

SNOWY PLOVER - CHARADRIUS NIVOSUS

Physically, snowy plovers are shorter-legged, paler and greyer above than its Old World sister species, and breeding males lack a rufous cap. The eye mask is also poorly developed or absent.

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Charadriidae Genus: Charadrius Species: C. nivosus

Habitat:

Biomes: Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds.

Distribution:

In US: It breeds in Ecuador, Peru, Chile, the southern and western United States and the Caribbean. Pacific Coast, Inland, Gulf Coast, Atlantic.

In Other Countries: NO REPORTS, LOOK ^^^^^

Holistic Description: A small plover of beaches and barren ground, the Snowy Plover can be found across North and South America, Eurasia, and Africa. In North America it is restricted to the Gulf and Pacific coasts of the United States, and scattered inland localities from Saskatchewan to California and Texas. More ID Info

Species Richness: 2 SUBSPECIES

Population Dynamic: The snowy plover breeds from Texas and Oklahoma west to California and up the coastline to Oregon and Washington, with the coastal form's primary breeding concentration in central and southern California. On March 5, 1993 the western snowy plover was listed as a threatened species under the Endangered Species Act of 1973. As of June 19, 2012, the habitat along the California, Oregon, and Washington Coasts have been listed as critical.

Evolution and Systematics:

Evolution: NONE

Systematics: Long considered to be a subspecies of the Kentish plover, it is now known to be a distinct species. Genetic research published in 2009 strongly suggested that the snowy plover is a separate species from the Kentish plover, and by July, 2011, the International Ornithological Congress (IOC), and the American Ornithologists' Union (AOU) North American committee have recognized them as separate species. Other taxonomic committees are reviewing the relationship. Across North America, dorsal coloration pales from west to east, being palest in Gulf of Mexico and Caribbean populations. Throughout the species' range, the presence or absence of a lore stripe varies, it generally being absent in southerly populations. In breeding males, the width or presence of a black bar on the forehead varies among populations, as does the hue or presence of a contrasting cinnamon crown. Leg color also varies.

Number of Species: 2 SUBSPECIES

Number of Genera: 2 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 5.9-6.7 in (15-17 cm) Weight: 1.1-2.0 oz (32.5-58 g)

Wingspan: 13.4-17.0 in (34-43.2 cm)

Coloration: Small plover (15-17 cm long, 34-58 g) with white hind-neck collar and a breast band always restricted to lateral patches. Pale brown upperparts and dark gray to blackish legs also important in identification.

General Body Features: Small shorebird. Legs moderately long. Neck short. Back pale tan. Underparts white. Dark patches on sides of neck reaching around onto top of chest. Legs dark.

Special Features of the Body: The western snowy plover uses many adaptations to survive in the wild. It uses camouflage to hide from predators such as seagulls, or bald eagles. It is also small so it is able to hide from animals

Special Features of the Head and Sensory Organs: VVV

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Bill Black. Iris Dark brown. Bare Skin Eyelids black. Legs And Feet Slate gray to black, occasionally dull yellowish or pinkish.

Any Special Internal Anatomy: Plus, because it small, it is every fast so they can run or swim away from things. The snowy plover can also eat off of commonly found foods so it won't get hungry.

Sexual Dimorphisms: In Alternate plumage, male distinguished from female by black crown, ear covert, and foreneck patches. Many males have a distinct rusty cap at the beginning of the breeding season. Females usually have some to

completely brown feathering in one or more of their foreneck patches, and lack rusty caps. A few females with completely black crown, ear covert, and foreneck patches resemble males. In Basic plumage males and females are indistinguishable. Differences Between Juvenile Stage and Adult: Similar to nonbreeding adult, but with scaly pale edging on back feathers. juveniles in fresh plumage are distinguishable from adults by the absence of a forehead patch and by the presence of pale edges on mantle feathers.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Pauses, looks, runs, and then seizes prey from surface of beach or tide flat. Some probing in sand. The snowy plover breeds on sandy coasts and brackish inland lakes, and is uncommon on fresh water. It nests in a ground scrape and lays three to five eggs. The breeding birds in warmer countries are largely sedentary, but northern and inland populations are migratory, wintering south to the tropics. Food is insects and other invertebrates, which are obtained by a run-and-pause technique, rather than the steady probing of some other wader groups. On a central California beach, during dawn to dusk surveys, wintering Snowy Plovers fed more in the morning until 10:30 (43% on average foraged) compared to later when 95% roosted unless disturbed.

