

First Record of a Barred Owl, *Strix varia*, in Labrador

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A Barred Owl (*Strix varia*) was heard calling in central Labrador, Canada in 2001, and a dead owl was found in the same area in 2004. These are the first confirmed records for the Province of Newfoundland and Labrador.

Key Words: *Strix varia*, Barred Owl, range, vagrant, Newfoundland and Labrador.

Barred Owls (*Strix varia*) are common in southern Canadian forests from British Columbia through Nova Scotia (AOU 1998), occurring in mixed evergreen and mature deciduous woodlands, but also into the boreal forest in the northern portion of its range (Erskine 1977; Godfrey 1986; Mazur et al. 1998). There are no confirmed records of Barred Owls for the Province of Newfoundland and Labrador (Todd 1963; ACCDC 2004*). We document two occurrences of a Barred Owl near Happy Valley – Goose Bay, Labrador, three years apart.

On the evening of 24 August 2001, at 22:00 hrs, a lone Barred Owl was heard calling in the forest north of Happy-Valley Goose Bay, Labrador, along the banks of the Goose River (53° 24'N, 60° 26'W) by one of the authors (IS) (Figure 1). The owl called continuously for several minutes from the same location, approximately 250 m away. The song was made up of the characteristic pattern of 8 hoots, separated into two parts by a pause after 4 hoots, and ending with a characteristic descending pitch on the last hoot ('*hoo-hoo hoo-hoo, hoo-hoo hoo-hooahhw*'). The calls of this owl may be unfamiliar to residents of Labrador, but Barred Owl calls are very distinctive, and were immediately recognizable to one of the authors (IS). The only other owl species in the area with which the calls could possibly be confused is the Great Horned Owl (*Bubo virginianus*), whose call is of a deeper tone, and consists of five or six hoots, beginning with one emphatic hoot, followed by several shorter and quieter calls, and ending with two long hoots on the same pitch ('*Hoo! hoo-hoo-hoo Hooo, Hooo*'). The calls of the two owls differ in tone, pattern and rhythm, and are not difficult to tell apart by experienced listeners.

Using a vocal imitation of the call, the author attempted to elicit a callback. The owl responded by leaving its perch, approaching her, and selecting a new perch within 50 m of her location. It made no other movements, and she was able to elicit vocal responses to her calls for nearly an hour. During this period, the owl occasionally varied its call either by repeating only the last section '*hoo-hooahhw*', or by shortening the first section to a rising series of 3 notes

followed immediately by the distinctive descending cackle ('*hoo-hoo-hoo hoo-hooahhw*'). Unfortunately, due to darkness and heavy forest cover, the owl was not sighted. At the time of observation, the air temperature was 10°C, winds were calm, and the skies were clear. Tourists camped at the site reported hearing the same calls during the previous evening.

On the evenings of 26, 28, and 31 August, at approximately 22:00, IS returned to the area to perform a nocturnal callback survey (using a vocal imitation of the call) to check for the presence of the owl. Roads and paths in forested areas within 10 km of the original sighting were surveyed, with stops every 0.3 – 0.5 km, and several minutes spent at each station calling and listening for a response. No Barred owls were detected during these subsequent surveys.

The second observation occurred three years later, in virtually the same location (53° 27'N 60° 18'W, on 16 July 2004 (Figure 1). A dead owl was seen on the side of Route 530, at approximately 08:00 hrs. On closer inspection, the owl carcass showed no obvious sign of injury or illness, and was completely intact, with no sign of scavenging, and no fly larvae. The eyes were present and moist (not sunken, retracted, or absent as in older kills). Given the abundance of foxes (*Vulpes vulpes*), Ravens (*Corvus corax*), Gray Jays (*Perisoreus canadensis*) and other scavengers, it is the opinion of the authors that the owl had been dead for a few hours at most.

Field marks on the owl included dark eyes, vertical barring on the belly and short, horizontal bars across the chest, all characteristic of Barred Owls (Figure 2). The owl was also assessed using the criteria of Pyle (1997). The lack of down on the head and contour feathers, flight feathers that were broad and uniform in color and wear, and the presence of squared bars on the primary coverts all suggest the bird was an adult (After Hatch Year or AHY). On dissection, the owl was determined to be a female by the presence of an ovary. No brood patch was present.

Barred owls have been observed in Québec north of the St. Lawrence River (Gagnon and Bombardier 1996). The breeding range has been reported to extend

