

AMPHIBIANS AND REPTILES OF THE ATHABASKA AND GREAT SLAVE LAKES REGION

By FRANCIS HARPER



THE following notes have resulted from two trips to this region. In 1914 I accompanied a party from the Geological Survey of Canada, in charge of Dr. Charles Camsell, which had for its principal object the exploration of the Tazin and Taltson Rivers. In May and early June we traveled down the Athabaska River from Athabaska Landing to its mouth. On June 30 we left Lake Athabaska at about its northernmost point and then journeyed by way of the Tazin and Taltson Rivers to Great Slave Lake, which we reached on August 15. From this lake we returned homeward by way of the Slave and Athabaska Rivers, completing the trip in early October.

The 1920 trip was made under the auspices of the United States Biological Survey, with the support of Dr. John C. Phillips. My associates in the field were Hamilton M. Laing and J. Alden Loring. In early April we left Edmonton by rail for the "End of Steel" near McMurray, and in May proceeded down the Athabaska River to its delta, remaining in this vicinity till late July. We then traveled eastward on Lake Athabaska as far as Poplar Point and the MacFarlane River and returned to the west end of the lake in late August. On September 30 we began our homeward journey, reaching McMurray on October 9 and Edmonton on November 10.

During the course of the general biological investigations made on both trips, some attention was paid to herpetology. Only four species of amphibians and a single species of snake were recorded by Preble (1908, pp. 500-502) from the Mackenzie Basin. The present paper contains some additional notes on the distribution and seasonal activities of the same forms, three of which, however, appear under names somewhat different from those employed by Preble.

Most of the localities mentioned may be found on one or the other of two maps accompanying papers by Camsell (1916) and myself (1931).

Bufo hemiophrys Cope.—DAKOTA TOAD.—On May 15, 1914, I collected two of these toads in a muddy pool on the wooded slope between the business district of Edmonton and the Saskatchewan. On May 18 I saw one at Rochester and two in a small pool by the river at Athabaska Landing. Here I heard their trilling at night. The species was again noted in voice on May 25 along the Athabaska several miles above Little

Buffalo River, and on May 31 near the mouth of Firebag River, where it was common.

On May 18, 1920, I heard a single toad trilling along the east branch of the Athabaska Delta, at a temperature of about 40°-45° F. On August 10 two very small specimens were collected by Hamilton M. Laing on the sandy bank of the MacFarlane River near its mouth.

Under the name of *Bufo lentiginosus woodhousei*, Preble (1908, p. 501) records toads in this region north to Fort Smith. It seems reasonable to assume that all belong to the same species as the two specimens which I collected at Edmonton in 1914. These are 69 and 63 mm., respectively, in length from snout to vent. They agree closely with the description of *Bufo hemiophrys*, especially in such diagnostic characters as the cranial crests and the metatarsal tubercles. The parotoids are broadly oval, averaging about 11×8 mm. The larger specimen is distinctly, the smaller one indistinctly, spotted on breast and belly. The identification of the toads of this region as *hemiophrys* means a considerable extension of the known range of the species, hitherto given as North Dakota and Manitoba.

Pseudacris septentrionalis (Boulenger).—NORTHERN SWAMP CRICKET FROG.—In 1914 I heard the castanet-like trilling of this species at Edmonton on May 15 and 16, and on the former date collected some eggs (which were identified by Dr. A. H. Wright) in a muddy pool on a wooded slope beside the Saskatchewan. On May 17 I discovered some of the authors of the chorus in a vegetation-filled pool in a wet, bush-bordered meadow on the outskirts of the city. When I reached the edge of the pool, they became silent, but after a few minutes I saw half a dozen of the little creatures sticking their heads above the water and trilling more or less continually, with distended throats. Two were readily captured when I waded into the pool for them.