Locomotion: Walking and running are employed in feeding, courtship, agonistic interactions, nest exchange, retreat from nest at approach of a predator or person, return to nest after disturbance, and most activities associated with care of the free-ranging precocial chicks. Snowy Plovers jump up onto logs or rocks with aid of their wings but do not climb vertical objects. Typically runs when disturbed, but sometimes flies directly from nest when surprised by a potential egg predator, e.g., a flying crow or raven. Flocks of Snowy Plovers will take flight when attacked by raptors or disturbed by canines, corvids or humans. Following attacks by avian predators, flocks frequently wheel back and forth for several minutes in tight, highly coordinated formations typical of other shorebirds. After landing they are edgy and readily resume such flights with little prompting. If disturbed, but not attacked, all or portions of a roosting flock of Snowy Plovers may make low, short, direct flights to a nearby location where they land and crouch or run into footprints before crouching. Snowy Plovers with broods often fly back and forth calling when their chicks are approached too closely by people or predators. Adults also sometimes flutter over chicks that are swimming or concealed in vegetation. Even newly hatched chicks swim across ponds and slow-flowing rivers, and adults tending chicks also swim occasionally, apparently to entice chicks across water. Diving under water to escape an attacking predator has not been reported.

Communication and Perception: Call a husky, trilling "purrt," and a whistled "tur-weet," accented on the second syllable.

Home Range: Both unpaired males and pairs of Snowy Plovers defend territories against conspecifics by posturing, chasing, or fighting. On California coast, unpaired males defend territories for up to 45 d before procuring a mate. They advertise their presence with bouts of calling from ground and construct scrapes, presumably to attract females. Paired birds use territories for courtship, nest sites, and sometimes feeding.

Degree of Sociality: Gregarious in winter, forming loose roosting flocks of up to 300 birds; also forages in loose flocks. On w. North American playas, nesting birds often concentrate at dusk on seeps to bathe, drink and feed; periodic bouts of calling and posturing of individuals within these groups suggest that crepuscular concentrations may be important socializing centers. Plovers will aggregate in small groups around food sources such as carcasses with flies; also during daytime small groups of males with nests will feed and roost together while females are incubating.

Level of Aggression: Although both sexes of the Snowy Plover defend nest territories against conspecifics by running at, flying at, or fighting with transgressors, males are more aggressive. Fights frequently occur between males and females when their broods come into contact. Adults sometimes peck chicks of other plovers that approach too closely. Fights sometimes consist of prolonged battles with birds leaping breast-to-breast, their wings fluttering, as each combatant pecks and pushes at the other.

Migration: Coastal populations of Snowy Plovers consist of migrants and year-round residents but most inland breeders are migratory. Distances of migratory movements are relatively short. The direction of movement to winter areas may be either northward or southward for Pacific coast breeders, but is northeast/southwest for birds breeding in the interior of western North America. Birds from the western Great Basin winter on the California and Baja California coasts where they come in with breeders from the Pacific coast. Those breeding in the Great Plains winter on Gulf of Mexico coast.

Predators:

Predators: Merlin Falcon, Peregrine Falcon, Prairie Falcon, northern Harrier, Red-tailed Hawk, Great Horned Owl, Feral Cat, Red Fox, Loggerhead Shrike, Common Raven, American Crow, Western Gull, California Gull, Ring-billed Gull, Laughing Gull, Gull-billed Tern, American Kestrel, Cooper's Hawk, Fish Crow, and Great Blue Heron.

Anti-Predator Defenses: Although adults usually run from nests when people, dogs, or avian and mammalian egg predators approach, they fly when surprised. Adults crouch on nests when Peregrine Falcons fly over. Adults with broods react to

approaching people or dogs with calls; small chicks (<10 d) usually crouch and remain motionless, whereas older chicks (>10 d) often run with their parent ≥ 100 m ahead of people or dogs

Diet and Nutrition:

Adult Diet: Terrestrial, freshwater, brackish, and marine invertebrates. Beetles, Flies, Insect Larvae, Rove Beetles, Long-legged Flies, Shore Flies, Mole Crabs, Crabs, Amphipods, Tanadacians, Flies, Beetles, Clams, and Ostracods.

Juvenile Diet: ^^^^^^^

Special Adaptations for Getting Prey: CHECK AMERICAN GOLDEN PLOVER FEATURES AND

ADAPTATIONS. Sometimes lowers head and charges with open mouth into dense aggregations of adult flies on ground, snapping bill at those flushed. Usually snaps bill 2–3 times to crush captured flies before swallowing them. Plovers employ this charging method to capture isolated insects on California beaches. They also sometimes capture prey by hopping into clouds of kelp flies on coastal beaches.

Reproduction:

Mode of Reproduction: Polygamous

Mating System: Snowy Plovers are facultatively polyandrous and polygynous with instances of true polygyny also occurring rarely. In this labile mating system, typically females, but also sometimes males, desert mates and broods after hatching. While males rear broods, females obtain new mates and initiate new nests. Levels of polygamy differ spatially and temporally in response to the operational sex ratio, duration of the breeding season, and success of early season nests.

Mating Season: February to May

Courtship: Male Snowy Plovers appear to solicit females by standing and calling from their territories. Males also solicit nearby females on and off territories with Horizontal Display. After Horizontal Display, following sequence of events frequently occurs during successful copulations.

