# THE AUK:

### A QUARTERLY JOURNAL OF

## **ORNITHOLOGY.**

OL. XLVIII. APRIL	, 1931.	No. 2.
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# NESTING OF THE SAW-WHET OWL (CRYPTOGLAUX ACADICA ACADICA) IN THE MONTREAL DISTRICT.

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### (Plates III-IV.)

No doubt most of us who have developed an interest in nature are accustomed, for one reason or another, to visit certain favoured localities more frequently than others, with the result that we become more or less thoroughly familiar with the local flora and fauna and are enabled to note the ecological changes from year to year. In my own case I have in mind the Chambly district, bordering the Richelieu River, about twenty miles distant from Montreal, which I have explored frequently at all seasons during the past twenty years. It was here, on May 22, 1927, that I found my first nest of the Saw-whet Owl. Although I have occasionally recorded this Owl in the vicinity of Montreal during the summer months, I had previously noted it at Chambly only in the fall and winter, when it is not uncommon throughout this part of Quebec Province.

Other raptorial birds are fairly well distributed in the wooded sections of Chambly, where, within a radius of about five miles, I believe I had already found the nesting places of most of the Hawks and Owls breeding there. These include the following:—five pairs of the Marsh Hawk, nine of the Sharp-shinned Hawk, three each of the Red-shouldered, Broad-winged and Sparrow Hawks, five pairs of the Long-eared Owl, two of the Great Horned and one of the Screech Owl. I do not mean to intimate that the nests of all of these are found in successive years, but that this list comprises THE AUK, VOL. XLVIII.





NESTLING SAW-WHET OWL (Cryptoglaux acadica) Chambly, Quebec. July 16, 1927. the approximate population of nesting raptorial birds within the area. There is some uncertainty regarding the status of a Cooper's Hawk and a Barred Owl seen on a few occasions.

It may also be of interest to note that although the Accipiters can generally be found by intensive search, the Buteos are far less dependable in recent years and the thought arises whether the wholesale destruction of Hawks at congested points during migration is a contributory factor. It is natural to assume that the Buteos would suffer more than the smaller and swifter Accipiters, at least when the destruction is carried on under the guise of "vermin" control by persons ignorant of the meaning of the term. In any event the Red-shouldered Hawk is notably scarcer in many of its haunts.

The nesting locality of the Saw-whet Owl was by the bank of a stream draining an upland pine wood and the nest was barely twenty feet from the ground in an old cavity in the decayed top of a basswood stub, in the deep shade of surrounding saplings. It is probable that a Flicker was responsible for the excavation, but the entrance had become enlarged and ragged through decay and bore little semblance to the neatly chiselled nesting place of that bird.

The Owl very considerately appeared at the entrance as I approached and when I reached the cavity it merely flew to a sapling six feet distant and stared at me without other demonstration while I examined the single fresh egg, resting on chips of rotten wood, ten inches below the opening. Almost as soon as I had descended, the Saw-whet shook its feathers, flew back and disappeared into the cavity, reappearing in a moment to watch my movements. This was the usual procedure during succeeding visits, except that it was sometimes necessary to rap the stub lightly in order to bring the bird to its doorstep. The only note of protest heard in the daytime was an occasional snapping of the mandibles. This was more noticeable after the young were hatched.

On May 28 there were four eggs, one of which I took. This was perfectly fresh. On June 3 the nest contained five eggs, making six in all. Although the nest was not visited in the interim it is reasonable to assume that deposition had been completed by June 1 and that an egg was laid on alternate days. Unfortunately I neglected to mark the eggs and, as subsequent events will indicate, was unable to determine the exact period of incubation. It will be apparent, however, that the period required for the last egg to hatch was at least 26 days and probably longer—a lengthy time indeed for so small an Owl.

