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## THE SIGNIFICANCE OF TURTLE BONES FROM ARCHAEOLOGICAL SITES IN SOUTHERN ONTARIO AND QUEBEC

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THE AUTHOR's interest in the present and past distribution of turtles in eastern Canada has led him to examine the turtle bones and turtle shell rattles in the collection of the National Museum of Canada. The bones examined are from prehistoric archaeological sites in Ontario and Quebec and many of these specimens have been reported already by Wintemberg (1928, 1936) but upon re-examination I find that two species were overlooked and that one was misidentified. It may, therefore, be of interest to archaeologists and ethnologists to have these bones and rattles evaluated from the herpetologist's point of view.

The bone fragments were identified by comparing them with skeletal material of turtles in the herpetological collections of the National Museum of Canada. Because the eight species of turtles which occur in Ontario belong to seven distinct genera, it was relatively easy to make accurate determination on many of the fragments. Approximately 100 fragments were determined as follows: two pieces of Wood Turtle, four pieces of Box Turtle, 26 pieces of Blanding's Turtle, 33 pieces of Painted Turtle and 35 pieces of Snapping Turtle shell.

Perhaps the most significant observation was that of the eight native species of Ontario turtles only three were represented in any abundance in the bone collections, and one of these species constituted the bulk of the material. The dominant species was the Midland Painted Turtle *Chrysemys picta marginata*, a ubiquitous pond turtle. (Although there are numerically more Snapping Turtle bones many of them are from a single turtle). The two other species are Blanding's Turtle *Emys blandingi* and the Snapping Turtle *Chelydra serpentina serpentina*, also turtles of the shallow water habitat. (Wintemberg reported only the Painted, Snapping and Wood Turtle and I believe that the bones of Blanding's Turtle were mistaken for those of the Wood Turtle. They are similar in size but not in structure). In southern Ontario there are two other species of pond turtle, the Spotted Turtle *Clemmys gutatta* and Musk Turtle *Sternotherus odoratus*; two species of river and lake turtle, the Map Turtle *Graptemys geographica* and Spiny Softshell Turtle *Trionyx ferox spinifera*; and one terrestrial turtle, the Wood Turtle *Clemmys insculpta*. In June the females of all these species leave the water in search of drier areas in which to lay their eggs and during this sojourn on land they are easily caught. There arises, then, the problem of why their shells are absent or scarce in the Indian middens, graves, or other sites, as represented in National Museum collections. To begin with, the adult Spotted and Musk Turtles are only four inches long and for this reason they may not have been considered worth the trouble of cooking. The strong odor of the latter species would be a further

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deterrent. Some of the larger forms, such as the Map Turtle and Softshelled Turtle, are faster, more secretive and very difficult to catch. The large but meek terrestrial Wood Turtle must have been encountered by the Indians along their trails; yet only two shell fragments (from Roebuck Site, Wintemberg, 1936) were evident in the material examined. If in truth this species was avoided it may have been due to two factors. First, this turtle, and the Box Turtle, eats mushrooms including poisonous ones and in the case of the latter the poison will adversely affect persons eating the turtle. Secondly, the red or orange color of the skin of the neck and legs of this turtle may have encouraged the belief that it was poisonous, especially if a few cases of poisoning had been experienced by the tribe.

The Midland Painted Turtle is without doubt the most conspicuous and abundant of the three common species recorded and would be the one species that could have been easily caught. It is probable that these three species were caught in the lush plant and algal growths of shallow waters, chiefly by the children, who must have quickly learned how to catch and hold a Snapping Turtle by its tail.