Territoriality: Territorial Snowy Plovers were observed defending territories against migrating Semipalmated Plovers and Whimbrels at Monterey Bay, CA but were often not aggressive toward Black-necked Stilts or American Avocets unless they approached within 1 m of plovers' nests. Boyd reports both sexes defend against Killdeer and American Avocets. PWCP has observed interspecific aggression toward Long-billed Curlews, Willets, American Avocets, and Black-necked Stilts.

Mating: Male runs to a spot and begins scraping, usually in a previously constructed depression. Female runs to scrape, male steps out, and female settles in, scratching with her feet while rotating on her breast. Male bows next to female, pointing his head to ground 1 to several times, and simultaneously flashes the white on his tail by quickly fanning and retracting his rectrices. Female steps out of scrape, runs 0.5–2.0 m, and stands with her body parallel to ground or tilted slightly forward. Male follows and stands directly behind her, kicking his legs high as though goose-stepping in place. He then jumps on her back and balances on his tarsometatarsi. Settling on her back, he begins a rhythmic kneading motion by shifting his weight alternately from one leg to the other. Both birds shift their tails side-to-side with increasing frequency as coitus approaches. At moment of apparent coitus, male grasps back of female's neck with his bill and both birds topple backward with wings partly extended. They remain in this position for only 1–2 s before resuming other activities such as standing or preening.

Nesting: A natural or scraped depression on dry ground usually lined with pebbles, shell fragments, fish bones, mud chips, vegetation fragments, or invertebrate skeletons.

Egg-Laying: Clutch Size: 2-6 eggs Number of Broods: 1-3 broods Egg Length: 1.1-1.3 in (2.8-3.4 cm) Egg Width: 0.8-0.9 in (2.1-2.4 cm) Incubation Period: 26-33 days Egg Description: Buffy background, lightly to moderately covered with small spots and scrawls.

Hatching and Incubation/Gestation: Downy and active, able to leave nest as soon as down dries.

Development: Precocial; upperparts of Snowy Plovers are pale buff or creamy buff mixed with light gray. Crown, back, rump, and wings distinctly spotted with brown and black; underparts pure white. Distinct white band encircles neck, black line extends behind eye. Bill black and legs and feet gray to pinkish-gray. Egg tooth lost within 2 d after hatching.

Parental Care: Snowy Plover adults do not feed their chicks, although they lead them to suitable feeding areas. Adults brood chicks and act as sentinels, warning chicks of approaching predators with alarm calls. They employ distraction displays to confront predators near their broods. Adults also chase and fight other plovers that come too close to their broods, including pecking chicks of intruding broods. Snowy Plover females generally desert broods by 6 d after hatching, leaving males in sole care of young; males stay with young until they are 29–47 d old.

Lifespan: Up to 15 years old.

Conservation:

Official Federal Status: Near Threatened

Special Statuses in Individual States: NONE

Threats: Snowy Plover populations are declining. A 2012 study estimates a total population of 2,900 on the Pacific coast, and 25,900 in the interior and eastern coasts of North America. Snowy Plover are listed as Near Threatened on the IUCN Red List, and the Pacific coast population is listed as threatened in the U.S. and Mexico, and is on the 2014 State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action. The species is also listed as endangered or threatened in several states. Breeding populations have likely decreased on Gulf Coast since late 1800s owing to habitat alteration and increased recreational use of beaches.

Conservation Efforts: ^^^^^^

Extra Facts:

1. The Snowy Plover frequently raises two broods a year, and sometimes three in places where the breeding season is long. The female deserts her mate and brood about the time the chicks hatch and initiates a new breeding attempt with a different male.
2. Young Snowy Plovers leave their nest within three hours of hatching. They flatten themselves on the ground when a parent signals the approach of people or potential predators. They walk, run, and swim well and forage unassisted by parents, but require periodic brooding for many days after hatching.
3. The oldest recorded Snowy Plover was at least 15 years, 2 months old, when it was spotted in the wild in California and identified by its band.

Notable Species:

1. *C. n. nivosus* (Cassin, 1858). Breeds spottily along Pacific Coast from sw. Washington south to Baja California Sur, across Great Basin from sw. Montana south to e. California and central Colorado, in parts of the desert Southwest, and in the Great Plains from s. Saskatchewan south to nw. Texas; many southerly populations are resident, including those along the Pacific Coast and at the Salton Sea, California, as well as at the n. Gulf of California, Mexican Plateau, Isthmus of Tehuantepec, Yucatan Peninsula, much of the Gulf of Mexico, the Bahamas, e. Cuba, Hispanoila, Puerto Rico, the Lesser and Netherlands Antilles, and Bermuda.
2. *C. n. occidentalis* (Cabanis, 1872). Resident along Pacific slope of South America from central Ecuador to central Chile.