

ON THE "CONCEALING POSE" OF THE NORTHERN SAW-WHET OWL

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While banding Northern Saw-whet Owls during their fall migrations, Taylor noted that when roosting individuals were approached, often "they straighten up, draw their feathers in tightly to the body, making themselves appear as long and thin as possible, and remain quite motionless."⁸ Taylor interpreted this behavior as the owl's attempt to avoid detection. Catling expanded Taylor's description, based also on observations of diurnally roosting Boreal Owls.³ Catling noted that roosting, undisturbed owls had "a rounded or oval appearance, with the plumage of the breast and upper back fluffed out (not appressed), eyes closed to slits, and head either directed forward or turned over the back." Catling observed that when an owl was disturbed by a human intruder, it stood erect, appressed the plumage of its breast and upper back, and thus appeared oblong.³ He noted further that the closed wing nearer the intruder was brought forward and raised to its bill, thus exposing its white leading edge as a vertical line, and that the feathers between and somewhat above the eyes were spread. Catling reasoned that the owl was thus disruptively camouflaged, supporting Taylor's interpretation.³

Bondrup-Nielsen critically examined the so-called concealing poses described for several species of nocturnal owls.² He noted four features common to all of these poses: 1) upright posture, 2) wing nearer the intruder raised to the bill, 3) body plumage appressed, and 4) lateral crown feathers spread. The Eastern Screech-Owl adopts this pose gradually, with its eyes closed to mere slits, suggesting that the pose indeed functions to conceal.

However, Bondrup-Nielsen noted that many other species of owls, particularly the Northern Saw-whet Owl and Elf Owl, adopt this pose abruptly, keeping their eyes open thus exposing the white feathers around the eyes.² He argued that rather than concealing the owl, these characteristics may actually increase its conspicuousness. He proposed, therefore, the descriptive term "erect posture" to be used with "abrupt" and "gradual" to distinguish between the posture that is adopted abruptly with open eyes backed by white facial markings, and the posture adopted slowly with the eyes reduced to mere slits.²

The chance discovery on 27 May 1985 of an adult Northern Saw-whet Owl roosting in the forested dune ridge along the southern shore of Lake Manitoba, Delta Marsh, Manitoba, afforded an opportunity to test Bondrup-Nielsen's ideas on the function(s) of the erect pose of this species, albeit on only one individual.⁶

Observations

At 1000 h the owl was roosting 2.2 m high in a small box elder (*Acer negundo*). We watched it for about 15 min at a distance of 15 m with 8x35 binoculars and a 20x spotting scope. The owl was in a relaxed pose similar to that described by Catling.³ The plumage of the upper back and breast was fluffed and the eyes varied from being half open to closed. (Figure 1A). The bird faced us but occasionally turned its head to either side. One of us slowly approached the owl. When the moving human was 10 m from moved its left wing forward slightly but did not appress its plumage or become erect (Figure

