

Actitis macularius (Spotted Sandpiper)

Family: Scolopacidae (Sandpipers and Snipe)

Order: Charadriiformes (Shorebirds and Waders)

Class: Aves (Birds)



Fig. 1. Spotted sandpiper, *Actitis macularius*.

[<http://www.audubon.org/field-guide/bird/spotted-sandpiper>, downloaded 2 March 2017]

TRAITS. The word sandpiper means “birds that chirp in the sand” which describes the sandpiper’s call and its dwelling near shorelines and beaches. They are medium-sized birds up to 18cm in length, with females typically 20-25% larger than males (Moore, 2002). Adult spotted sandpipers can also be identified by their yellow or bright orange bill, black eye stripes and olive back. Their backs are brown to grey, as well as their crowns, wings and nape (back of neck). Spotted sandpipers have white undersides; the scientific name *macularius*, means “spotted”, which refers to the distinguishing feature of spotting on the breast, belly and throat of breeding individuals (Fig. 1). Females normally possess larger spots which extend to the lower body. In winter however, the spotted sandpiper’s breast is plain white (Fig. 2).

DISTRIBUTION. Widely distributed throughout the Americas as well as the western Caribbean (Fig. 3). During breeding, their range extends from Alaska to the south of the United States. During winter, spotted sandpipers voyage to the south of the United States, California and the south east coastal regions as well as the Caribbean islands and South America. They can also be found in parts of Europe, Siberia, Russia as well as certain islands in the Pacific Ocean, however in smaller numbers (Oring et al., 1997).

HABITAT AND ACTIVITY. Most commonly found near the water's edge of freshwater sources such as streams, rivers and ponds (Eastman, 2000). Their breeding sites include thick vegetation and tall marsh grasses for protecting their chicks. Such territories are located in fields, forests and lawns, along with other habitats (Oring et al., 1997). They sometimes build nests away from water, in hills, beneath logs, shrubs or near roadsides. These nests are usually loosely colonial, made up of scrapes in the ground and lined with weeds or grasses due to the bird's polyandrous lifestyle (Eastman, 2000). During winter, spotted sandpipers may be found near beaches, sewage ponds, generally anywhere water is present (Oring et al., 1997).

FOOD AND FEEDING. Spotted sandpipers are ground foragers and plunge their heads forward in order to catch prey with their bills. They also peck at the ground and hop to catch flying insects. Mainly their sight is used in order to capture prey. During breeding, females balance the amount of food they consume with the energy spent on the production of eggs. Conversely, males increase their time spent on finding and capturing prey during incubation (Oring, et al., 1997). Spotted sandpipers are described by Moore (2002) as opportunistic carnivores. Their diet consists of any animal that is small enough to consume including flies, beetles, grasshoppers and mayflies. They also consume snails, worms, small fish and crustaceans (Eastman, 2000).

POPULATION ECOLOGY. Typically solitary birds which defend their individual territory but can sometimes be found roosting in loose flocks. They prefer unoccupied spaces (Ascanio et al., 2017). During winter, Bent (1929) reported that spotted sandpipers migrate discreetly to their grounds, showing very little tendency of gathering in flocks. On average males live about 2.8 years while females live approximately 3 years. Some birds occasionally survive until age 9 (Eastman, 2000). It has been indicated that due to the wide distribution of spotted sandpipers, it is challenging to determine an estimation of the total species from the numbers counted. However, the global estimate appeared to be about 250,000 individuals (Oring et al., 1997).

REPRODUCTION. Female spotted sandpipers are polyandrous. They may begin with one mate who will assist in parental duties but may abandon mates as more males arrive to the breeding site in order to compete with other females for additional mates (Hays, 1972; Oring, et al., 1997). The female courts a mate and the two build a nest. Attributable to their polyandrous lifestyle, many female spotted sandpipers may leave to find new mates after laying a clutch or after the first brood hatches (Cormane, 2005). By being freed of the responsibility of incubating eggs and tending the young, a female can increase her reproductive output by searching for new mates (Ehrlich et al., 1989). The chicks are mobile shortly after being hatched and can subsequently nourish themselves. They remain with their parent(s) at least one month post-hatch, after which they become independent and become part of post-breeding flocks. The young sandpipers are then capable of breeding at approximately one year old (Moore, 2002).

BEHAVIOUR. Nesting spotted sandpipers do the ‘broken wing display’ when approached by predators. This involves faking an injury to distract predators from their nests. This display is done by the bird crawling very low to the ground with flapping wings, simultaneously spreading their tails and shrieking (Oring et al., 1997). Spotted sandpipers employ the use of body signals and vocalizations to communicate. The calls are based on variations in the use of the *weet* note which they repeat at different intensities and speeds. This may be used to attract mates, to show alarm, as well as to contact chicks. Physical signals on the other hand are used to show dominance, threaten others, and soliciting mates (Moore, 2002).

APPLIED ECOLOGY. Spotted sandpipers are common species with an extensive range. Threats facing the species include hunting, injury, pesticide poisoning and the loss of feet due to leg banding. Although the population of the species is declining, it does not seem in danger of extinction and is therefore listed by the IUCN (2012) as Least Concern. They are also safeguarded by the U.S Migratory Act (Moore, 2002).

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Fig. 2. Non-breeding spotted sandpiper.

[https://www.allaboutbirds.org/guide/Spotted_Sandpiper/id, downloaded 5 March 2017]



Fig. 3. Distribution map for spotted sandpiper.

[https://www.allaboutbirds.org/guide/Spotted_Sandpiper/id, downloaded 5 March 2017]