

TAXONOMIC STATUS OF THE BANK SWALLOW OF NORTH AMERICA

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The United States National Museum recently acquired a collection of birds from north-central Alaska through Dr. Lawrence P. Irving, biologist with the United States Public Health Service. In this collection there were 22 Bank Swallows (*Riparia riparia*), including 8 adults and 10 young, from the Yukon Valley in the vicinity of Eagle and 40-Mile, 3 adults from Bettles, and 1 adult from Tolugak Lake. All were darker than other Alaskan skins in the collection of the United States National Museum.

This difference in color led me to believe that possibly *R. r. ijimae*, a dark race occurring in southeastern Siberia and heretofore recorded for North American on the basis of only two specimens (Bailey, *et al.*, Prog. Act. Chicago Acad. Sci., 4, 1933:35; and Huey, Auk, 55, 1938:555), might be more common than previously supposed. Adults in the series obtained by Irving are as dark as topotypical specimens of *R. r. ijimae*, but agree in size (see table) with North American specimens. Young are as dark as adults and decidedly unlike the young of the Siberian race. The latter have a greater number of rufous-tipped dorsal feathers, particularly on the head.

Since color was the only difference between Irving's specimens and those from North America as a whole, it seemed logical that post-mortem color-change might have occurred. Specimens in the National Museum, when arranged in chronological order, varied in color from almost black, as in the Irving series, through gray to a dirty brown. All skins between the ages of 10 and 100 years were approximately the same color. Skins 2 and 3 years old showed some signs of change, being lighter than relatively fresh specimens, but still definitely gray. The complete change from a dark to a dirty brown apparently takes place within the first 7 to 10 years.

If it is assumed that this tendency to post-mortem color-change is not restricted to specimens of North American Bank Swallows, then it follows that the skins of *R. r. ijimae* used in this study were also darker when fresh, and hence they may not have been reliable for comparative purposes. It may be further postulated that the application of the name *R. r. ijimae* to the two birds which represent the only North American records of this race might very well have been the result of a comparison of fresh specimens with older and browner skins from North America. The two would appear distinct enough to be called different races, and fresh specimens would approximate in color even the older skins of *R. r. ijimae*. The measurements as well as the color of the specimens in question check with those of skins of comparable post-mortem age from North America. Under the circumstances, it appears that Irving's specimens and the two previously designated as *R. r. ijimae* are not members of that race but belong to the North American form.

The Bank Swallow of North America was separated from that of Europe by Stejneger in 1885 (Bull. U. S. Nat. Mus., 29:378). He found that the American population had a shorter wing, a less deeply forked tail in proportion to the length of the hind toe plus the claw, and a larger foot. To this population he gave the name *maximiliani*. This race has been recognized by some authorities (Oberholser, Bird Life of Louisiana, 1938:405), but not by the A.O.U. Check-list Committee nor by Hellmayr (Cat. Birds Amer., 8, 1935:63). The latter did note the differences pointed out by Stejneger and stated that if this population were recognized it should be called *R. r. maximiliani*. Data from skins used in this study support Stejneger's original contention. North American adults do average slightly smaller in wing length and depth of tail-fork. The former are less rufous than the latter, a feature particularly noticeable in the young. In most of

the European young, the feathers of the lower back and upper tail coverts are extensively tipped with rufous. The same areas in birds from North America are comparatively dark.

In conclusion, after examination of both specimens of *Riparia riparia ijimae* reported from North America, it appears that both represent the American race, suggesting the Siberian race merely because of the color difference between fresh and older, "foxed" skins. That race hence does not occur in North America and should be deleted from the A.O.U. Check-list. Secondly, the North American population of *Riparia riparia* is separable from that of Europe and Asia on the basis of two mensural characters and should be recognized. The name *R. r. maximiliani* (Stejneger) is available for this population.

Comparative Measurements of Adult Specimens of *Riparia riparia*

| Character measured | Range (in mm.) | Average | Number of specimens examined ³ |
|--|--------------------------|--------------------|---|
| <i>R. r. riparia</i> (Europe and Asia) | | | |
| Wing length ¹ | 100.5-109.8 | 103.8 ² | 5 ♂♂; 3 ♀♀ |
| Depth of tail fork | 5.0- 10.2 | 8.4 | 4 ♂♂; 3 ♀♀ |
| Tarsus | 9.9- 10.3 | 10.0 | 1 ♂; 2 ♀♀ |
| Exposed culmen | 5.2- 6.1 | 5.8 | 1 ♂; 2 ♀♀ |
| <i>R. r. ijimae</i> (Siberia and Japan) | | | |
| Wing length | 97.5-106.9 | 102.2 ² | 6 ♂♂; 4 ♀♀ |
| Depth of tail fork | 9.2- 12.2 | 10.6 | 6 ♂♂; 4 ♀♀ |
| Tarsus | 10.2- 10.6 | 10.4 | 1 ♂; 1 ♀ |
| Exposed culmen | 6.0- 6.2 | 6.1 | 1 ♂; 1 ♀ |
| <i>R. r. maximiliani</i> (North America) | | | |
| Wing length | 93.5-106.4 | 99.9 ² | 31 ♂♂; 17 ♀♀ |
| Depth of tail fork | 4.2- 11.8 | 8.1 | 25 ♂♂; 17 ♀♀ |
| Tarsus | 9.7- 10.4 | 10.1 | 6 ♂♂; 4 ♀♀ |
| Exposed culmen | 5.7- 6.2 | 6.0 | 6 ♂♂; 4 ♀♀ |
| Irving's series from Alaska | | | |
| Wing length | 95.6-102.7 | 99.5 ² | 6 ♂♂; 5 ♀♀; 1 unsexed |
| Depth of tail fork | 5.2- 10.0 | 7.7 | 6 ♂♂; 5 ♀♀; 1 unsexed |
| Tarsus | 9.4- 11.2 | 10.2 | 6 ♂♂; 5 ♀♀; 1 unsexed |
| Exposed culmen | 5.2- 6.4 | 5.9 | 6 ♂♂; 5 ♀♀; 1 unsexed |
| 1 adult male from Alaska previously called " <i>ijimae</i> " | | | |
| Wing length | 101.0-101.5 ³ | | |
| Depth of tail fork | 10.0 | | |
| Tarsus | 9.8- 10.0 | | |

¹ Chord.

² Includes measurement of both wings in each specimen where practicable.

³ The following numbers of immature specimens were examined: *R. r. riparia*, 10; *R. r. maximiliani*, 45; and *R. r. ijimae*, 3.

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