# *Himantopus mexicanus* (Black-necked Stilt)

Family: Recurvirostridae (Stilts and Avocets)
Order: Charadriiformes (Shorebirds and Waders)
Class: Aves (Birds)

**Fig. 1.** Black-necked stilt, *Himantopus mexicanus.*

[http://billhubick.com/photos/birds/black-necked_stilt.php, downloaded 6 November 2016]

**TRAITS.** Black-necked stilts are identified by their black upperparts such as crown, neck and back, thin pink/red stilt-like legs, and white underbody (Fig. 1). Females and juveniles are similar to males but their back feathers are dark brown (Message and Taylor, 2005). They have long, straight to slightly upturned, black, pointed bills, long tails, and shiny black wings (Fig. 2). Their three toes are arranged pointing forward, the middle toe being the longest of the three (semipalmate arrangement) (Fig. 2). Both sexes are 34-39cm in length with a wingspan of 70cm and a weight of 136-220g (Cornell University, 2015). Hatchlings have an approximate weight of 13.6g (EOL, 2011).

**ECOLOGY.** Black-necked stilts are found North, South and Central America and the West Indies (Fig. 3). The species may be resident, or migrate between breeding and wintering grounds (EOL, 2011). They inhabit shorelines, salt ponds, flooded lowlands, shallow lagoons and man-made wetlands such as flooded pastures (Cornell University, 2015). These areas are suitable for feeding as a variety of insects, small fish, shrimp, molluscs, worms and flies are in abundance and are part of the stilts' diet (Texas Parks & Wildlife, 2016). Predators include foxes, gulls, and other ground

and aerial predators. Eggs are tan coloured with dark-brown or black spots that are irregular in shape (Texas Parks & Wildlife, 2016). Clutch size is often four eggs (Sordahl, 1996). Egg incubation lasts 18-27 days and is shared by both adults (O'Brien et al., 2006). The average life span is 19.1 years (EOL, 2011).

**SOCIAL ORGANIZATION.** During breeding they are seen in pairs or small groups but large flocks (sometimes>100) occur during winter. They display little territorial aggression (Message and Taylor, 2005). Both adults share parental duties (O'Brien et al., 2006) and build the nest together (Sordahl, 1990). They often share a nesting area with avocets, however they maintain a reasonable distance from nests of other pairs. Nest site selection is often near the shore with an unobstructed view all around, on the ground and lined with small pieces of twigs, weeds, grass, shells and bones (U.S. Fish & Wildlife Service, 2016).

**ACTIVITY.** In non-breeding periods, when the stilts are not foraging they preen, stretch, scratch their head, shake their foot, interact with other birds, sleep or loaf along the shore. During these periods, 41% of the time is spent foraging whilst 32% of the time is spent idle (Navarrete et al., 2013). They display natal philopatry (returning near the site of hatching) (James, 1995). Stilts display eggshell removal from the nest during incubation (Sordahl, 1994).

**FORAGING BEHAVIOUR.** Stilts feed both day and night using both visual and non-visual methods (Pierce, 1985). They feed by picking food off the surface of moderately deep water as they slowly walk from shore inwards (U.S. Fish & Wildlife Service, 2016). Occasionally they would submerge their heads beneath the water to acquire food deeper. Large prey is broken up before being swallowed. They hold their heads high to acquire a wide view when prey is scarce; otherwise their heads are near the surface of the water (Pierce, 1985). They are also seen to swish their bill side to side on the water surface (O'Brien et al., 2006). Other methods are snatching, bill pursuit (rapid opening and closing of bill on water surface), filtering (non-visual), probing (non-visual), scything (non-visual; horizontal sweep of the water surface in an arc) and raking (Pierce, 1985).

**COMMUNICATION.** They chase back and forth making loud “whit-whit” sounds to claim territory (Dinsmore, 1977). They make a loud series of flight and alarm calls when predators are near. When the stilt becomes agitated, it “yaps” continuously. Parents call their young repeatedly during the day (Robinson et al., 1999). Females display preening and upright neck posture to signal mating readiness. Males display sexual preening for mating. Females or males disregard preening when not interested in mating (Sordahl, 2001).

**SEXUAL BEHAVIOUR.** Aerial courtship is not displayed (O'Brien et al., 2006). Copulation is observed during the night (Johnson et al., 2002). Copulation occurs near the shore or in vegetation (Sordahl, 2001). Pre-copulation is initiated by female that preens or extends the neck in an upright posture. Males approach from behind then step along-side the female, displaying upright breast preening and bill-dipping near the shoulder of the female (Fig. 4). The male circles the female several times continuing the sexual displays. The male then mounts from behind, holding the wings at the back and bringing the legs upwards, balancing on the female. Pre-copulation to copulation lasts a couple of minutes. Females display side to side head movements during copulation and males display tail twisting. Postcopulation begins at dismounting where this occurs on the side at which the tail faces (Sordahl, 2001). After the male dismounts, male and female

walk closely and slowly side by side with bills crossed, then separate to forage etc. (Dinsmore, 1977; Sordahl, 2001).

**JUVENILE BEHAVIOUR.** The young can walk from the point when their down feathers are dry, which is usually 24 hours after hatching (Texas Parks & Wildlife, 2016). When the chicks hatch, they are precocial and able to feed themselves (U.S. Fish & Wildlife Service, 2016).

