

**PACIFIC GOLDEN-PLOVER (*Pluvialis fulva*)
IN FLORIDA: A FIRST STATE RECORD**

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On 9 April 2016, while birding in western Palm Beach County, I noted an odd shorebird that I was not immediately familiar with. The overall size and coloration quickly led me to the conclusion that it was one of the golden-plovers (*Pluvialis dominica* / *fulva* / *apricaria*). Given a viewing period of < 5 min, significant heat shimmer, and long viewing distance, I concluded that it was an odd-looking American Golden-Plover (*Pluvialis dominica*). On 10 April 2016, Kenny Miller and Brian Fedak re-located the golden-plover and obtained photos sufficient to identify it as Pacific Golden-Plover (*Pluvialis fulva*) (Fig. 1). The bird persisted until at least 24 April 2016. This observation represents the first record of this species in Florida. Here I describe observations of the bird, discuss identification, and review the species' status in North America.

OBSERVATIONS

The Pacific Golden-Plover was found at Six Mile Bend Sod Farm Corporation (26.646015, -80.578035) in the rural portion of Palm Beach County. The habitat consisted of mowed sod fields with some exposed soil, surrounded by gravel roads primarily used by farm workers. There were no other birds with the plover when it was first found (9 April 2016). Subsequent sightings (10 April 2016-24 April 2016) documented the bird with a flock of approximately nine Black-bellied Plovers (*Pluvialis squatarola*) and occasionally one Ruddy Turnstone (*Arenaria interpres*). The bird was not documented past 24 April 2016, despite searching by myself and others.

While under observation, the majority of the bird's time was spent foraging in alert posture or resting on gravel roads. On several occasions, it was observed foraging by dipping its bill into the soil, presumably capturing terrestrial invertebrates, the main food source of this species (Johnson and Connors 2010). The diagnostic two-noted call, accented on the second syllable, was heard on at least one instance (L. Manfredi, pers. comm.). Other behaviors that were noted included preening,

and scanning the sky for predators. The bird closely associated with the Black-bellied Plover flock (Fig. 1b), and on one occasion, showed minor aggressive behavior (i.e., opening of bill) towards a Black-bellied Plover. It was not observed interacting with any other species.

TAXONOMY

Pacific Golden-Plover was historically considered conspecific with American Golden-Plover and both were formerly known as Lesser Golden-Plover. However, Connors (1983) and Connors et al. (1993) analyzed differences between the two forms and argued that they indicated species-level divergence, which led to the split and reclassification of the two as separate species (*P. fulva* and *P. dominica*) (AOU 1993). No subspecies of Pacific Golden-Plover are recognized. Furthermore, there are no fully documented instances of hybridization between the Pacific Golden-Plover and American Golden-Plover. It is likely that reports (Pym 1982, Golley and Stoddart 1991, McCarthy 2006) of hybrids represent individual variation within each species (Johnson and Connors 2010).

AGE AND IDENTIFICATION

Given the strikingly similar appearance of Pacific- and American golden-plovers, this description focuses on and highlights the primary identifying features between the two congeners.

The Pacific Golden-Plover was a medium-sized shorebird with black eyes, long gray legs, a short black bill, and rich golden-buff coloration throughout the head, neck, and upper back (Fig. 1b). The underparts were mostly whitish, indicating a juvenile or basic (non-breeding) plumaged adult. There were a few scattered black splotches throughout the underparts that became more prominent on the belly over the duration of the bird's visit, a sign that it was molting into alternate (breeding) plumage. A prominent dark auricular spot was noticeable on the face, as was a buff-colored supercilium (Fig. 1a-c). Distinct golden edges and notches on otherwise blackish feathers were present on the upperparts, leading to a bold 'spangled' look. Structurally, the bird was smaller and slimmer than the Black-bellied Plovers, showing a proportionately longer, thinner neck, and longer legs.

Much attention has been given to separating Pacific and American Golden-Plover in the field. Byrkjedal and Thompson (1998) describe key structural differences between the two species such as bill, leg, and tertial length, while Chandler (2009) and O'Brien et al (2006) discuss differences in both plumage and shape. Compared to American Golden-Plover, the bird appeared slightly longer-legged, longer-billed, and

