BLACK-NECKED STILT - HIMANTOPUS MEXICANUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Recurvirostridae Genus: Himantopus Species: H. mexicanus

Habitat:

Biomes: Black-necked Stilts inhabit shallow wetlands with limited vegetation, including salt ponds and pans, flooded areas along rivers, shallow lagoons, saltmarshes, mangrove swamps, and mudflats. Sewage ponds, evaporation ponds, rice fields and other flooded agricultural fields, and other human-created wetlands also attract stilts—and in some areas stilts actually favor these habitats over available natural habitats. Although stilts tolerate more vegetation in their nesting areas than avocets do, they nest and forage in areas with large openings of shallow water, such as in saltmarshes. Migrating and wintering stilts select habitats similar to those used in the breeding season. In Hawaii, the endemic subspecies of Black-necked Stilt regularly forages in the freshwater fish impoundments created by ancient inhabitants of the islands.

Distribution:

In US: It is found from the coastal areas of California through much of the interior western United States and along the Gulf of Mexico as far east as Florida, then south through Central America and the Caribbean to Ecuador and the Galápagos Islands. The northernmost populations, particularly those from inland, are migratory, wintering from the extreme south of the United States to southern Mexico, rarely as far south as Costa Rica; on the Baja California peninsula it is only found regularly in winter.

In Other Countries: Mexico, Central America, Carribean, Galapagos Islands, Costa Rica, Hawaiian Islands, Netherlands, Belgium, Columbia, Venezuela, Peru, Ecuador.

Holistic Description: Black-necked Stilts are among the most stately of the shorebirds, with long rose-pink legs, a long thin black bill, and elegant black-and-white plumage that make them unmistakable at a glance. They move deliberately when foraging, walking slowly through wetlands in search of tiny aquatic prey. When disturbed, stilts are vociferous, to put it mildly, and their high, yapping calls carry for some distance.

Species Richness: 3 SUBSPECIES

Population Dynamic: Particularly the North American populations of the black-necked stilt have somewhat declined in the 20th century, mainly due to conversion of habitat for human use and pollution affecting both the birds directly as well as their food stocks. But altogether, the population is healthy and occurs over a large range. This stilt is therefore classified as a Species of Least Concern by the IUCN.

Evolution and Systematics:

Evolution: Worldwide, three species of stilts known from Pleistocene fossils. In North America, fossil stilts from Pleistocene conspecific with recent Black-necked Stilt. Fossils found at Fossil Lake, OR, and Smith Creek Cave, NV. In contrast to American Avocets, Black-necked Stilts have not been found in the Pleistocene avifaunas of the McKittrick or La Brea tar pits, and it is possible that the two species were not sympatric in California at that time.

Systematics: It is often treated as a subspecies of the common or black-winged stilt, using the trinomial name Himantopus himantopus mexicanus. However, the AOS has always considered it a species in its own right, and the scientific name Himantopus mexicanus is often seen. An extralimital (possibly escaped) Black-necked Stilt female nested and hatched chicks with a male Black-winged Stilt in the Netherlands. Captive Black-necked Stilt and American Avocet have produced hybrids.

Number of Species: 3 SUBSPECIES

Number of Genera: 3 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 13.8-15.3 in (35-39 cm) Weight: 5.3-6.2 oz (150-176 g)

Wingspan: 28.1-29.7 in (71.5-75.5 cm)

Coloration: These birds are black above and white below, with white around the eye and rosy pink legs. In females and immature the black areas can be brownish.

General Body Features: A tall but small-bodied shorebird with very long legs, a long neck, small head, and thin, straight bill.

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. When observed from above, by a falcon for example, their dark backs blend in with the beach or mudflat below.

