

ROSEATE SPOONBILL - PLATALEA AJAJA

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Pelecaniformes Family: Threskiornithidae Genus: Platalea Species: P. ajaja

Habitat:

Biomes: Roseate Spoonbills forage in the shallows of fresh, brackish, and marine waters with good sources of aquatic invertebrates. These include bays and mangroves to forested swamps and roadside ditches. They nest and roost in trees and shrubs along the water's edge.

Distribution:

In US: It is a resident breeder in South America mostly east of the Andes, and in coastal regions of the Caribbean, Central America, Mexico, the Gulf Coast of the United States, and from central Florida's Atlantic coast at Merritt Island National Wildlife Refuge, adjoined with NASA Kennedy Space Center at least as far north as South Carolina's Huntington Beach State Park.

In Other Countries: South America and Mexico

Holistic Description: The flamboyant Roseate Spoonbill looks like it came straight out of a Dr. Seuss book with its bright pink feathers, red eye staring out from a partly bald head, and giant spoon-shaped bill. Groups sweep their spoonbills through shallow fresh or salt waters snapping up crustaceans and fish. They fly with necks outstretched, to and from foraging and nesting areas along the coastal southeastern U.S., and south to South America. These social birds nest and roost in trees and shrubs with other large wading birds.

Species Richness: NO SUBSPECIES

Population Dynamic: NONE

Evolution and Systematics:

Evolution: Identified from late-Pleistocene deposits in Florida, California, and Peru. Earliest and only fossil occurrence of a spoonbill in North America before this period is a new species, *Ajaia chione*, from early Irvingtonian in Florida. Known from foot and leg bones; shares some features with *ajaja*; possibly a direct ancestor.

Systematics: A 2010 study of mitochondrial DNA of the spoonbills by Chesser and colleagues found that the roseate and yellow-billed spoonbills were each other's closest relatives, and the two were descended from an early offshoot from the ancestors of the other four spoonbill species. They felt the genetic evidence meant it was equally valid to consider all six to be classified within the genus *Platalea* or alternatively the two placed in the monotypic genera *Platibis* and *Ajaia*, respectively. However, as the six species were so similar morphologically, keeping them within the one genus made more sense.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 27.9-33.9 in (71-86 cm) Weight: 42.3-63.5 oz (1200-1800 g)

Wingspan: 47.2-51.2 in (120-130 cm)

Coloration: Roseate Spoonbills are pale pink birds with brighter pink shoulders and rump. They have a white neck and a partially feathered, yellowish green head from which their red eyes shine. Juveniles are paler pink and have a completely feathered head for 3 years until they attain adult breeding plumage.

General Body Features: Roseate Spoonbills are medium-sized waterbirds with a football-shaped body and long legs. The long bill that is flattened into a spoon at the end protrudes from their small head. They fly with their long necks outstretched and often rest with it curled into an S.

Special Features of the Body: To feed, spoonbills wade through water no deeper than knee level, with their bill immersed, mandibles slightly open, sweeping their bill in rapid arcs from side to side to create swirling currents like mini-whirlpools that pull up small prey from the muddy bottom.

Special Features of the Head and Sensory Organs: Not the roseate spoonbill! Having a "built-in" spoon on its beak can be a big help at mealtime. All spoonbills take advantage of this adaptation with a special feeding style known as "head-swinging." The birds plunge their bill nearly vertically under water and swing it side to side in wide arcs. In this way, they snag a host of small animals from the lake bottom.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Extremely long legs that let it hover over the prey and not get excessively wet while hunting.

Any Special Internal Anatomy: A spoonbill feeds more by touch than by sight - - a handy adaptation for an animal that often feeds in water that's muddy or clogged with dense vegetation. The horny bill is equipped with sensitive touch receptors that detect vibrations given off by prey. When something touches the inside of the spoon, the bill closes on it quickly. This keen sense of touch and fast reflexes allow the bird to feed in cloudy water, and at night. A spoonbill's nostrils are located at top of the bill, making it possible for the bird to breathe while the bill is under water.

Sexual Dimorphisms: Male larger than female.

