Notornis, 2022, Vol. 69: 174-177
0029-4470

SHORT NOTE

First record of a Baird's sandpiper (*Calidris bairdii*) in Eastern Polynesia

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Baird's sandpiper (*Calidris bairdii*; Family Scolopacidae) breeds from NE Siberia to Alaska, Arctic Canada, and NW Greenland (Birdlife International 2022). It migrates through North and Central America to spend the non-breeding season in South America (Jehl 1979), mostly in Argentina and Chile, where it is abundant in high deserts of the Chilean Andes (Moskoff & Montgomerie 2020). It is very rare in the Pacific regions, where only a few individuals have been reported. It was recorded as a vagrant in Hawaii (Donaldson 1991), New Zealand (six accepted records, Colin Miskelly *pers. comm.*), Australia (Milledge 1968; Smith & Swindley 1975; Curry 1979; Smith 1987; McKean 1984; Higgins & Davies 1996) and as far West as Papua New Guinea (Finch 1986) and Western New Guinea (Redman 2011). In contrast, this species has never been reported in Eastern Polynesia. On 10 November 2021, early afternoon, we observed an individual on the islet Tahuna Iti in the atoll of Tetiaroa, French Polynesia (Fig. 1).

Tetiaroa (17°00'S, 149°34'W) is situated 42 km North from Tahiti in French Polynesia (Fig. 1), and includes 12 islets (*motu*). A luxury hotel and up to 250 hotel crew members are present on one of the motu. The other 11 motu are uninhabited. A total of 10 seabird species breed in Tetiaroa, and Tahuna Iti hosts the only colonies of greater crested tern (*Thalasseus bergii*), sooty tern (*Onychoprion fuscatus*), and grey-backed tern (*Onychoprion lunatus*) on the atoll, with brown noddy (*Anous stolidus*), white tern (*Gygis alba*), red-footed booby (*Sula sula*), and brown booby (*Sula leucogaster*) also breeding on this motu. Great and lesser frigatebirds (*Fregata minor* and *F. ariel*), black noddies (*Anous minutus*), Pacific reef egrets (*Egretta sacra*), and invasive red-vented bulbul (*Pycnonotus cafer*) breed elsewhere on the atoll. Finally, five migratory (non-breeding) species are regularly observed on Tetiaroa: long-tailed cuckoo (*Eudynamis tahitiensis*), wandering tattler (*Tringa incana*), Pacific golden plover (*Pluvialis fulva*), bristle-thighed curlew (*Numenius tahitiensis*), and sanderling (*Calidris alba*). The seabirds of Tetiaroa are a tourist attraction, with up to 70 tourists arriving via charter boats from Tahiti several times a week to walk around Tahuna Iti (walking on the island is not permitted) to observe the seabird colonies (tour operators refer to the motu as "bird island"). In July 2021 we began conducting monthly surveys along the coastlines of the entire

Received 19 March 2022; accepted 7 April 2022
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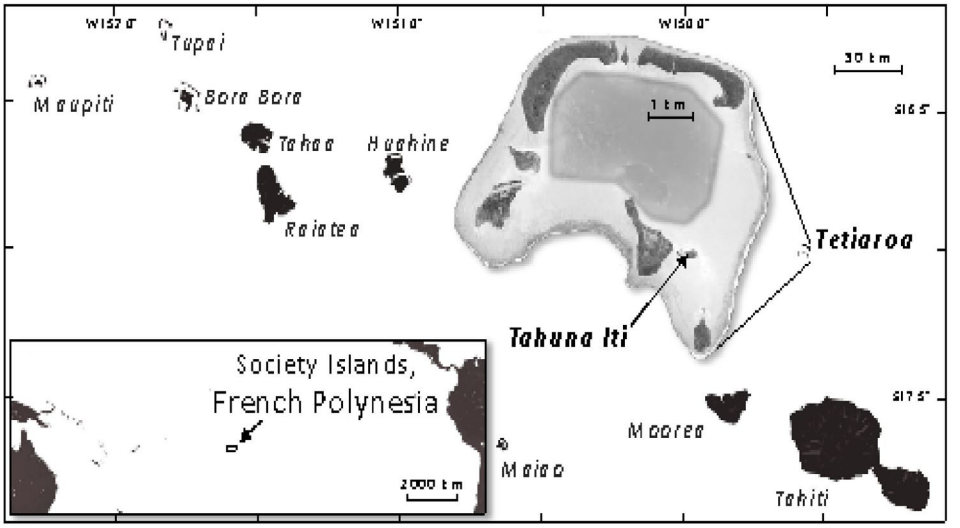

Figure 1. Society Islands in French Polynesia depicting the position of Tetiaroa. The position of Tahuna Iti, the islet where a Baird's sandpiper (*Calidris bairdii*) was observed in November 2021 (aka "Bird Island"), is indicated on the inset satellite image of Tetiaora atoll. Note that the outer ring of coral reef that contains the lagoon and 12 islets is used here to define the perimeter of Tetiaroa. The position of the Society Islands in the Pacific is indicated on the inset map on the bottom left. (Satellite imagery of Tetiaroa: Google Earth).

atoll, during which we count both shorebirds and seabirds. We detected the Baird's sandpiper at 1323 h as we conducted the November survey around Tahuna Iti. A Pacific golden plover was also in the vicinity (sometimes <1 m from the sandpiper), allowing direct size comparisons. The Baird's sandpiper was actively foraging in the wrack line in a sandy area next to the greater crested tern colony. We observed the sandpiper for 17 minutes from a distance of 10–20 m, and the bird was still present and actively foraging as we left the area at 1340 h.

