

NOTES ON SOME AMERICAN SHOREBIRDS

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In connection with some other work it recently became necessary to check the identifications of the specimens of American shorebirds in the Chicago Natural History Museum. In doing this an investigation of the validity of a number of races was made. Believing that some of the findings might be of interest to others, they have been written up and are presented herewith.

For the loan of specimens I am indebted to the American Museum of Natural History, New York, the Colorado Museum of Natural History, Denver, the Museum of Comparative Zoology, Cambridge, the Louisiana State University, Baton Rouge, the Museum of the University of Kansas, Lawrence, the Museum of Zoology of the University of Oklahoma, the Academy of Natural Sciences of Philadelphia, the United States Fish and Wildlife Service and the United States National Museum, Washington.

Jacana spinosa violacea Cory

Parra violacea Cory, Bull. Nutt. Ornith. Club, 6, 1881:130—Haiti, type from Gantier.

A comparison of the two series of adults (including the type) listed below fails to show any constant distinguishing characters for the birds from the Greater Antilles. The coloration of both the upper and under parts varies in the same degree in both lots, and any example from the West Indies can be matched by one from Central America. The variation in the size of the lappets is the same in both and undoubtedly is influenced by the proximity of the breeding season.

The name *violacea* therefore should be dropped and the range of the typical race *spinosa* extended to include the Greater Antilles. As a matter of fact, beginning with his "Birds of Haiti and San Domingo" published in 1885, Cory himself put this name into synonymy.

Material examined.—Greater Antilles, 27: Cuba (Isle of Pines, 5; Cabanas, 5; Palacios, 3; Oriente, 1); Dominican Republic (Lake Enriquilla, 2; Lake of Rincon, 1; San Domingo, 1); Haiti (Gantier, 1; Lake Assuei, 3; Etang Saumatre, 1; Mivagoane, 1; Fort Liberty, 2); Jamaica (Hodge's, Long Pond, 1).

Central America, 49: Mexico (Tamaulipas, 1; Cruz, Tamaulipas, 1; Tampico, 19; Apatzingan, Michoacan, 1; Matamoras, Campeche, 1; Yucatan, 1; San Felipe, Yucatan, 2); Guatemala (Istapa, Santa Rosa, 4; Quezaltenango, 1; Peten, 1); El Salvador (San Sebastian, La Paz, 4); Nicaragua (Grenada, 1); Costa Rica (Puntarenas, 2; Limon, Limon, 3; Bebedero, Guanacaste, 2; Ballina, Guanacaste, 1); Panamá (Bocas del Toro, 2; Cricamola, Bocas del Toro, 2).

Jacana spinosa intermedia Sclater

Parra intermedia Sclater, Proc. Zool. Soc. London, 1856 (1857):282—Venezuela.

As its name suggests, this form is intermediate between the maroon-backed *J. s. melanopygia* and the lighter-backed *J. s. jacana*. Among the Venezuelan specimens examined, the ones from the country lying between the eastern base of the Andes and the state of Carabobo are the darkest, while those from the state of Sucre and the Orinoco are lighter dorsally and often very like *J. s. jacana*. Examples from just east of the Andes in Colombia, however, are the darkest of all, one from Morelia being indistinguishable from some examples of *melanopygia*. It is probable that this dark maroon-backed phase extends south through eastern Ecuador to connect with the very similarly colored *peruviana* of eastern Peru.

Material examined.—Venezuela, 19: Maracay, Aragua, 4; Lake Valencia, Aragua, 1; El Cuji, Lara, 1; Duaca, Lara, 1; Valencia Carabobo, 2; Guanoco, Sucre, 2; San Antonio, Sucre, 3; Altigracia, 3; Sacupana, Orinoco Delta, 2.

Colombia, 5; Morelia, Caqueta, 4; Belen, 4.

Charadrius alexandrinus nivosus Cassin

Aegialitis nivosus Cassin, in Rept. Expl. Surv. R. R. Pac., 9, 1858:696—Presidio, California.

