

## LEAST TERN - STERNULA ANTILLARUM

One subspecies is listed as endangered. See “Notable Species” for more. It differs from the little tern mainly in that its rump and tail are gray, not white, and it has a different, more squeaking call; from the yellow-billed tern in being paler gray above and having a black tip to the bill; and from the Peruvian tern in being paler gray above and white (not pale gray) below and having a shorter black tip to the bill.

**Taxonomy:** Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Laridae Genus: Sternula  
Species: S. antillarum

### **Habitat:**

**Biomes:** Seacoasts, beaches, bays, estuaries, lagoons, lakes and rivers, breeding on sandy or gravelly beaches and banks of rivers or lakes, rarely on flat rooftops of buildings.

### **Distribution:**

**In US:** The least tern (Sternula antillarum) is a species of tern that breeds in North America and locally in northern South America. Mainly in coastal areas along the Pacific and Atlantic and the entirety of the Caribbean.

**In Other Countries:** England, Mexico, Central American, Caribbean.

**Holistic Description:** The smallest of American terns, the Least Tern is found nesting on sandy beaches along the southern coasts of the United States and up the major river systems far into the interior of the continent.

**Species Richness:** 3 SUBSPECIES

**Population Dynamic:** The western population, the California least tern, was listed as an endangered species in 1972 with a population of about 600 pairs. With aggressive management, mainly by exclusion of humans via fencing, the Californian population has rebounded in recent years to about 4500 pairs, a marked increase from 582 pairs in 1974 when census work began, though it is still listed as an endangered subspecies

### **Evolution and Systematics:**

**Evolution:** NONE

**Systematics:** Five geographic races described in the Americas, but descriptions based largely on qualitative taxonomic assessment; few specimens and limited statistical analysis used for original descriptions. From extensive examination of body measurements, all subspecies are similar to coastal S. a. antillarum. (RANDOM INFORMATION, JUST KNOW 5 RACES, 3 SUBSPECIES). Least and Little Terns distinguished primarily by vocal differences.

**Number of Species:** 3 SUBSPECIES

**Number of Genera:** 3 SUBSPECIES

### **Physical Characteristics:**

**Size and Length:** Length: 8.3-9.1 in (21-23 cm) Weight: 1.3-1.9 oz (36-54 g)

**Wingspan:** 18.9-20.9 in (48-53 cm)

**Coloration:** Small tern. During breeding, black cap ending at white forehead. Short white eyestripe. Bill yellow with black tip. Back light gray. Underside white. Black leading edge to wing. In nonbreeding plumage has black eyestripe extending to back of head, white top of head, and black bill.

**General Body Features:** Small with narrow, pointed wings. Thin yellow bill and yellow legs during the breeding seasons help separate it from similar species.

**Special Features of the Body:** Long, pointed wings and deeply forked tails are essential adaptations among terns that allow for swift maneuvering when flying and diving.

**Special Features of the Head and Sensory Organs:** Least terns prey upon small fish and invertebrates. The excellent eyesight of terns helps them to spot prey swimming below. Terns, including the least tern, differ from gulls in that they dive directly into the water to catch prey with their sharp beaks.

**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.

SALT GLAND.

*Sexual Dimorphisms*: Limited data suggest no gender differences, but females more variable, probably because of egg production.

*Differences Between Juvenile Stage and Adult*: Juvenile with U-shaped marks across back. Immature resembles winter adult.

#### **Behavior:**

*Diurnal, Nocturnal, or Crepuscular*: Diurnal

*Activity*: Plunges into water from flight; may hover briefly before plunging. The least tern arrives at its breeding grounds in late April. The breeding colonies are not dense and may appear along either marine or estuarine shores, or on sandbar islands in large rivers, in areas free from humans or predators. Courtship typically takes place removed from the nesting colony site, usually on an exposed tidal flat or beach. Only after courtship has confirmed mate selection does nesting begin by mid-May and is usually complete by mid-June. Nests are situated on barren to sparsely vegetated places near water, normally on sandy or gravelly substrates. In the southeastern United States, many breeding sites are on white gravel rooftops. In the San Francisco Bay region, breeding typically takes place on abandoned salt flats. Where the surface is hard, this species may use an artificial indentation to form the nest basin.

*Locomotion*: Can walk or run; because legs are short, appears to glide over sand. Walks with slight side-to-side body movement. Can hop over shells, small logs, and debris on beaches. Strong, quick, direct flight, as well as array of acrobatic maneuvers when foraging or responding to disturbances in colonies. Flight is light, buoyant, strong, and graceful, but birds can be blown by strong winds. Hovers and soars in thermals or when feeding on flying insects. Alights and perches on small logs, debris, or on railings of bridges. Adept swimmer, but generally does not swim. Adults sometimes wade deep, immersing breast- and belly feathers, while preening at loafing areas. Chicks sometimes swim short distances in shallow water while escaping disturbances.

