skin if it is to resemble the living creature, it is probable that the identified bones formed part of a skin that had a ritualistic use. This view is strengthened by the fact that the bones were found in association with unusually fine

artifacts in a small feature that was not a food midden. The burial of the skin, pipe, blade and antler may have served a ceremonial function for a hunting community.

There is some indication that Ontario Indians were familiar with the parrot motif. A clay pipe with a parrot effigy was recovered in a burial at the c. 1640 A.D. Neutral Grimsby site (Kenyon 1982).

There is the possibility that the parakeet identified at the Calvert site did not fly into the area but was received in trade from Indians in the south. In Illinois, where the bird was common, it is rarely found in archaeological middens. One coracoid bone was found at the Late Woodland Irving site (525-1025 A.D.) near Chambersburg, Illinois (McGregor 1958) and twelve elements consisting of nine upper bills, two ulnae and a tarsometatarsus were recovered from the Cahokia site (Middle Mississippi 900-1500 A.D.) by Parmalee (1957), who suggested a decorative use.

The recovered bones from the Calvert site were identified by the author using reference skeletons at the Smithsonian Institution in Washington, D.C. The Smithsonian has seven of the 16 known skeletons of the Carolina Parakeet in the world (Hahn 1963). A similarity was noticed between most of the parakeet bones and those of the Passenger Pigeon (*Ectopistes migratorius*). While the large beaked head and short wide tarsometatarsus of the Carolina Parakeet have distinctive forms that make them easily identifiable as Psittaciformes, other elements bear a resemblance

to small Passenger Pigeon bones. In southern Ontario, it would be advisable to examine mature archaeological bird bone which is slightly smaller than Passenger Pigeon for morphological differences. Although there are no Carolina Parakeet skeletons for reference in Canada, other parakeets having similar characteristics are available at the Royal Ontario Museum, Toronto. Those that match most closely are the Green Parrot (*Aratinga holochora brevipes*), Crimson-fronted Parakeet (*Aratinga finischi*) and Blue-headed Parrot (*Pionus menstruus rubrigularis*).

While the original source of the Calvert Carolina Parakeet bones can never be determined, their discovery will hopefully encourage faunal analysts in southern Ontario to closely check their medium-sized bird bones. Because of their colourful feathers, the parakeets may have been a desirable trade item of native Indian cultures. However, if more identifications are made, it could mean that the Carolina Parakeet wandered farther north than was previously known.

### Acknowledgements

Tracking down the identification of the Carolina Parakeet bones has been an adventure beginning with the bones and skins at the ROM and ending with the bones at the Smithsonian. Jim Dick of the Ornithology Section of the Royal Ontario Museum and Dr. Richard Zusi of the Ornithology Department of the Smithsonian Institution, Washington, D.C., graciously assisted in confirming

my Carolina Parakeet identification. Guidance in a literature search was provided by William A. Fox of the Ministry of Citizenship and Culture, Dr. James Pringle of the Royal Botanical Gardens in Burlington and Dr. Howard Savage of the University of Toronto.

### Literature

*American Ornithologists' Union.*

1983. Check-List of North American Birds. 6th Edition. Lawrence, Kansas.

*Barton B.S.* 1883. Barton's Fragments of the Natural History of Pennsylvania. Edited by Osbert Salvin. The Willoughby Society, London.

*Bent, A.C.* 1964. Life Histories of North American Cuckoos, Goatsuckers, Hummingbirds and Their Allies. Part 1. Dover Reprint Edition, Dover Publications, Inc., New York.

*Bergtold, W.H.* 1927. The Carolina Paroquet in Western New York. *Auk* 44:252.

*DeKay, J.E.* 1844. Zoology of New York, or the New York Fauna, Part 2 Birds. Carroll and Cooks, Printers to the 'Assembly'.

*Fox, W.A.* 1982. The Calvert village: Glen Meyer Community Patterns. Ontario Archaeology Society, Kewa. 82-7, 8:5-9.

*Greenway, J.C. Jr.* 1958. Extinct and Vanishing Birds of the World. Special Publication No. 13. American Committee for International Wild Life Preservation, New York, New York.

*Hahn, P.* 1963. Where is That Vanished Bird? Royal Ontario Museum Publication, University of Toronto Press, Toronto.

*Hasbrouck, E.M.* 1891. The Carolina paroquet (Con. Carol.). *Auk* 8:369-379.

*Kenyon, W.A.* 1982. The Grimsby Site A Historic Neutral Cemetery. Royal Ontario Museum Publications in Archaeology. The Alger Press, Toronto.

*McGregor, J.C.* 1958. The Pool and Irving Villages. University of Illinois Press. Urbana, Illinois.

*Parmalee, P.* 1957. Vertebrate Remains from the Cahokia Site, Illinois. *Trans. Illinois State Acad. Sc.* 50:235-242.

*Prevec, R.* 1984. The Carolina Parakeet - Its First Appearance in Southern Ontario. Ontario Archaeology Society, Kewa 84-7, 8:4-8.

*Saunders, W.E. and E.M.S. Dale.* 1933. A History and List of the Birds of Middlesex County, Ontario, Canada. *Trans. Roy. Can. Inst.* 19:161-248.

*Wilson, A. and C.L. Bonaparte.* 1878. American Ornithology. Porter and Coates, Philadelphia. 1:108-115.

*Von Den Driesch, A.* 1976. A Guide to the Measurement of Animal Bones From Archaeological Sites. Bulletin Number 1, Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, Massachusetts.