

## *Stercorarius maccormicki* (South Polar Skua)

Family: Stercorariidae (Skuas and Jaegers)

Order: Charadriiformes (Shorebirds and Waders)

Class: Aves (Birds)



**Fig. 1.** South polar skua, *Catharacta maccormicki*.

[<http://www.inaturalist.org/photos/5087137>, downloaded 2 March 2017]

**TRAITS.** The south polar or antarctic skua *Stercorarius maccormicki*, formerly known as *Catharacta maccormicki*, is a proficient hunter and hostile scavenger (Wildscreen, 2017, Weidinger and Pavel, 2013). The body length is 52cm and wingspan is 132cm (World Register, 2017). The plumage pattern varies as there are two general colour morphs of light and dark. Generally, this skua has dark upper parts and underwing, with a paler head, nape, and underparts, and there is a white patch located near the wingtip (Fig. 1) (Sinclair, 1997). The bill is thin and not prominently hooked, and the body is barrel-shaped with a short tail and broad wings (Wildscreen, 2017). The species exhibits sexual size dimorphism with females bigger and heavier than males (Wildscreen, 2017), and males are darker than females (Oiseaux Birds, 2017).

**DISTRIBUTION.** The south polar skua is a highly migratory species (Fig. 2) which leaves Antarctica after the breeding season to winter in the North Pacific and North Atlantic

(Wildscreen, 2017), sometimes as far north as Alaska and Greenland (IUCN, 2017). Distribution in the south pole is circum-Antarctic, ranging across the continent but mainly on the coastlines and peninsula (IUCN, 2017). It is a rare visitor to Trinidad and Tobago.

**HABITAT AND ACTIVITY.** Except during the breeding season, the skua lives on the open ocean. Average feeding trips are 2-3 hours long over open, ice-free sea and over 7 hours over heavily-iced ocean. Skua activity correlates with the time of day (Pietz, 1986), where maximum foraging occurs between 0000 and 0500 hours and declines steadily after 0500 hours; and maximum resting occurs in the twilight period.

**FOOD AND FEEDING.** The skua is a predator, and feeds mainly on fish (Wildscreen, 2017), but the full range of diet is krill, small mammals, seabirds, carrion, and penguin eggs and young (EOL, 2017). The skua can subsist on penguins where a breeding colony is associated with a penguin rookery (IUCN, 2017) (Fig. 3), and is known to memorise the location of penguin nests in order to feed on hatchlings (Weidinger and Pavel, 2013). It may also scavenge on seal carcasses and garbage, and attacks fishing boats for garbage. The skua engages in stealing food from other birds. It will pursue birds that have caught food, and grab a part of their bodies with its bill and shake rigorously to make them drop their catch. It also engages in plunge-diving outside of the breeding season.

**POPULATION ECOLOGY.** The south polar skua lives in loose colonies (IUCN, 2017) and is a highly territorial species (Charrier et al., 2001). It is usually alone on the open sea, but may also live in small loose groups in harbours (EOL, 2017). The generation length is 17.1 years (IUCN, 2017) and average lifespan is 23.5 years (EOL, 2017). The global population size is estimated to be between 10,000-20,000 individuals (IUCN, 2017).

**REPRODUCTION.** First breeding takes place between 7-9 years of age (EOL, 2017). Parents engage in courtship with much posturing and calling, and feeding of the female by the male, before choosing a mate (Audubon Society, 2017). Parents are monogamous, and keep their mates and nesting sites. Breeding occurs on snow-free areas in Antarctica, especially in the Ross Sea area (IUCN, 2017), and occurs in loose colonies along the Antarctic coasts (Oiseaux Birds, 2017). The south polar skua nests in an unlined scrape on the ground, in an area of at least one side of rock, and it may be close to a penguin colony (Peter et al., 1990). Typically, 1-3 eggs are laid by the mother, which hatch between 26-29 days. Eggs have a mass of 81-105g (Peter et al., 1990) and are an olive-brown colour, spotted with darker brown (Audubon Society, 2017). Hatching occurs between late December and early February.

