

## Dark Morph Red-tailed Hawks: *calurus* or *abieticola*?

By Jean Iron

After seeing the striking dark morph Red-tailed Hawk at Highway 403 and Dundas in Oakville on Sunday 22 January 2012, I wondered whether it came from the Eastern subspecies *Buteo jamaicensis borealis* or the Western subspecies *B. j. calurus*. This sent me on a mission to find out more. First, I read Ron Pittaway's article on *Subspecies and Morphs of the Red-tailed Hawk* because it provided a foundation for discussions about Red-tailed Hawks in Ontario. See Link 4 at end. Then, articles and books by Todd, Dickerman and Parkes, Liguori, and Wheeler added more information. Finally, a visit to the collection at the Royal Ontario Museum (ROM) rounded out the project. This article describes my findings.

When dark morph Red-tailed Hawks are seen in southern Ontario they are assumed to be from the western subspecies *calurus*. This is based on the belief that dark morphs do not occur in the Eastern Red-tailed Hawk *borealis* breeding population, whereas dark morphs occur in Western *calurus*. I wonder whether this assumption is always correct or if we should consider an eastern source for some of our dark morph Red-tailed Hawks.



Figure 1: Dark morph Red-tailed Hawk in Oakville on 22 January 2012. This young adult was judged to be 1.5 years old by its adult red tail and retained juvenile pale eyes. Photo by Jean Iron.

The answer may lie in the northern Red-tailed Hawk population breeding in Canada's boreal forest. Todd (1950) named this population *B. j. abieticola*, which means "dweller of the fir". *Abieticola* was not listed in the American Ornithologists' Union Check-list (AOU 1957), but it differs from Red-tailed Hawks breeding in southern Ontario and the eastern United States. *Abieticola* breeds across "the spruce-fir belt of Canada from the Peace River Delta in Alberta to Nova Scotia." See map in Figure 5. Most *abieticola* or northern Red-tailed Hawks are recognizable in the field from birds breeding in southern Ontario "in having bold, heavy, dusky to black streaking on the feathers of the belly-band. The throat is never pure white as in many southern birds, and may be so heavily streaked as to appear almost solid black. The ground color of the underparts of *abieticola* averages more richly colored (buffy) than in southern birds, overlapping somewhat with the palest individuals of *calurus*" (Dickerman and Parkes 1987). Northern *abieticola* share common characters and often resemble western *calurus*. We see hundreds of light morph *abieticola* every spring and fall at hawk watches on the shores of the Great Lakes as they migrate to and from their northern breeding grounds and many winter in southern Ontario.

I propose that a few dark morph Red-tailed Hawks probably occur in the *abieticola* population but have gone undetected in the vast boreal forest where few birders and ornithologists visit. This winter, 2011-2012, at least three and possibly four dark morph Red-tailed Hawks are overwintering near Toronto in Oakville, Oshawa, Guelph and Brantford. Some dark morphs may be breeding among the heavily pigmented *abieticola* population across the boreal forest. This makes more sense to me than thinking that all are western *calurus*. Here are three reasons and results of our visit to the ROM:

1. The Oakville dark morph Red-tailed Hawk has a dark subterminal band and a clear unbarred tail, which is a feature of many *abieticola* birds. Western *calurus* usually have tails with a dark subterminal band and multiple thin dark bars, rarely having an unbarred tail.
2. The black subterminal band on the Oakville dark morph Red-tailed Hawk is very wide, wider than southern *borealis* Red-tailed Hawks and wider than western *calurus* Red-tailed Hawks. It is a character of *abieticola*.
3. There is a breeding record of a melanistic Red-tailed Hawk observed at a nest in 1913 on the Natashquan River in Labrador (Todd 1963).

## Royal Ontario Museum

On 25 January 2012, Ron Pittaway and I visited the Royal Ontario Museum to examine specimens. We encountered the same situation researchers across North America have for the past 70 years. Like other museum collections, the ROM has very few specimens of breeding Red-tailed Hawks from boreal Canada. Most specimens were of migrants and wintering birds. However, we were thrilled to find a dark morph juvenile collected in Toronto on 4 November 1895. Surprisingly it is very similar to the bird now wintering in Oshawa. See Link 8 at end.



Figure 2: Ventral view of dark morph juvenile Red-tailed Hawk collected in Toronto, Ontario on 4 November 1895. Photo by Jean Iron.



Figure 3: Dorsal view of dark morph juvenile Red-tailed Hawk showing banded juvenile tail collected in Toronto, Ontario on 4 November 1895. Photo by Jean Iron.

The dark morph in Figures 2 and 3 was reported in the *Auk* in 1907 by J.H. Fleming as Western *calurus* because dark morph birds found in the East are automatically assumed to be *calurus*. However, on one of its labels, the great ROM ornithologist and curator Lester L. Snyder wrote “This is as apt to be a product of *B. j. abieticola* as it is of *B. j. calurus*.” Snyder’s words echo exactly my thoughts. See Figure 4.

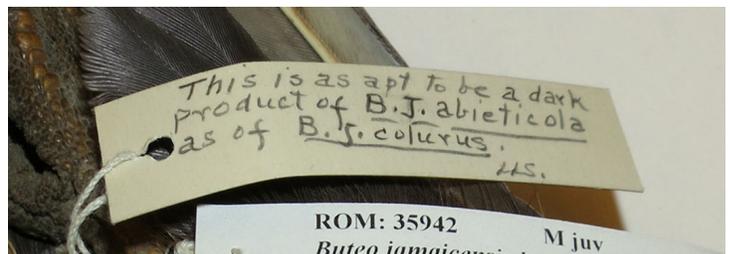


Figure 4: Label on dark morph Red-tailed Hawk in Figures 2 and 4. LLS = Lester L. Snyder. Photo by Jean Iron.

Another gem hanging in the ROM cabinets was an old map (Figure 5) that shows the range of *abieticola* as Todd (1950) and Dickerman and Parkes (1987) described it. We do not know who drew in the ranges on the map, possibly Snyder who was very interested in geographical variation. Also, we noticed that many specimens were labelled *abieticola*, probably by Snyder.

### Conclusion

A visit to the ROM collections is always a learning experience. Its specimen cabinets are brimming with ornithological history and knowledge that help us investigate what we are seeing in the field. After our visit, I believe that some of the dark morph Red-tailed Hawks seen in southern Ontario probably originate from the heavily pigmented and poorly known *abieticola* population breeding across Canada's vast boreal forest.

### English name for *abieticola*

Because the breeding distribution of *B. j. abieticola* is Canada's boreal forest (see map Figure 5), English names include Canadian Red-tailed Hawk, Northern Red-tailed Hawk and Boreal Red-tailed Hawk. Ron Pittaway and I like best the name Canadian Red-tailed Hawk. Please let us know the name you prefer by emailing [jeaniron@sympatico.ca](mailto:jeaniron@sympatico.ca).

### Acknowledgements

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7. Photos of Oakville dark morph Red-tailed Hawk: <http://www.jeaniron.ca/2012/darkred.htm>
8. Photos of Oshawa dark morph Red-tailed Hawk: <http://www.facebook.com/media/set/?set=a.10150459572531245.357981.585991244&type=1&l=a082071d63>



Figure 5: Map in ROM specimen cabinet showing ranges of Red-tailed Hawk subspecies. Photo by Jean Iron.