

A NEW SWIFT FROM THE UNITED STATES

BY CHARLES H. ROGERS

THE REMARK on the label of a White-throated Swift from the collection of the late Henry K. Coale that it 'appears to be larger than Ariz. Bds.', and a preliminary examination of the pertinent material in the collection of the Princeton Museum of Zoölogy, started my borrowing, measuring, and examining skins of this species until I had studied 162 specimens. As a result, I feel justified in describing and naming as new a race which, with its type locality in Colorado, I take pleasure in naming to honor William Lutley Sclater, Director from 1906 to 1909 of the Colorado College Museum, author (1912) of 'A History of the Birds of Colorado,' and since then become famous in ways that need no mentioning.

***Aëronautes saxatilis sclateri* subsp. nov.**

Type, P. M. Z. no. 10300, H. K. Coale, no. 21765, a male collected by Wm. Osborne (his no. 836) at Loveland, Larimer County, Colorado, 26 May 1890.

Description.—Averaging larger than *A. saxatilis saxatilis* in all measurements, especially the wing; 45 specimens of both sexes measure: wing, 142-155 mm. (average, 146.6); tail, 54-63 (average, 58.5); culmen (30 specimens), 5-6.5 (average, 5.7); tarsus (30 specimens), 10-13 (average, 11.65). Of *A. s. saxatilis*, 104 specimens measure: wing, 128-145 (one 147; average, 138.5); tail, 50-62 (average, 55.2); culmen (30 specimens), 4.5-6 (average, 5.4); tarsus (30 specimens), 9-12 (average, 10.5). All measurements are in millimeters, and the wing was straightened and flattened.

Range.—The range of *A. s. sclateri* is the northeastern part of the range of the species, in Montana, Wyoming, South Dakota, Nebraska, and most of Colorado. The range in Colorado includes the part of the State east of the Continental Divide and probably westward at least to New Castle in eastern Garfield County, whence four specimens have wings of 143, 144, 147, 147 mm., and I have included them in *sclateri*. Three specimens from western Montrose County, in the southwestern part of the State, have wings of 137, 144, 147 mm. and seem to indicate a mingling with the smaller form of nearby northwestern New Mexico, and I have not included them in the statistics of either race.

The wing and tail measurements of the Northeastern White-throated Swift, classified regionally and sexually, are as follows:

Locality	Males		
	No.	Wing	Tail
Montana.....	3	146-149 (147.-)	56-62 (58.3)
Wyo., S. D., Neb.....	7	144-149 (146.7)	56-62 (59.6)
Colorado.....	13	143-151 (146.-)	56-63 (58.8)
Average.....	23	143-151 (146.3)	56-63 (59.-)

Locality	Females		
	No.	Wing	Tail
Montana.....	10	142-153 (146.2)	55-63 (57.3)
Wyo., S. D., Neb.....	3	144-151 (147.-)	57-62 (59.-)
Colorado.....	9	142-155 (147.7)	54-61 (58.6)
Average.....	22	142-155 (146.9)	54-63 (58.-)

The White-throated Swift was originally described in 1853 by Woodhouse (Rep. Sitgreaves' Exped. Zuñi and Colo. Rivers, p. 64) as *Acanthylis saxatilis* from birds seen at Inscription Rock, Valencia County, in northwestern New Mexico, but, as none was collected, there is no type specimen. Three skins from Gallup and Fort Wingate, within forty miles to the northwest of Inscription Rock, taken July 3-14, have wings of 139, 142, 145 mm., and two from the Jacarilla Indian Reservation, about 140 miles to the northeast of the Rock, May 26-30, have wings of 140, 144 mm., which would seem to put the type locality within the range of the smaller race.

As far as the specimens I have examined show, the range of Woodhouse's White-throated Swift is Lower California and northward at least into Oregon and eastward into Sonora and through Arizona and New Mexico to the Davis and Chisos Mountains in northwestern Texas. Wing and tail measurements from this range follow:

Locality	Males		
	No.	Wing	Tail
Oregon.....	1	136	56
California.....	11	136-144 (139.5)	52-61 (56.6)
Lower California.....	8	135-144 (139.-)	53-57 (55.5)
Arizona.....	19	128-145* (139.5)	53-61 (57.1)
New Mexico.....	10	134-145 (139.7)	51-59 (55.6)
Texas.....	1	141	55
Sonora.....	3	130-139 (134.3)	53-55 (53.7)
Average.....	53	128-145* (139.15)	51-61 (56.2)

Locality	Females		
	No.	Wing	Tail
California.....	7	132-142 (139.-)	53-61 (55.7)
Lower California.....	9	132-145 (138.1)	52-57 (54.7)
Arizona.....	20	132-144 (136.9)	52-58 (55.5)
New Mexico.....	9	136-145 (141.-)	54-62 (56.3)
Texas.....	1	134	50
Sonora.....	1	137	55
Average.....	47	132-145 (138.15)	50-62 (55.4)

* One specimen, 147.