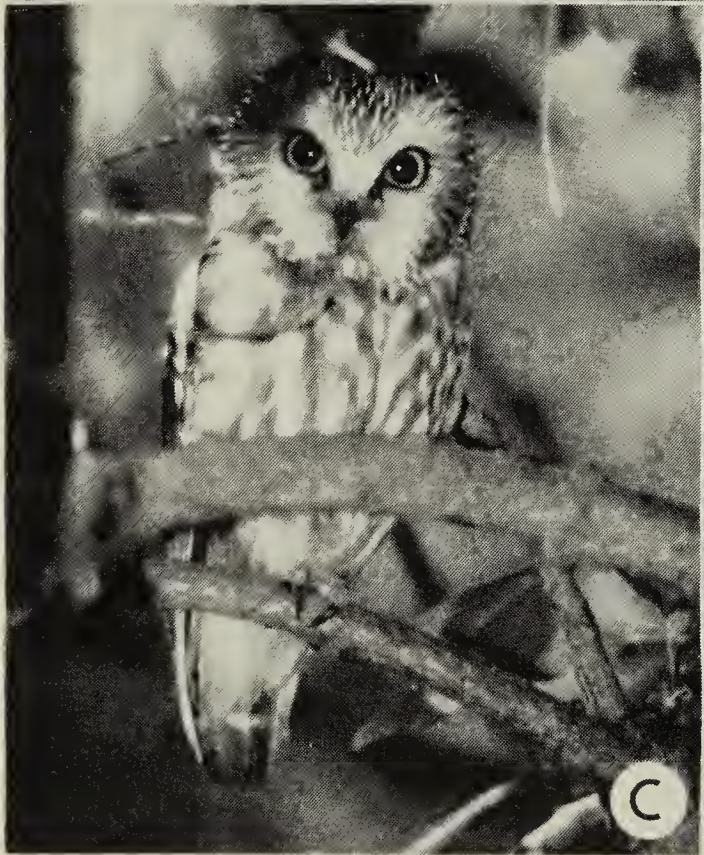
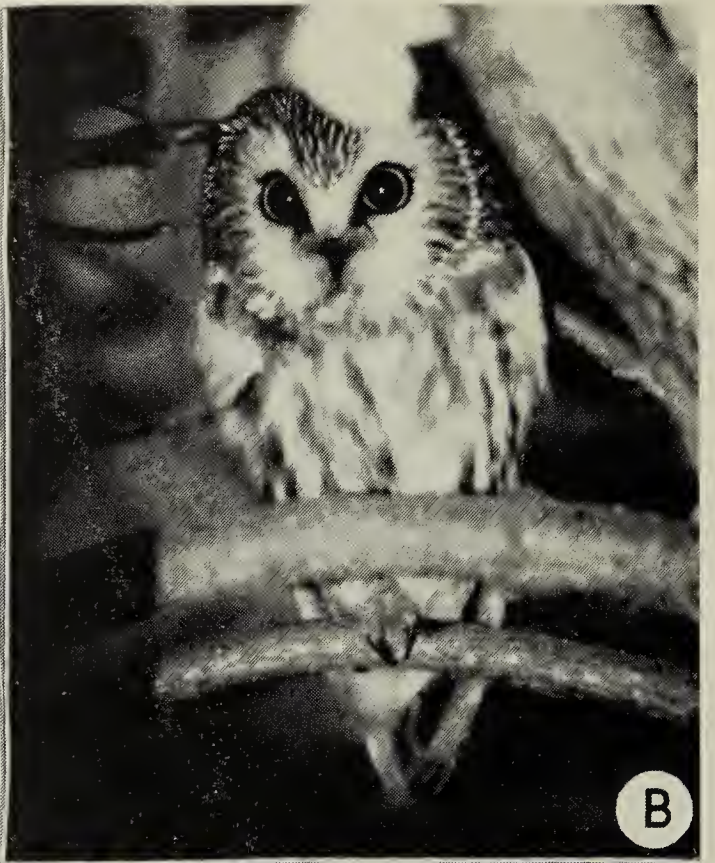


Figure 1. Poses of the Northern Saw-whet Owl A. *normal roosting*; B. *apparently perceiving distant intruder*; C. *erect*; D. *"fright" response when watching mounted Great Horned Owl*

1B). The observer retreated and we waited approximately 5 min until the owl had again apparently become fully relaxed. Both of us then approached the owl slowly. When we were 8 m from the owl, it looked at us with fully open eyes and then looked away. This was repeated as we approached to within 4.5 m. At 2 m the owl gradually became erect and compressed its feathers. Its wing was not raised and we did not discern any raising of the crown feathers. We retreated and left the area for approximately 1 hour. When we approached the owl again it became erect abruptly, when we were 4 m from it, and shifted slightly to one side (Figure 1C). Its plumage was appressed and its eyes were fully open. It maintained this pose as we approached to within approximately 2 m, where we did not observe any spreading of the crown feathers or increase in white about the eyes. We again retreated; one of us visited the owl a third time about 1 hour later. The erect posture was again assumed when the observer approached to within 4 m. The posture was the same as we had observed on earlier visits but this time the plumage was appressed more gradually. From 1300 to 1500 h we watched the owl from our original vantage point 15 m away. The bird was relaxed during this time, with closed or half-opened eyes. It did not respond notably to several passerine birds that approached to within 1 m of it or that vocalized nearby.

At 1530 h we investigated the owl's response to a mounted Great Horned Owl, a predator known to take smaller owls.^{1 4} The covered owl was placed on the ground 5 m from the roosting saw-whet owl. After a few minutes, when the owl apparently was relaxed, we removed the cover from the mount using a 3-m pole. It took about 30 seconds before the roosting owl looked in the direction of the mounted owl. Upon seeing the Great Horned Owl, it immediately opened its eyes fully, stretched up and then lowered

its head in a hunched up position and fluffed up the feathers on the top of the head, upper breast and back (Figure 1D). The bird bobbed its head up and down and from side to side, similar to the "fright" reaction Catling described for this species when human intruders approached to within 1 m.³ It reacted this way for about 2 minutes until we removed the mount. The posture assumed by the saw-whet on seeing the mounted owl increased its apparent body size. The saw-whet relaxed again within 5 minutes and remained at the roost until between 2100 hr and 2130 hr.

Discussion

Our observations support Bondrup-Nielsen's contention that the erect pose assumed by the Northern Saw-whet Owl does not function to conceal. Catling believed that the concealing pose occurred when owls were disturbed from a distance and then approached more closely.³ Although we were clearly visible to the owl over our entire approach of 15 m, the erect posture was only assumed when we came to within 4 m. At greater distances the owl looked at us several times, obviously aware of our approach, but did not appress its plumage or remain motionless. The erect posture thus was assumed only after it should have been fairly evident to the owl that it had been discovered. Furthermore, when the erect pose was assumed it was done abruptly and with a slight sideways movement. If the pose was meant to conceal one would expect it to be assumed gradually and at the first approach of an intruder. Alternatively, the normal roosting pose of the Northern Saw-whet Owl may be the most concealing because that is when the need for protection presumably is greatest.