An examination of specimens from eastern Colorado, Kansas, Oklahoma and the Gulf coast west of Florida shows that birds from these localities do not differ in coloration from a series taken in California, examples in comparable plumage being identical. Several of the Oklahoma specimens, it is true, are rather light, but their plumage is worn and shows evidence of extreme fading, due probably to the type of ground on which they were nesting.

The range of this race therefore should be extended east to Alabama.

Material examined.—Colorado, 7: Barr Lake, Adams County, 1; Eads, Kiowa County, 6.

Kansas, 3: Stafford County, 1; Ashland, Clark County, 2.

Oklahoma, 9: Cimarron River, 1; unspecified, 1; Greer County, 3; Cherokee, 3; Edith, 1.

Texas, 17: Frijole, 3; Corpus Christi, 3; Port Aransas, 3; Port Isabel, 2; Port Lavaca, 3; Rockport, 2; Aransas County, 1.

Louisiana, 11: Cameron, Cameron Parish, 5; East Timbalier Island, Lafourche Parish, 4; Creole, Cameron Parish, 1; Grand Isle, Jeff Davis Parish, 1.

Mississippi, 4: Horn Island, 1; Deer Island, 2; Gulfport, 1.

Alabama, 1: Dauphine Island, 1.

California, 115: various localities.

Charadrius alexandrinus tenuirostris Lawrence

Aegialitis tenuirostris Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, 1862:455—Near Guantanamo, Cuba.

A comparison of the specimens listed below with a large series from California and Utah raises grave doubts as to whether this race is worthy of recognition and leads me to believe that the supposed lighter coloration of *tenuirostris* is due entirely to wear and fading. Unfortunately no specimens from the type locality, Cuba, seem available in this country. Those examined from other islands in the West Indies leave much to be desired, as none is in fresh, unworn breeding plumage. Practically all of them can be matched, however, by examples from California in the collection of the Chicago Natural History Museum. In the Florida series, two of the specimens are dark and similar to birds in corresponding plumage from California. The rest are rather light colored, some (including the one from Yucatan, Mexico) being a grayish white. All these lighter birds, however, are very worn and show extreme fading, due probably to local conditions.

Specimens from the West Indies in fresh, unfaded breeding plumage are badly needed to settle this question.

Material examined.—West Indies, 18: Bahama Islands (Great Inagua, 3; Grand Turk Island, 1; Grand Caicos, 2; Crooked Island, 2; Fortuna Island, 2); Haiti (Etang Bois Neuf, St. Marc, 1; Lake Assuei, 1); Puerto Rico (Cabo Rojo Light, 5); Virgin Islands (St. Croix, 1).

Florida, 21: Mary Esther, 9; St. Andrew, 1; Santa Rosa Island, 7; East Pass, 2; Big Pass, 2.

Mexico, 1: Yucatan (Rio Lagartos, 1).

Charadrius wilsonius rufinucha Ridgway

Aegialitis Wilsonius var. *rufinucha* Ridgway, Am. Nat., 8, 1874:109—Spanishtown, Jamaica.

Ridgway, although the describer of this race, omits it from his "Birds of North and Middle America," so he must have later changed his mind and thought it unworthy of recognition. Peters (Bull. Mus. Comp. Zool., 61, 1917:403; Auk, 44, 1927:535) believes it is separable, stating that West Indian birds are darker than those from the mainland. Wetmore (Bull. U. S. Nat. Mus., 155, 1931:148) agrees with this, but states that specimens seem to fade after a few years, and only fairly recently taken ones show the darker coloration.

The West Indian series listed below was taken between the months of March and July, as early as 1900 and as late as 1937. Comparison of them with Texas and Florida birds taken from 1896 to 1923 does not show that there is any difference in coloration.

In fact the darkest specimens are April ones from Texas and a March one from Matamoros, Mexico, taken in 1916 and 1912, respectively.

