# LAUGHING GULL - LEUCOPHAEUS ATRICILLA

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Laridae Genus:

Leucophaeus Species: L. atricilla

### Habitat:

<u>Biomes</u>: Laughing Gulls are primarily coastal gulls and are only rarely found far inland. Look for them along beaches, in saltmarshes, in mangroves, or on agricultural fields or landfills near the coast. They nest in saltmarshes, on islands including artificial ones created from dredge spoils, and on sandy beaches—the main requirements being safety from terrestrial predators. They form colonies up to 25,000 pairs in size, and they are occasionally joined by species such as terns, larger gulls, Black Skimmers, and American Oystercatchers. On migration and in winter, Laughing Gulls are found along coasts and in bays and estuaries, as well as in landfills and on lakes a little ways inland.

### Distribution:

<u>In US</u>: The laughing gull (Leucophaeus atricilla) is a medium-sized gull of North and South America. Named for its laugh-like call, it is an opportunistic omnivore and scavenger. It breeds in large colonies mostly along the Atlantic coast of North America, the Caribbean, and northern South America.

*In Other Countries*: Hawaiian Islands, Samoan Islands, France, Iceland, Denmark, Spain, Sweden, Austria, Greece Morocco, Poland, Portugal, and Senegal

*Holistic Description*: Swirling over beaches with strident calls and a distinctive, crisp black head, Laughing Gulls provide sights and sounds evocative of summer on the East Coast. You'll run across this handsome gull in large numbers at beaches, docks, and parking lots, where they wait for handouts or fill the air with their raucous calls. Laughing Gulls are summer visitors to the Northeast and year-round sights on the coasts of the Southeast and the Gulf of Mexico.

**Species Richness**: NO SUBSPECIES, LISTED 2

<u>Population Dynamic</u>: Colonies in the ne. USA were almost extirpated in the late 19th century by eggers and plume-hunters, but recovered with the help of protection, increasing until 1940.

## **Evolution and Systematics:**

**Evolution**: NONE

<u>Systematics</u>: Breeders in the West Indies average smaller, especially in terms of wing length and tarsus length. These birds also are reported to have blacker wingtips. No subspecies. On the basis of differences in lengths of the flattened wing, tarsus, and tail, Parkes concluded that L. a. megalopterus was a valid name that applied to a larger subspecies that breeds across s. North America and Middle America and winters south to n. South America, but it is clear from his table of measurements that no character satisfies the 75% rule—i.e., 75% of neither population differs from 99% of the other; instead, overlap is substantial. Cramp and Burger and Gochfeld reported that L. a. megalopterus differed further in the more extensive black on the tip of P6, but variation in this character has not been quantified. Hence, L. a. megalopterus becomes a junior synonym of Leucophaeus atricilla.

<u>Number of Species</u>: NO SUBSPECIES, LISTED 2 <u>Number of Genera</u>: NO SUBSPECIES, LISTED 2

**Physical Characteristics**:

<u>Size and Length</u>: Length: 15.3-18.1 in (39-46 cm) Weight: 7.2-13.1 oz (203-371 g)

*Wingspan*: 36.2-47.2 in (92-120 cm)

<u>Coloration</u>: Laughing Gulls are medium gray above and white below. Summer adults have a crisp black hood, white arcs around the eye, and a reddish bill. In winter, the hood becomes a blurry gray mask on a white head. The legs are reddish black to black. Immatures are much browner and more subtly patterned than adults; they take 2-3 years to gain adult plumage.

<u>General Body Features</u>: Laughing Gulls are medium-sized gulls with fairly long wings and long legs that impart a graceful look when they are flying or walking. They have stout, fairly long bills.

<u>Special Features of the Body</u>: 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. When observed from above, by a falcon for example, their dark backs blend in with the beach or mudflat below.

<u>Special Features of the Head and Sensory Organs</u>: Their bills are highly adapted tools for finding food. Some species will probe for invertebrates in mud or water, poking their bills up and down in rapid succession like a sewing machine until they feel something to eat. Others have bills perfectly adapted to swishing through the water to filter food from the water column. <u>Dentition</u>: BEAK/LAMELLAE/GIZZARD

<u>Special Features of the Limbs and Digits</u>: Long, pointed wings enable some shorebirds to fly up to 50 miles per hour. 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.

