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FIRST RECORD OF LESSER SAND-PLOVER (*CHARADRIUS MONGOLUS*) IN FLORIDA

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The Lesser Sand-Plover (formerly Mongolian Plover), *Charadrius mongolus*, comprises several subspecies that are geographically isolated to one degree or another. The subspecies *C. m. pamirensis*, *C. m. atrifrons*, and *C. m. schaeferi* breed in the Middle East and south-central Asia and winter in coastal areas of eastern Africa, southern Asia, and western Indonesia (Hirschfeld et al. 2000). The nominate *C. m. mongolus* and *C. m. stegmanni* breed primarily in eastern Russia. These latter two subspecies winter along the eastern coast of Asia from Japan south to eastern Indonesia, in Australia, and on islands in the southern Pacific Ocean (Hirschfeld et al. 2000).

Lesser Sand-Plovers are uncommon annual visitors to the outer Aleutians (Byrd et al. 1978, Gibson 1981) and to extreme northern Alaska, but there are fewer than 15 records from the rest of North America (Hirschfeld et al. 2000). In eastern North America, this species has been recorded in New Jersey (1990; Hanson 2005) and Rhode Island (1999; Peterson 1999) on the eastern seaboard, in Ontario on the Great Lakes (1984; McRae 1985), and in Louisiana (1977, 1986; Dittmann 1990, Loftin 1992) on the Gulf Coast, but it has not previously been recorded in Florida. On 17 September 2005 a single Lesser Sand-Plover was found associating with Semipalmated Plovers (*C. semipalmatus*) at St. Marks National Wildlife Refuge (NWR), Wakulla County. The bird remained at least through 21 September and subsequently was verified by a number of observers.

I observed the plover for a total of about 50 minutes on 17 and 18 September from distances of 10-40 m (estimated) using an 8×42 Zeiss binocular and a 20-40× Nikon spotting scope. Under conditions of bright overcast when the bird was frontlit, I watched the plover during early morning low tides as it foraged on an exposed mudflat. The overall size and general shape suggested a *Charadrius* species. In addition, the bird's behaviors were typical of those of other *Charadrius* plovers and were quite similar to those of nearby Semipalmated Plovers. The bird tended to forage within about two meters from the water's edge,

but this may simply be because the mudflat was small and surrounded by water on three sides. Nonetheless, I never saw it enter the water.

The bird was normally proportioned and fully feathered, and thus was not a downy chick of a larger plover species such as Killdeer (*C. vociferus*). The plumage was uniformly brownish on the back, and paler underneath. The presence of light edging on the secondaries and the grayish-green leg color suggested a hatch-year bird (older birds have darker legs; Hirschfeld et al. 2000). The undertail coverts were much whiter than the belly color, and there was the appearance of a sharp line of demarcation just behind the legs, separating undertail from belly. Observations during flight were very brief, and yielded little information. Another observer noted that the feet did not extend beyond the tail when the bird was flying, an important characteristic in differentiating Lesser from Greater Sand-Plover (*C. leschenaultii*; Hirschfeld et al. 2000). No details of the tail or rump were noted. There was a prominent white stripe above the eye that appeared to begin at about the eye and extended about half-way to the nape. The bill was solid black and was proportioned similar to that of Semipalmated Plover, although it appeared to be somewhat more pointed. No orange was noted on the bill.

Several notable characteristics separated the bird from nearby Semipalmated Plovers. First the bird appeared to be slightly larger (about 10 to 15%) than the Semipalmated Plovers, and lacked the white collar across the back of the neck typical of that species. The leg color was grayish-green, obviously different from the yellowish legs of nearby Semipalmated Plovers. In addition, the legs appeared to be longer than those of that species. The bird was somewhat lighter brown than a nearby Semipalmated Plover, but the latter bird was in adult plumage. There were no juvenal plumaged Semipalmated Plovers nearby for direct comparison. Observers reported only one vocalization that may have come from the sand-plover. When the bird in question and a Semipalmated Plover took off together, two distinct calls were heard. The first was the typical "chu-wee" or "tu-wee" of Semipalmated Plover. The second was a very rapid 3-4 note "tee-dee-dee" with a Western Sandpiper-like (*Calidris mauri*) quality. This call helped to eliminate the possibility that the subject bird was an unusual Semipalmated Plover.