None of the eggs had hatched on June 17, but on my next visit, the 24th, I found two young. The first-born, which I estimated to be from four to six days of age, peeped very much in the manner of baby Long-eared Owls. It was scantily covered with whitish down with perhaps the faintest tinge of buffy, and the eyelids were tightly closed. The second nestling was exceedingly tiny and helpless and apparently not more than a day from the egg. The whitish down on this owlet was very inconspicuous.

On July 1, accompanied by my friends, Napier Smith and Henry Mousley, we found three young and an addled egg, the fifth egg having unaccountably disappeared. The latest addition to the family was not more than a day or two old, and, as usual, quite helpless, while the other nestlings had reached what I style the 'motley' stage. In the oldest owlet the feathers of the succeeding plumage were commencing to replace the down and more or less well defined patches of brown were in evidence, particularly about the alar tracts, the back and the head. There was nothing notable about the facial disk, except that the white 'spectacles' of a later stage were faintly delineated. Owlet number two showed indistinct traces of brown on top of the head and on the back, but the development of the wing coverts was more marked. To the best of my knowledge their ages at this date were, respectively, 11 to 13 days, 8 days and 1 to 2 days.

On July 9 the crown and upper parts of the oldest bird (19 to 21 days) were a chocolate brown color with a very little down on top of the head. Beneath, the coloring was a brighter ochre brown with exception, principally, of the broken white jugular collar and a triangular white patch between the bill and the eyes. The brown coloring was everywhere noticeably darker than in the adult. I noted also that the bristle-tipped feathers at the base of the bill were well developed. Nestling number two had more down and the white area encircling the eyes gave it a pronounced bespectacled appearance. Otherwise it did not differ greatly from the older bird, which had less composure, crouching and snapping its bill and often backing away into the undergrowth. The youngest owlet, presumably not more than ten days old, was still almost entirely clothed in whitish down, with slight indications of the secondary plumage. This one peeped instead of snapping its bill, which it sometimes used as a hook, and posed with bent head as if ashamed of its unopened eyes.

The parent was absent from the nest for the first time on July 16, the only occasion on which it failed to appear at the entrance except once when I removed the young to a sun-lit glade 100 yards distant, where I kept them under observation for upwards of an hour. On my return I found it crouching disconsolately in the deserted nursery, thinking no doubt that there was no further need for defensive attitude.

The first-born, now between 26 and 28 days old and quite as large as its parent, frequently indulged in flights of from 12 to 15 feet from the observation log, but, although the flight feathers were almost fully developed, it was unable to rise from the ground. The upper parts were entirely chocolate brown, no down being perceptible. The principal white areas beneath were the jugular patches and, more prominent, the broad white disks, tapering from the base of the bill to a point above the eyes and suggesting in shape the horns of a goat. The forehead was finely streaked, much as in the adult plumage. This plumage is probably responsible for the so-called White-fronted Owl (albifrons) of early authors.

The second bird was somewhat similar but still had a little down on the head. This one posed submissively as in the past and made no attempt to fly, though it occasionally moved into the undergrowth to escape the heat. It was always possible to arrest this movement, however, by giving a mouse-like squeak, when it would turn and give me the benefit of a very wide-awake but somewhat nonplussed stare! On occasion the older birds assumed a rather threatening attitude towards each other, particularly when they found themselves vis-á-vis on the observation log. In both of these nestlings the iris was yellow. I should also mention that on the 9th the oldest owlet, at the age of 19 to 21 days, also had yellow eyes, while the eyes of the second bird at 16 days were not fully opened and their yellow coloring was not as clear.



UPPER-NESTLING SAW-WHET OWLS (Cryptoglaux acadica) Chambly, Quebec. July 16, 1927. Left to Right, No. 2, No. 3, No. 1. Lower-Same Birds, July 9, 1927. Vol. XLVIII 1981

The youngest bird was an anomaly. It had progressed very slowly. Although at least 16 days of age, it was still in the motley stage and posed with bent head, probably to shield from the light its half opened eyes, which were as dark and lustreless as ink-wells. In contrast to the other nestlings this bird was also very fidgety, a fact that was evident in my negatives. What a contrast, also, to young Hawks (I have in mind especially, Marsh and Sharp-shinned Hawks), which have well-developed coats of down and wide-opened eyes at birth, and soon exhibit much of the alertness of nestlings that are both precocial and nidifugous.