Bones of one other species of turtle, the Box Turtle *Terrepenne carolina* were identified in the collections. This species is not native to Canada but is common in eastern United States and ranges northwards to near the southern shore of Lake Erie. The bones are from three widely separated sites (see accompanying list). In every case the bones have holes drilled through them indicating that these Box Turtles shells were utilized as rattles (Figure 1, C). In one instance (Kalton Co.) the entire carapace was intact. Perhaps rattles were widely traded, and if so, it is reasonable to postulate that these rattles were imported into Ontario from somewhere south of Lake Erie and that the Box Turtle was never native to Ontario. There is the alternative explanation that the species was present in Ontario during the Thermal Maximum and has become extinct since that time. However, there is no supporting evidence and even if the climate of southern Ontario were suitable during the Thermal Maximum, the Great Lakes—St. Lawrence waterway would serve as an effective barrier to the dispersal of this essentially terrestrial turtle.

It is perhaps of significance that the Indians of Ontario now construct their rattles from Snapping Turtle shells. (There are 10 of these interesting rattles in the ethnological collections of the National Museum of Canada). Their relations to the south have continued to employ the shell of the Box Turtle for rattle boxes. This is evident from two Box Turtle rattles at the National Museum of Canada which were collected from the Seneca Tribe on a reservation in Oklahoma, having been brought by them from their home territory in New York State to this reservation.

Aside from the rattles only three bones showed signs of having been utilized in some way. All these bones were from Blanding's Turtle shells and two are shown in Figure 1. The smaller bone is 2nd Right Peripheral Bone of carapace (VIII-F-8754) and its original sharp edge has been worn down considerably (Figure 1, B). The second bone was the anterior half of the left Xiphiplastron Bone (VIII-E-1119) and it has been notched, possibly for the purpose of marking on pottery (Figure 1, A). Notice how nicely the natural shape suits the grip of the hand and how pressure could be exerted easily by the thumb against the ridge. Blanding's Turtle bones were found at six sites,

