

BLACK SKIMMER - RYNCHOPS NIGER

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Laridae Genus: Rynchops
Species: R. niger

Habitat:

Biomes: Black Skimmers spend their entire lives in coastal areas, usually around sandy beaches and islands, although a few colonies can be found in inland locations with very large lakes, particularly in Florida and California. Nesting birds use open sandy areas, gravel or shell bars with sparse vegetation, or broad mats of wrack (dead vegetation) in saltmarsh. Foraging birds frequent places that concentrate prey: tidal waters of bays, estuaries, lagoons, creeks, rivers, ditches, and saltmarsh pools. Because so many coastal habitats have been developed or otherwise modified, skimmers have become limited in their distribution over most of their range.

Distribution:

In US: It breeds in North and South America. Northern populations winter in the warmer waters of the Caribbean and the tropical and subtropical Pacific coasts, but the South American races make only shorter movements in response to annual floods which extend their feeding areas in the river shallows. Strictly along the Atlantic East Coast and both of the coasts of Mexico, as well as the West Coast of South America and a lot of east South America.

In Other Countries: NONE

Holistic Description: A long-winged bird with stark black-and-white plumage, the Black Skimmer has a unique grace as it forages in flight. Skimmers feed by opening the bill and dropping the long, narrow lower mandible into the water, skimming along until they feel a fish. Then they relax the neck, quickly closing their jaws and whipping the fish out of the water. Because they feed by essentially by touch, they can even forage at night. The world's three species of skimmers are the only birds on earth that feed in this manner.

Species Richness: 3 SUBSPECIES

Population Dynamic: In the 1970s, the Black Skimmer was considered a vulnerable and declining species, but recent evidence suggests its population has stabilized in many states, albeit at lower levels than in the early 1960s.

Evolution and Systematics:

Evolution: Known from Tertiary strata of Patagonia.

Systematics: Traditionally treated as a family, Rynchopidae, sometimes placed in the suborder Lari, but more recently as a subfamily Rynchopinae of the Laridae. All North American birds belong to the nominate subspecies R. niger niger. Five races named, but currently only three recognized.

Number of Species: 3 SUBSPECIES

Number of Genera: 3 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 15.8-19.7 in (40-50 cm) Weight: 9.3-12.9 oz (265-365 g)

Wingspan: 42.9-45.3 in (109-115 cm)

Coloration: Starkly black above and white below, with black-and-red bill and orange-red legs. Juveniles are brownish above, with pale-edged wing covert feathers.

General Body Features: A medium-sized ternlike seabird with very long wings and an outsized bill in which the lower mandible is much longer than the upper.

Special Features of the Body: Shorebirds are designed, or adapted, to survive in open habitats. Their brown, rust, black, and white plumage makes them less conspicuous to predators. Their bi-coloration, dark on the back and lighter on the belly, further camouflages them from predators. Their light bellies blend in against the light sky when seen from below.

Special Features of the Head and Sensory Organs: The profile of the symphysis is highly streamlined for motion through water regardless of the angle at which the bill is held to the surface, and water resistance to forward motion through compression and friction may be very small, even at speeds up to 20 m.p.h. **At hatching, the 2 mandibles are equal in length, but by fledging at 4 wk, the lower mandible is already nearly 1 cm longer than the upper.**

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Shorebirds have long legs for wading. Their long toes give them the stability they need for their seemingly endless walking and running along the water's edge and in soft mud.

Any Special Internal Anatomy: Not only used for finding food, bills are used for preening as well. A special oil gland located at the base of their tails helps to keep their feathers dry. The birds spread the oil from this gland with their bills or the backs of their heads when preening themselves. The oil repels water from the feathers, keeping them warm and dry

Sexual Dimorphisms: This species ranges from 212 to 447 g (7.5 to 15.8 oz), with males averaging about 349 g (12.3 oz), as compared to the smaller female's 254 g (9.0 oz).

Differences Between Juvenile Stage and Adult: Juveniles buffy brown, streaked with black above, whitish below. At hatching, the 2 mandibles are equal in length, but by fledging at 4 wk, the lower mandible is already nearly 1 cm longer than the upper.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Crepuscular/Nocturnal Forager (1st ONE BETTER ANSWER)

Activity: To the birder, mention of “Black Skimmer” brings to mind a bird in elegant repose or effortless flight. Watching them at a nesting colony, from a respectful distance, will uncover additional behaviors. Resting skimmers often put their entire bodies, including head and bill, on the sand, probably to keep cool and to give their neck muscles a break from supporting their large bills. When napping in a flock, skimmers tend to remain standing, and the birds on the outer edges of the flock tuck their bills into the wing on the outer side, keeping an eye out for danger. During the nesting season, skimmers are quite active and are surprisingly agile when walking. Their various displays, like those of terns, can be entertaining to watch. Newly formed pairs sometimes fly in tandem, fluttering up together and flying around the nesting area. They also parade through the area together with necks outstretched and bills held up. Males are protective of their small territories (around the nest) and guard females against interlopers, often using warning displays such as tossing the head upward, standing upright, or facing downward with the tail cocked upward. Sometimes, skimmers open the bill, exposing a reddish gape. Some of these warnings are accompanied by soft, barking calls. Courting males usually present a fish to the mate; copulation is accompanied by a wing-flagging display on the part of the male.

