

# CANADIAN RANGES OF SNAPPING TURTLE AND GARTER SNAKE INFERRED FROM PLACE NAMES

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As Heuvelmans has shown, the existence of rare, wily, or cryptic species of animals may be unknown to science because the habits of the animals make it improbable that systematists will obtain specimens of them.<sup>7</sup> The Puma (*Felis concolor*) is a case in point: eastern populations were long thought to be extinct, whereas, in fact, they were extant but elusive.<sup>13 14</sup>

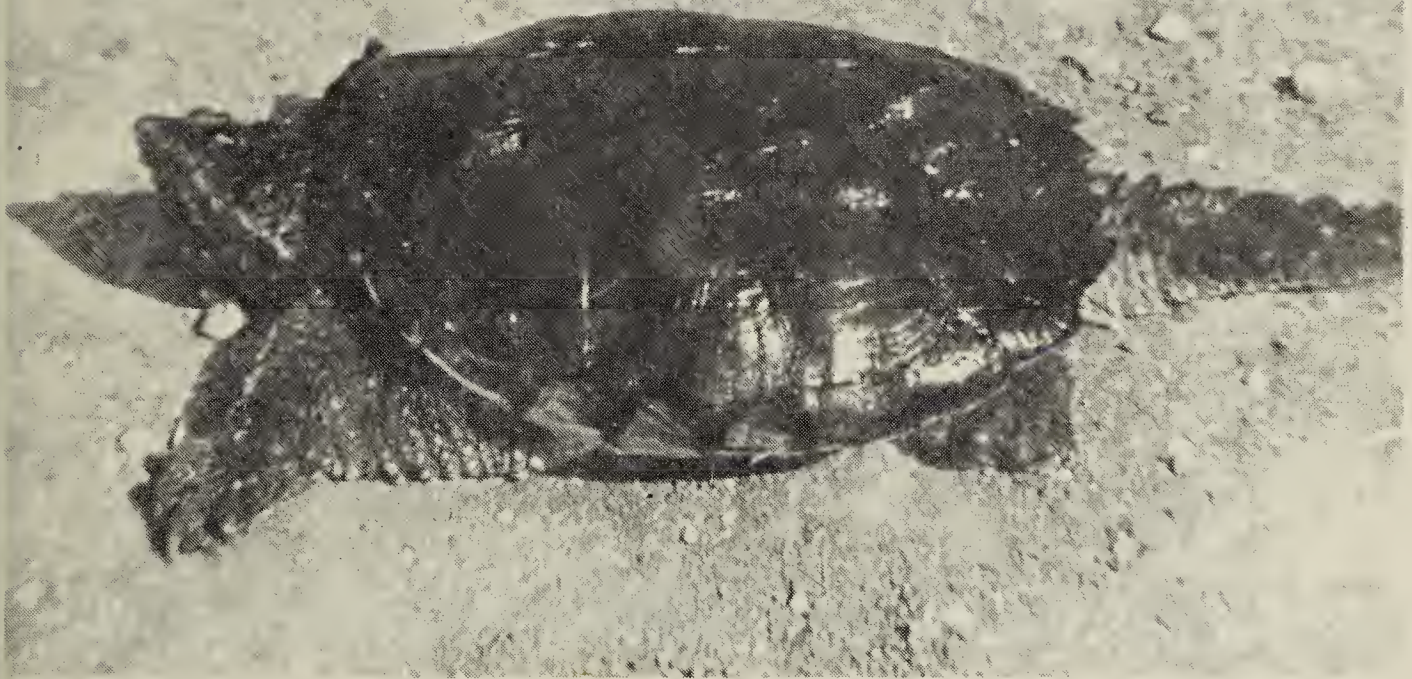
A herpetological observer in the boreal forest suffers from a compounded handicap in the pursuit of reptiles, as the animals he seeks are rare, local, silent and cryptic. While it may be possible to obtain the only calling male frog at a locality<sup>12</sup>, the observation of snakes and turtles, which do not vocalize, spend much of their time under water or debris, and are restricted to the vicinity of particularly favourable hibernation and oviposition sites, is highly unlikely. Moreover, many reports of northern reptiles are sight records, rather than specimens which would establish their presence in an area beyond a reasonable doubt. Even biologists and naturalists who might photograph a vagrant bird or bottle an unknown frog or salamander are loath to burden themselves with an enormous Snapping Turtle (*Chelydra serpentina*) or the odorous remains of a long-dead Garter Snake (*Thamnophis*). On the other hand, the presence of these species, which often evoke a pronounced emotional response among local people, is the sort of fact or event that is likely to be memorialized in the names of places where they occur, especially at the limits of their ranges where their distributions are patchy.