I used a variety of characters (Paulson 2005) to eliminate other *Charadrius* species from consideration. The bill proportions eliminated large-billed Wilson's Plover (*C. wilsonia*) and most subspecies of Greater Sand-Plover. The plumage color was too brown for Piping Plover (*C. melodus*) and this character plus bill shape eliminated Snowy Plover (*C. alexandrinus*). The relatively weak wingbar, the long legs, and the lack of a white collar and face removed Common Ringed Plover (*C. hiaticula*) from consideration, while the lack of an eye ring eliminated Little Ringed Plover (*C. dubius*). Size and the lack of breast

bands eliminated Mountain Plover (*C. montanus*) and Killdeer (*C. vociferus*), respectively. Finally, the bird was too large and its legs too dark for Collared Plover (*C. collaris*).

Analysis of digital photographs yielded further information. A total of 29 digital photographs were available for evaluation. From the digital images it was possible to measure tarsus length on 14 images and bill length on five images. Using the means of these measures, I calculated a tarsus:bill ratio for the bird in question as 1.91:1. Hirschfeld et al. (2000) gave tarsus:bill ratios of 1.86 to 1.98 (range 1.70 to 2.16) for subspecies of Lesser Sand-Plover, and 1.55 to 1.66 (range 1.43 to 1.78) for the closely related Greater Sand-Plover, for which there is a single North American record (Abbott et al. 2000). The tarsus:bill length ratio of 1.9 places the bird in question within the typical range of relative bill length of Lesser Sand-Plover, but well short of relative bill length of Greater Sand-Plover (Hirschfeld et al. 2000). It must be noted that this is considered a potential supporting characteristic and is not conclusive by itself. I also was able to measure bill length and eye-to-base-of-bill distance on the photographs. As the two measurements are equally affected by angle of the head, I was not restricted to only perfect profiles and thus I could acquire measurements from 14 images. The resulting eye-to-bill distance:bill-length ratio was 1.1 ± 0.3 (Mean ± SE), suggesting that the bill was shorter than the distance from the back of the eye to the bill. Greater Sand-Plover tends to have a bill length that is longer than this distance. Overall, this ratio falls into the range for Lesser Sand-Plovers, but it does not eliminate *C. l. columbinus,* a small subspecies of the Greater Sand-Plover. Hirschfeld et al. (2002) pointed out that the ratio overlap with *C. l. columbinus* makes this an unreliable characteristic for determining species. Nonetheless the calculated ratio does argue against the possibility that the bird in question can *only* be Greater Sand-Plover. Further, a strong character that was observed in the bird at St. Marks NWR, the short, relatively stout, blunt-tipped bill, does rule out *C. l. columbinus* which has relatively slender, pointed bill. Confirming characters of the St. Marks bird were the long-legged look with relatively short tibia, the rounded head, and the forward-balanced appearance of the body ("jizz") (Hirschfeld et al. 2000).

Although it is impossible to positively identify the population from which this bird originated, several lines of evidence suggest that it likely came from an east Asian population. This species has been recorded even fewer times in Europe than it has in North America (even excluding Alaska) (Hirschfeld et al. 2000); thus it is unlikely that the bird arrived from the east. Hirschfeld et al. (2000) identified six breeding populations, three from western Asia and the Middle East (three subspecies collectively known as the *atrifrons* group), and three from eastern Asia (the *mongolus* group, including *C. m. stegmanni*). Since

the migration routes of all members of the *atrifrons* group tend to be due south or westward, vagrants from this group would first have to travel several thousand miles in the wrong (easterly) direction, traversing all of Asia, before entering North America. In contrast, the easternmost breeding population of the *mongolus* group (*C. m. stegmanni*), that on the Commander Islands (Hirschfeld et al. 2000), occasionally extends into Alaska (Byrd et al. 1978). Specimens from several Alaskan islands were identified as *C. m. stegmanni* (Byrd et al. 1978, Thompson and DeLong 1969), and Gibson (1981) assumed that Lesser Sand-Plovers found in the western Aleutians were *C. m. stegmanni*, even though the only specimen that he reported could not be identified to subspecies. Thus, *C. m. stegmanni* is the most likely candidate for vagrancy to eastern North America.

The documentation provided above was reviewed by two biologists who have field experience with sand-plovers: E. Hirschfeld (Europe) and R. Boughton (Australia), and both concurred with the identification. Written documentation and photographs were submitted to the Florida Ornithological Society Records Committee (record #05-575) which confirmed the identification and added Lesser Sand Plover to the official state list of birds.

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