Locomotion: Agile on ground; walking incorporated into agonistic and courtship displays, also run at intruders. Flight generally buoyant and graceful, and aerial displays include a vertical Flutter-up Flight involving two birds. Fly about 10 m/s. No information on swimming ability; virtually never seen on water except when bathing in freshwater.

Communication and Perception: The only vocalization is a nasal, yapping bark, given by both sexes in many contexts and often heard from flying birds during bouts of foraging. Males give calls slightly lower in pitch than females.

Home Range: Defends narrow space around nest for courtship, copulation, nesting, and chick rearing. Larger colonies tend to be more dense even when habitat not limiting, and hexagonal packing of nests is sometimes apparent.

Degree of Sociality: Skimmers typically form distinct sub-colonies in the most open areas of the tern colonies, accounting for Stone's observation that the species tend to separate for nesting. Skimmers appear to benefit from the greater aggressiveness of terns toward predators and human intruders.

Level of Aggression: Aggressive interactions usually involve several different displays that escalate in intensity if the intruder fails to respond. The intruder was chased away 34% of the time, departed spontaneously 8%, retreated a short distance 23%, and remained in place 35%. Frequency of different aggressive displays varies seasonally and with stage in the breeding cycle. In the preincubation stage, Head Tosses (40%) and Aggressive or Low Oblique (41%) displays account for most displays. During incubation, Head Tosses are most common (45%), followed by Walk or Ground Chase (22%); during the chick phase, Aggressive Upright or Low Oblique (42%) and Walk or Ground Chases (30%) account for most displays. In the chick phase, however, Aerial Chases and Fight account for 18% of the displays, whereas they account for < 12% at other times.

Migration: Northern populations (Virginia to New England) migrate south, mainly to Florida, but premigratory flocks often linger into early winter, abandoning estuaries before freeze up. Southern birds may be sedentary, may wander, or migrate to Caribbean or Central America.

Predators:

Predators: Norway Rats, Herring Gulls, Raccoons, Humans, Domestic Dogs, Feral Dogs, Cats, Rats, Squirrels, Foxes, Raccoons, Hawks, Owls, Gulls, Corvids, Icterids, Ruddy Turnstones, American Oystercatchers, Boat-tailed Grackles, Laughing Gulls, Fish Crows, Skimmer, Tern chicks, Cattle Egrets, Short-eared Owls.

Anti-Predator Defenses: Over much of their range, skimmers nest with more aggressive tern species that provide early warning of intruders and that mob predators in large numbers. Mobbing often effective in deterring avian and casual human intruders, but usually ineffective against canids and nocturnal predators. In many colonies, adults flush from nests, circle once or twice over water, and land at a distance until intruders leave. With more frequent visitation and habituation, adults circle intruders and call loudly, making fast and close downwind passes accompanied by threatening barks. Rarely strike humans.

Diet and Nutrition:

Adult Diet: Black Skimmers forage mostly when winds are light and waters calm. They take many species of fish, mostly under 5 inches long, and a few crustaceans, such as shrimp or blue crab (when the crabs are molting). Documented prey items include killifish species (such as mummichog), smelt, flounder, menhaden, bay anchovy, spot, bluefish, silversides, herring, pipefish, sea trout, mullet, snapper, Spanish mackerel, and sharksucker. In tidal areas, they often forage in sync with the tides, commonly with bouts just after low tide and just before high tide, but there are many variations.

Juvenile Diet: ^^^^^^

Special Adaptations for Getting Prey: Skimmers typically glide low over the water, usually on motionless wings, with lower mandible tip slicing surface of water. When the mandible contacts a fish or other object, the maxilla clamps down while the head and neck tuck downward, securing the fish, which is then turned and swallowed headfirst or carried crosswise in the bill to the nest.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Monogamous, even though pronounced sexual dimorphism is often associated with polygyny.

Mating Season: March to May

Courtship: NONE

Territoriality: HOME RANGE and Individuals defend and maintain territories shortly after arriving on breeding grounds. Although at first they remain in tight flocks, they soon begin standing in pairs, and later space out into territories. Aggression relatively low in the dense flocks when they first arrive on the breeding colony site. This is followed by high levels of synchronous barking, followed by spacing out in the available habitat.