Differences Between Juvenile Stage and Adult: Juvenile mostly white, with completely feathered head; dusky-tipped wing coverts and primaries. Dusky tips on wing coverts lost and more pink coloration acquired on body and wings.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Roseate Spoonbills slowly walk through shallow water with their bodies held horizontally and their spoon-shaped bill underwater feeling for prey. They sleep while standing, often on one leg with the head tucked under a shoulder. Roseate Spoonbills are social birds that gather in small to large (anywhere from 2 to around 400) groups when feeding and roosting. They fly to and from feeding and roosting areas with slow and deep wingbeats with their legs and neck fully extended. When foraging spoonbills spot a group of spoonbills flying overhead they stick their necks and bills straight up into the air in a posture called sky gazing. Spoonbills share the roosting and nesting colony with egrets, herons, and ibises. At colonies males bob their heads up and down while shaking nearby twigs to get the attention of a female. Interested pairs may bite each other's bills or may raise their outstretched wings above their body. Once paired, males present females with sticks, which they shake while holding them in their bills. Pairs generally stay together only for one breeding season.

Locomotion: While walking, holds long axis of body horizontal and moves hindquarters slightly from side to side; this posture contrasts with the more erect posture of herons. Usually walks slowly when foraging, but will run or hop as well. When fluttering from spot to spot, looks humpbacked because of hanging neck and head; this posture contrasts with extended neck of regular flight. Head and neck fully extended, bill held horizontal, feet fully extended back under tail and projecting beyond it. Strong direct flight, with deep, slow wing-strokes; flaps alternate with short glides. Flapping rate in other spoonbill species: 186–230/min. Flocks routinely fly in diagonal or wedge-shaped formation as geese do. May be capable of soaring to a considerable height like the Eurasian Spoonbill. When landing on ground, often runs a few steps. CAN SWIM IF NECESSARY.

Communication and Perception: Roseate Spoonbills are usually silent except at the breeding colonies. There, they make low grunting sounds when they are startled, while greeting their mates, and while feeding their young. Courting birds softly click their bills together to make a faint rattling sound.

Home Range: Male establishes and maintains territory around nest site that may be initial display site for pairing. Females do not engage in territorial defense, based on small sample, but they may defend actual nest. In Eurasian Spoonbill, both members of pair defend nest site and immediate vicinity. Male defense includes Threat Posture, chasing. Male always seems to defend territory against other adult spoonbills, occasionally immature spoonbills, but not against other species in colony; driven from own territory by other species. Intensity of defense varies throughout breeding, but general increase noted from time of copulation until egg-laying.

Degree of Sociality: Very gregarious; flies in flocks, nests in mixed-species or monospecific colonies, roosts communally, participates in group behaviors, and feeds in monospecific or mixed-species flocks, but will also feed alone.

Level of Aggression: Not well described. Physical injuries resulting from contact have not been reported. Sham Battles occur between flock members: 2 birds fly at each other, “furiously beating wings,” perhaps rising a meter off the ground; look like “fighting cocks,” but no damage done. During breeding, male initially is aggressive toward spoonbills of both sexes while establishing territory; aggression continues as male defends territory against interlopers. No information for nestlings.

Migration: Year-round resident to short-distance migrant. Some individuals are year-round residents, but others move short distances away from the breeding colony. These movements are often associated with changes in food and water levels.

Predators:

Predators: Turkey Vultures, Bald Eagles, Peregrine Falcon, Great-tailed Grackle, Fire Ants, Raccoons.

Anti-Predator Defenses: No defense response during colony-wide depredation of eggs by Great-tailed Grackles; instead response to “general hysteria” in colony by desertion of own nests before eggs were predated (or parasitic infection could develop); hysteria probably was increased by presence of grackles at deserted nests. Predators flying over colony may cause Upflights. Swooping by Peregrine Falcon elicited response: Roseate Spoonbill stood erect, flashed wings by opening to wrist, and drooped primaries near body, perhaps increasing effective body size.

Diet and Nutrition:

Adult Diet: Roseate Spoonbills forage in shallow waters typically less than 5 inches deep. They sweep their partly opened spoon-shaped bill through the water, feeling and looking for crustaceans such as shrimp, prawns, aquatic insects, and fish. Once they feel the prey on their bill they snap it closed, often swallowing the item whole.