If the behavioral repertoire of the Northern Saw-whet Owl included a concealing pose, then one might expect an individual to assume it when it first perceived a predator such as the Great Horned

Owl. Instead, a highly conspicuous "fright" reaction was observed. This reaction also occurred at a much greater distance than that reported by Catling for human intruders (5 m vs 1 m) and was never observed when we approached closer than 2 m to the owl.³ This suggests that the nature of the owl's response depends upon the extent to which it perceives the intruder or predator as a threat. Bondrup-Nielsen (*in litt.*, 1985) pointed out to us that the "fright" reaction we observed probably was predictable since the Great Horned Owl appeared "out of nowhere" and instantly.

Although it seems unlikely that the erect posture adopted by this species functions to conceal, it is not clear just what purpose, if any, it serves. It is possible that both the "erect" pose and the "fright" response are related behaviors that prepare the owl for escape or combat. Scherzinger analyzed the reactions of owls to predators in Europe. He interpreted his findings in terms of conflicting behaviors.⁷ The conflict between staying or fleeing has been resolved by protective coloration, enhanced by the "erect posture". The tendency to flee or attack is revealed by a threatening posture, and the "normal" perching posture actually conceals. James and Nash reported that flightless Northern Hawk-Owls assumed an upright posture, with eyes open.⁵ They believed, as Bondrup-Nielsen did with *Aegolius* owls, that the widely open eyes of the hawk-owls suggest that this pose is not entirely concealing, but is perhaps a "fright" response to a disturbance. They compared this response to screech owls that close their eyes to narrow slits when apparently concealing themselves.⁹ James and Nash noted also that the upright posture was assumed only by hawk-owls less than one month old, and not by adults.⁵ They speculated that this behavior has been lost among adult hawk-owls which are active largely in daylight, in contrast to the nocturnal owls that Bondrup-Nielsen discuss-

ed.² James and Nash suggested that the loss of this behavior might be expected if it served to conceal the bird, but if it were only a fright reaction the adults might also be expected to assume it.⁵

In summary, it appears that there are three components to the postures we observed in the saw-whet owl: concealment, threat, and fright. Concealment may be accomplished by the posture assumed during normal diurnal roosting (see also Scherzinger⁷). Upon perceiving a predator, the bird may assume a threatening posture, letting the potential predator know that it has been seen. The erect and fright postures may be assumed when the owl has perceived danger but has not yet established its nature.

Acknowledgments

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¹ BLUHM, C.K. and E.K. WARD. 1979. Great Horned Owl predation on a Short-eared Owl. *Condor* 81:307-308.

² BONDRUP-NIELSEN, S. 1983. Ambivalence of the concealing pose of owls. *Can. Field-Nat.* 97:329-331.

³ CATLING, P.M. 1972. A behavioral attitude of Saw-whet and Boreal owls. *Auk* 89:194-196.

⁴ CRAIGHEAD, J.J. and F.C. CRAIGHEAD, Jr. 1956. Hawks, owls and wildlife. Wildlife Mgmt. Inst. and Stackpole Co., Harrisburg, PA. 443 pp.

⁵ JAMES, R.D. and S.V. NASH. 1983. An upright posture of young Northern Hawk-Owls. *Ont. Field Biol.* 37:90-93.

⁶ MACKENZIE, D.I. 1982. The dune-ridge forest, Delta Marsh, Manitoba: overstory vegetation and soil patterns. *Can. Field-Nat.* 96:61-68.

⁷ SCHERZINGER, W. 1971. Zum Feindverhalten einiger Eulen (Strigidae). *Z. Tierpsychol.* 29:165-174.

⁸ TAYLOR, R.R. 1962. Fall Saw-whet Owl concentrations in Ontario. *Blue Jay* 20:118-119.

⁹ WALKER, L.W. 1974. *The book of owls*. A.A. Knopf, New York, NY. 256 pp.

BIRDING AT DORE LAKE, SASKATCHEWAN

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This note is to report some interesting birds found at Dore Lake, Saskatchewan between 29 May and 22 August 1986.

The weather during the period was variable from sunny and calm to overcast and blustery. The main lake was ice-free on 28 May with the bays ice-free some time prior to that date.

Osprey were seen at various times during the summer, usually flying just offshore. An Osprey came to fish near our boat while we were analysing the day's catch on 7 July.

Sandhill Cranes were heard overhead 17 June.



Semipalmated Plover, McConnell River

G.W. Beyersbergen