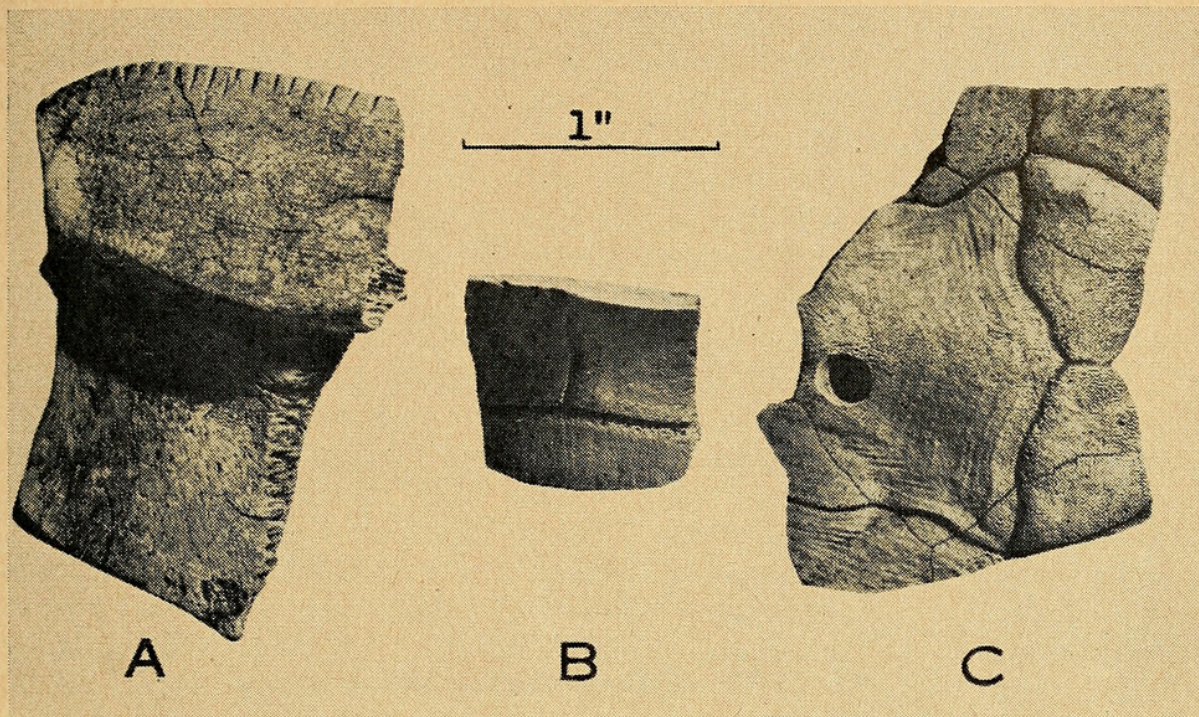


FIGURE 1. Turtle bones showing evidence of having been utilized by Indians as (A) pottery decorator, (B) scraper, and (C) rattle. (A) Xiphiplastron bone of Blanding's Turtle which has been notched, (B) Peripheral bone of Blanding's Turtle which has had the sharp margin worn down and (C) fragment of Box Turtle carapace with drilled hole.

five of them well within the species' known range, but the fourth location, that of the notched Xiphiplastron just mentioned, was near Lanoraie, Berthier County, Quebec. This is 125 airline miles from Ottawa, which is the nearest known locality for the species. Presumably an Indian fashioned this interesting tool somewhere in southern Ontario or southern New England and carried it about subsequently losing or discarding it near Lanoraie.

The third bone (VIII-F-1719b) consists of most of the left anterior half of a plastron of Blanding's Turtle and has one hole drilled at the left upper margin and another drilled at the center line. This suggests that an attempt had been made to create a rattle from a Blanding's Turtle shell. The anterior half of the plastron of this species is hinged, but the posterior half is fixed and would present the problem of sealing the opening around the posterior half of the shell. The Box Turtle has both halves of the plastron hinged and is therefore ideally suited for conversion to a rattle box.

Wintemberg figured a turtle bone ornament and a partially reconstructed shell in his 1926 report on the Uren site. Unfortunately, these specimens (VII-F-1719a and VIII-F-16601a-f) could not be found but the text figures are most certainly of Blanding's Turtle. The pendant was made from the anterior half of a Blanding's Turtle plastron, the portion which in life is hinged. The reconstruction consists of the posterior half of a turtle's carapace.

Some rather interesting conclusions can be formulated from an analysis of this chelonian archaeological material and they are presented here by way of a summary. These conclusions are admittedly speculative, but they do indicate the potential of information which lies dormant in archaeological bone collections.

1. Because only three of the eight species of turtles native to Ontario were consistently common in these bone collections, I conclude that the Indians of the villages represented did not actively pursue turtles for food. If they had hunted or trapped turtles diligently, there certainly would have been more species represented in these bone collections.

2. The three turtle species in question, the Midland Painted Turtle, the Snapping Turtle, and the Blanding's Turtle, all inhabit shallow weed-choked ponds and bays, precisely places where children are prone to explore. Probably food supplies were supplemented with turtles caught by the children.

3. The Indians must certainly have encountered the terrestrial Wood Turtle more often than is indicated by the only two bones found in the bones examined. Dogs are very adept at locating this species of turtle (bird dog trainers often use Wood or Box Turtles to train Pointers) and it seems reasonable to believe that the activities of the Indian's dogs would reveal many Wood Turtles that would otherwise be overlooked. One probable explanation is that the Indians avoided this species because of known cases of poisoning from it, due to its habit of feeding on poisonous fungi. The orange and red color of the Wood Turtle's skin would serve to strengthen any suspicion of its being poisonous.

4. The Box Turtle and the Snapping Turtle are the only two northeastern species whose shells can conveniently be modified into ceremonial rattles. A few Box Turtle bones were identified from Ontario sites but this species is not native in Canada. Because of this and the fact that all these bones had holes drilled through them, it is concluded that these bones came from turtle shell rattles imported from south of the Great Lakes. The shell of this turtle is ideally suited for a rattle because both the anterior and posterior half of the plastron are hinged and when shut they transform the shell into a box of bone. No other northeastern turtle is similarly constructed and therefore all others are difficult to convert to a closed container. However, the Snapping Turtle has so little ventral shell and so much exposed skin that the skin can be cut, the shell cleaned out, and the tough skin sewed together again. The result is a box which is half bone and half drum head. This is precisely what the Ontario Indians now employ. There are ten of these recent Snapping Turtle rattles at the National Museum of Canada.

