

### First record of Arctic Tern *Sterna paradisaea* for Nicaragua

In the New World, Arctic Tern *Sterna paradisaea* breeds from Greenland (c.84°N) and Alaska (71°N) to Cape Cod, Massachusetts (41°N) and California (38°N)<sup>1,3</sup>, with non-breeders recorded in New York state in summer (May–August)<sup>6</sup> and Mexico (18°N)<sup>9,10</sup>. Its annual round-trip of c.40,000 km is mainly pelagic with many individuals wintering at the edge of the Antarctic pack-ice<sup>3</sup>. The few observations and recoveries of banded birds indicate two main pelagic routes: south over the eastern Atlantic and Pacific Oceans in autumn, and north in spring over a broader front that includes central regions of both oceans, with an unknown number making long, high-altitude, overland flights<sup>3,10</sup>. To our knowledge, the following represents the fourth documented record for Central America.

On 23 September 2008, we were training ecotourism guides from Ostional, Nicaragua. Weather conditions ranged from overcast to partially sunny, with intermittent light showers. At 09h10 we saw a mid-sized immature tern on the rocky shoreline near a small fishing village just south-west of the río Ostional mouth (11°06'28.95"N 85°45'42.75"W) (Fig. 1). It was approached to within 2 m. The bird was exhausted; its left wing drooped and it gaped intermittently. After several minutes, the bird stood up, its very short orange legs barely visible. We studied the tern for c.10 minutes before it flew c.10 m away. We approached it again, but did not pressure the bird. After a few minutes, it flew toward the open sea. Its flight was laboured because of the onshore wind and perhaps due to its poor physical condition. Although there were no significant regional storms in the Pacific Ocean for at least four days prior to 23 September 2008 ([www.nhc.noaa.gov/2008epac.shtml](http://www.nhc.noaa.gov/2008epac.shtml)), at the time heavy rains were observed over Costa Rica, visible in the distance.

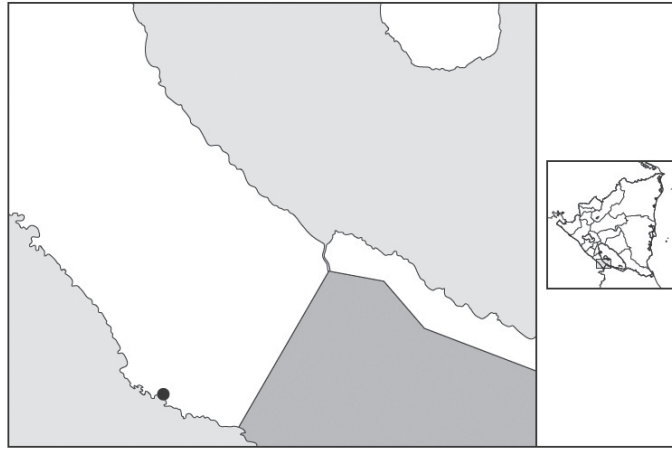


Figure 1. Map showing the location of the Nicaraguan observation of Arctic Tern *Sterna paradisaea*; the large, black circle denotes the río Ostional mouth (11°06'28.95"N 85°45'42.75"W).



Figure 2. First-year Arctic Tern *Sterna paradisaea*, Ostional Bay, Nicaragua, 23 September 2008 (Marvin A. Tórrez)

Several morphological characters diagnostic in separating *S. paradisaea* from, e.g., Common *S. hirundo*, Roseate *S. dougallii* and Black Terns *Chlidonias niger*, are visible in Figs. 2–3. The bird's conspicuous cap, pale-banded mantle, rectrices, patterned (pale, rather than dark grey) primaries and tertials, suggest a juvenile in moult (D. Dittmann & L. Bevier *in litt.* 2009). Its very long wings and long outer rectrices, which

extended well beyond the wingtips (Fig. 2) indicate a *Sterna*; and its short tarsi and clearly visible small tarsometatarsus to the length of middle toe (+ claw) ratio (Fig. 3), short, delicate black bill (Fig. 2) and small head, all of which indicate Arctic Tern (S. Cardiff, R. Clapp, D. Dittmann *in litt.* 2009). The bird's mantle was medium grey. A black auricular 'finger' extended onto the face (Fig. 2) and,



Figure 3. Close-up of the legs of the first-year Arctic Tern *Sterna paradisaea* (Marvin A. Tórréz). The elongated middle toe (lower white arrow) is proportionately longer than the tarsometatarsus (visible between upper and middle white arrows), a characteristic that separates this species from the similarly plumaged Common Tern *S. hirundo*.

although the wing-coverts were brown, whereas the flight feathers were grey, the brown carpal bar (Fig. 2) was not as strikingly contrasting as *S. hirundo*. In flight no black margins to the outer rectrices were visible, but the overcast conditions precluded good views of the tail.

There is one published record of Arctic Tern for mainland Central America. On 19 October 1994, a single adult was photographed (VIREO #v06/47/017) at the río Jiboa mouth (13°21'32.40"N 89°02'16.80"W), El Salvador<sup>4</sup>. In Costa Rica, there are published reports from various offshore locations<sup>5</sup>, including Cocos Island<sup>2,8</sup>, with an unpublished photographic record by J. Vandergaast from Playa Azul, near Tárcoles ([www.angelfire.com/bc/gonebirding/news20.html](http://www.angelfire.com/bc/gonebirding/news20.html); accessed 2 January 2012). The species is unknown from Panama's mainland<sup>7</sup>. The only Central American record of *S. paradisaea* within the BIRDNET database ([www.nmnh.si.edu/BIRDNET/](http://www.nmnh.si.edu/BIRDNET/)) is a juvenile female collected by S. Sinclair on 3 November 1987 (Los Angeles County Museum 104230). The emaciated tern was floating on the Pacific Ocean and was being

harassed by a Peregrine Falcon *Falco peregrinus* near Cañas Island (08°23'N 78°49'W) in the Pearl archipelago, c.40 km west of Panama.

Movements of young Arctic Terns are poorly documented<sup>3</sup> because migration is presumably primarily pelagic, where the species is frequently seen alone or in small, compact groups of <20 individuals (J. Hatch *in litt.* 2009). Although we cannot eliminate the possibility of factors other than adverse climatic conditions in forcing the young tern ashore, e.g., malnutrition, parasites, disease, etc., apart from appearing physically exhausted, no additional maladies were noted (Fig. 2). It is more likely that the 'beached' juvenile was migrating south when it was blown off course because of heavy rains and strong winds.

With the current pattern of records and contemporary understanding of the species' southbound migration route, this species is not anticipated to occur in Nicaragua on a regular basis. We conclude that Arctic Tern is accidental or at least irregular in Nicaragua and adjacent, offshore waters.

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