Material examined.—West Indies, 48: Bahama Islands (Great Inagua, 5; Andros, 5; Mariguana, 5; Aklin, 2; Great Bahama, 2; Eleuthera, 4; Green Turtle Cay, 1); Cuba (Cabanas, 4; Mariel, 1); Haiti (Gran Boucan, 1; Aquin, 2; Etan Saumatre, 2); Puerto Rico (Cabo Rojo Lighthouse, 1); Virgin Islands (St. Croix, 5; Virgin Gorda, 2; Anegada, 5); Lesser Antilles (Little Saba, 1).

North America, 38: Virginia (Northampton County, 2); North Carolina (Dare County, 7); South Carolina (Charleston County, 1); Florida (Nassau County, 6; Brevard County, 4); Texas (Corpus Christi, 8; Port O'Connor, 4; Cameron County, 4); Mexico (Matamoros, Tamaulipas, 2).

Charadrius wilsonius cinnamominus Ridgway

Pagolla wilsonia cinnamomina Ridgway, Bull. U. S. Nat. Mus., No. 50, pt. 8, 1919:108 (in key), 113—Sabanilla, Colombia.

Two specimens in the United States National Museum taken on the island of Mustique are referable to this race. My thanks are due to Mr. James Bond of the Academy of Natural Sciences of Philadelphia for calling my attention to this fact.

Arenaria interpres morinella Linnaeus

Tringa Morinella Linnaeus, Syst. Nat., ed. 12, 1, 1766:249—sea coast of North America; restricted type locality, coast of Georgia, *ex* Catesby.

The characters of this race are evident only in the breeding plumage and have been given as: (1) upper parts more reddish, (2) crown of head lighter, with dusky markings less in evidence.

The specimens listed below were taken from April to July and most of them are in good nuptial plumage. Examination of this series shows that in the American birds both the males and females are redder than the like sex from Europe and Asia. Alaskan birds, however, are rather puzzling. The four specimens from Hooper Bay are very red, the ones from Barrow and Chipp River not quite so ruddy, while the other mainland specimens are either like typical *interpres* or intermediate. Both sexes also have the crowns dark as in examples of the typical race, but this character is often found in birds from the east coast and even more often in those from the interior. Alaskan specimens, therefore, as a whole are intermediate and it would seem best to classify all the ruddy turnstones from the American mainland under *morinella* as in the latest A.O.U. Check-list (see also Grinnell and Miller, Pac. Coast Avif. No. 27, 1944:147), rather than list the western Alaskan and Pacific coast birds under the typical race, as is done by Peters and Ridgway. It should be mentioned here that the two specimens listed from Chile are both males and have the upperparts very reddish.

The examples available from the islands in Bering Sea and the Aleutians are not in very high plumage, but as far as they can be judged appear to belong to the typical race rather than to *morinella*.

Greenland material was very unsatisfactory. Two east-coast males and a female seem more like European birds, while a female from west Greenland resembles American specimens. All, however, are somewhat worn and leave much to be desired.

Material examined.—*Arenaria interpres interpres*, 53: Greenland (east coast, 3; west coast, 1); Iceland (unspecified, 1); Faroe Islands (unspecified, 1); Norway (unspecified, 2); Sweden (Stockholm, 1; Oland, 1); Holland (unspecified, 1); France (Havre, 1); England (Pagham Harbor, 2); Orkney Islands, 1); British Somaliland (unspecified, 1); Siam (Ban Hiafi, 2); China (Fukien, 8); Siberia (Gizhiga, 2); Japan (Yokosha, 1; Hakodate, 2; Hondo, 4; Sagami Province, 1; Yokohama, 2; Shimosa, 1); Bonin Islands (unspecified, 1); Bering Island, 6; St. Lawrence Island, 1; Pribilof Islands (St. Paul, 1; St. George, 1); Hall Island, 1; Unalaska, 3.