Special Features of the Head and Sensory Organs: 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

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. The long, pointed shape of a shorebird's wing is designed for flying long distances at fast speeds. Red Knots have been tracked flying over 40 mph. Other species have been clocked at 60 mph with good tail winds. Some shorebirds, like the America Black Oystercatchers, make short migrations, and their wings are not so long and pointed.
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: Males have a greenish gloss to the back and wings, particularly in the breeding season. This is less pronounced or absent in females, which have a brown tinge to these areas instead. Otherwise, the sexes look alike.
Differences Between Juvenile Stage and Adult: Downy young are light olive brown with lengthwise rows of black speckles (larger on the back) on the upperparts – essentially where adults are black – and dull white elsewhere, with some dark barring on the flanks. Juvenile plumage has similar pattern to adult but dark feathers of upperparts brown with buff margins creating a scalloped effect; primaries and secondaries tipped white showing as white trailing edge to wing in flight. Immatures similar to adults but some dark feathers tipped with white and white-tipped flight feathers retained.
Behavior:
Diurnal, Nocturnal, or Crepuscular: Diurnal and Nocturnal (INTERMITTENT)
Activity: Black-necked Stilts are especially animated during the breeding season, when females select males for mating. Just before mating, the female stretches out the neck and preens; the male faces her and does the same. Both dip the bill in the water and preen the breast, and this action becomes increasingly frenzied, with much splashing just prior to copulation. Afterward, the pair crosses their bills and runs together for a few steps. Both sexes participate in incubation and chick-rearing, though males appear to accompany older chicks more often than females. The pair bond is maintained through nesting and chick rearing, but if a nest fails, stilts sometimes begin again with a different mate. Stilts nest in loose colonies and are considered semicolonial, defending individual territories (and guarding mates) but joining with other nesting stilts to drive out threats. Predators, and humans, that happen near nesting stilts soon learn that they are not welcome: any birds that are not incubating often fly around or even form a ring around the predator, calling loudly as they leap up and down, flapping their wings (called a "Popcorn Display" by researchers). They also perform distraction displays, such as pretending to be incubating, then flying off to another site and repeating the deception. Sometimes, stilts will strike humans from behind with their legs if the humans approach the nest too closely. Adult stilts are highly territorial. Males often challenge one another early in the nesting season, stretching out into upright stances, or racing at each other with necks contracted and tails raised. Intense conflicts sometimes involve aerial combat in which males strike each other with bills and legs. Territoriality extends to driving out young birds as well: adults sometimes attack stilt chicks that are not their own and even avocet chicks. Small chicks can dive and swim underwater to avoid hostile adults and predators. When not breeding, Black-necked Stilts are still fairly territorial but often will roost and forage in close proximity, if never in the tight flocks formed by avocets. When resting, stilts sometimes draw up one leg, resting on the other, or sit on the ground, resting on the lower, longer part of the leg (called the tarsometatarsus).
Locomotion: For short distances, normally walks or wades rather than flies. Shakes feet on exit from water to remove mud from feet. After flight, prefers to alight on land and walk into water. Runs during interactions with other individuals. Head and legs extended during flight. Often stoops slightly before take off then springs into the air. Sometimes, when disturbed in one-legged resting position, will fly and land with the other leg folded up against the breast. Although Black-necked Stilts can swim and dive if necessary, they do so awkwardly and avoid this except under duress
Communication and Perception: Most calls are sharp and rather high-pitched, yap, keek, or similar, sometimes doubled and often given in series when alarmed. Quieter versions of the call, heard between adults and young, serve as contact calls.
Home Range: Strongly territorial during breeding and winter. Breeding-season territory defended from other Black-necked Stilts and to a lesser extent from other birds.
Degree of Sociality: Territories aggregated in suitable habitat. Some degree of semicoloniality noted, but whether this is because of joint participation in antipredator displays, or because nests are clumped in suitable habitat is unclear. Nests of Black-necked Stilts and American Avocets occur in same area, although nests of stilts are more regularly distributed and less clumped than nests of avocets; majority of stilt nests >10 m from nearest nest.
Level of Aggression: Upright Posture used to threaten both conspecifics and individuals of other species, generally adopted by both birds in an encounter. In Upright Posture, bird faces parallel to opponent with neck extended vertically; wings may be folded or extended. Giraffe Posture is a threat by one bird to peck another. In Crouch-run, neck is retracted close to body,

feathers of back are ruffled, tail is tipped slightly forward, and individual runs toward the opponent; used to chase or threaten another bird. Head-and-legs-down Flight used to hover above an opponent, sometimes striking with legs. When physical contact is made, wings, bill, and feet are used; encounter usually ends after one bird turns away and performs displacement pecking. Interactions with physical contact most common in late winter or early spring and tend to be associated with pairing.
Migration: Short to medium-distance continental migrant from U.S. to Mexico and Central America. Migrants stop for prolonged periods at intermediate sites throughout the migratory period.

