

On the Validity of *Bubo virginianus occidentalis* Stone

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Stone (1896) described the geographic variation in, and provided the first revision of, the Great Horned Owls (*Bubo virginianus*) of North America. Prior to his study, the name *subarcticus* had been used for the pale birds of the interior of the United States. Stone (in consultation with Ridgway) found the type of *subarcticus* to represent the boreal nesting population, and they considered the name to be a synonym of *Strix arcticus* Swainson, then in use for the pale subarctic nesting population. Stone (1896) then provided a key to the forms he recognized, and he introduced the name *Bubo virginianus occidentalis* for the pale birds of the Great Plains. He used for the type a pale, unsexed specimen from Mitchell County, Iowa, taken in winter of 1880 and then available in the Academy of Natural Science of Philadelphia. He did not attempt to define the range of *occidentalis*.

Almost immediately he apparently reached the conclusion that his type "proves to be intermediate between *B. virginianus* and *arcticus* and does not belong to the race which I had intended to rename; the latter not extending that far east [italics mine]" (Stone 1897). Using a specimen from the Watson Ranch, 18 miles southwest of San Antonio, Texas, he renamed the smaller and pale western birds *pallescens*.

In 1904 H. C. Oberholser published his classic revision of the species. The revision was uniformly

accepted—with minor exceptions—and has been followed since. Oberholser gave *occidentalis* subspecific status, apparently ignoring Stone's recognition that the type was a migrant of the boreal population, although Oberholser (1904) cited Stone's 1897 paper as the source of *pallescens*. Oberholser assigned *occidentalis* a range from western Minnesota to southeastern Oregon, and south in the prairies to Kansas. In his introduction Oberholser wrote that "... with the exception of *occidentalis* and *wapacuthu*, all seem to be strictly nonmigratory ...;" (Oberholser 1904) but he did not indicate which specimens of *occidentalis* he considered to be migrants.

With the characters of *occidentalis* being only size (the type is probably a female) and darkness relative to *pallescens*, I was confused as I attempted to identify pale birds from the east (New York, New Jersey, and Connecticut) and even specimens from South Dakota, and more recently as I attempted to resolve the status of *occidentalis* vs. *pallescens* in the prairie nesting populations of eastern New Mexico. An east-west range transecting the middle of North America and spanning the northern prairies and the Rocky Mountains from western Minnesota to northeastern California (AOU 1957) is improbable biogeographically. There is a series of good dark and ochraceous specimens typical of *virginianus* from Nebraska in the Denver

Museum of Natural History, and several specimens intermediate with or closer to *virginianus* from eastern Colorado. Thus I reexamined the type of *occidentalis*.

Stone (1897) was absolutely right. Unfortunately, he used a pale "western" (from Philadelphia) specimen as the type of *occidentalis*, not knowing the northern form was moderately to highly invasive. Oberholser's concepts of *occidentalis* were (I believe) based on migrants of the subarctic nesting form—or intergrades between it and the various adjacent more southerly populations as evidenced by his recognizing, at least in Colorado, a "dark phase" (p. 191). Thus, as Stone stated correctly, his *Bubo virginianus occidentalis* becomes a synonym of *Bubo virginianus subarcticus* Ridgway (see Browning and Banks 1991).

With *occidentalis* recognized as a synonym of *subarcticus*, the characters of *pallescens* vs. *subarcticus* must now be determined to delimit their ranges in the midcontinent area from Texas northward through the continuous grasslands east of the Rockies to the western and northern prairie provinces of Canada.

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LITERATURE CITED

- AMERICAN ORNITHOLOGISTS' UNION. 1957. Check-list of North American birds, fifth edition. Washington, D.C., Am. Ornithol. Union.
- BROWNING, M. RALPH, & R. C. BANKS. 1991. The identity of Pennant's "Wapacuthu Owl" and the subspecific name for the populations of *Bubo virginianus* from the western Hudson Bay. *J. Raptor Res.* 24. In press.
- OBERHOLSER, H. C. 1904. A revision of the American Great Horned Owls. *Proc. W. S. Natl. Mus.* 27: 177-192.
- 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. *Am. Nat.* 31: 236.

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