

## A REVIEW OF THE LITERATURE OF *ACCIPITER STRIATUS PEROBSCURUS*, WITH A REPORT OF SPECIMENS FROM CALIFORNIA, COLORADO, AND NEW MEXICO

ROBERT W. DICKERMAN, Museum of Southwestern Biology, University of New Mexico, Albuquerque, New Mexico 87131

Snyder (1938) described a dark, rainforest subspecies of the Sharp-shinned Hawk (*Accipiter striatus perobscurus*) from Graham Island, Queen Charlotte Islands, British Columbia. This subspecies is darker dorsally and ventrally in all plumages than the widespread North American subspecies *A. s. velox* (Figures 1 and 2). Snyder gave its summer range as from southeastern Alaska (Yakutat Bay) south on the islands and adjacent coast of British Columbia to Vancouver Island, and its winter range as from the Queen Charlotte Islands to Vancouver Island "and apparently south to the San Francisco Bay region of California." He also mentioned an inland record from the Okanagan Valley of British Columbia. The American Ornithologists' Union added *A. s. perobscurus* to its check-list in the 19th supplement (AOU 1944), with its summer and winter ranges as delineated by Snyder. In this note I extend the winter range, clarify the characters of the subspecies, and suggest that migrants and wintering birds in other collections be reexamined.

Brodtkorb (1940) added the mainland locality of Hazelton, British Columbia, as a possible nesting locality on the basis of juveniles taken 3 and 4 August, though juveniles of *A. s. velox* were also taken there 28 July and 12 August, and he cited November specimens from Portland and Tillamook, Oregon. Aldrich, when working on the *Birds of Washington* (Jewett et al. 1953), probably provided Friedmann (1950) with the nesting range in that state, as Jewett et al. wrote "probably breeding in the Puget Sound region and on the Olympic Peninsula." The AOU (1957) apparently followed Jewett et al. in including the Olympic Peninsula in the nesting range and in extending the winter range to Oregon, but it deleted California from the range entirely.

Subsequent authors (e.g., Godfrey 1986, Palmer 1988) have accepted *perobscurus* as valid, repeating the taxon's nesting and winter ranges as outlined by the AOU (1957). Brown and Amadon (1989), del Hoyo et al. (1994), Bildstein and Meyer (2000), and Ferguson-Lees and Christie (2001) all omitted both the Alaska and Washington portions of the nesting range, although VIREO provided Bildstein and Meyer (2000) with a photo of a typical *perobscurus* to use as a front-cover illustration. That photo was taken near Santa Barbara, California, in November 1999. Neither *perobscurus* nor dark Sharp-shinned Hawks have been reported from Arizona (Phillips et al. 1964, Monson and Phillips 1981), Colorado (Bailey and Niedrach 1965), Idaho (Burlleigh 1972), Texas (Oberholser 1972), or Utah (Hayward et al. 1976, Behle 1985). In their treatise on the birds of British Columbia, Campbell et al. (1990) neglected to address *A. s. perobscurus*.

I compared two dark adults from New Mexico and an immature from Yakima County, Washington, in the Museum of Southwestern Biology (MSB) with specimens of *perobscurus* at the American Museum of Natural History, including immature topotypes from the Queen Charlotte Islands, and at the United States National Museum of Natural History (USNM). They proved to be migrant or resident *perobscurus*. Subsequently, using the relative color and pattern characters presented in Table 2, I identified an adult from California and immatures from Oregon, Washington, Colorado, and New Mexico (Table 1) as *perobscurus*. These specimens are illustrated in Figures 1 and 2.

In addition to dark coloration, Smith (1988) characterized coastal populations from northern California to southeastern Alaska as having relatively short wings and tails and relatively long but thin tarsi. Using the correction factors compiled by Smith (1988)