*Communication and Perception*: Alarm call a sharp "zweep." Also a high-pitched "kee-zink, kee-zink."

*Home Range*: Exhibits territorial behavior in vicinity of potential nest sites within 5-25 d of arrival at breeding colony. Males select display sites, where they stand on sand, pebbles, logs, or other elevated place to display, usually after aerial courtship is well underway. Females occupy similar sites while awaiting courtship feeding.

*Degree of Sociality*: Gregarious year-round, especially at colonies and while roosting. Feeds and migrates in flocks of 5-20 or more, but frequently seen singly while foraging. Loose to dense flocks common at loafing sites associated with colonies. Readily flocks in response to colony intruder. Occasionally engages in dread flights, wherein 10-30 terns abruptly leave a site in loose flock, fly low over water, and coalesce to denser flock, then return to previous location; may be associated with sudden danger, but often unexplained.

*Level of Aggression*: Contact rare; Alarm Calls and attack flights generally sufficient to avoid more overt contact.

Occasionally incubating female may peck mate or other tern if approached too closely or suddenly. Typically restricted to defense of nest areas or occasional dispute at feeding areas. On ground, involves a stiff walk with forebody held high, neck craned forward, and raised outspread wings.

*Migration*: Vacate breeding areas of U.S., n. Mexico, and Caribbean islands in late summer or early fall, most moving well southward to Central and South America; stragglers may occur on Pacific and Gulf coasts during winter. Degree of migration in terns from much of Mexico and Caribbean uncertain. Terns from n. U.S. migrate greatest distance to South America. Winter areas for U.S. breeding population largely unknown, except California subspecies known to winter in s. Mexico. Banded juveniles from Atlantic Coast known to move to northern coast of South America. Apparently migrates in small, loose groups, feeding en route in shallow water near land and resting on sandbars, beaches, pilings, and docks. During migration and postbreeding wandering, Least Terns have appeared in aquatic habitats through most of U.S.

#### **Predators:**

*Predators*: Fish Crows, American Crow, Common Raven, Boat-tailed Grackle, Gulls, Great Blue Heron, Black-Crowned Night Heron, Ruddy Turnstone, Sanderling, Great Horned Owl, Peregrine Falcon, American Kestrel, Northern Harrier, Loggerhead Shrike, Red Fox, Coyote, Raccoon, Feral Hog, Ghost Crab, Catfish, Cats, Dogs, and Rats.

*Anti-Predator Defenses*: Intimidation responses to predators or intruders near territory include Alarm Calls, flight, and attack flights or dives at intruder, giving diving call interspersed with Alarm Calls. Terns desert nest or chicks or fly high over predator when adults are vulnerable; dive and attack when only eggs and chicks are vulnerable.

#### **Diet and Nutrition:**

*Adult Diet*: Small fish. Some invertebrates. Primarily small fishes, but also shrimp and occasionally other invertebrates; >50 fish species listed as prey. Herring, Hake, Anchovy, Menhaden, Mummichog, Crustaceans, Silversides, Killfish, Shiner Perch.

*Juvenile Diet*: PARENTAL CARE

**Special Adaptations for Getting Prey:** Forages throughout day. Searches for prey while flying or hovering 1-10 m above water, then quickly plunges to surface; does not fully submerge. Normally plunge-dives and grasps prey with open mandibles; rises well above water after capturing prey to manipulate and swallow food in flight.

**Reproduction:**

**Mode of Reproduction:** Monogamous

**Mating System:** Monogamous, colonial, with diffuse colonies ranging from a few to a lot of pairs. Sex ratios assumed to be 1:1 because of monogamy and no evident sex-biased flocks during breeding or winter.

**Mating Season:** March to May

**Courtship:** Courtship has 2 phases: (1) Aerial phase includes fish flights and aerial glides, and (2) ground phase includes courtship-feeding, posturing, parading, and copulation. In Fish Flight Display, 1 flying male tern with a fish visible in its bill gives the 4-note call and is pursued by 1-4 other terns (possibly both sexes). Pursuit lasts several minutes and ends when 2 or 3 terns perform extended aerial glide, holding wings stiffly and partly flexed. During aerial glide, birds are silent, cross over one another, and repeatedly bank toward one another. One or 2 may land following Fish Flight Display, male may give fish to female, and copulation sometimes follows. Ground displays similar to those of other terns, include Bill Up (bill raised high, nearly vertical, neck extended upwards, wings usually opened above head level; silent), Bill Down (head down with bill vertical to show black cap; wings and tail not moved), and Breast Low (body bent forward and bill parallel to ground, thereby body horizontal with breast lowered) displays.