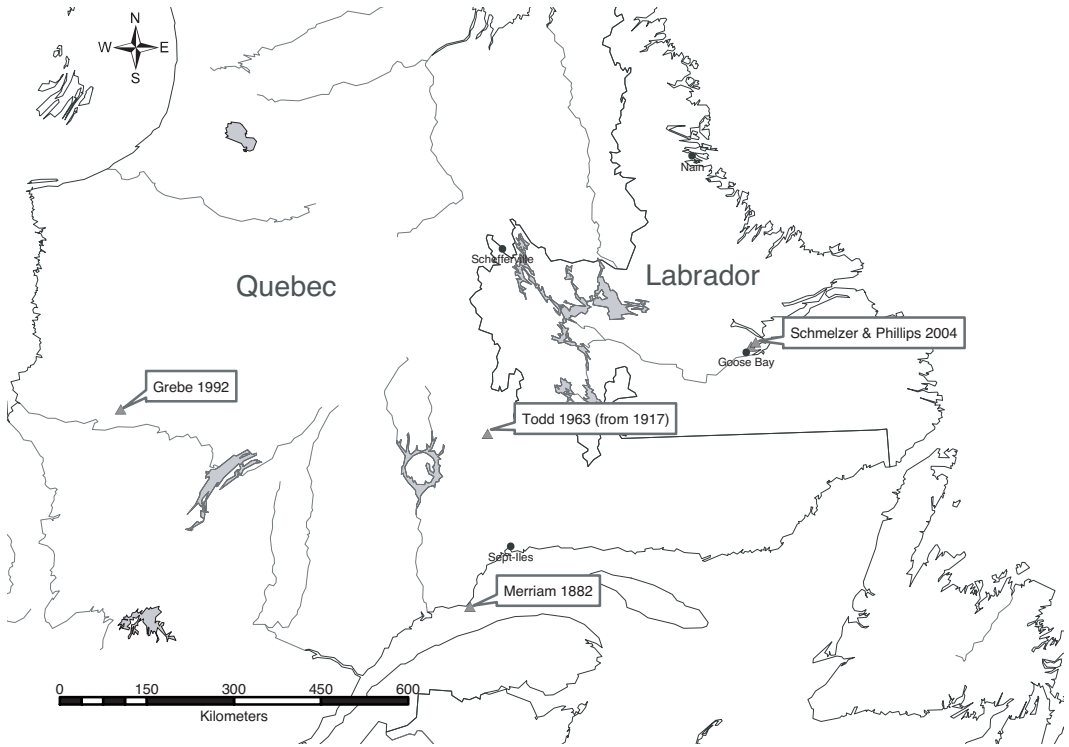


FIGURE 1. A summary of Barred Owl records in Labrador and nearby Quebec. Further description of the records is given in the text.

to 50° North in eastern Canada (David 1980; Godfrey 1986). Our review of the literature, however, revealed several sightings north of this latitude in Québec. For example, a Barred Owl was reported near Lac aux Cèdres, 52° 00'N, 67° 07'W, near the Labrador border in 1917 (Todd 1963). It has been reported more recently further west near Nemiscau, 51° 42'N, 76° 15'W, and Lake Evans, 50° 55'N, 77° 00'W, (Grebe 1992). Additionally, Comeau referred to the bird as “tolerably common” near Godbout, 49° 19'N, 67° 18'W, on the North Shore of the Gulf of St. Lawrence (in Merriam 1882), and a specimen was captured at Lac Paterson in Roberval County (50° 11'N, longitude not specified) in 1954 (Godfrey 1957). Nonetheless, the occurrence of the owl in central Labrador is 500 km distant from the nearest previous report, and 700 km outside regions where the species is noted regularly.

During the past several decades, the geographic range of the Barred Owl has expanded in western North America, and most recent discussion has focused on its movements into the Pacific Northwest (Levy 1999; Boxall and Stepney 1982; Wright and Hayward 1998). However, on the basis of sightings in Quebec north of the St. Lawrence River, Harper (1958)

proposed that the range of the Barred Owl was also extending northward in eastern North America. Although the Gulf of St. Lawrence and the Strait of Belle Isle present significant barriers to occurrence on the island of Newfoundland, the forests of Quebec and Labrador are continuous and present no obstacles to movement. The environs of Happy Valley – Goose Bay, including the Churchill River valley and coastal plain surrounding Lake Melville, belong to the ‘High Boreal Forest’ ecoregions, (Government of Newfoundland and Labrador 2004*) and consist of mature, dense mixed deciduous/coniferous forest on sandy soil. Predominant tree species are Trembling Aspen (*Populus tremuloides*) and White Birch (*Betula papyrifera*), with coniferous species such as Balsam Fir (*Abies balsamea*), and White and Black spruce (*Picea glauca*, *P. mariana*) occurring secondarily. Suitable breeding habitat for Barred Owls is often associated with the presence of snags used as nest cavities (Haney 1997), but also nests of other raptors or corvids (Elderkin 1987). This region features the most favorable climate in all of Labrador, including a growing season of 120-140 days. Conversely, the upland plateaus of central and western Labrador are



FIGURE 2: Adult female Barred Owl collected near Happy Valley – Goose Bay in July 2004, which showed characteristic gray-brown coloration, yellow bill, vertical barring on the belly and horizontal barring on the chest. Flight feathers (right wing shown) are broad and uniform in colour and wear, suggesting an adult bird that has not yet molted.

characterized by a subarctic forest and climate, and border the former ecoregion to the north and west. The elevation, vegetative communities, and severe climate may pose a barrier to an eastward expansion from northern Québec. To the south and east however, broad river valleys and mixedwood boreal forests predominate.