<u>Any Special Internal Anatomy</u>: 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.

<u>Special Features of Random</u>: The Laughing Gull is named for its unique call, which is comparable to the human laugh. They compensate for their lack of fishing skills by scavenging and stealing from other birds. The females have developed the ability to replace eggs that don't survive by laying more eggs. They can do this up to four times.

Sexual Dimorphisms: Sexual dimorphism is minimal; males average 1-5% larger than females.

Differences Between Juvenile Stage and Adult: In hatchlings and Juveniles, bill dull brown, becoming brownish black or olivaceous black tinged red and tipped dull white in first year. In breeding adult, bill maroon or dark brownish, terminally a deep red, blood red, or carmine, with distinct brown spot or bar subterminally; bill becomes duller during molt. In first-year and winter, gape seashell pink or dull orange, becoming deep carmine or reddish orange in breeding adults. Orbital ring black in Juvenile, becoming whitish blecked brown in first year and completely white in adults. LEGS AND FEET: In hatchlings, dull dark brown, becoming olive in Juveniles and black during first year. In breeding adults, reddish to bright red, becoming reddish black by end of breeding season and black during nonbreeding season.

#### Behavior:

# <u>Diurnal, Nocturnal, or Crepuscular</u>: Diurnal

<u>Activity</u>: Laughing Gulls wheel in the sky, stand in groups on beaches and parking lots, follow heavy machinery on agricultural fields or at landfills, and paddle in the water off docks and beaches. They are opportunistic, like most gulls, and often harry terns and pelicans to try to steal their catch. Look for Laughing Gulls hovering over the head of a pelican that has just dived, hoping for a fish to slip out of the larger bird's gullet. Laughing Gulls use ritualized displays to keep order among themselves. These involve exaggerated calls and movements: Laughing Gulls threaten each other or simply claim space by extending the neck and head, lowering them toward the ground and calling, tossing the head backward repeatedly while calling, or ruffling their feathers, nodding the head, and flapping the wings. They signal submissiveness by turning the head away from their opponents. Laughing Gulls are monogamous and pairs often stay together for several breeding seasons. Chicks are vulnerable to mink, Herring Gulls, Great Black-backed Gulls, owls, and harriers.

Locomotion: Agile on ground, in water, and in the air. Walks with slight side-to-side body movements. Can hop over objects when following bulldozers (at garbage dumps), tractors, or mowers, or when feeding in rocky intertidal areas. Flight is buoyant, agile, strong, and graceful. Can hover and soar in thermals or when feeding on insect swarms; will hover around lights at night to feed on insects. Can alight and perch on narrow cord-grass stems, wires, or posts. Swims gracefully and buoyantly and can rise rapidly from water. Prefledgling chicks less buoyant on water, and become wetted and can drown if they remain in salt water for long periods. Very young chicks not strong swimmers, and can be carried away in strong tidal flow. Adults agile on water and perform displays while swimming, particularly early in breeding cycle before territory acquisition. Will also skim over water to drink.

Communication and Perception: This is a very vocal species whose common call is a loud, descending series of laughing notes lasting 3 seconds or more. They also make a short stuttered alarm call when people, predators, or other gulls approach too closely. This can accelerate and intensify into a loud call lasting several minutes if the birds are defending a nest.

Home Range: Often forms large, dense flocks outside breeding season with birds 30–300 cm apart when on ground. Territory acquired within a few days of arrival on breeding colony. Once birds arrive on nesting colony, some may remain on display site or future nesting territory for several weeks before selecting nest site. Unmated males may remain on display site for several days or weeks before moving to territory.

<u>Degree of Sociality</u>: Highly gregarious; often nests in colonies of hundreds to thousands. When feeding, forms small to very large flocks throughout year. Migrant flocks may be several hundred.