Accordingly, I examined the *Gazetteer of Canada* and *Repertoire Geographique du Quebec* to see if the distribution of place names based on "snake" and "turtle" (hereafter referred to as "Snake Localities" and "Turtle Localities") corresponded to the distributions of Common Garter Snakes (*Thamnophis sirtalis*) and Snapping Turtles, which are the most northerly species of their orders in North America.<sup>4 9</sup> After examination of these data showed some promise, I obtained a complete list of such localities throughout Canada and what is known of their origins, from the files of the Geographical Names Secretariat, Department of Energy, Mines and Resources through the kindness of Mr. Alan Rayburn and Ms. Monique Herous. A copy of this list is filed at the Herpetology Unit of the National Museum of Natural Sciences; it will be cited hereafter as "List".

Using these data I tested two hypotheses: (1) that localities named after the animals would occur mostly in areas where the animals are known to occur, and (2) that Snake and Turtle localities beyond the animals' ranges would occur in areas where appropriate habitat or sight records already suggest that the species may occur. My justification for the publication of this study is the fact that these hypotheses were largely supported by the data.

**RESULTS.** In the east the Turtle Localities (Figure 1) are quite agreeable with sight and specimen records, although the numerous localities along the Ontario-Quebec border would have been anomalous





Common Snapping Turtle.

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before recent sight records of Snapping Turtles from that area, and Snapping Turtles, like many other species, may extend eastward along the north shore of Quebec, as Riviere Tortue ( $50^{\circ} 18' N 65^{\circ} 22' W$ ) is "named for the abundance of turtles in it" (List, p. 6).<sup>12</sup> The absence of both Turtle Localities and specimen records from central northern Ontario and the general similarity of the eastern and western boundaries of the gap in both data sets suggest that turtles are indeed absent from that area, although Turtle Lake ( $49^{\circ} 32' N 85^{\circ} 30' W$ ) indicates that the gap may not be as wide as it now seems.

In the Prairie Provinces the situation is less clear, and is complicated by the presence of more northerly Painted Turtle (*Chrysemys picta*) populations (broken line in Figure 1). Two extralimital localities can be disposed of: Turtle Lake, Alberta ( $59^{\circ} 23' N 110^{\circ} 35' W$ ), resembles a turtle from the air, and Turtle Island, Reindeer Lake, Saskatchewan ( $57^{\circ} 35' N 102^{\circ} 23' W$ ), was named "for Edgar A.

Turtle, World War II casualty" (List, p. 13), but Turtle Lake, Saskatchewan ( $55^{\circ} 24' N 104^{\circ} 54' W$ ), and Turtle Island, Nelson River, Manitoba ( $56^{\circ} 21' N 95^{\circ} 1' W$ ), show no physical resemblance to turtles, and there is the following sight record from near the latter locality. Fishermen told James A. Johnston that they saw a 10-15-pound Snapping Turtle at Gillam, Manitoba, around 8 August, 1969 (NMC files). The five Turtle localities along the North Saskatchewan River northwest of Saskatoon are beyond the known range of both Snapping and Painted Turtles, and may indicate the presence of either species, although the Snapping Turtle seems more likely.

East of Alberta Snake Localities (Figure 2) help define the known range of the Garter Snake without extending it, except for Snake Island, in the Churchill River near Goose Bay, Labrador ( $53^{\circ} 19' N 60^{\circ} 10' W$ ), which suggests that the Lake Melville valley, already known to be herpetologically and vegetatively richer than the surrounding area, may harbour Garter



Figure 1. TURTLES. Solid circles indicate Turtle Localities, bisected circles are Turtle Localities not named after turtles (see text), and the open circles are sight records or isolated specimens of Snapping Turtles. These last, from east to west, are Van Bruyssels, Quebec<sup>1</sup>, Val d'Or, Quebec, and Englehart, Ontario<sup>12</sup>, Gillam, Manitoba (see text), Berens River, Manitoba<sup>8</sup>, Melville<sup>2</sup>, Prince Albert National Park (NMC files), and Frenchman River<sup>2</sup>, Saskatchewan. The solid line is the known northern limit of the (presumed) contiguous range of the Snapping Turtle, and the dashed line that of the Painted Turtle where it is north of that of the Snapping Turtle (based on Logier and Toner (1961), records cited above, and NMC files).