**ANTIPREDATOR BEHAVIOUR.** They **s**how aggression and make loud noises when ground or aerial predators are near (Message and Taylor, 2005). A long series of flight and alarm calls are displayed by a loud "yapping yip, yip, yip…" sound. A raspy or squeaky version of the series of calls has also been displayed (O'Brien et al., 2006). Males are often the ones to chase intruders away even though both sexes share incubation (Texas Parks & Wildlife, 2016). Another defensive strategy is flocking together to scare off predators. Eggshell removal is a preventative method of attracting predators (Sordahl, 1994). Males have been found to be more aggressive than females and also move closer (approximately 17.6m closer) to the predator than females. "Dive-bombing" or mobbing is also displayed more in males than females, where the male often gets closer to the predator than the female. Males often attack for longer periods than females; this difference may be due to energy expenditure following egg laying (Sordahl, 1990).

**REFERENCES**

Cornell University. 2015. All About Birds. The Cornell Lab of Ornithology. https://www.allaboutbirds.org/guide/Black-necked_Stilt/lifehistory.

Dinsmore, J. J. 1977. Notes on Avocets and Stilts in Tampa Bay Florida. *Florida Field Naturalist*, **1977:** 25-30.

EOL. 2011. Encyclopedia of Life: *Himantopus mexicanus.* http://eol.org/pages/1049561/details.

James, R. A. 1995. Natal Philopatry, Site Tenacity, and Age of First Breeding of the Black-Necked Stilt. *Journal of Field Ornithology*, **1995:** 107-111.

Johnson, M, Beckman, J.P. and Oring, L.W. 2002. Temperate breeding shorebirds copulate at night. *Wader Study Group Bulletin*, **2002:** 45-46.

Message, S., and Taylor, D. 2005. Waders of Europe, Asia and North America. London: Bloomsbury Publishing Plc.

Navarrete, L., Grisham, B., Kalyvaki, KM., and Mougey, E.A. 2013. Diurnal Activity Patterns of Black-necked Stilts (*Himantopus mexicanus*) during the non-breeding season in the Eastern Caribbean. *Journal of Caribbean Ornithology*, **2013:** 17-21.

O'Brien, M., Crossley, R. and Karlson, K. 2006. The Shorebird Guide. New York: Houghton Mifflin Company.

Pierce, R. J. 1985. Feeding methods of stilts (*Himantopus* spp.). *New Zealand Journal of Zoology*, 1**985:** 467-472.

Robinson, J. A., Reed, M.J., Skorupa, J.P. and Oring, L.W. 1999. Black-necked Stilt (*Himantopus mexicanus*). The Birds of North America, Cornell Lab of Orinthology. https://birdsna.org/Species-Account/bna/species/bknsti.

Sordahl, T. A. 1990. Sexual Differences in Antipredator Behaviour of Breeding American Avocets and Black-necked Stilts. *The Condor*, **1990:** 530-532.

Sordahl, T. A. 1994. Eggshell Removal of Amercian Avocets and Black-necked Stilts. *Journal of Field Ornithology*, **1994:** 461-465.

Sordahl, T. A. 1996. Breeding Biology of the American Avocet and Black-necked Stilit in Northern Utah. *The Southwestern Naturalist*, **1996:** 348-354.

Sordahl, T. A. 2001. Copulatory Behavior of American Avocets and Black-necked Stilts. *The Auk*, **2001:** 1072-1076.

Texas Parks & Wildlife. 2016. Black-necked Stilt. http://tpwd.texas.gov/huntwild/wild/species/stilt/.

U.S. Fish & Wildlife Service. 2016. Black-necked stilt (*Himantopus mexicanus*). https://www.fws.gov/uploadedFiles/BNST.pdf.

Author: Zandra Ali

Posted online: 2016

**Fig. 2.** Feet and black wings of black-necked stilt.

[https://www.flickr.com/photos/bkushner/28412776611/in/photolist, downloaded 5 November 2016]

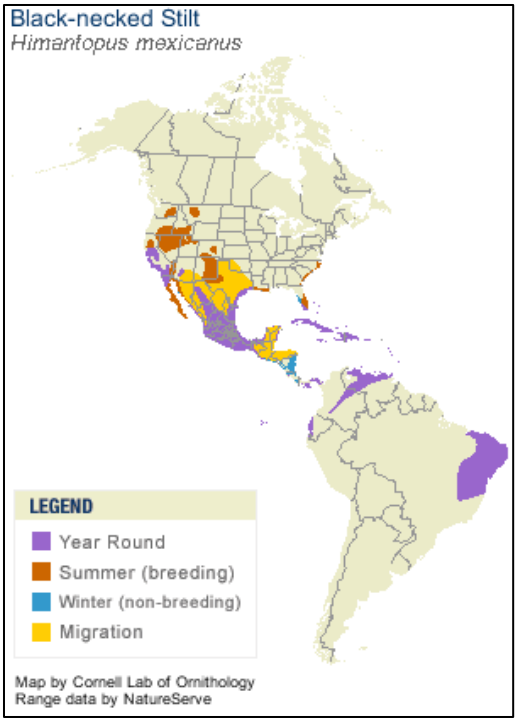


**Fig. 3.** Distribution of black-necked stilt.

[https://www.allaboutbirds.org/guide/Black-necked_Stilt/lifehistory, downloaded 20 October 2016]


**Fig. 4.** Courtship of black-necked stilt.

[http://www.stevemetildi.com/galleries/174_SHOREBIRDS/, downloaded 5 November 2016]