In the absence of evidence of breeding, it is unknown whether this record represents a possible range expansion by the Barred Owl, or simply documents the occurrence of a vagrant bird in potentially suitable habitat on two separate occasions. The fact that in one instance the owl was an adult female, and that she was found within the breeding season, does not

preclude range expansion as a possible explanation. The absence of geographical barriers to movement from northeastern Quebec, particularly from the north shore of the St. Lawrence, into south-central Labrador supports this notion. The establishment of owl surveys in Labrador should help to clarify such questions, and others, in the future.

Acknowledgements

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Forked Three-awned Grass, *Aristida basiramea* Engelm. ex Vasey: A New Addition to the Flora of Quebec

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Brisson, Jacques. 2004. Forked Three-awned Grass, *Aristida basiramea* Engelm. ex Vasey: a new addition to the flora of Quebec. *Canadian Field-Naturalist* 118(2): 276-277.

A population of Forked Three-awned Grass (*Aristida basiramea* Engelm. ex Vasey; Poaceae) was found for the first time in Quebec, on a sand barren of the Cazaville region (Haut-Saint-Laurent). The only other region where this species is known in Canada is on the southern side of Georgian Bay in Ontario.

Key Words: *Aristida basiramea*, Forked Three-awned Grass, Poaceae, rare plants, Quebec

Une population d'*Aristida basiramea* Engelm. ex Vasey (Poaceae) fut trouvée pour la première fois au Québec, dans une lande sableuse de la région de Cazaville (Haut-Saint-Laurent). Le seul autre endroit où l'espèce est présente au Canada est sur le côté sud de la Baie Georgienne en Ontario.

Mots-clés : *Aristida basiramea*, Poaceae, plantes rares, Québec

In September 2001, during an ecological survey near Cazaville, in the Haut-Saint-Laurent region of southern Quebec, a population of Forked Three-awned Grass (*Aristida basiramea* Engelm. ex Vasey) was found in a dry, sandy grass-field. Other populations were later located in similar habitats nearby. This is the first time the species has been reported for Quebec. In Canada, *A. basiramea* is known from four extant naturally-occurring sites located in southern Ontario, three of which are in Simcoe County, and one in Muskoka County (Allen 2001). The extent of occurrence in Ontario only totals 16 hectares. There is also one adventive station in northwestern Ontario, at Rainy River (Allen 2001). A few other reports exist, such as one in Norfolk County in Ontario, and a few more in Manitoba. However, the locality of the Norfolk specimen may be the result of a labelling error (Reznicek 1984), while the reports from Manitoba are considered questionable due to the absence of existing specimens (Scoggan 1957; Allen 2001). Thus, the Cazaville area becomes the second area in Canada where the presence of the species is confirmed. The species is listed as rare in Ontario (Reznicek 1984) and is considered threatened in Can-

ada (COSEWIC 2003). On the basis of the newly discovered population, *A. basiramea* should be added to the list of rare vascular plants likely to be designated threatened or vulnerable (Labrecque and Lavoie 2002).

The genus *Aristida* is represented by 250 to 300 species, 29 of which are native to North America north of Mexico (Flora of North America Editorial Committee 2003). *A. basiramea* is an annual plant from 30 to 60 cm high characterized by glumes of unequal length and 1-flowered spikelets terminated by three long awns, one in the middle with a twisted base and two shorter straight awns on each side. It is abundant on dry sterile or sandy soil in the midwestern states. At the northeastern periphery of its range in the United States, it forms disjunct populations on dry lands and along sandy roadsides, some populations of which appear to be adventive. The closest reports of *A. basiramea* south of the border with Québec were from Plattsburg, Clinton Co., New York (S. J. Smith, 25 July 1965, NYS); Columbia, northern Coos Co., New Hampshire (A. S. Pease, 17 September 1955, NEBC); and Avon, Franklin Co., Maine (A. Haines, 26 October 1990, MAINE). The species is recognized as rare in Maine, Iowa and Colorado (Allen 2001).

The Cazaville area (45°03' N, 74°22' W) is located in the Mixed Plain Ecozone of the St-Lawrence Lowland Ecoregion (Ecological Stratification Working Group 1995). The area is characterized by a vast sandy plain of littoral origin dating from the last post-glacial period. White Pine (*Pinus strobus*) forests were abundant before European settlement (Brisson and Bouchard 2003), but today, the area is occupied by sandy, grassy fields, sand barrens and secondary forests of Red Maple (*Acer rubrum*), Trembling Aspen (*Populus tremuloides*) and Gray Birch (*Betula populifolia*). *Aristida basiramea* was found on open, sandy grass-field with *Poa compressa*, *Danthonia spicata*, and various types of lichens. The sandy plain of Cazaville is host to other rare plant species. The northernmost colony of *Monarda punctata*, a species rare for Quebec and Canada, was recently found nearby (Boudreault and Brisson 1994). As well, *Hedeoma hispida*, considered rare for Quebec (Labrecque and Lavoie 2002), is also found on the sandy plain.

Specimens of *A. basiramea* were deposited at the Marie-Victorin Herbarium (MT: Brisson Number JB01-25).

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