

SPECIMENS OF THE SUBARCTIC NESTING POPULATION OF GREAT HORNED OWL FROM NEW YORK, NEW JERSEY AND CONNECTICUT

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Occasionally individual birds that vary beyond the morphological limits of a local population are found. Such individuals probably occur more often than we realize. When possible (more and more it is not possible), these individuals should be collected to permit direct comparisons with specimens representing known populations. I here report three such specimens of Great Horned Owl (*Bubo virginianus*). One (AMNH 144845) from New York City, 15 February 1910, was presented by the New York Zoological Society (Bronx Zoo); the second (AMNH 753970) is from Durham, Connecticut, 10 January 1910. The most recent (AMNH 825984) was found dead along Interstate Highway 80 in Warren County, New Jersey, on 3 July 1988. It was received from The Raptor Trust of New Jersey, and was recognized by the author as being something other than the local subspecies *B. v. virginianus*.

The New York specimen was discussed in the literature by Cruickshank (1942) and was reevaluated by Parkes in his unpublished Ph.D. thesis (1952). It is the basis for the inclusion of New York in the winter range of "*wapacuthu*" (= *subarcticus*; see below) in the AOU Check-list (1957). The Connecticut specimen, originally in the L. C. Sanford Collection, is labeled *B. v. subarcticus*, but apparently has not been previously reported in the literature. The New Jersey specimen needs some explanation. It was found at the "wrong" time of the year. However, it had an infected and unhealed wing injury. I postulate that this bird was a migrant from the fall and winter of 1987. Before it started north it was severely injured and could not fly; but it was able to feed and, thus, began the annual molt at the appropriate time. When killed on the highway in July, it had nearly finished that molt and is in clean, fresh plumage. It is the first specimen of the northern subspecies from New Jersey. The two 1910 specimens are quite similar to each other in color, although both are rather soiled, grayish where they should be white, probably from coal soot; they suggest that 1910 was an invasion year. This notwithstanding, all three are pale birds that are somewhat more heavily barred with black than more "typical" specimens, but all fall well within the range of variation found in the subarctic nesting subspecies.

The range of the subarctic nesting population was given as "...tree limit in Mackenzie Valley to Hudson Bay, and in northeastern British Columbia (Peace River) south to Central Alberta, Saskatchewan, central Manitoba and northern Ontario" (AOU 1957). On its western and southern borders it intergrades with three subspecies: dark heavily barred *lagophonus* on the west, pale lightly barred *pallescens* in the prairie region, and dark, heavily barred, deeply ochraceous *virginianus* in the east. Thus, specimens from the perimeter of the range of this subspecies show a spectrum of characters. Fortunately, in the east specimens of the northern population differ so greatly from *virginianus* that they are easy to recognize, and probably could be identified in the field were they at all common outside their breeding range.

There has been a snarl of nomenclature problems relating to these birds, which hopefully are now corrected. In the Fifth Edition of the AOU Check-list (1957) the subspecific name *wapacuthu* was used for them, while in the late 1800s *Bubo arcticus* Swainson was used for the subarctic populations (Browning and Banks 1991). However, both of those names are invalid. The first was based on a description of the Snowy Owl, and the second was an unfortunate reuse of *Bubo arcticus*, which previously also had been used for the Snowy Owl. Fortunately, both of those names are younger than *Nyctea scandiaca*, the name used for the Snowy Owl, so they fall into the waste bin of synonyms.

In 1896, Stone realized that the name *subarcticus*, then in use for the pale birds of the great plains, really applied to the northern nesting populations (although he then considered it to be a synonym of *B. arcticus* Swainson). He therefore coined the name *B. v. occidentalis* for "western" pale Great Horned Owl. He used a winter bird from Iowa for his type specimen. Within a year, however, he realized that his type specimen was really a migrant of the northern population. Accordingly, he suggested that the name *occidentalis* be treated as a synonym of *arcticus* (i.e., *subarcticus*), and he renamed the pale, and smaller, western birds *pallescens*, a good name that stands today (Stone 1897). Unfortunately Oberholser's (1904) revision of the species, which is still followed today, ignored Stone's placement of *occidentalis* in the synonymy of *subarcticus*. Oberholser found other similar specimens from western Minnesota to Oregon and south to Kansas (probably mostly winter birds), and recognized them as a large, pale northern prairie population! The range assigned to *occidentalis* by Oberholser transects the

ranges of the same three subspecies mentioned above that lie to the south of *subarcticus*. Oberholser explained the great variation in color which one would expect in migrants from intergrading populations by invoking "color phases". Thus, since 1904 taxonomists have attempted to identify specimens as *occidentalis*, a subspecies with neither characters nor a range of its own (Dickerman 1991). The northern nesting subspecies of Great Horned Owl now is correctly, and appropriately, recognized as *Bubo virginianus subarcticus*.

I here reconfirm the occurrence of *B. v. subarcticus* in New York and record the first specimens of the subspecies from New Jersey and Connecticut.

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LITERATURE CITED

- American Ornithologists Union. 1957. *Check-list of North American Birds*, 5th edition.
- Browning, M. Ralph and R. C. Banks 1991. The identity of Pennant's "Wapacuthu Owl" and the subspecific name for the population of *Bubo virginianus* from the western Hudson Bay. *J. Raptor Research* 24:in press.
- Cruickshank, A. D. 1942. *Birds around New York City*. Am. Mus. Nat. Hist. Handbook Series 13:1-489.
- Dickerman, R.W. 1991. On the validity of *Bubo virginianus occidentalis* Stone. *Auk* 108:in press.
- Oberholser, H. C. 1904. A revision of the American Great Horned Owls. *Proc. U. S. Nat. Mus.* 27:177-192.

- Parkes, K. C. 1952. The birds of New York and their taxonomy. Unpubl. PhD thesis, Cornell Univ.
- Stone, W. 1896. A revision of the North American horned owls with description of a new subspecies. *Auk* 13:153-156.
- _____. 1897. Proper name for the western horned owl of North America. *Amer. Naturalist* 31:236.