The author is indebted to Mr. T. E. Lee of the Human History Branch of the National Museum of Canada for suggesting this study and for his professional advice from an archaeologist's viewpoint.

#### LIST OF BOX, WOOD AND BLANDING'S TURTLE IDENTIFICATIONS

##### *Terrepene carolina* BOX TURTLE

1. VIII-F-14257. Lake Medal, Nelson Tp., Halton Co., Ontario, 1884.
2. VIII-F-14270. East Gore, Northumberland Co., Ontario, 1884.
3. VIII-F-20527, 20528. Sidney Mackay site, Nottawasaga Tp., Simcoe Co., Ontario, 1926, (A, Figure 1, is 20528).

##### *Clemmys insculpta* WOOD TURTLE

1. VIII-F-13926, 13992. Roebuck Site, Grenville Co., Ontario, 1915.

##### *Emys blandingi* BLANDING'S TURTLE

1. VIII-E-1119. Lanoraie, Berthier Co., Quebec, 1927. (Figure 1, C).

2. VIII-F-17795 a,b,c,g. London Tp., Middlesex Co., Ontario, 1923.
3. VIII-F-5306. Bayham Tp., Elgin Co., Ontario, no date.
4. VIII-F-8754. Middleport, Onondago Tp., Brant Co., Ontario, 1921. (Figure 1, B).
5. Eleven collections. Roebuck Site, Grenville Co., Ontario, 1915.
6. Nine collections. Uren Site, Oxford Co., Ontario, 1920.

## REFERENCES

- WINTENBERG, W. J. 1928. Uren Prehistoric Village Site, Oxford County, Ontario. Bull. nat. Mus. Canada No. 51.
- . 1936. Roebuck Prehistoric Village Site, Grenville County, Ontario. Bull. nat. Mus. Canada No. 83.

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## THE SUPPOSED OCCURRENCE AND NESTING OF THE SLATY-BACKED GULL IN THE WESTERN ARCTIC REGION OF CANADA

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THE A.O.U. checklist of North American Birds (1931) lists the Slaty-backed Gull *Larus schistisagus* as of casual occurrence in Alaska and in Franklin Bay, N.W.T. The latter statement appears to be based on an adult reported to have been collected June 9, 1901, and identified by Dr. A. K. Fisher in 1902 (Preble, 1908). When I informed Mr. W. E. Godfrey, National Museum of Canada, of my intention to visit this area, he pointed out to me the following breeding record in Bent (1921, p. 87): "There are two sets, of three eggs each, in Col. John E. Thayer's collection, taken by Capt. H. H. Bodfish in Harrowby Bay, on the Arctic coast of northwestern Canada, June 11, 1901." It is further stated that the nests were "on a point making into the bay," and that the parent birds were collected and the skins identified by Mr. Robert Ridgway and Dr. A. K. Fisher. Ridgway (1910), however, in his manual of North American birds makes no reference to this breeding record.

I was able to spend the period July 18 to 23, 1955, on Harrowby Bay. During this time, the coastline of the bay was covered in part on foot, while the remainder was seen from a distance of not over half a mile from a boat by Dr. J. R. Mackay, who was conducting a survey for the Geographical Branch, Department of Mines and Technical Surveys, Canada, or by both of us together. On July 23, I made a low-level airplane flight from the north shore of Harrowby Bay over its apex and the old river channel which enters it and across to the mouth of the Horton River, the valley of which was followed for its lowermost twenty miles. Our flight altitude was such that Glaucous Gulls seen below were readily identified. Throughout our stay in the area, neither Mackay nor myself saw any large gulls other than *Larus hyperboreus barrovianus*. An adult of this form was collected and a downy youngster was



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