**BEHAVIOUR.** Juvenile behavior: hatchlings leave the nest 1-2 days after hatching to wander in the immediate vicinity. They are fed by regurgitation from parents (EOL, 2017). Their first flight occurs between 49-59 days old (Audubon Society, 2017). Usually only one chick survives because the older chick will kill the younger chick or force it from the nest, where it wanders until it dies of starvation or predation (Wildscreen, 2017).

Communication: The south polar skua uses three calls; courtship, contact, and alarm (Charrier et al., 2001). It also makes high-pitched screams and shrieks, but is generally quiet outside of breeding grounds (Oiseaux Birds, 2017). In an aggressive display if a separate male is

too close to the nest, the skua will extend its head forward and raise both wings over its back while giving harsh calls (Audubon Society, 2017) (Fig. 4).

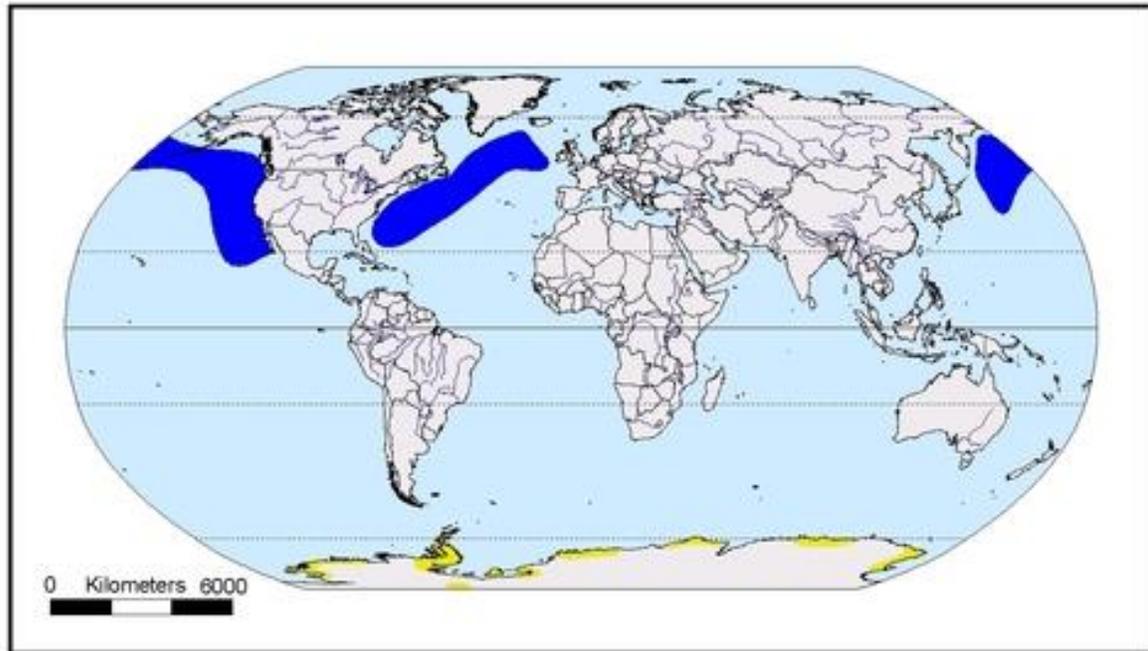
**APPLIED ECOLOGY.** The species is listed as Least Concern (IUCN, 2017) because it has a large range and stable population which does not approach the thresholds for “Vulnerable”. It was previously listed as Lower Risk between 1988 and 2000. Due to their vast migratory range, skuas are more vulnerable to airborne and lipid-dissolved pollutants, when compared to levels in adelic penguins (Court et al., 1997).

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*Stercorarius maccormicki*

breeding
  feeding, wintering
  resident

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 del Hoyo et al. 1991-1999,  
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**Fig. 2.** South polar skua geographic distribution.

[<http://www.planetofbirds.com/charadriiformes-stercorariidae-south-polar-skua-stercorarius-maccormicki>, downloaded 7 March 2017]



**Fig. 3.** Pair of skuas attacking an adelic penguin chick.

[<http://www.audubon.org/news/south-polar-skuas-are-bunch-bird-eating-bullies>, downloaded 7 March 2017]



**Fig. 4.** South polar skua defensive threat display.

[<http://www.arkive.org/south-polar-skua/stercorarius-maccormicki/image-G74535.html>, downloaded 7 March 2017]

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