Predators:

Predators: Peregrine Falcon, Great Horned Owl, Northern Harrier, Great Blue Heron, Red Fox, Northern Harrier, Mink, Kit Fox, Ring-billed Gulls, Common Raven, Black-billed Magpie, Gopher Snakes, Grazing Livestocks (EGG TRAMPLE), Short-eared Owl, Black Crowned Night Heron, Laughing Gull, Cattle Egret, Black Rat, Domestic Cat, Bullfrog
Anti-Predator Defenses: During breeding season, incubating birds tend to sit tight on the nest in response to aerial predators, and to get up and move from the nest on the approach of ground predators. Nonincubating birds rise to mob approaching aerial predators. When adults give Alarm Call, response by chicks depends on time of day and chick age. During day, young chicks tend to crouch on mud flats or near vegetation; at night they tend to crouch in open water. Older chicks were more likely to run. Popcorn Display is an amalgamation of birds engaging in Hop-and-Flap behavior while encircling a ground predator. In general the display begins as ≥1 birds notice the predator and begin to perform Hop-and-Flap. Other birds are attracted to the commotion, fly over to the predator, and join the display. Popcorn Display observed to continue for several minutes while ground predator ate all the eggs in a nest and then dispersed as the snake departed.

Diet and Nutrition:

Adult Diet: When they are not resting or preening, Black-necked Stilts spend much of the day wading in shallow waters to capture aquatic invertebrates, small crustaceans, amphibians, snails, and tiny fish. They prey on larval mosquitoes, soldier flies, brine flies, caddisflies, dragonflies, mayflies, crickets, grasshoppers, many kinds of beetles (including weevils), water-boatmen, crayfish, brine shrimp, tadpoles, and very small frogs and fish. These are captured with a quick peck, sometimes with the head partly (and quickly) submerged. Sometimes, they swing the bill side to side in the water, much as avocets do, to skim invertebrates from the surface or just below the surface. To capture small fish, they sometimes chase them into the shallows, where the fish become trapped. Seeds and vegetation form a tiny part of the diet.
Juvenile Diet: ^^^^^^^
Special Adaptations for Getting Prey: Pecking, Plunging, and Snatching. Pecking method consists of visual search for prey while standing still or walking slowly, followed by a quick jab of the bill to capture prey on mud or near water surface; head does not go under water. In Plunging method, head and upper breast enter water to capture food from within the water column. Snatching method involves capture of a flying insect with bill. Black-necked Stilts also feed using tactile methods, but these have only been observed in wintering areas.

Reproduction:

Mode of Reproduction: Monogamous.
Mating System: Monogamous. Sex ratios not different from 1:1. More male than female banded Black-necked Stilts.
Mating Season: March to May
Courtship: A pair forms when female persistently associates with male and is eventually tolerated.
Territoriality: HOME RANGE
Mating: Precopulatory Display is initiated by female Solicitation Posture or by male and female Sexual Preening. Female adopts stiff Solicitation Posture: neck extended horizontally forward and feet planted. Male performs Sexual Preening by standing 20 to 30 cm from female, extending his neck and preening his breast on the side facing the female. Water is used in Sexual Preening by shaking bill when placing it in the water and bringing water to the breast in the bill; intensity increases during the course of display, culminating in vigorous splashing immediately prior to mounting the female. Sometimes female also preens. While female holds the Solicitation Posture, male mounts to copulate, resting his tarsometatarsi on her back. Male flutters wings to maintain balance, and cloacal contact is made. Female sometimes moves her head slowly from side to side during copulation.
Nesting: Black-necked Stilts nest on the ground. They tend to build on surfaces above water, such as small islands, clumps of vegetation, or even, occasionally, floating mats of algae. Both female and male choose the site; they look for places with soft sand or other substrate that can be scraped away to form the nesting depression. The nests are often set among vegetation stubble adjacent to water or on dikes, islands, or high spots with sparse vegetation such as glasswort and saltgrass. Males and females share the work of nest construction. While one observes, the other scrapes into the dirt with breast and feet to form a depression about 2 inches deep. As they dig, they add small bits of lining back into the nest. Most lining is added to the nest

