

## *Phaetusa simplex* (Large-billed Tern)

Family: Laridae (Gulls and Terns)

Order: Charadriiformes (Shorebirds and Waders)

Class: Aves (Birds)



**Fig. 1.** Large-billed tern, *Phaetusa simplex*.

[[http://www.discoverlife.org/mp/20p?see=I\\_LHT6688&res=640](http://www.discoverlife.org/mp/20p?see=I_LHT6688&res=640), downloaded 27 February 2017]

**TRAITS.** *Phaetusa simplex* are large birds varying from 36-38cm in length and have a wingspan of 86-91cm (Planet of Birds, 2011). Adults have a narrow, white forehead isolating the black crown that extends to the nape (Fig. 1), a short, forked tail with black primaries, dark grey upper body (mantle and scapulars) and lower feathers are entirely white. This tern has a long, thick, yellow bill as well as yellow, webbed legs with three forward-facing toes. During flight, the primaries form a black triangle, the back resembles a grey triangle and the inner wings a white triangle (Fig. 3). Underwings are mostly white with black tips on the primaries and secondaries. Juveniles are similar to adults but have brownish mottling instead of dark grey plumage and more mottling on the crown (Lehman, 2009).

**DISTRIBUTION.** *P. simplex* are widespread in South America (Fig. 3), living near rivers and beaches (Zarza et al., 2013). Although native to South America, the large-billed tern can also be found in Caribbean islands such as Trinidad and Tobago. Their breeding season affects their location since some nest further inland. However, they return to coastlines after their breeding season has passed (Planet of Birds, 2011).

**HABITAT AND ACTIVITY.** *P. simplex* are found in wetlands, coastlines, estuaries, sandbars and bays (Donatelli et al., 2014). They are diurnal predators that prey on small fish from both freshwater and saltwater habitats (Willard, 1985). *P. simplex* tend to be aggressive competitors, especially during the nesting season (Cleere and Nurney, 2010). During their nesting season, some either occupy areas such as sand bars, bays and shores or nest on river bars with other species (Krannitz, 1989).

**FOOD AND FEEDING.** The large-billed tern's diet consist of small freshwater and saltwater fish (Fig. 4), insects and crustaceans (Lehman, 2009). When hunting for aquatic they fly over the river and swoop down to snatch fish with their beaks. *P. simplex* usually hunt in this manner but some have been observed following hunting patterns similar to that of *Rynchops niger* (black skimmer), where they skim the surface of the water for prey (Willard, 1985). They often engage in aerial chases when hunting insects. Large-billed terns are aggressive competitors as they may steal food from other birds. They have a commensal relationship with *Sotalia fluviatilis* (Guianian river dolphin) as these river dolphins chase fish to the surface of the water, where they are easy prey for the large-billed terns (Perrin et al., 2009).

**POPULATION ECOLOGY.** Large-billed terns tend to roam either by themselves or in pairs but sometimes form small roosting flocks (Lehman, 2009). Most large-billed terns in South America are abundant near rivers and sand bars (Donatelli et al., 2014). They are often seen in mixed-species flocks when feeding on fish and when nesting. Large-billed terns are territorial during their nesting period as they revisit previous nesting grounds (Zarza et al., 2013).

**REPRODUCTION.** *P. simplex* are monogamous and have an annual brood (Planet of Birds, 2011). Their nesting season lasts from May to June because their nesting area is only available when there is a drop in river water level (Krannitz, 1989). Nests are formed by shallow scrapes in the sand (Fig. 5) and are found in Amazon floodplains, sand bars and beaches (Zarza et al., 2013). These nesting areas are often shared with other birds such as black skimmers, *Sternula superciliaris* (yellow-billed tern) and *Chordeiles rupestris* (sand-coloured nighthawk) (Groom, 1992). Large-billed terns have on average 1-3 eggs per nest. These eggs are pale grey to olive-brown with brown blotches (Krannitz, 1989). The incubation period lasts for 27-30 days, during which both parents care for the eggs. After hatching, the chicks are able to leave the nest within a day and receive food from either parent until they can hunt on their own (Planet of Birds, 2011).

**BEHAVIOUR.** Juvenile large-billed terns are able to leave their nest within a day. They are able to fly within 55-65 days (Planet of Birds, 2011). *P. simplex* demonstrate anti-predator behaviour during their nesting season by mobbing any potential threat. Sand-coloured nighthawks are vulnerable to predation but take advantage of the large-billed terns' aggressiveness and nest near them, creating a commensal relationship (Cleere and Nurney, 2010). Large-billed terns

communicate with each other by making a number of raspy "kew" and "kree" notes (Gochfield et al., 2017).

**APPLIED ECOLOGY.** This species is listed as Least Concern as it is widespread in South America. The population trend and size are not in the vulnerable range and it is considered to be stable (IUCN, 2017). The greatest dangers these birds face are habitat disturbance and predation of eggs.

## REFERENCES

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**Fig. 2.** *Phaetusa simplex* during flight.

[[http://www.discoverlife.org/mp/20p?see=I\\_LHT6260&res=640](http://www.discoverlife.org/mp/20p?see=I_LHT6260&res=640), downloaded 27 February 2017]



**Fig. 3.** Large-billed tern geographic distribution.

[<http://maps.iucnredlist.org/map.html?id=22694791>, downloaded 27 February 2017]



**Fig. 4.** *P. simplex* feeding on fish alongside *Jacana jacana*.

[<http://www.flickrriver.com/photos/barloventomagico/9715618153/>, downloaded 8 March 2017]



**Fig. 5.** Nest of *P. simplex*.

[<http://www.fauparaguay.com/images/Phaetusa%20simplex%20arne%20nest.jpg>, downloaded 9 March 2017]