

## NOTES ON TERRITORIAL BEHAVIOUR AND CALLS OF A NORTHERN PYGMY-OWL

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*Abstract* -- Behaviour and calls exhibited by a Northern Pygmy-Owl in response to playbacks of taped calls of pygmy and other owl species are described.

*Key words:* British Columbia, *Glaucidium gnoma*, Northern Pygmy-Owl, response to taped calls, territorial behaviour.

On the morning of 26 March 2000, at approximately 02:00, I encountered a Northern Pygmy-Owl (*Glaucidium gnoma*) while conducting an owl survey around Shawnigan Lake (48° 38' North, 123° 39' West), 35 km. north of Victoria. The habitat of the area is mainly open second-growth forest, comprised of both coniferous and deciduous trees, with a belt of Western Redcedar (*Thuja plicata*) on the west side of the road, adjacent to the lake.

During the initial two minute period of listening, no owls were heard. However, when the pygmy-owl call was played, I felt something brush against my hand and tape player, and felt the wind of an object moving quickly past me. In the headlights of an ongoing car, my assistant observed a small, brown owl perched about 1 m. above the ground in the branches of a cedar, 2 m. away. The owl then moved to a perch higher in the tree and began calling, using a continuous *toot-toot-toot*, with approximately two notes per second. This is the "primary advertising call" (Johnsgard 1988) or Primary or Toot Song (Holt and Petersen 2000) of this species. This calling continued non-stop for 2.75 minutes through the playing of Northern Saw-whet Owl (*Aegolius acadicus*) and Western Screech-Owl (*Otus kennicottii*) calls. When the call of a Barred Owl (*Strix varia*) was played, the pygmy-owl immediately ceased calling and remained silent through the remainder of the stop (five minutes). As the closely related Spotted Owl (*S. occidentalis*) has been documented to prey on pygmy-owls (Holt and Petersen (2000) and Barred Owls are known to prey on other small owl species up to the size of a Long-eared Owl (*Otus asio*) (Bent 1938), silence during the presence of a Barred Owl would be adaptive.

After concluding the stop, I placed the tape recorder on the roof of my car and again played the pygmy-owl call. Two seconds into the playing of the call, a scratching noise was heard from the tape player and using a powerful flashlight, I observed from a distance of 2.5 m, an adult pygmy-owl attacking the tape player. The owl was observed in the air, 15 cm. above the tape recorder. After being illuminated, it made no further attack against the recorder. The owl then flew west to a low branch in a nearby cedar, where it was observed for 10-12 seconds before it flew deeper into the trees. At this time, a second pygmy-owl was heard calling approximately 200 m. to the east. It uttered the typical,

single-syllabic *toot* of the species three times, moving closer each time it called.

No calls from either owl were heard for about a minute, until I whistled three *toot* notes, imitating the two notes per second tempo of the first owl. My assistant then observed a small, dark shape fly down from a tree on the east side of the road, toward me. When it was directly over my head, at a distance of <0.5 m., it uttered a staccato, three note squeak, rising in pitch with each squeak. An abbreviated squeak was heard once more from the east side of the road. Not wanting to be any more of a disturbance to the owls, I concluded the stop and moved on to the next. This squeak call is not among those listed in the known vocal array of this species by Holt and Petersen (2000) and may represent a higher intensity aggressive call than the territorial song. Both sexes of the closely-related Eurasian Pygmy-Owl (*Glaucidium passerinum*) are known to utter a high-pitched squeaking call, but usually during food transfer (Johnsgard 1988).

This observation is also of interest in documenting territorial behaviour during the night. Previous observations, including reactions to taped calls, indicate that territorial singing by this primarily diurnal species (Skinner 1938a) is primarily in the late evening and early morning crepuscular periods (Holt and Petersen 2000), with the Vancouver Island race possibly more active at crepuscular periods than other races (Skinner 1938b).

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