Choruses of this frog were heard, especially during the evening and night, at Athabaska Landing, near Grand Rapids, near Steepbank River, near Pierre au Calumet, and at other points along the Athabaska River, May 18 to 31. It was quite abundant on the Athabaska Delta, and another specimen was taken there. During this period (late May and early June) the thermometer frequently went close to the freezing point, and once or twice thin ice formed on quiet water overnight. I heard the species commonly

at Chipewyan, June 10 to 19. On August 25 I collected a specimen along the shore at Resolution, and on the following day I detected the note of *Pseudacris* on the Slave River delta.

All four specimens agree satisfactorily with Boulenger's description (1882, p. 335) of the type from Great Bear Lake, except that the tympanum is not "nearly as large as the eye"; it is scarcely half the diameter of the eye. In all of them the heel falls a little short of the tympanum when the posterior limb is extended forward along the side.

In 1920 the trilling of this species was first heard at La Saline at dusk on May 11. For the next six weeks it was recorded commonly and almost daily. In the meantime we traveled down the Athabaska and camped on its delta from May 18 to 24 and from June 2 to 22. The trilling was also heard on Goose Island, May 27, along the Rivière des Rochers, June 29, and at Egg Lake June 30. By this time the spring song season was evidently over. From May 14 to 24, when the species was heard every day, the minimum temperature I recorded was 31° and the maximum 68.5°. Though probably the most abundant amphibian of the region, this little creature is so elusive that an individual collected at Egg Lake on July 14 was the only one I actually saw during the entire season. It was sitting on a rock about a foot from the water. On September 2 (with the temperature probably about 60°) I heard a hoarse and listless autumnal trilling at several points along the Quatre Fourches Channel. I recorded what seemed to be the notes of *Pseudacris* on the evening of September 22 (when the temperature was about 48°) on the Athabaska Delta, and even as late as October 21 (when the temperature was above freezing) on Stony Mountain south of McMurray.

Rana cantabrigensis Baird.—NORTHERN WOOD FROG.—In 1914 this frog was first found on May 21 several miles below Swift Current Rapid on the Athabaska. In June it appeared very abundant on the Athabaska Delta, and common in the Quatre Fourches marshes and in the woods near Chipewyan. The species was observed in small numbers on Lake Athabaska near the mouth of Charlot River, at Hill Island Lake, and near Kolehthe Rapids on the Tazin River. On July 31 specimens about three-quarters of an inch long were abundant along the Taltson River just above its junction with the Tazin. Individuals were seen a few miles below Tsu Lake, and at the mouth of Pierrot Creek on the Taltson River. At Resolution Wood Frogs were abundant, August 22 to 26, and I saw a great many, both dead and alive, in some surveyors' excavations, from which they could not escape after having fallen in. A

number of others were observed along the Slave River between the delta and Pointe Ennuyeuse, August 26 to 30.

Specimens were taken at the following points: Athabaska River below Swift Current Rapids; Athabaska Delta; Lake Athabaska near Slate Island; and Resolution.

In 1920 the species was in voice at La Saline, May 11 to 14; between this point and the Athabaska Delta, May 14 to 16; on the delta itself, May 17 to 23 and June 2, 9, and 14; and on Goose Island, May 24 to 30. On May 16 and 17, near the head of the delta, the chorus was tremendous. The clucking notes of an individual are commonly given three or four in a series: *crut, crut, crut, crut*. The last of the spring notes were heard on June 14, but there was an autumnal recrudescence of song, with two or three notes in a series, on the Athabaska Delta daily from September 19 to 22. During these September days the temperature ranged in the neighbourhood of 50° when the notes were heard.

In May, during the height of the spring chorus, the species was rarely seen, but in June, along the main branch of the delta, and in July, at Egg Lake, a good many individuals were seen, both in marshes and on land. They were fairly easy to catch even in the water, for if they ducked beneath the surface, they seldom stayed down, but almost immediately came up again a little farther on.

Specimens were taken on the Athabaska Delta; on Lobstick Island, off Chipewyan; at Egg Lake; and on Lake Athabaska near Oldman River, and at Poplar Point. Others were noted at Fair Point, August 21, and along the Quatre Fourches Channel, September 2 and 3. The last one of the season was seen on the Athabaska Delta on September 25.