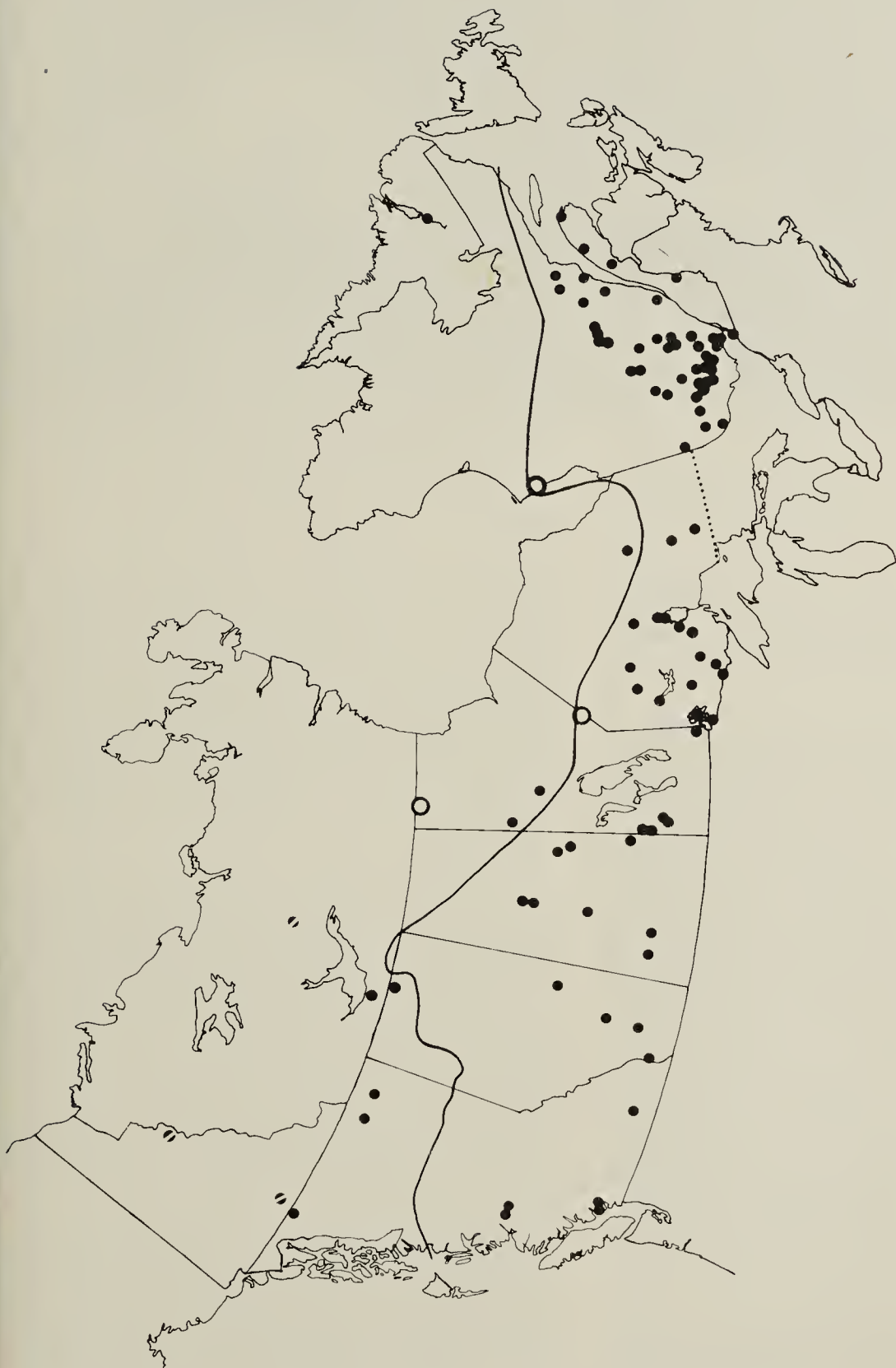


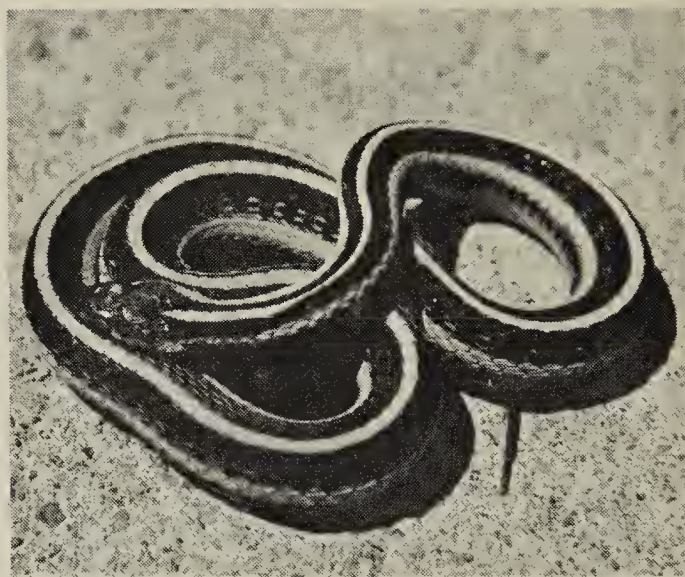
Figure 2. SNAKES. Solid circles indicate Snake Localities, bisected circles are Snake Localities likely based on the shape of the feature (see text), and the open circles are peripheral or isolated sight records of the Garter Snake. These last are, from east to west, Fort George, Quebec<sup>3</sup>, Island Lake, Ontario-Manitoba, and Habala Lake, Saskatchewan (Cook, in preparation). The solid line is the northern range limit of the *Garter Snake* (based on Logier and Toner (1961), Cook (1968) and Cook (in preparation).) No localities are plotted in Ontario south of 48°N, which is shown as a dotted line, because of the large number of records.

Snakes as well.<sup>1</sup> <sup>10</sup> Snake River (=Snake Lake), MacKenzie District (64° 3'N 110° 31'W), is a sinuous "narrow, miserable stream to line down with a freighter canoe. In as much as snakes have a reputation for being wriggly and treacherous, the river would be appropriately named" (unattributed quote, List, p. 17); as it is in the vicinity of the clearly spurious Seahorse and Starfish Lakes, it is unlikely that its name derives from the local fauna. Both localities in the Yukon can also be excluded: the Snake River (65° 58'N 134° 40'W) is a sinuous, braided, stream, and Snake Lake (60° 31'N 133° 41'W) seems to be in error, as there is no body of water at that point (1:250,000 topographic map 105C).

Two localities south of Great Slave Lake point to the presence of snakes there: Snake Creek, MacKenzie District (60° 31'N 115° 04'W), has been "known locally as Snake Creek for a very long time" (List, p. 17), and Snake Lake, Alberta (59° 40'N 114° 9'W), was named in 1964 "by National Parks Branch due to the abundance of 'snakes' in this particular area" (List, p. 14). Finally, there are two Snake Creeks and a Snake River in British Columbia north of the known range of snakes (see Appendix).

**DISCUSSION.** There is a good general correspondence between the known ranges of snakes and of turtles and the ranges suggested by the place names, and the extensions of the known ranges suggested by the place names are ecologically reasonable: (a) along the north shore of the St. Lawrence and throughout the Nelson and perhaps into the Churchill River drainages but not into the muskeg of northern Ontario for Snapping Turtles, and (b) into northern Alberta, British Columbia and south-western MacKenzie District, paralleling the northern range of many species of birds,<sup>5</sup> but not into the barrens of northern Quebec for the Garter Snake.

The populations which have given their names to these localities may well be isolated from the southern range of



Red-sided Garter Snake.