Arenaria interpres morinella, 80: Alaska (Barrow, 4; Chipp River, near Barrow, 8; Wainwright, 2; Cape Lisbourne, 1; Coal Land, 1; Wales, 2; Nome, 1; Nulato, 1; Kotlik, 1; Hooper Bay, Bering Sea, 4; Carbon Creek, 1; Port Clarence, 1); Washington (Grays Harbor, 2); California (Eureka, 1);

Texas (Seadrift, 1); Saskatchewan (Lake Johnston, 1); North Dakota (Towner County, 3; Ramsey County, 3; Nelson County, 4); Illinois (Cook County, 5); Massachusetts (Chatham, 1); Connecticut (Stamford, 1; Norwalk, 1); New York (Suffolk County, 2; Cayuga County, 4); North Carolina, Dare County (Pea Island, 17; Bodie Island, 1); Bahama Islands, 2; Jamaica, 1; Aruba, 1; Chile (Atacama, 2).

***Erolia alpina pacifica* Coues**

Pelidna pacifica Coues, Proc. Acad. Nat. Sci. Phila., 11, 1861:189—west coast of North America.

Examination of a practically topotypical series of thirty-four specimens of *Erolia alpina sakhalina* taken at Gizhiga at the north end of the sea of Okhotsk proves that Thayer and Bangs (New Eng. Zool. Club, 5, 1914:17) and Bishop (Condor, 40, 1938:225) were correct in claiming that the name *pacifica* should be used for the American race. These east Asian examples were all taken in May and are in fresh breeding dress. While there is a great variation in this series, the upperparts average much lighter, more buffy, less reddish than American specimens in similar plumage. Whereas some sixty odd examples from North America are almost all orange reddish above with only an occasional dark buffy specimen (one from Alaska is light buffy), thirteen of the Asian series have the upperparts light buffy, eight have these parts orange red, and the remaining thirteen have the dorsal surface orange buff intermediate between the buffy and orange red extremes. In a few other Asiatic specimens examined, one from Anadyr, Siberia, has the upperparts orange buff, while six others from Siberia south to China are orange reddish above.

Typical *alpina* from Europe (type locality Lapland) is dark buffy above. Two spring specimens in the author's collection taken at Tomsk, Siberia, agree in coloration, bill curvature, etc., with the light buffy-backed specimens from Gizhiga. It would seem quite possible that *sakhalina* may be simply an intermediate between a dark reddish-backed race (*pacifica*) from North America and a light buffy one (*centralis*?) from central Asia, and perhaps not worthy of recognition.

No difference could be seen in the markings of the lower throat and chest in the two series as claimed by the above-cited authors, but the bills in the American birds are more curved and average longer.

Material examined.—*Erolia a. alpina*, 3: Iceland (unspecified, 1); Finland (Pasvik, 1); Italy (Fano, 1).

Erolia a. pacifica, 66: Alaska (Hooper Bay, 3; Nome, 1); California (Monterey, 4; Alviso, 1; Nigger Slough, Los Angeles County, 3); North Dakota (Walsh County, 2; Towner County, 3); Minnesota (Heron Lake, 2); Wisconsin (Beaver Dam, 2); Illinois (Calumet Lake, 1; Chicago, 1); Michigan (Alpena County, 1); Massachusetts (Chatham, 3); New York (Cayuga Lake, 5); Virginia (Cobb's Island, 1; Cape Charles, 6); North Carolina (Pea Island, 19); South Carolina (Mt. Pleasant, 5; Copahee Sound, 2); Florida (Amelia Island, 1).

Erolia a. sakhalina, 41: Siberia (Amur Bay, 2; Anadyr, 1; Gizhiga, Sea of Okhotsk, 34); Corea (Chemulpo, 1); Japan (Shimosa, 2); China (Fukien, 1).

Erolia a. centralis?, 3: Siberia (Tomsk, 2; Tschikischljar, Transcaspia, 1).

Chicago Museum of Natural History, Chicago, Illinois, June 11, 1945.