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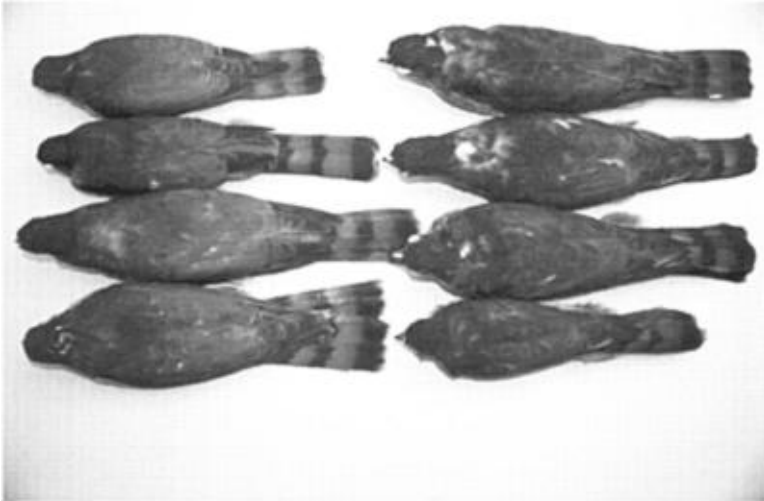
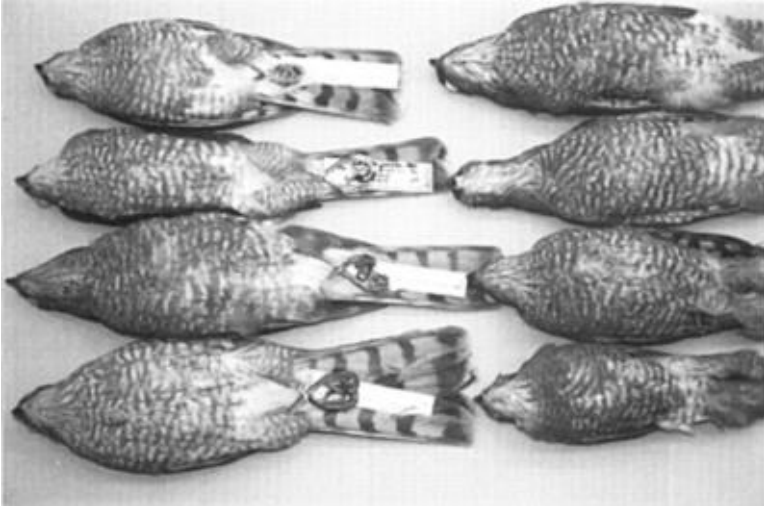


Figure 1. Top row, four adults of *Accipiter striatus uelox* from New Mexico, December–April. Bottom row, left to right, four adults of *Accipiter striatus perobscurus*: MSB 12116, California, Humboldt Co.; MSB 12121, California, Humboldt Co.; MSB 4966 New Mexico, Socorro Co.; MSB 18769 New Mexico, Valencia Co. (see Table 1 for full data).

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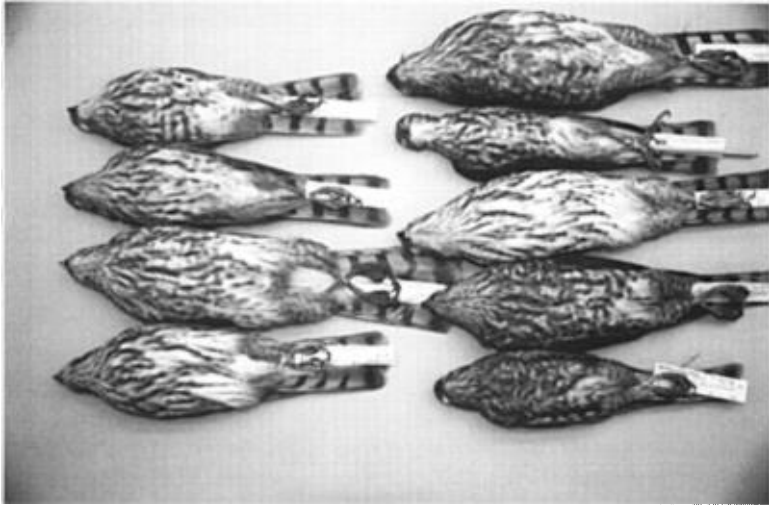


Figure 2. Top row, four immatures of *Accipiter striatus velox* from Nevada, Arizona, and New Mexico, September–December; Bottom row, left to right, five immatures of *Accipiter striatus perobscurus*: MSB 23480, Oregon, Benton Co.; MSB 4303 Washington, Yakima Co.; MSB 19976, Washington, Stevens Co.; MSB 12943, Colorado, Boulder Co.; MSB 3888, New Mexico, Curry Co.

NOTES

**Table 1** Specimens of *Accipiter striatus perobscurus* in the Museum of Southwestern Biology

MSB no.	Sex	State	County	Locality	Date
Adults					
12116	male	California	Humboldt	near Arcata	1 January 1959
12121	female	California	Humboldt	Eureka	12 February 1959
4966	female	New Mexico	Socorro	Socorro	22 December 1981
18769	female	New Mexico	Valencia	Los Chaves	19 February 1994
Immatures					
4303	female	Washington	Yakima	Toppenish, 12 mi. W	27 December 1957
19976 <sup>a</sup>	female	Washington	Stevens	Northport, 19 mi S, 5 mi. E	[1995-1997]
23480	male	Oregon	Benton	Philomath, 2 mi E	1 November 1966
12943	male	Colorado	Boulder	Lyons, 1 mi N	[1980s]
3888	male	New Mexico	Curry	Clovis	9 September 2003
23801 <sup>b</sup>	male	New Mexico	Santa Fe	Pajarito Village	13 October 2003

<sup>a</sup>Intermediate *A. s. velox* × *A. s. perobscurus*.

<sup>b</sup>Not illustrated in Figure 2.

to compare measurements of dried museum specimens with those of live birds, I found that only six of the ten specimens I identify here as *perobscurus* have wing chords shorter than the mean (per age and sex) of a very large series of migrants trapped in the Goshute Mountains of Nevada (Hoffman et al. 1990). Only three of four males (no females) have tails longer than Nevada migrants. However, seven of ten have tarsi longer tarsi and all ten have tarsi thinner than the Nevada birds.