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the respective species. The great numbers of Garter Snakes found at dens in the Interlake region of Manitoba and elsewhere in the Prairie Provinces (F. R. Cook, personal communication) suggest that suitable hibernacula may be infrequent for northern snakes so that those reaching good denning sites during warm periods may have survived as isolated relicts when more rigorous conditions returned.<sup>6</sup> Cook has suggested that individual Snapping Turtles may wander far beyond the normal breeding range of the species; if a few individuals reached a remote lake suitable for breeding, an isolated population could become established (F. R. Cook, personal communication).<sup>2</sup>

Localities apparently named for snakes and turtles are a first clue to the existence of these isolated populations; the Appendix lists some localities that are peripheral. Naturalists visiting these areas could make a contribution by reporting observations and sending photographs or preserved specimens to Francis R. Cook, Curator of Herpetology, National Museum of Natural Sciences, Ottawa, Ontario, K1A 0M8, or to the author.

Members of the Saskatchewan Natural History Society may already have made observations bearing on the two main problems raised by this survey of place names: the northern limits





Red-sided Garter Snakes at hibernaculum.

F. G. Bard

of garter snakes in western Canada, and the occurrence of turtles in the North Saskatchewan River. Any such information, including the origins of place names cited in this paper, would be greatly appreciated, and could be published in the *Blue Jay* or reported to the address in the previous paragraph.

**ACKNOWLEDGEMENTS.** I thank the Herpetology Unit of the National Museum of Natural Sciences, National Museums of Canada, for greatly facilitating the interpretation of the data and inspiring this study; F. R. Cook provided copies of his unpublished range maps of Canadian Herpetozoa, and J. A. Johnston suggested the hypothesis that Snapping Turtles occur far north of their known range. The general support of National Research Council of Canada grant No. A5999 to J. D. Rising is gratefully acknowledged.

<sup>1</sup>BLEAKNEY, J. S. 1958. *A zoogeographical study of the amphibians and reptiles of eastern Canada.* Nat. Mus. Canada Bull. 155:1-119

<sup>2</sup>COOK, F. R. 1965. *Additions to the known range of some amphibians and reptiles in Saskatchewan.* Can. Field-Nat. 79:112-120.

<sup>3</sup>COOK, F. R. 1968. *Reptiles and amphibians.* in Beals, C. S., editor, *Science, History, and Hudson Bay*, vol. 1, Dept. of Energy, Mines, and Resources, Ottawa.

<sup>4</sup>GEOGRAPHICAL BRANCH, DEPT. OF ENERGY, MINES AND RESOURCES, CANADA. 1958-1969. *Gazetteer of Canada* (Alta., 1958; Nfl.-Lab., 1958; NWT and Yukon, 1958; Ont., 1962, BC, 1966; Man., 1968; Sask., 1969).

<sup>5</sup>GODFREY, W. E. 1966. *The birds of Canada.* Nat. Mus. Canada Bull. 203:1-203.

<sup>6</sup>GREGORY, P. T. 1974. *Patterns of spring emergence of the Red-sided Garter Snake (*Thamnophis sirtalis parietalis*) in the Interlake region of Manitoba.* Can. J. Zool. 52:1063-1069.

<sup>7</sup>HEUVELMANS, B. 1962. *On the track of unknown animals.* Rupert Hart-Davis. 558 pp.

<sup>8</sup>LOGIER, E. B. S., and G. C. TONER. 1961. *Checklist of the amphibians and reptiles for Canada and Alaska.* Royal Ont. Mus., Life Sciences Div. Cont. 53:1-92.



- <sup>9</sup>MINISTÈRE DES TERRES ET FORÊTS DU QUÉBEC. 1969. *Repertoire géographique du Québec*. 701 pp.
- <sup>10</sup>ROWE, J. S. 1972. *Forest Regions of Canada*. Canadian Forest Service, Dept. Environment, Canada. 172 pp.
- <sup>11</sup>SCHUELER, F. W. 1973. *Frogs of the Ontario coast of Hudson Bay and James Bay*. *Can. Field-Nat.* 87:409-418.
- <sup>12</sup>SCHUELER, F. W., and A. R. KARSTAD. 1975. *Notes on the distribution and habitat of amphibians and turtles in northwestern Québec*. *Can. Field-Nat.* 89:57-59.
- <sup>13</sup>WRIGHT, B. S. 1959. *The ghost of North America, the story of the eastern panther*. Vantage Press.
- <sup>14</sup>WRIGHT, B. S. 1965. *The Cougar in eastern Canada*. *Can. Audubon* 27:144-148.

