

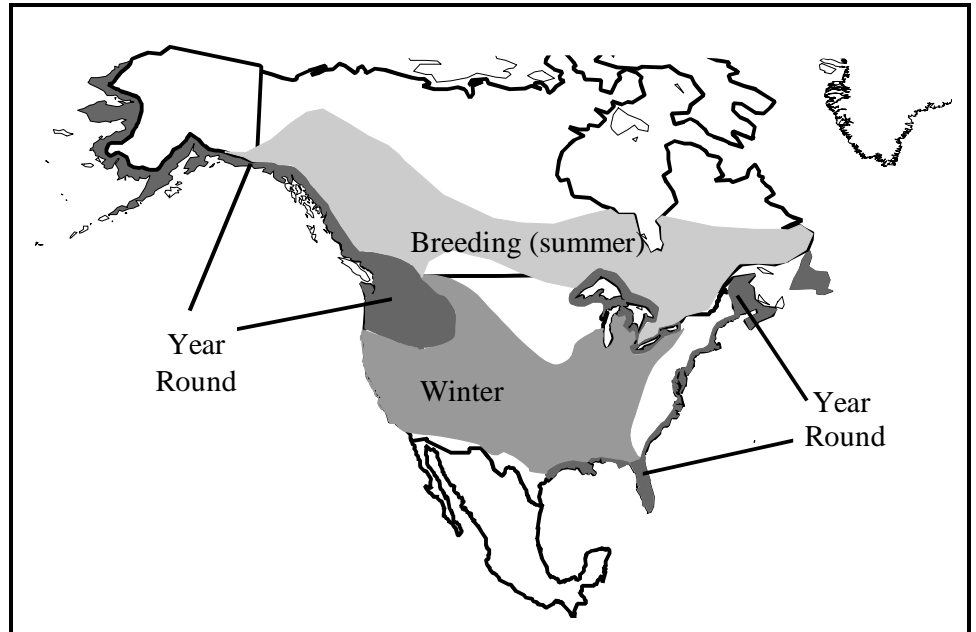
Patuxent Research Notes



The range, habitat and niche of the Bald Eagle

Ecologists frequently use three terms in describing wildlife - the region where an animal lives as its **range**, the kind of place where it lives as its **habitat**, and the way in which it fits into its community as its **niche**. These concepts help us to understand and manage wildlife. We will use the bald eagle to provide examples.

The **range** is the geographic area where a species lives. Ornithologists (biologists who study birds) have kept thorough records of where birds are seen, so we have good maps of ranges for many species. Since birds may migrate between distinct areas, we often describe both a breeding range (summer) and a winter range. In the map to the right, the breeding range shown is mainly in

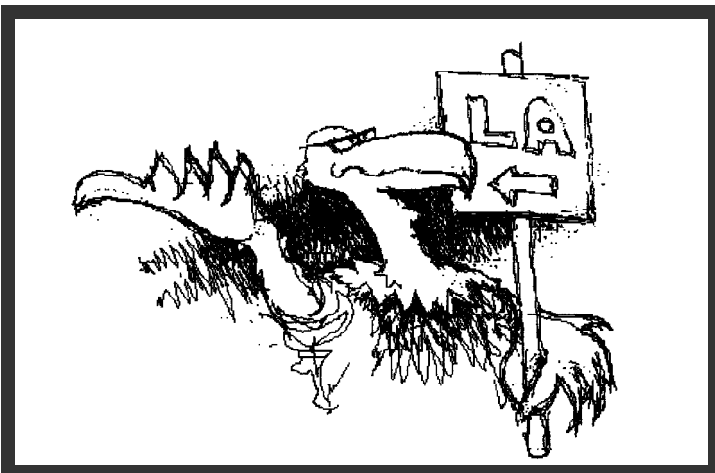


Some bald eagles migrate between a breeding range in Canada and a winter range in the United States. Bald eagles living in the darkest shaded areas remain there year round.

Canada and the winter range shown is mainly in the United States. In summer Canada provides moderate temperatures and abundant prey for raising eaglets but, in winter, the United States provides better conditions for eagles. Winter

and summer ranges are distinct for some species and overlap for others. The map shows that eagles may be found year round along the Atlantic coast and the northwest Pacific coast. Sometimes stray birds are found outside the normal range. A few bald eagles may stray from Alaska to Siberia, which is the eastern part of Russia, or from northeastern Canada to Greenland. Populations of breeding eagles are highest in Alaska, the Great Lakes, and Florida. Remember that a range refers to a species.

The **home range** refers to



Headed south for the winter.

where a particular eagle lives, and is different from the range, which refers to all eagles. Eagles do not want other eagles nesting nearby and usually have home ranges 1 to 3 kilometers wide.

The **habitat** of an animal is the kind of environment where an animal lives. Eagles are superb flyers that require open areas. They avoid dense forests where they cannot maneuver. The nesting habitat of a bald eagle is almost always on a coast or a lake. In dry habitats of the Southwest bald eagles may nest along rivers. All good eagle habitat has at least one tall

tree. Different kinds of trees are selected for nests, but the tree selected is almost always taller than the surrounding trees, giving the eagle a good lookout and chance to fly over the trees. Eagles also need trees for perching, where they may rest, look for prey, or guard their territory. They generally avoid habitats where they are disturbed by humans.

The **niche** is defined as the role of a species in its community.

A niche is often compared to the

occupation of a person, whether he or she is a farmer, carpenter, or teacher. If animals of two species in an area have the same or similar niches they will compete with each



other. Eventually one species will eliminate the other. If they use different resources and have different niches they can live side by side.

Bald eagles eat primarily fish. Eagles grab fish with their talons (claws) as they skim across a lake. If the fish is large the eagle may not be able to fly off with it, but may tow it to shore before it is eaten. However, eagles steal fish from other birds when they can. In particular, they steal from ospreys,

which are related to eagles, but smaller. But bald eagles are open minded when it comes to theft, and will steal from various kinds of animals, including other bald eagles.

They have even been known to snatch food from the bellies of unsuspecting otters, which float on their backs while eating.

We would describe a bald eagle's niche by saying they feed on medium-sized fish that can be seen from the air. Fish that are deep in the water are safe from eagles. The eagle's niche can be expanded, though, to include dead animals. Eagles are famous for eating salmon that die in

large numbers in the Pacific northwest. In winter, when ice prevents eagles from fishing, bald eagles may turn to carcasses of deer or elk. They may also prey on ducks and geese.

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