Rana pipiens Schreber.—LEOPARD FROG.—In 1914 three or four large Leopard Frogs were seen on July 2 at a muskeg pond just south of Thluicho Lake, and a similar number on August 5 at Natla Rapids on the Taltson River. A specimen was collected in each locality. Others were noted at a rapid on the Taltson about 9 miles below Tsu Lake, August 10, and on the Slave River below McConnell Island, August 28. All of these records appear to represent extensions of the previously known range of the species.

During the entire season of 1920 I did not meet with the species anywhere.

Thamnophis sirtalis parietalis (Say).—WESTERN GARTER SNAKE.—On May 17, 1914, during a walk of a mile or so along the north side of the Saskatchewan at Edmonton, I came across six Garter Snakes and collected one. The north

bank of the river was then sunny and warm, though ice masses still clung to the steep and shady south bank. The specimen was identified by Dr. Alexander G. Ruthven, who remarked that "It is darker in color than usual, but the northern specimens of both *T. sirtalis* and *T. sirtalis parietalis* run to darker colors than the southern ones."

James Daniell, of Chipewyan, spoke of finding many of these snakes under pieces of limestone near Birch River. He also mentioned their occurrence on Birch Mountain and near Fort

Smith. In 1920 Jack Stark reported the species at Peace Point.

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A WOLF AT THE DOOR!

(metaphorically, not mammalogically, speaking)

By HOYES LLOYD, Chairman, Publication Committee.



ON FEBRUARY 1, 1931, The Ottawa Field-Naturalists' Club had approximately a membership of 539. Curiosity impelled me to sort these members geographically and the result was as shown in the table below.

It takes about 80 paid up memberships for a year to pay for printing and distributing one number of *The Naturalist*. We print nine numbers. Thus it would take 720 members, or 181 more than we have, to pay for the printing of one volume of *The Naturalist*. The burden of printing *The Naturalist* as well as the burden of finding a way round this apparently insuperable

financial difficulty falls upon the Council of the Club. The old Club has more than fifty years of background. It has put all its hard-won resources behind *The Canadian Field-Naturalist* so that there would be a Canadian place of publication, a journal of record, for Canadian Natural History. It has done this and borne the heat of the day in the labour of getting out the paper and doing the business routine. The Ottawa workers appreciate all that the affiliated clubs have done and merely wish to place these facts before them and the outside members, and to urge them to keep up the good work, especially in the matter of sending the treasurer some new members.

ONTARIO		P.E.I.	N.S.	N.B.	Que.	Man.	Sask.	Alta.	B.C.	N.W. T.	Y.T.	U.S.	Other Foreign and British	Total
Ottawa	Rest of Ont.													
92	120													
212		0	7	6	67	21	17	20	40	3	1	124	21	539

NOTES AND OBSERVATIONS

THE VALUE OF DETAILED BIRD-BANDING RECORDS.—The following extract from a recent personal letter from Dr. Wilbur K. Butts of Milliken University, Decatur, Illinois, is published as a statement reflecting the actual practical experience of a research worker relying to a large extent upon data obtained by the bird banding method. Dr. Butts is the author of "A Study of the Chickadee and White-breasted Nuthatch by Means of Marked Individuals", which was his thesis for the Ph.D. degree at Cornell University, and which is now being published serially in *Bird-Banding*, beginning with the

number for October, 1930. His statement is an indication of the real value to such research workers of the instalments of the Official Canadian Record of Bird Banding Returns, as they are being published in *The Canadian Field-Naturalist*:

"It would indeed be a pity if *The Canadian Field-Naturalist* finds it necessary to cut down the amount of space given to bird-banding returns. For the investigator who is making life-history studies of some particular species of bird it is extremely valuable to have all the information possible regarding banding records. The records published in *The Canadian Field-Naturalist* are



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