



Department of Planning and Natural Resources
Division of Fish and Wildlife
U.S.V.I. Animal Fact Sheet #06
Brown Booby
Sula leucogaster



Taxonomy

Kingdom	- - - - -	Anamalia
Pylum	- - - - -	Chordata
Subphylum	- - - - -	Vertebrata
Class	- - - - -	Aves
Order	- - - - -	Pelecaniformes
Family	- -	Sulidae
Genus	- -	<i>Sula</i>
species		<i>leucogaster</i>

Identification Characteristics

Body Length	-	64-74 cm
Weight	-	725-1500 g
Wing span	-	130-150 cm
Dark head, breast, mantle, and tail		
White belly cleanly separated from dark breast		
Underwings white with dark border		
Large, yellow or greenish, pointed bill		
Yellow legs and feet		

Description

The Brown Booby is a medium-large seabird characterized by dark brown coloration except on the breast, abdomen and underwing, which are white in the adult. Immatures are entirely dusky brown. Females are larger than males, but in the Virgin Islands sexes can be distinguished by bill color (pinkish-yellow in females, greenish-yellow in males) and vocalizations (females honk, males whistle). The genus *Sula* is from the Icelandic word Sulan, meaning “an awkward fellow”. The name “booby” comes from the Spanish word bobo, which means “stupid fellow” referring to the bird’s lack of fear of man and clumsiness on land making them easy to catch. Although awkward on land, their cigar-shaped bodies and narrow wings reflect a superb aerodynamic design, which is specially adapted for plunge-diving. Their dagger-shaped bill is long and pointed with serrated edges, ideal for swift seizure and grasping of slippery fish. The external nostrils are closed, but secondary nostrils beside the mouth are covered by moveable flaps when the bird plunge-dives into the sea. A semi-transparent third eyelid closes to protect the eyes in

bad weather and underwater. The feet are totipalmate (webbed between all four toes) to help the birds to swim well. They have strong skulls and rib cages to withstand the pressure of diving into the water. Air sacs under the skin also help to cushion the blow when diving for fish.

Distribution & Habitat

The race *leucogaster* is distributed over the tropical Atlantic, the Caribbean and the Gulf of Mexico. In the Virgin Islands, the Brown Booby is present year round and is the most common and widely distributed of the three booby species that occur in this region. Approximately 600-1000 breeding pairs are distributed on five offshore cays (small islands) which are government-owned and declared Wildlife Sanctuaries. These islands are difficult to access and are uninhabited with vegetation generally characterized as subtropical dry forest. Nesting habitats preferred by Brown Boobies are grassy flats or slopes. Data from banding studies show that very little inter-colony movement occurs. The total breeding population in 1996 dropped dramatically as a result of Hurricane Marilyn, but numbers have slowly risen since then.

Food and Feeding

Brown Boobies are primarily inshore feeders. In the Virgin Islands, they feed on flying fish, squid, and a variety of smaller baitfish. Boobies are powerful high-speed soaring birds that can torpedo after a flying fish or fall straight down like a falcon. Seabirds have the ability to drink salt water by using a specialized salt gland located behind the orbit of the eye. The salt gland allows the booby to excrete excess salt through the nasal passages which is eliminated by shaking the head. Feeding aggregations of boobies are of considerable economic importance to sport and commercial fishermen as beacons for locating pelagic fish schools.

Reproduction

All seabirds must return to land to breed. Like most seabirds, boobies are characterized by long lifespans (20 years or more), low reproductive rates, slow chick growth and delayed maturity. In the Virgin Islands, nesting can occur during any time of the year, but typically two peaks occur; one during fall-winter and a second peak in March-April. The five breeding colonies in the Virgin Islands may not be synchronous. Brown Booby nests are placed on the ground and are constructed of grasses and occasionally seaweed. Like the Masked Booby, Brown Boobies usually lay two eggs but raise only one chick to maturity. Incubation begins when the first egg is laid, resulting in the first chick being considerably larger and stronger than the second. It is for this reason that the second smaller chick is usually the one that does not survive. Both sexes take turns incubating the eggs and caring for the young chick. Incubation lasts about 42 days and because brood patches are absent, boobies use the webs of their feet, which are extensively vascularized, to transmit essential heat to the eggs. Once hatched, chicks take about 100 days to fledge (a bird capable of flight) and are fed an additional 6 weeks at the nest site by the parents. Boobies feed their young directly from the adult's throat. A 3-year study of Brown Booby nesting success in the USVI found that only 21% of nests produced a fledged chick. Those chicks that survive spend several years away from the colony before returning, usually to the colony of their birth, to breed. Juvenile boobies banded in the USVI have been recovered from Bermuda, Jamaica, Belize and Colombia.

Conservation

Like most natural resources, seabirds have been exploited by humans. The Brown Booby especially has suffered because of human activity and many islands have lost much of their populations through the harvesting of eggs and chicks for food, by military activity, the introduction of pests, the occurrence of oil spills, over-fishing that reduces available food for the birds, entanglement in fishing gear and habitat destruction. Few colonies are effectively protected and human exploitation is still quite severe.

What you can do to help

- All the major seabird colonies that are government-owned have been posted with Wildlife Sanctuary signs. Entry to most of the cays is prohibited to reduce disturbance to nesting seabirds. Persons entering breeding colonies may cause reduced nesting success or colony abandonment by causing adults to fly off their nests, leaving eggs or small young vulnerable to predators. Chicks are born naked and helpless and can die in a matter of minutes due to heat stress if not shaded by the parent. Please report any unauthorized entry into a seabird colony to Environmental Enforcement (774-3320) or the DFW (775-6762).
- A major cause of injury and death to many seabirds in the Virgin Islands is the fishhook and monofilament line. If you catch a bird on your fishing line, DO NOT CUT THE LINE. The bird will trail this line back to the nesting colony, possibly entangling more birds, and will die a slow torturous death. Please slowly reel in the bird and if possible gently land the bird with a hand net. The bird will be calmer if its head is covered and this affords some protection to the handler from its sharp bill. Cut off the barbed end of the hook then back the hook out. If the bird has swallowed the hook or you are unable to dislodge it, please bring the bird to a local veterinarian or to DFW.

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FOR MORE INFORMATION ON
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