<u>Level of Aggression</u>: Intimidation responses to predators or intruders near nest include Swoop-and-Soar Display, Long Calls from the air or ground, Gakkering while sitting or standing, and physical attacks from ground or air. Early in season, during incubation, adults may circle and mob intruders without attacking; attacks increase at hatching when chicks are vulnerable. <u>Migration</u>: Resident to long-distance migrant. Laughing Gulls that breed north of North Carolina typically leave the region to spend winters in Central America or northern South America, as well as along the southern Atlantic Coast and Gulf Coast. Birds in Florida may remain there year-round.

### **Predators**:

<u>Predators</u>: Norway Rat, Fish Crow, Common Crow, American Oystercatcher, Herring Gull, Clapper Rail, Mink, Herring Gull, Great Black-backed Gull, Barn Owl, Great Horned Owl, Northern Harrier, Red Fox, Snapping Turtle. **Egg-puncturing** by conspecifics reported following heavy flood tides that displaced eggs from nests.

<u>Anti-Predator Defenses</u>: Laughing Gulls respond to most predators by circling overhead, mobbing, and making overt attacks. They attack only predators that do not take adults. Thus they ignore most large gulls flying over (99.4%), selectively responding to those that exhibit behaviors associated with predation; will habituate to presence of large gulls.

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

<u>Adult Diet</u>: Like most gulls, Laughing Gulls have very broad palates. They eat many invertebrates, including earthworms, insects (including flying ones), snails, crabs, and crab eggs, as well as fish, squid, berries, garbage, offal, and handouts from beachgoers. They occasionally eat eggs of other birds (though not as frequently as larger gulls do)—John James Audubon saw them preying on Sooty Tern and Brown Noddy eggs and chicks, and they've also been reported eating Royal Tern eggs. *Juvenile Diet*: ^^^^

<u>Special Adaptations for Getting Prey</u>: Forages while walking by picking up food from surface of land or water; while swimming by picking up items on surface, just below surface, or emerging; while walking in water or by foot-paddling for invertebrates or horseshoe-crab eggs; while flying by seizing insects; by plunge-diving for fish; and by pirating food from conspecifics or other species.

## Reproduction:

**Mode of Reproduction**: Monogamous

Mating System: Monogamous; few 5- or 6- egg clutches observed in 20 yr on Barnegat Bay, NJ, colonies. 1:1

*Mating Season*: February to April

<u>Courtship</u>: Male advertises with series of Long Calls and Head-tosses on temporary station on sand, mats or wrack to attract female; continues to give courtship calls even when no females present. When female lands nearby, male Faces-away in an Upright posture, thus "hiding" his black head. White feathers at back of his head are slightly erected, obscuring remaining black from view; female does likewise

*Territoriality*: Defends only the immediate area around the nest while breeding. Both sexes defend territory; non-incubating bird does most of defense. Distance around nest that is defended depends on whether there is vegetation or open space. In Texas, where there is little vegetation between nests, birds chase intruders that are 4–5 m away; this distance is 2–4 m in New Jersey where there is short vegetation, and even less in Puerto Rico where vegetation is dense.

*Mating*: In copulation stance, male aligns body with female, holds head horizontal, often pecks at female's neck feathers, may hold neck feathers with bill, and raises wings to balance. Male begins to beat wings rhythmically to balance while giving Copulation Call. The gently undulating, raised wing display is called Wing-flagging, and the movement of the wings matches the cadence of the kakakakaka Copulation Call. Receptive female may raise her head so that it brushes male's bill, and she sometimes softly gives Head-tosses. Male then squats, fluffs feathers, and increases speed of call and Wing-flagging. Female everts her tail, and male slips his body to other side and lowers it to make cloacal contact, wagging his tail back and forth during contact. Intensity of Wing-flagging and Copulation Call increases. Copulation lasts 2–138 s, depending on date and time of day.