According to these figures, females of *sclateri* average larger than males, while the reverse is true of the more western race. But in New Mexico the males of *A. s. saxatilis* average smaller than females from the same State, and that, in connection with the fact that New Mexican birds of each sex average larger than those of Arizona and the coastal States, may indicate an approach to *sclateri*, and the average of *A. s. saxatilis* as a whole would be smaller and in greater contrast with *sclateri* were the New Mexican birds not included. However, all the differences mentioned in this paragraph are very slight and may well not be significant, and, furthermore, the smallest specimen of the coastal race is labeled a male, and the smallest of the more eastern race a female, so that we may say that in this species there is very little if any sexual difference in size. Of course, in species with no difference in color either, there is always the possibility of error in sexing by the collector, but as most of the specimens studied for this paper were taken in the breeding season, this possibility is reduced to a minimum. Also due to the fact that so many of these skins were collected in May, June, and July, the tips of their remiges and rectrices were usually more or less worn, but as that condition was approximately the same in my specimens of both races, I have ignored it. For an aërial species, the amount of wear shown by the plumage is at first surprising, till one recalls the rocky, rough nature of the cavities where the birds not only nest, but roost at all seasons. Three skins collected at Zortman, Montana, during the last week of July, had the feathers of the under parts worn to shreds, but the molt had begun, recently in one, farther advanced in another, and well along toward completion in the third.

One female from Moorhead, Montana, taken June 25, 1916, has a wing of only 132 mm., not only 10 mm. shorter than any other specimen from the range of *sclateri*, but actually at the normal minimum of *saxatilis*, for I have measured only two specimens out of 104 of the latter subspecies which were any smaller. This bird is either an excessively abnormal *sclateri*, or, more probably, a straggling specimen of *saxatilis*, and I have not included it in the statistics of either race. One male from the Huachuca Mts., Arizona, taken July 18, 1894, with a wing of 147 mm., is the only specimen from the range of the smaller form measuring more than 145 and may be an early transient *sclateri*, though I have included it in *saxatilis*. I have excluded two from the Davis Mts., Texas (wings 144, 148), taken in October, two from the Chisos Mts., Texas (143, 144), taken May 13, and one from Nuevo Leon (142), taken in April, as at least possible transients. Two from the Humboldt Mts., Nevada (142, 147), may indicate that *sclateri* ranges that far west, but as I have seen no others from Nevada and none from Utah, they are inconclusive.

The normal range of individual variation in wing measurement seems to

be 13 mm. in each of these two subspecies, 132-145 in *saxatilis*, 142-155 in *sclateri*, the former normally ranging down to 10 mm. (exceptionally 14 mm.) below the minimum of the larger form, the latter up to 10 mm. above the normal maximum of the smaller.

Taking care to use only comparable material, I have painstakingly examined this series of White-throated Swifts for subspecific difference in coloration, but I have found none. This species fades noticeably both during the life of the bird and through the years after collection, and the extent of the white areas varies with the makeup of the specimen. *Aëronautes saxatilis sclateri* is, therefore, just another 'millimeter race,' which some ornithologists will not endorse, but this study has at least added to our knowledge of the geographic variation in the species, has shown the existence of two populations undeniably somewhat different, and provided a name, for the use of those who care to recognize such a difference, for the population hitherto undifferentiated.

This paper would not have been possible but for the kindness of those in charge of the collections of birds in the American Museum of Natural History, the Academy of Natural Sciences, the United States National Museum, the United States Biological Survey, the Carnegie Museum, and the Colorado Museum of Natural History, in allowing me the use of material, for which I am grateful, as I am also to Dr. H. C. Oberholser, who, as I learned in the course of my borrowing, had also begun studies toward the describing of this same swift, and who generously stepped aside in my favor.

Princeton Museum of Zoölogy
Princeton, New Jersey