Returning to the nest at dusk we waited expectantly and at 7.45 p. m. heard the young Owls give a high-pitched, sibilant call with a slight rasp. This bore some resemblance to the sound produced by the filing of a saw and doubtless was their hunger call. In a few moments they called again, but still no sign of the parents. At 8 o'clock a Whippoorwill commenced to sing and almost at the same moment I heard the 'tsch-wett' of an adult Saw-whet from the other side of the stream. A minute later, with just enough light to distinguish it, one of the parents flew by, voicing its displeasure in the same manner in which the young begged for food, only more loudly and insistently. Back and forth it flew, almost brushing our faces at times, and hissing in a way that suggested little spurts of steam escaping from a small nozzle. There was however, a distinct rasping sound audible.

I had previously heard and traced to its source on several occasions the 'tsch-whett' call, or song, of the Saw-whet, mainly in the spring and early summer, but was never quite able to reconcile it with the sound of saw-filing. The fact that the young hiss, however, suggests that this is the basis for other calls and that the 'tschwhett' note is the song modification. I am fully aware that my notes on this pair of birds are very incomplete and that the Sawwhet may have other calls with which I am unfamiliar. Unfortunately, conditions did not permit me to remain at the nest long after dusk and I probably missed many things of interest. I might add, for whatever significance it may have, that on occasion I have momentarily mistaken the hunger call of a 'downy' Cuckoo (if there is such a thing!) for the note of the Saw-whet; also that my parrot, a Mexican Yellow-poll, when in a dim light and a soliloquant mood, often gives a faint imitation of it by protruding the lower mandible and drawing the tip against the upper. In humans I imagine that this would be tantamount to gritting the teeth. I do not know whether the Saw-whet produces its song in this manner, but it would be fitting if we concede that bird-song serves the twofold purpose of love-song and challenge!

On the following day the young were still in the nest, but on the 23rd I found no sign of young or adults and, strangely, no pellets were observed, either on this occasion or during previous visits, although I searched the vicinity rather carefully. In fact the orderly habits of these little Owls were quite pronounced. At no time during the occupancy of the nest was any indication of the nature of their food observed, either in the nest or in the neighborhood. Evidently pellets cast by the young, egg shells and other debris were carried some distance away. Possibly they were dropped into the stream.

On August 7 however, there were three fresh pellets beneath the nest, one of them very small, and two older pellets under dense spruce trees within a radius of 75 yards. Again, on the 28th, three pellets were found, two of them beneath the nest. The last evidence of the Owls' presence in the vicinity was noted on September 7, when a single pellet was found near the nest.

Several of the pellets were submitted to the Royal Ontario Museum at Toronto and Dr. Dymond kindly furnished me with particulars of their contents, which included the remains of one bat, either *Myotis subulatus* or *lucifugus*, and eleven mice and shrews of the following species:—7 Masked Shrews (Sorex cinereus), 2 Short-tailed Shrews (Blarina brevicauda), 1 Jumping Mouse (Zapus hudsonius) and 1 Meadow Mouse (Microtus pennsylvanicus).

Owing to lumbering operations the stub occupied by the Sawwhets was cut down during the following winter and I have found no trace of them since that time. Nevertheless I do not feel as confident regarding their movements as in the case of other raptores in the district. My original opinion that they were newcomers, a theory enhanced by the late nesting date, has been considerably modified, and I am not at all certain that they have not returned to some portion of the general locality in succeeding years, principally because of my failure to see any of them except at the nest, or to find signs of a definite roosting place.

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