Snyder's description (1938) was almost exemplary, but I believe he overemphasized that the first-year plumage is more diagnostic than the adult plumage. This statement has been cited uncritically by subsequent authors (Friedmann 1950, Palmer 1988, Bildstein and Meyer 2000), but it is certainly not the case in the small series presented here (Figures 1 and 2). I wonder if Snyder's type series might have contained late migrants of *velox*. Brad Millen of the Royal Ontario Museum (ROM) kindly posted on the World Wide Web nine files of photos of that museum's series of adults of

**Table 2** Relative Color and Pattern Differences Distinguishing *Accipiter striatus perobscurus* from *A. s. velox*

Plumage	Character	<i>A. s. velox</i>	<i>A. s. perobscurus</i>
1 <sup>st</sup> fall/winter	dorsum	browner	more sooty
	venter	streaking less dense	streaking denser, often darker
	tarsal flags	pinker, less heavily barred	darker, more heavily barred
2 <sup>nd</sup> fall/winter	light tail bars	lighter, clearer gray	slightly darker
	dorsum	browner	more sooty, but some inseparable from
	venter	streaking less dense	<i>velox</i> streaking denser, often darker
	tarsal flags	pinker, less heavily barred	average darker and more heavily barred
Definitive	light tail bars	medium gray	medium gray
	dorsum	medium to dark gray, often	sooty barring occasionally massive,
	venter	with bluish cast barring paler	always heavier and darker
	tarsal flags	and less dense lighter and	heavier and darker
	light tail bars	pinker medium gray	a shade darker

## NOTES

*perobscurus*, including the type specimen. The type is not a "juvenile" as stated by Snyder but is in second-year plumage.

Although Snyder indicated that *perobscurus* is migratory south to the San Francisco Bay area, and the 19<sup>th</sup> supplement to the AOU Check-list said it wintered to central California (AOU 1944), Friedmann (1950) and the AOU (1957) stated that it ranged in winter south only to Oregon, and Palmer (1988) said it was nonmigratory. However, J. A. Munro collected an adult female (ROM 86061) 19 November 1953 in San Luis Obispo County, California. Patten and Wilson (1996) published a photograph of a bird seen by J. C. Wilson on 12 November 1994 at Bakersfield, Kern County, California. The bird, an immature, was uniformly warm brown below, and they considered it to be a dark morph. Clark and Wheeler (1998), without having seen the colored slides of the bird (Patten in litt. January 2004), decided it was *perobscurus*. I examined the three original slides and cannot decide if it is a morph, a phase, or, more likely, simply stained, but the bird definitely cannot be identified as *perobscurus*. Clark and Wheeler (1998) published a photo of specimens of four subadults but failed to give any information about them. They also mentioned a juvenile "male" collected on "Lassen Park, California, in 1908" but failed to cite its number or give its date. That specimen is actually a juvenile female by size (wing chord 205, tail 162), USNM 164125, collected by A. K. Fisher (field no. 85), on 26 August 1898, on Lassen Peak at the lower edge of the Hudsonian zone. This specimen tentatively may extend the nesting range of *perobscurus* south to Lassen Peak, Shasta County, California, although migrant Sharp-shinned Hawks may occur by that date. Note that Grinnell and Miller (1944) recognized "darker variants among the winter populations" and wrote that "some moderately dark individuals apparently are permanent residents in California," but they did not call them *perobscurus*. Such specimens should now be reexamined. The nesting range of *perobscurus* is surrounded by that of *velox*, so one would expect intermediates such as MSB 19976, the middle specimen in the bottom row in Figure 2, presumably a migrant, from Stevens County in eastern Washington. This window-killed female is typical of *perobscurus* dorsally but is as pale as *velox* ventrally, a mosaic of intermediacy, rather than just a blend of characters of the two subspecies.

It is interesting to note that there are three other sooty-backed subspecies of raptors adapted to the rain forests of the coastal British Columbia region: of the Northern Goshawk (*Accipiter gentilis laingi*), the Peregrine Falcon (*Falco peregrinus pealei*), and the Merlin (*Falco columbarius suckleyi*). Only the goshawk is apparently nonmigratory. There are five specimens of the *F. c. suckleyi* from New Mexico, one from Lake La Jara (AOU 1957), and four in the MSB collection. Two of these are intermediate toward *F. c. columbarius*. Specimens in other western collections should be examined in a search for these occasional long-distance wanderers.

I thank the curators of the American Museum of Natural History, and the U. S. National Museum of Natural History for permission to compare birds in their collections, and James Dean of the latter institution for providing the correct data on the Lassen Peak specimen. John C. Wilson loaned me the colored slides of the oddly colored bird from Bakersfield, and J. P. Smith, C. M. White, and M. A. Patten made very helpful comments on the manuscript.

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Accepted 8 March 2004