Juvenile Diet: The diet of young is mostly fish/minnows. (82%)

Special Adaptations for Getting Prey: CHECK FEATURES

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Monogamous

Mating Season: April to June

Courtship: Male initiates pair formation by isolating himself at potential nest site that may or may not be actual nest location. Advertises for mate by bobbing head up and down, and grasping and shaking nearby branches or twigs in bill. When excited, potential mates bite each other's bills repeatedly. Displaying and courting birds often fly and land with tongue bone extended; gular sac becomes more conspicuous. (GREETING, STICK PRESENTATION, NEST RELIEF DISPLAY, DISPLAY SLEEP, DISPLAY PREEN, STICK SHAKING, COPULATION DISPLAY)

Territoriality: HOME RANGE

Mating: Occurs at nest, often after male brings back nest material, as in African Spoonbill. Male reaches across female's back; both grab same twig in bill and shake it with "short rapid movements of head". Female crouches or stands; male mounts her, grabs middle portion of her bill behind spoon, and shakes his head, causing female's head to move; releases female's bill and hops off; both shake feathers and preen; about 7 min elapse from time male first moves behind female to completion; on female's back for 20–25 s.

Nesting: Roseate Spoonbills nest in colonies with egrets, ibises, and herons, typically on islands or over standing water. They nest in mangroves, Brazilian pepperbush, willows, sea myrtle, and other shrubs near the water. They tend to put their nests in the shadiest part of the tree or shrub, up to 16 feet high. Males collect sticks for females to build a bulky platform lined with finer plant material such as moss and strips of bark. The completed nest is about 22 inches wide and 4.5 inches deep.

Egg-Laying: Clutch Size: 1-5 eggs Number of Broods: 1 brood Egg Length: 2.2-2.8 in (5.7-7.2 cm) Egg Width: 1.6-1.9 in (4.1-4.8 cm) Incubation Period: 22 days Nestling Period: 35-42 days Egg Description: Whitish to pale green, evenly covered with brown spots.

Hatching and Incubation/Gestation: Pink skinned and covered with white down. Eyed closed and unable to stand. Semi-Altricial. Body mass about 50 g at hatching. No other measurements available. Skin of body, bill, and legs bright salmon pink. Bill initially tubular, soft and leathery; see below. Egg tooth located at tip of upper mandible. At hatching, feather tracts contain short, thick white down that dries and fluffs at 12 h, so body appears to be covered with down but does not conceal bright-pink skin. Eyes closed. Unable to stand; hatchlings mostly lie prone on nest floor.

Development: NONE

Parental Care: Probably initiated immediately after hatching, since chicks are semialtricial. Both parents brood. Both parents feed chicks directly by regurgitation; young insert bill into side of adult's open bill at base and down into throat; feed without assistance after about 1 wk old. Parents help new hatchlings feed by grasping chick's bill, placing chick's head and bill inside parent's bill as chick's head is raised toward parent's throat. Feeding bouts last about 10 s each.

Lifespan: Up to 7 years.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Roseate Spoonbills nest and forage in areas that can be difficult to reach, so obtaining an accurate estimate of their population is difficult. The best available estimates come from the North American Breeding Bird Survey and Partners in Flight. According to the North American Breeding Bird Survey their populations have increased by nearly 6.5% between 1966 and 2015. Partners in Flight estimates the global breeding population at 120,000 individuals. The species rates a 10 out of 20 on the Continental Concern Score, which means it is not on the Partners in Flight Watch List and is a species of low conservation concern. In Florida, much of their nesting habitat occurs in protected areas including the Everglades National Park and national wildlife refuges, but their foraging areas are not always under protection and can be affected by changes in water management that increase salinity and affect food availability. Nesting spoonbills are also vulnerable to human disturbance from boating and other recreation activities that can result in nest abandonment.

Conservation Efforts: ^^^^^

Extra Facts:

1. The Roseate Spoonbill is 1 of 6 species of spoonbills in the world and the only one found in the Americas. The other 5 spoonbills (Eurasian, Royal, African, Black-faced, and Yellow-billed) occur in Asia, Africa, Europe, and Australia.
2. As humans, we are all too familiar with hair loss as we get older. Roseate Spoonbills, it turns out, are familiar with balding too, but instead of losing hair they lose feathers from the top of their head as they get older.
3. Roseate Spoonbill chicks don't have a spoon-shaped bill immediately after hatching. When they are 9 days old the bill starts to flatten, by 16 days it starts to look a bit more spoonlike, and by 39 days it is nearly full size.
4. Roseate Spoonbills get their pink coloration from the foods they eat. Crustaceans and other aquatic invertebrates contain pigments called carotenoids that help turn their feathers pink.
5. The oldest recorded Roseate Spoonbill was at least 15 years, 10 months old when it was recaptured and rereleased during a scientific study in Florida.

Notable Species: NONE