AMERICAN OYSTERCATCHER - HAEMATOPUS PALLIATUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Haematopodidae Genus: Haematopus Species: H. palliatus

Habitat:

Biomes: American Oystercatchers are found only in intertidal areas and adjacent beaches, especially barrier islands with few or no predators. Within this environment, they prefer sandy, shelly beaches for nesting but also nest on sandy spots in saltmarshes and even on mats of dead vegetation (wrack) in the upper part of saltmarshes. Artificial beaches, such as dredge-spoil islands, also attract oystercatchers for nesting and roosting. Migrating and wintering birds use the same habitats. During foul weather, such as tropical storms and nor'easters that prevent them from foraging, oystercatchers take shelter in other open habitats in the vicinity such as agricultural fields.

Distribution:

In US: The American oystercatcher is found on the Atlantic coast of North America from New England to northern Florida, where it is also found on the Gulf coast, and south to Brazil, Uruguay and Argentina. It is found also in the Pacific coast of California, Mexico, Central America, Peru, and Chile. In the 19th century they became locally extinct in the northeast of the United States due to market hunting and egg collecting. After receiving protection under the Migratory Bird Treaty Act, their range extended northward to re-occupy historical habitat in New England. During the breeding season, these birds are found along the Atlantic and Gulf Coasts and from Massachusetts south to Argentina and Chile. In winter, they are found in flocks along the coast from central New Jersey to the Gulf of Mexico.

In Other Countries: Brazil, Uruguay, Argentina, Central America, Mexico, Peru, Chile.

Holistic Description: A boldly patterned shorebird with red-yellow eyes and a vivid red-orange bill, American Oystercatchers survive almost exclusively on shellfish—clams, oysters, and other saltwater molluscs. Because of this specialized diet, oystercatchers live only in a narrow ecological zone of saltmarshes and barrier beaches. Along much of the Pacific Coast they are replaced by the similar but all-dark Black Oystercatcher. American Oystercatchers are numerous but sensitive to development and traffic on the beaches where they nest; they are on Partners in Flight's Yellow Watch List.

Species Richness: 5 SUBSPECIES

Population Dynamic: Historically, the American oystercatcher was hunted to near extinction in the 19th century for plumage and eggs. They have recovered significantly since the passage of the Migratory Bird Treaty Act in 1918. The IUCN lists this species as being of "Least Concern". The reasons given are that the bird has a very wide range and that the total number of individuals is believed to be stable, and actually increasing in the case of the United States.

Evolution and Systematics:

Evolution: There are no fossil or prehistoric records for this species. However, there are two early Piocene, late Hemphillian (North American Land Mammal Age, 4.5 to 5.2 million years before present) records of importance.

Systematics: White is absent or nearly absent from the primaries of Pacific birds, but present at the base of several inner primaries of Atlantic birds. Birds in w. North America, on the Galapagos, and in se. South America have the dorsum dark and demarcation between dark and white on lower breast mottled, whereas birds in w. and n. South America and in e. North America have the dorsum browner and the demarcation on the lower breast crisp. The largest birds, on average, are in w. North America and the smallest in w. South America, whereas birds on the Galapagos have disproportionately "larger" legs and toes.

Number of Species: 5 SUBSPECIES

Number of Genera: 5 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 15.8-17.3 in (40-44 cm) Weight: 14.1-24.7 oz (400-700 g)

Wingspan: 35-inch (89 cm)

Coloration: American Oystercatchers look black-and-white from a distance, with a bright orange-red bill. At closer range, the back and wings are brown, with a black head and breast, white underparts, yellow eye, and red eyering. In flight, look for a white wingbar and white tail base.