Mating: Later in season, copulation can occur without such offerings. Female takes offering and immediately turns and crouches. Male mounts and raises wing (Wing-flagging Display). Mount lasts 5–90 s, but actual copulation only 3–5 s in most cases. No post-copulatory display. Skimmers copulate several times a day (or night) during incubation period. Copulatory Wing-flagging behavior acts as stimulus for neighboring pairs, and several pairs may copulate simultaneously.

Nesting: Black Skimmers lay eggs directly on sandy, shelly, or stony ground, usually on islands or remote beaches that have at least a little vegetation. Some nest in the higher parts of saltmarshes. They often nest near or among tern colonies, which (despite numerous squabbles) can provide benefits, as terns aggressively attack gulls and mammals that prey on eggs and chicks. Mates take turns scraping, using an exaggerated posture (with the neck, head, bill, and tail raised) to kick sand behind them with alternating foot strokes. They then rotate in their scrape to create a saucer-shaped depression, similar to the resting scrapes they use throughout the year. The depression takes only a few minutes to create, and the birds may make several scrapes before eggs are laid. Males do more scraping and make larger scrapes than females. The average scrape is 10 inches in diameter and 1 inch deep.

Egg-Laying: Clutch Size: 1-5 eggs Number of Broods: 1 brood Egg Length: 1.5-2.0 in (3.9-5.2 cm) Egg Width: 1.2-1.4 in (3-3.5 cm) Incubation Period: 21-25 days Egg Description: Pale cream, white, greenish, or pinkish spotted with dark brown to black.

Hatching and Incubation/Gestation: Almost helpless, covered in tan down. Chicks can soon stand and move around, but parents must feed them for 3-4 weeks after hatching

Development: Semi-precocial chicks are completely covered with down, although at hatching down is wet and chick appears mostly naked, but dries after about 2–3 h of brooding. Chicks can open eyes at hatching and, although uncoordinated, can walk from nest within 1–2 h, although actual walking not usually seen until 2nd day. Usually spend most of time sleeping under parent.

Parental Care: Hatching asynchronous; brooding begins immediately upon hatching. Chicks brooded most of the time during the 1st wk, guarded for the next 2 wk. Chicks older than 1 wk vulnerable to storms because they are too large to be brooded. Both parents bring fish to young. Adult lands on territory with fish and approaches chicks in nest, uttering soft call notes. Day-old chicks remain crouched and may require coaxing to take fish from parent's bill, but older chicks beg vigorously even before parents land, and after about 3 d run towards parent.

Lifespan: Up to 20 years old.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Black Skimmers are in decline. The North American Breeding Bird Survey estimates that populations declined 4% per year between 1966 and 2015, indicating a cumulative loss of 87% of their population over that period. Black Skimmers rate a 14 out of 20 on the Continental Concern Score and is included in the Partners in Flight Yellow List for declining populations. The North American Waterbird Conservation Plan estimates the North American population at 65,000-70,000 breeding Black Skimmers and lists it as a Species of High Concern. The main threat to skimmers is development or other loss of their beach-nesting habitat, since they nest on the kinds of beaches that people like to vacation on. In addition to habitat loss, skimmer nests can be destroyed by roaming dogs and by vehicles that are allowed to drive on beaches. Storms and high tides can swamp eggs or nestlings. Projections of sea-level rise suggest further steep declines in Black Skimmer numbers during the current century without management interventions. Because Black Skimmers nest very close to the water's edge

and feed from the water surface, they were among the species of greatest concern during the 2010 Gulf oil spill. By the end of that year, 263 dead Black Skimmers had been collected during the oil spill response.

Conservation Efforts: ^^^^

Extra Facts:

1. The distinctive Black Skimmer has many folk names in North America, where it has been called scissor-bill, shearwater, seadog, flood gull, stormgull, razorbill, and cutwater.
2. Although the Black Skimmer is active throughout the day, it is largely crepuscular (active in the dawn and dusk) and even nocturnal. Its use of touch to catch fish lets it be successful in low light or darkness.
3. Possibly the best description of the Black Skimmer's bounding, head-down foraging style came from the great seabird biologist R. C. Murphy in 1936. He said they look like “unworldly... aerial beagles hot on the scent of aerial rabbits.”
4. At hatching, the upper and lower bill of a young Black Skimmer are equal in length, but by fledging at 4 weeks, the lower mandible is already nearly a half-inch longer than the upper.
5. The oldest recorded Black Skimmer was at least 23 years, 1 month old when it was identified by its band in California in 2013. It had been banded in the same state in 1990.

Notable Species:

1. *R. n. niger* (Linnaeus, 1758) – migratory, breeds on the Atlantic coast of North America, and from southern California to Ecuador in the Pacific
2. *R. n. cinerescens* (von Spix, 1825) – is larger, has dusky underwings, and only a narrow white fringe to its black tail, and breeds in northern and northeastern South America and the Amazon basin
3. *R. n. intercedens* (Saunders, 1895) – occurs on the rest of the Atlantic coast of South America south to central Argentina