## APPENDIX

This is a list of peripheral or otherwise interesting localities; I can supply copies of the complete list for any province to anyone who is interested. British Columbian localities are given in the gazetteer only to the nearest 30', so the listings are approximate to that extent.

### TURTLE LOCALITIES

| Locality Name                                    | County or District | North Latitude | West Longitude |
|--|--------------------|----------------|----------------|
| <b>QUEBEC</b>                                    |                    |                |                |
| Lac Tortue, Falardeau Twp. (=L. Tortu).          | Chicoutimi         | 48° 38'        | 71° 07'        |
| Lac Tortue.                                      | Saguenay           | 50 55          | 65 31          |
| Lac à la Tortue.                                 | Champlain          | 46 37          | 72 37          |
| Lac à la Tortue, Pérodeau Twp. (=L. Ponnet).     | Labelle            | 46 47          | 75 12          |
| Lac à la Tortue, Yéo Twp.                        | Pontiac            | 47 25          | 77 24          |
| Lac à la Tortue, (=L. à la Loutre).              | Rimouski           | 48 03          | 68 19          |
| Lac à la Tortue.                                 | Saguenay           | 48 49          | 69 56          |
| Lac la Tortue, d'Atwater Twp. (=L. Audoin).      | Témiscaminque      | 46 54          | 78 48          |
| Rivière Tortue, Charpeney & Coopman Twps.        | Saguenay           | 50 18          | 65 22          |
| Lac des Tortues, Lapeyrère Twp.                  | Champlain          | 47 14          | 72 24          |
| Turtle Lake, Dufay Twp. (=L. Buies).             | Témiscaminque      | 48 04          | 79 29          |
| Turtle Portage, d'Atwater Twp.                   | Témiscaminque      | 46 54          | 78 52          |
| Mékinac* Twp.                                    | Champlain          | 46 37          | 72 38          |
| <b>ONTARIO</b>                                   |                    |                |                |
| Turtle Island (=Copper Island).                  | Thunder Bay        | 48 46          | 87 24          |
| Turtle Lake, Strathy Twp.                        | Nipissing          | 47 04          | 79 50          |
| Turtle Lake, S of Watabeag Lake.                 | Timiskaming        | 48 04          | 80 37          |
| Turtle Lake, Lebel Twp.                          | Timiskaming        | 48 08          | 79 57          |
| Turtle Lake, McCann Twp.                         | Cochrane           | 48 23          | 80 29          |
| Turtle Lake, (=Hectorine Lake).                  | Kenora             | 49 20          | 93 20          |
| Turtle Lake, (=Mikinak** Lake).                  | Thunder Bay        | 49 21          | 88 57          |
| Turtle Lake, S of Pincers Lake.                  | Thunder Bay        | 49 32          | 85 30          |
| Turtlepond Lake, Slatterly Twp.                  | Kenora             | 49 33          | 92 37          |
| Turtle Point, Tweedsmuir Twp.                    | Kenora             | 49 21          | 94 03          |
| <b>MANITOBA</b>                                  |                    |                |                |
| Turtle Island, Nelson R., W of Gillam.           |                    | 56 21          | 95 01          |
| Turtle River, flows N into Dauphin L.            |                    | 51 07          | 99 39          |
| Tortue Lake, SE of Long Lake.                    |                    | 52 09          | 96 02          |
| <b>SASKATCHEWAN</b>                              |                    |                |                |
| Turtle Beach Post Office, SE of St. Walburg.     |                    | 53 33          | 108 36         |
| Turtle Creek, flows SE into Shepards Creek.      |                    | 52 24          | 107 09         |
| Turtle Lake.                                     |                    | 53 36          | 108 36         |
| Turtle Lake, N of Lac la Ronge.                  |                    | 55 24          | 104 54         |
| Turtle River, NW of North Battleford.            |                    | 53 10          | 108 50         |
| Turtleford, SE of Walburg.                       |                    | 53 23          | 108 57         |
| Turtlelake River, flows S into N Saskatchewan R. |                    | 52 57          | 108 34         |
| Mikinak** Lake, NE of Turtle Lake.               |                    | 53 43          | 108 33         |

**ALBERTA**

|              |  |       |        |
|--------------|--|-------|--------|
| Turtle Lake. |  | 59 23 | 110 35 |
|--------------|--|-------|--------|

**BRITISH COLUMBIA**

|                             |         |       |        |
|-----------------------------|---------|-------|--------|
| Turtle Lake, E of Taku Arm. | Cassiar | 59 45 | 134 15 |
|-----------------------------|---------|-------|--------|

\* Algonquin for "turtle".