The sandpiper was clearly different from any other waders we have observed in French Polynesia. Differences in size, plumage, and behaviour were obvious, and we took several photos and one video which we then used for identification with the help of books and websites (including Sibley 2014; Billerman *et al.* 2021). The sandpiper was slightly smaller than a sanderling (*C. alba*), and had short black legs, an all-black bill and buffy-grey head and upperparts. It had a buffy breast and its dark eye did not contrast strongly with the surrounding feathers (contrarily to the eye of a sanderling in winter plumage). Its wings extended beyond the tail tip, and photos of the bird in flight revealed a dark stripe crossing the rump (Fig. 2). The latter characteristics together with the unmarked flanks allowed us to dismiss the white-rumped sandpiper (*Calidris fuscicollis*), the only other *Calidris* species that also has long wings extending beyond the tail tip. During our observation, the bird was continuously and actively searching for food, alternatively pecking under the wrack or in the sand, then quickly walking a few steps, before pecking again. It seemed to ignore our presence. It always remained in the same wrack line five to ten meters from the water, although at some point, it took off for no obvious reason to land 5 m further in the same wrack line. The only *Calidris* species that regularly occurs in the Society Islands is the sanderling (*C. alba*), which shares the black legs and bill of the Baird's sandpiper, but is otherwise very different (we observed four sanderlings in Tetiaroa two weeks later). Other waders observed during our November count in Tetiaroa included wandering tattlers, Pacific golden plovers and bristle-thighed curlews, though only tattlers and plovers were observed on Tahuna Iti.

The Baird's sandpiper was still present on 15 November at 1135 h, about 200 m from the first observation site, resting on the sand about 20cm from the water. Therefore, we had the opportunity to validate our identification in the field, and as the bird took off to land 20 m further, we could also confirm the dark rump. The Baird's sandpiper was not detected again during our next monthly visits of the atoll, including on Tahuna Iti (we visited Tahuna Iti on 26 December 2021, and again in January, February and April 2022). It was not detected during a previous visit of the islet on 18 October 2021, either. Therefore, the bird stayed in

