

**What is a shorebird?** A shorebird is a small, long legged bird typically found feeding or resting along the shorelines of oceans, lakes, ponds, rivers and creeks. These birds travel far distances between their breeding grounds and their wintering grounds (nonbreeding grounds). For example, one population of the Red knot (8<sup>th</sup> bird pictured above) breeds in the arctic tundra of Canada and winters on the tip of South America, which adds up to 20,000 miles round trip! These birds depend on habitat in our state for a portion of their annual life cycle (breeding, migrating, or wintering).

**When are shorebirds here?** Shorebirds use beaches year round. Some nest here in the summer, some only stop here on their way to their breeding grounds in the spring or wintering grounds in the fall, and some stay here over the winter.

Why are shorebirds declining? Shorebirds face many threats and one of the major factors is habitat loss. Shorebirds depend on shorelines and wetlands along the coast and along interior waterways throughout the western hemisphere to complete their annual life cycle. Modification of coastlines and wetlands coupled with development has significantly reduced nesting, migration, and winter habitat. Remaining habitats are often altered and/or subject to human recreational uses that can be disruptive to shorebirds.

**What is recreational disturbance?** Recreational disturbance is a disruption in a shorebird's normal behavior (resting, eating, nesting) caused by human presence or interaction.

Why is recreational disturbance a problem? Recreational disturbance can be functionally equivalent to habitat loss if shorebirds are not able to adequately rest and eat. If the birds have to focus time and energy reacting to and avoiding constant disturbance, then they have less time to rest and focus on finding food. Disturbance affects birds differently depending on where they are in their annual life cycle. Nesting birds that are disturbed are not able stay on their nests, which can expose eggs and chicks to predators and lethal temperatures during the heat of the summer. Migrating birds that are disturbed are not able to rest and build up energy reserves for the next leg of their journey, which can be thousands of miles nonstop for some species. This could result in birds dying during migration or cause birds to arrive in poor body condition affecting their ability to find a mate, a nesting territory, or lay eggs. Wintering birds that are chronically disturbed may not have adequate time to eat enough to maintain their body temperature during harsh winter conditions, which can lessen their chances of survival. Increased disturbance can induce chronic stress, result

in weight loss, and make birds tired. It's kind of like being forced to exercise all the time without being allowed to take a break to rest or to eat something to replenish your energy reserves.

**How do dogs disturb birds more than people?** Many studies have shown that dogs on or off leash are more likely to cause birds to fly (flush) than people, and birds react to dogs from farther distances than people. Dogs running and playing, even if they are not chasing birds, can still scare and disturb birds because the birds perceive dogs as predators. Birds typically respond by flying away to keep a safe distance between themselves and the dog(s). When this happens throughout the day on a daily basis, birds are forced to expend valuable energy moving away from dogs, which reduces the amount of time they can spend resting and feeding. During the summer nesting months, off leash dogs can destroy nests, keep birds off their nest as well as catch and kill chicks that are unable to fly yet. During migration, off leash dogs can prevent birds from spending enough time feeding in order to gain weight to fuel the next leg of their journey. During winter, off leash dogs can prevent birds from maintaining their body temperature by limiting the amount of time spent feeding when food is already limited during colder months. Increased disturbance can induce chronic stress, result in weight loss, and make birds tired. It's kind of like being forced to exercise all the time without being allowed to take a break to rest or to eat something to replenish your energy reserves.

Why are areas on the beach roped off? In order to minimize disturbance to nesting birds and destruction of nests, areas that contain suitable nesting habitat are roped off during the nesting season. These areas help educate people about the presence of nesting birds and protect nests from accidentally being stepped on. Shorebird nests are very hard to see because the eggs are laid on top of the sand in a shallow depression (called a scrape) and are well camouflaged. Additionally, some beaches have important roosting areas (where birds rest around high tide) roped off outside of nesting season to allow birds to rest undisturbed.

Why do the birds need areas outside the roped off areas too? The birds feed in the intertidal zone (area between low tide and high tide) when they are not sitting on the nest (during late spring/early summer) or roosting (resting) around high tide. Also, once the chicks have hatched the parents take them down to the intertidal zone to find food.

**How can I help shorebirds?** Respect roped off areas or closed sections of beach and do not enter or allow your dog to enter. Pay attention to signs and follow beach rules. Do not intentionally walk, run, or ride your bike through flocks of feeding or resting shorebirds. Do not unleash your dog around flocks of birds on the beach or allow your dog to chase birds. Keep your dog on a leash when you are at the beach or leave your dog at home when you go to the beach. Be a responsible pet owner and pick up after your dog to reduce human, dog, and wildlife exposure to additional microbial loads, which can compromise the immune system. Take your trash with you to avoid attracting predators. Pay attention to birds that are repeatedly vocalizing, they are telling you that you are too close. Help educate others about the need to share the beach with wildlife. Shorebirds depend on our beaches for their survival. Thank you for your support!!

**Shorebird graphic key (from left to right):** Marbled godwit, American oystercatcher, Willet, Lesser yellowlegs, Black-bellied plover, Short-billed dowitcher, Ruddy turnstone, Red knot, Wilson's plover, Sanderling, Semipalmated plover, Piping plover, Dunlin, Western sandpiper, Least sandpiper. Shorebird graphic created by National Audubon Society, reproduced with permission.