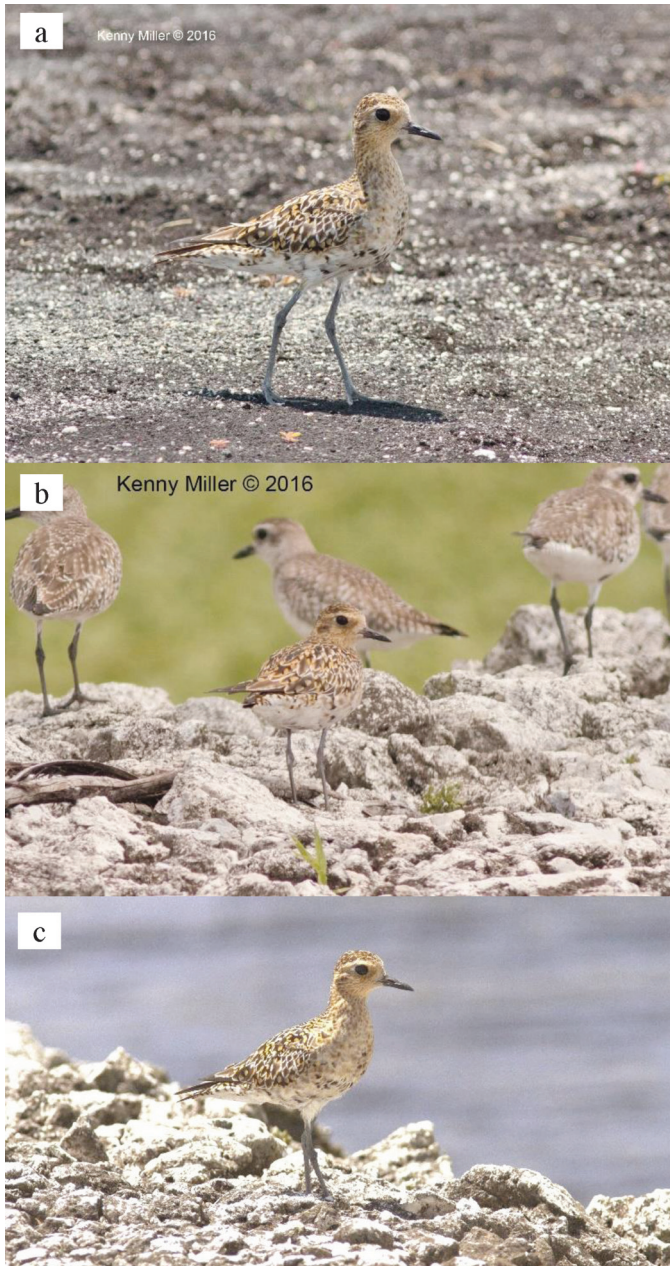


Figure 1. a) Pacific Golden-Plover. Six-Mile Bend Sod Farm, Palm Beach County, Florida, 10 April 2016. Photo by Kenny Miller. b) Pacific Golden-Plover (front) with Black-bellied Plovers. Six-Mile Bend Sod Farm, palm Beach County, Florida, 10 April 2016. Photo by Kenny Miller. c) Pacific Golden-Plover. Six-Mile Bend Sod Farm, Palm Beach County, Florida, 10 April 2016. Photo by Kenny Miller.

shorter-winged (Fig. 1a) and stood seemingly as tall as the Black-bellied Plovers, despite having only about two-thirds the body size (cf. Dunning 2008). In juvenal and non-breeding plumage, American Golden-Plover is duller overall, with a whitish supercilium, grayish-brown face, and upperparts not as bright. Under ideal viewing conditions, a key feature used to separate the two species is the number of visible primary tips beyond the tertials on the folded wing (Chandler 2009). Pacific Golden-Plovers show two to three tips, while American Golden-Plovers show four to five. As seen in the field and in several photographs of the bird, three primary tips were visible beyond the tertials on the folded wing. Additionally, the longest tertial nearly reached than the tail tip when at rest or feeding. American Golden-Plover is more variable in this respect, with the longest tertial often resting about mid-tail and occasionally near the tail tip (Chandler 2009).

The third species of golden-plover, European Golden-Plover (*Pluvialis apricaria*), is similar in coloration to Pacific Golden-Plover in juvenal and non-breeding plumages, but differs in structure and underwing coloration. European Golden-Plover was eliminated based on the more slender body and longer legs of the Palm Beach County bird, typical of Pacific Golden-Plover, as well as the gray axillaries and underwing coverts when viewed in-flight.

DISCUSSION

The Pacific Golden-Plover was extensively documented at Six Mile Bend Sod Farm, and has been accepted by the Florida Ornithological Society Records Committee as the first record for the state of Florida (A. W. Kratter, pers. comm.). However, given the relatively short period of time that the species (Johnson and Connors 2010) has been considered distinct from American Golden-Plover, it is possible that it could have previously occurred in Florida and been reported as Lesser Golden-Plover with no sub-specific identification given.

Pacific Golden-Plover is very rare in the eastern half of North America, with six accepted records total. New York has one (McGuinness 2003), Massachusetts has two (Heil 2003, MARC 2016), New Jersey has one (Crossley 2002), Maine has one (from 1911; Palmer 1949), Delaware has one (DRC 2006), and Vermont has one 'hypothetical' record (Vermont Center for Ecostudies 2016). Additionally, there are three records from Greenland, one from Bermuda, and one from Barbados (Crossley 2002). In the Pacific Coast states, Pacific Golden-Plover is a regular fall migrant, casual spring migrant, and is known to winter occasionally. In the west, there are several inland records of Pacific Golden-Plover (McGuinness 2002), while nearly all records in the east have been coastal in occurrence.

Pacific Golden-Plover is a long-distance migrant that breeds in western Alaska and eastern Siberia, and makes some of the longest migrations in the world, often with non-stop flights over water (Johnson and Connors 2010). The species winters primarily in the Indo-Pacific region from the horn of Africa east to eastern Oceania. Migration strategies and routes are diverse and can follow coastal, transoceanic, or transcontinental routes (Johnson and Connors 2010). Given the timing of the bird's presence in Florida (9 April 2016–24 April 2016), it is likely that it was on its spring migration northward. Its presence well outside the normal range could be explained by mirror-image migration (Diamond 1982) in which a species may migrate 90 or 180 degrees relative to its typical migratory path. In this case, a Pacific Golden-Plover normally headed southwest from the breeding grounds in eastern Siberia could instead migrate southeast and winter in South America or the Caribbean. Additionally, it is plausible that the Pacific Golden-Plover found and began associating with Black-bellied Plovers at some point after it wandered off course, and continued to follow the movements of the Black-bellied Plovers.

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