**Territoriality:** HOME RANGE and territory defense consists of Alarm Calls, flight, and attack flights or dives at intruder, giving mixed Alarm Calls. During dives, silent and may drop and spread feet toward intruder. When near intruder, gives zwreep call and may defecate. After passing target, tern climbs steeply away from intruder. Males initially more aggressive in defending territory; after egg-laying, both sexes defend territory, eggs, and chicks.

**Mating:** Male flies in with fish, gives 4-note fish flight call, lands close to female and feeds her; female swallows fish; then male raises head in triumph posture and flies off. Sometimes pairs parade and posture when male returns with fish; female assumes bent posture, male extends and quivers wings, tail slightly raised, male walks toward and around female with neck extended and head wagging, male snaps head up and down so that fish flashes in sun, and female turns to face male. Female turns tail to side, they make cloacal contact, and female turns head to receive fish if she did not take it before mating. Pair copulates near nesting area, typically on territory. After copulation, birds fly off, generally in different directions.

**Nesting:** Shallow scrape in sand, soil, or pebbles. Nest is shallow scrape in sand, soil, or pebbles, to which bits of shell, light-colored pebbles, or small bits of wood or grass stem are occasionally added after incubation has begun. Makes scrape by sitting on substrate and kicking feet backward while rotating body, using breast to form shallow depression made by feet.

**Egg-Laying:** Clutch Size: 1-3 eggs Number of Broods: 1 brood Egg Length: 0.9-1.4 in (2.36-3.57 cm) Egg Width: 0.8-1.0 in (2.07-2.53 cm) Incubation Period: 19-25 days Nestling Period: 1-2 days MORE

**Hatching and Incubation/Gestation:** Downy, eyes open, able to walk but stays in nest. At hatching, chick is wet, down-covered, and has prominent white egg tooth, open eyes, and limited thermoregulatory abilities. Color of down and flesh varies considerably within and among broods.

**Development:** SEMI-PRECOCIAL ^^^^

**Parental Care:** Adults brood chicks during first 24–48 h after hatching, depending on site characteristics and ambient temperatures. After that time, chicks find shelter and thermoregulate. Both sexes feed young, bringing smaller fish to chicks than to mates, and increasingly larger fish to chicks as chicks mature. Occasionally, chicks peck at insects on the ground or in shallow water.

**Lifespan:** Record longevity is 24 yr 1 mo for a Least Tern.

**Conservation:**

**Official Federal Status:** Least Concern

**Special Statuses in Individual States:** NONE

**Threats:** Least Tern populations declined by about 88% between 1966 and 2015, according to the North American Breeding Bird Survey. The North American Waterbird Conservation Plan estimates a continental population of 60,000-100,000 breeding birds, and lists it as a Species of High Concern. Least Tern rates a 14 out of 20 on the Continental Concern Score. The species is on the 2016 State of North America's Birds' Watch List, which lists bird species that are most at risk of extinction without significant conservation actions to reverse declines and reduce threats. Least Tern are widespread and common in places, but its favored nesting habitat is prized for human recreation, residential development, and alteration by water diversion, which interfere with successful nesting in many areas. Least Tern is classified as threatened, endangered, or as a species of concern for most states because of loss of nesting habitat, and the interior population has been federally listed as endangered since 1985.

Conservation Efforts: ^^^^

**Extra Facts:**

1. The Least Tern prefers sandy beaches for nesting, but it will use a flat gravel roof of a building. On sunny days the hot tar showing through the gravel can burn the feet of chicks or become stuck in their down.
2. The oldest recorded Least Tern was at least 24 years, 1 month old when it was found in New Jersey in 1981. It had been banded in 1957 in Massachusetts.

**Notable Species:**

1. *S. a. athalassos* – Breeds on the rivers of the Arkansas River, Mississippi River, Brazos River, Trinity River, and Rio Grande basins; winters south to northern Brazil.
2. *S. a. antillarum* – Breeds on the Atlantic coast of North America, from Maine south along the east and south coasts of the United States, Bermuda, the Caribbean, and Venezuela; winters south to northern Brazil.
3. *S. a. browni* – California least tern. Breeds on the Pacific coast of North America, from central California south to western Mexico; winters mainly in Central America.
4. An unknown subspecies was found in 2012 nesting on the Big Island of Hawaii

**The western population, the California least tern, was listed as an endangered species in 1972 with a population of about 600 pairs. With aggressive management, mainly by exclusion of humans via fencing, the Californian population has rebounded in recent years to about 4500 pairs, a marked increase from 582 pairs in 1974 when census work began, though it is still listed as an endangered subspecies.**