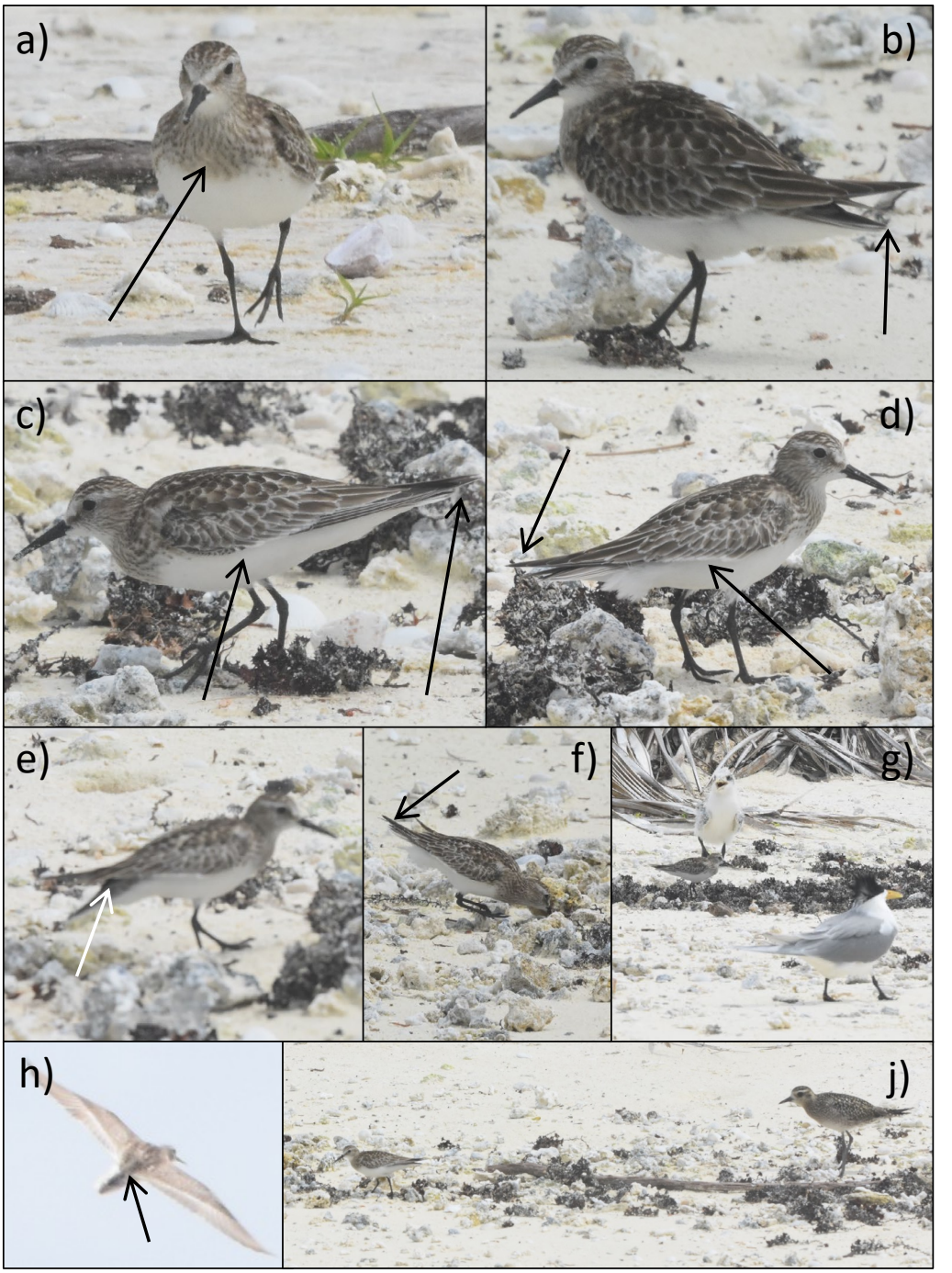

Figure 2. Baird's sandpiper (*Calidris bairdii*) observed in Tetiaroa, French Polynesia, in November 2021. Criteria that allowed identifying the species are shown with black or white arrows, and include the buffy breast (a), wings that are longer than the tail (b,c,d,f), the unmarked flanks (c,d) and the dark rump (e,h). Images g and j allow for size comparison with greater crested terns (*Thalasseus bergii*) and Pacific golden plover (right: *Pluvialis fulva*). A video of the Baird's sandpiper is available here: https://www.flickr.com/photos/188007943@N06/51981192063/in/dateposted/ (Photograph: Simon Ducatez).

Tetiaroa for at least six days, and at most 70 days (unless it was present but not detected).

To the best of our knowledge this is not only the first record of this species for French Polynesia, but also for all of Eastern Polynesia. This species is not mentioned in Thibault & Cibois (2017), and we could not find any mention of Baird's sandpiper for the region. In other areas of Oceania, both adults and juveniles have been reported, although they have a similar appearance in the non-breeding season (Cramp & Perrins 1977), making them difficult to distinguish. The grey tone and the whitish scaling of the upperparts and wing cover feathers of the bird observed in Tetiaroa tend to support the hypothesis of a first-year individual (Cramp & Perrins 1977). According to Jehl (1979), wing moult occurs in October to January in adults, so an adult bird would be expected to be in active moult in November. Therefore, the lack of growing primaries or secondaries on photos of the Tetiaroa bird in flight provides additional support to the bird being a juvenile. Juveniles and adults tend to follow different migratory routes, with adults believed to use a much narrower migration corridor in the centre of North America, suggesting that juveniles might be more likely to get lost in the Pacific (Moskoff & Montgomerie 2020). However, the migratory behaviour of this species is still poorly known, and more studies are required to better determine its migratory routes (e.g. by equipping individuals with transmitters) and its behaviour in the non-breeding range, which remains mostly unknown.

Although Eastern Polynesia covers a vast area and is less often visited by birdwatchers than most regions of the world, Baird's sandpipers are very rarely reported even in more intensively surveyed regions of the Pacific (e.g. Hawaii, Australia or New Zealand) so the presence of this species in Eastern Polynesia is highly unusual. During its regular migration, the Baird's sandpiper covers >8,000 km; >11,000 km for individuals wintering in Tierra del Fuego. Tetiaroa is >7,000 km from the regular wintering area of the Baird's sandpiper in South America, and >8,500 km from its closest breeding grounds in Alaska, distances that are therefore within those covered by this species during its migrations. Flying over the Pacific Ocean instead of land, however, means no or very limited options for stopovers, making this observation particularly remarkable for this species.

ACKNOWLEDGEMENTS

We thank Romain Lorrillière and an anonymous reviewer for their comments on a previous version of the manuscript, Prof. Daniel Field (University of Cambridge, UK) for confirming our identification, and the Tetiaroa Society for access to the atoll and support during bird surveys. SD was supported by a Subvention de Recherche from the Fondation Fyssen, France.

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Keywords: Baird's sandpiper, *Calidris bairdii*, Eastern Polynesia, Tahuna Iti, Tetiaroa