during incubation and consists of whatever material is closest to the nest, including grasses, shells, mud chips, pebbles, and bones. Some nests are left unlined.
Egg-Laying: Clutch Size: 2-5 eggs Number of Broods: 1 brood Egg Length: 1.5-2.0 in (3.7-5.1 cm) Egg Width: 1.1-1.3 in (2.9-3.2 cm) Incubation Period: 24-29 days Egg Description: Tawny olive to light drab with dark brown speckling.
Hatching and Incubation/Gestation: Covered with down and able to run awkwardly within about 2 hours of hatching.
Development: Chicks precocial and downy; dry and able to leave nest within 1–2 h, but walk awkwardly for first day. Bill short.
Parental Care: Only during first week except during overcast mornings or evenings. Brooding prior to departure from the nest is similar to incubation. On land, parent rests on its tibiotarsi, and the young stand beneath. In cold weather, older chicks are sometimes brooded in shallow water. Parent stands with wings loosened, and young wade beneath. Feeding of young has never been observed in the wild, and young stilts survive in captivity with-out parents.
Lifespan: Around 5 years.

Conservation:

Official Federal Status: Least Concern
Special Statuses in Individual States: NONE
Threats: Black-necked Stilt populations have been stable between 1966 and 2015 in continental North America, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 900,000 birds, with a Continental Concern Score of 8 out of 20, indicating it is a species of low conservation concern. There is some evidence of range expansion to the north, possibly attributable to climate change. The Hawaiian subspecies of Black-necked Stilt (knudseni), called the Ae'o in the Hawaiian language, is listed as federally endangered. Ae'o numbers have risen slowly in the past 30 years, but there are still fewer than 2,000 individual breeding birds. Because stilts are wetland birds, they are vulnerable to wetland destruction, degradation, and especially pollution, including pesticides, heavy metals, and other elements such as selenium. Stilts are sometimes monitored as indicators of contaminated irrigation water in the environment at large. In Hawaii and elsewhere, invasive aquatic plants deprive stilts of open water and mudflats. In the nineteenth century, stilts were hunted throughout their range.
Conservation Efforts: ^^^^^

Extra Facts:

1. Five species of rather similar-looking stilts are recognized in the genus Himantopus. They have the second-longest legs in proportion to their bodies of any bird, exceeded only by flamingos.
2. The Hawaiian subspecies of Black-necked Stilt (knudseni) has the black of its neck reaching much farther forward than the mainland forms. Habitat loss and hunting led to a sharp decline in its numbers. The few freshwater wetlands found on the Hawaiian Islands are its main habitat. Its name in the Hawaiian language is Aeo, which means "one standing tall."
3. Black-necked stilts sometimes participate in a "popcorn display," which involves a group of birds gathering around a ground predator and jumping, hopping, or flapping to drive it away from their nests.
4. The oldest recorded Black-necked Stilt was at least 12 years, 5 months old. it was banded in Venezuela and refound in the Lesser Antilles.
5. Black-necked Stilt and American Avocet belong to the same family (Recurvirostridae), and they are capable of hybridizing and producing young. The hybrid offspring are rare. Birders who have documented this cross have given it the nickname "avo-stilt."

Notable Species:

1. H. m. mexicanus - Breeds from w. and s. North America south through Middle America and the West Indies to n. South America and Gala-pagos Is. Main concentrations in llanos of Colombia and Venezuela; also in coastal w. Ecuador and Peru.
2. H. m. knudseni - More or less resident on major islands of Hawaiian archipelago.
3. H. m. melanurus - Resident in s. South America from e.-central Peru (chiefly east of Andes) and central Bolivia east to se. Brazil (s. Mato Grosso, São Paulo, Rio de Janeiro) and south to s. Argentina.