\*\* Cree for "turtle".

**SNAKE LOCALITIES**

| Locality Name                                  | County or District | North Latitude | West Longitude |
|--|--------------------|----------------|----------------|
| <b>LABRADOR</b>                                |                    |                |                |
| Snake Island, Churchill River.                 |                    | 53° 19'        | 60° 10'        |
| <b>QUEBEC</b>                                  |                    |                |                |
| Lac à la Couleuvre, Laflèche Twp.              | Saguenay           | 49 18          | 68 17          |
| Rivière aux Coulevres.                         | Saguenay           | 50 06          | 67 25          |
| Lac Serpent.                                   | Chicoutimi         | 49 22          | 70 21          |
| Lac du Serpent, Morency Twp.                   | Saguenay           | 49 23          | 68 09          |
| Lac du Serpent.                                | Lac-St.-Jean-Ouest | 49 50          | 71 37          |
| Lac du Serpent.                                | Saguenay           | 50 15          | 67 31          |
| Rivière au Serpent.                            | Lac-St.-Jean-Ouest | 49 33          | 71 14          |
| Lac Serpenteau, Bouteroue Twp.                 | Lac-St.-Jean-Ouest | 49 18          | 74 05          |
| <b>ONTARIO</b>                                 |                    |                |                |
| Snake Creek, (= Mars Creek).                   | Cochrane           | 49 36          | 84 03          |
| Snake Island, Albany River.                    | Kenora             | 51 15          | 84 09          |
| Snake Lake, Templeton Twp.                     | Algoma             | 49 27          | 83 55          |
| Snake Point, Medina Twp.                       | Timiskaming        | 47 19          | 80 10          |
| Snake Lake (= Staddon Lake).                   | Kenora             | 51 47          | 91 12          |
| Watersnake Creek, Shackleton Twp.              | Cochrane           | 49 18          | 81 59          |
| Watersnake Lake, Shackleton Twp.               | Cochrane           | 49 16          | 82 01          |
| Serpent River, flows NE into Berens R.         | Kenora             | 51 36          | 92 40          |
| <b>MANITOBA</b>                                |                    |                |                |
| Snake Lake, NW of McGavock Lake.               |                    | 56 37          | 101 36         |
| Snake Rapids, Burntwood R., S of Threepoint L. |                    | 55 29          | 99 04          |
| Snake Lake, (= Setlak Lake).                   |                    | 56 18          | 101 18         |
| Serpent Lake, S of Weaver Lake.                |                    | 52 16          | 96 32          |
| <b>SASKATCHEWAN</b>                            |                    |                |                |
| Snake Lake, (= Pinehouse Lake).                |                    | 55 32          | 106 35         |
| Snake Rapids, Churchill River.                 |                    | 55 43          | 106 33         |
| <b>ALBERTA</b>                                 |                    |                |                |
| Snake Lake.                                    |                    | 59 40          | 114 09         |
| <b>BRITISH COLUMBIA</b>                        |                    |                |                |
| Snake Creek, flows NE into Dunedin R.          | Peace River        | 59 15          | 124 15         |
| Snake Creek, flows W into Pine Creek.          | Cassiar            | 59 45          | 124 15         |
| Snake Lake, N of W end of Ootsa L.             | Coast              | 53 45          | 126 15         |
| Snake Mountain (= Tye Butte).                  | Coast              | 53 45          | 125 45         |
| Snake River, (settlement).                     | Peace River        | 59 15          | 122 15         |
| <b>MacKENZIE DISTRICT</b>                      |                    |                |                |
| Snake Creek.                                   |                    | 60 31          | 115 04         |