Nesting: Laughing Gulls may place their nests on sand, rocks, mats of dead vegetation, or hidden among the leaves of low plants. They typically look for slightly higher spots in order to minimize the chance of the nest being flooded by high tides or storm waters. Both sexes help build the nest; sometimes the male begins the process and uses it to try and attract a mate. Males typically bring more of the nest material, and the female arranges it. She arranges saltmarsh vegetation and grasses to form a rim that's a foot across, containing a cup 6 inches in diameter and about 2.5 inches deep. She may attach the nest to the surrounding vegetation so that the nest doesn't get swept away if flooded. If storms or floods damage or soak the nest, the parents add more material to shore it up.

<u>Egg-Laying</u>: Clutch Size: 2-4 eggs Number of Broods: 1 brood Egg Length: 1.8-2.4 in (4.5-6 cm) Egg Width: 1.3-1.6 in (3.2-4 cm) Incubation Period: 22-27 days Nestling Period: 35 days Egg Description: Slightly pointed at one end. Brown with black splotches.

<u>Hatching and Incubation/Gestation</u>: Chicks may leave nest cup at 1 day old, though they typically stay on platform for several days. They hatch covered in down that's so well camouflaged the chicks are almost invisible.

<u>Development</u>: Shortly before hatching begins, adults increase Crooning, which stimulates newly hatched chicks to peck at parent's bill. Chicks **semiprecocial**; eyes closed until dry, down-covered, stay in nest after hatching without standing for up to 2 h.

<u>Parental Care</u>: At hatching, chicks brooded 90–95% of time; both parents brood; brooding declines gradually until chicks are 8–10 d old, then ceases. In first week, females brood more than males; thereafter parental care is equal. Parents accept any

chick until 3–5 d old, then reject, but this rejection most likely based on behavior of chick rather than recognition. Both parents feed chick from hatching to at least 2–3 wk after flying; most feed until chick is 60 d old. Food brought back to nest at all times of day, most frequently at dawn and dusk. With very young chicks, parents regurgitate food into chick's bill; at 3–7 d, parents regurgitate food onto nest and chicks feed from there; with older chicks, parents begin to regurgitate and chicks grab food from bill before it hits ground.

Lifespan: Up to 22 years old.

**Conservation**:

<u>Official Federal Status</u>: Least Concern <u>Special Statuses in Individual States</u>: NONE

<u>Threats</u>: Laughing Gulls are common and their populations increased between 1966 and 2015, according to the North American Breeding Bird Survey. This increase reflects the species' recovery from severe hunting in the late nineteenth century for their eggs and for plumes for the hat trade. The North American Waterbird Conservation Plan estimates a continental population of 528,000-538,000 breeding birds. The species rates a 9 out of 20 on the Continental Concern Score. Laughing Gull is not on the 2016 State of North America's Birds' Watch List. People still threaten individual gull colonies by disturbing the birds while they are nesting, driving over nest sites with off-road vehicles, or letting off-leash dogs run through colonies. A study in the 1970s indicated that Laughing Gulls exposed to the pesticide DDT were susceptible to eggshell thinning. Development of beachfront property or estuaries can reduce breeding or foraging habitat for this species, although discards from fishing boats are one of the reasons gull populations have increased in the past.

**Conservation Efforts**: ^^^^

#### Extra Facts:

- 1. The male and female Laughing Gull usually build their nest together. If a male cannot find a mate, he may start building a nest platform and then use it to attract a female.
- 2. The Laughing Gull is normally diurnal, or active during the day. During the breeding season it forages at night as well. It usually looks for food along the beach at night, but will also hover to catch insects around lights.
- 3. The adult Laughing Gull removes the eggshells from the nest after the eggs hatch. If the shells are not removed, a piece can become lodged on top of the slightly smaller unhatched third egg and prevent it from hatching.
- 4. Nest colonies in the northeastern United States were nearly eliminated by egg and plume hunters in the late 19th century. Populations have increased over the last century, following protection.
- 5. The oldest known Laughing Gull was at least 22 years old when it was killed in Maine in 2009, the same state where it had been banded in 1987.

## **Notable Species**:

- 1. L. a. megalopterus (Bruch, 1855): coastal southeast Canada, eastern & southern United States, Mexico & Central America
- 2. L. a. atricilla (Linnaeus, 1758): West Indies to Venezuelan islands