General Body Features: A large, thickset shorebird with a long, stout bill, a large head, robust neck, and long, thick legs. 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 Body: 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. Oystercatcher bills are able to pry mollusks from rocks, while turnstones use their bills to flip rocks and find food underneath. By closely observing bill length, shape, and how the bird uses it, you can separate shorebird species.
Special Features of the Head and Sensory Organs: In general, they use their bills to catch shellfish. As they walk across a shellfish bed, they look for a mollusk with a partially opened shell. When they find one, they jab their bill into the shell and sever the muscle that causes the shell to clamp shut.
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.
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: Wing, culmen, and tarsus lengths are greater in females than males, although there is significant overlap. Bill length of adult females was greater than that of adult males by approximately 10 mm; thus bill length was deemed a more reliable indicator of gender than mass
Differences Between Juvenile Stage and Adult: Juveniles have varying degrees of dusty orange to gray on bill and pale-fringed back feathers until fully mature.
Behavior:
Diurnal, Nocturnal, or Crepuscular: Diurnal
Activity: American Oystercatchers are monogamous and sometimes maintain a pair bond for many consecutive years. Their courtship in early spring is boisterous, with courting birds pacing quickly over the sand in unison, giving a piping call that increases in tempo, and pivoting in arcing patterns around the beach, sometimes taking to flight in pairs. A courting pair often attracts neighboring pairs to begin this display, and sometimes as many as three pairs come together in what scientists call the Piping Ceremony. Copulation often follows this display. The size of a pair's territory probably depends on local conditions and ranges in size from about 1.7 to 5.3 acres. They sometimes establish territories within a colony of terns, Black Skimmers, or Brown Pelicans. Pairs stay very near one another for the breeding season. Male and female take turns incubating the eggs, and both defend eggs and young, driving away intruders (including other oystercatchers) with calls, chases, and aggressive flight. Young birds can dive and swim underwater to escape predators. After the nesting season the adults and young disperse, often to different locations, for the winter, and younger birds often spend one or more years away from their natal area before returning.
Locomotion: Frequently walks or runs rather than flying. Their counter-shaded plumage blends in surprisingly well in feeding habitat, particularly mussel and oyster beds, as well as on breeding habitat. The sharp contrast of black and white in the wings is conspicuous in flight, and an important component of the Piping Display. Normally deep, rapid wing beats. Shallow, slow Butterfly Flight used when intruders near nest. Adults rarely swim or dive to escape (Edwards 1870 in Samuels 1870). Observations of adults diving are typically associated with either capture activities (i.e. diving underneath deployed capture nets) or escape from aerial predators such as Peregrine Falcons. Mobile young frequently dive to escape harassment.
Communication and Perception: American Oystercatchers make several high-pitched, sharp, and incisive calls, usually written peep, pip, hueep, and weeer. These function as pairing, contact, and alarm calls; most are far-carrying in the open environments the birds inhabit.
Home Range: Establish territories soon after arrival on breeding grounds. Size and spacing of territories varies according to habitat, with sandy beaches having larger territories than dredge spoil areas.
Degree of Sociality: Gregarious in winter, forming compact roosting flocks that disperse into loose flocks when feeding. Very vocal when greeting or departing. Synchronized nesting at one study area in Virginia.
Level of Aggression: Both sexes defend territories but males are more aggressive. Piping Display used in intra-specific interactions with neighboring pairs, in courtship, and greeting. Evasive behavior includes the bird throwing itself sideways against the ground to dodge an opponent's bill during territorial conflict. They may also bob their head when disturbed.
Migration: Migration patterns are known from mark-recapture studies on the Atlantic and Gulf coasts. Degree of migration varies with latitude.Northern populations use "leapfrog" migration, often bypassing Atlantic coastal sites to overwinter on Florida's northwest coast.
Predators:

Predators: Mink, Red Fox, Skunk, Domestic Dog, Cat, Rat, American Crow, Herring Gull, Greater Black Backed Gull, Peregrine Falcon, Great Horned Owl, Snowy Owl, Coyote, and Bobcat
Anti-Predator Defenses: When eggs are present, at approach of predators or humans, tending adult slips off nest, usually unseen, while intruder is still some distance away; walks rapidly away some distance before taking flight. Bird then exhibits distraction behavior, circling back over intruder in "butterfly" flight giving distress call, sometimes beginning Piping Display. Different vocalizations used depending on whether adults are defending eggs or young. May also demonstrate "cripple-display", Crouch-run, or mock feeding. Birds often adopt mock sleeping attitude or mock brooding in an exposed location. In this posture, will allow predatory birds such as gulls to approach and rarely even touch them. Once displaced, oystercatcher will run some distance, then resume mock brooding posture again.
Diet and Nutrition:
Adult Diet: American Oystercatchers dine almost solely on saltwater bivalve mollusks, including many species of clams and several oysters and mussels, and to a lesser degree limpets, jellyfish, starfish, sea urchins, marine worms, and crustaceans such as lady crabs and speckled crabs. Oystercatchers walk slowly through oyster reefs until they see one that is slightly open; they quickly jab the bill inside the shell to snip the strong adductor muscle that closes the two halves of the shell. Some oystercatchers smash open shells with the tip of the bill before snipping the muscle. especially when hunting softer-shelled species. Adult oystercatchers tend to teach their young one technique, either to snip or to smash, during their first year. For bivalves such as razor clams that burrow into sand, oystercatchers probe into the substrate and capture the prey by touch; they also capture mole crabs and polychaete worms in this manner. Tidal conditions influence when oystercatchers forage, and generally, they forage most heavily on falling tides, when prey is still partly submerged and actively feeding, shells open.
Juvenile Diet: Soft parts of shellfish, CHECK PARENTAL CARE
Special Adaptations for Getting Prey: American Oystercatchers also use a "hammering" technique, removing an individual mussel from a clump and moving it to a location above the water. Here they orient it properly with their bill and begin hammering at the point where the adductor chain lies inside the shell. Once they have broken through the shell, they quickly sever the adductor chain, allowing the 2 halves of the bivalve to separate. The soft parts are then consumed completely.
Reproduction:
Mode of Reproduction: Monogamous
Mating System: Typically monogamous. Polygamy and communal nesting recorded. Communal nesting (usually 1 male, 2 females) appears to be a consequence of high nesting densities and limited nesting habitat.
Mating Season: February-July
Courtship: Usually referred to as Piping. Begins with birds, usually two, walking parallel and uttering single pipe note. Birds then adopt posture with neck stretched forward and down, back parallel to ground. Birds run side-by-side, with heads bobbing up and down, giving loud Piping Call, which begins slowly, with notes becoming more rapid and changing in pitch. Birds frequently stop and turn 180 degrees, full circle, or at right angles and continue Piping Display. Often birds take flight flying parallel or close together, both giving long Piping Call. At this point the displaying pair is often joined by residents from adjacent territories. This Piping "tournament" or "ceremony" may involve 3 or more pairs. Piping Ceremony may change back and forth from ground to air Piping Display. Flight is often with rapid shallow wing beats.
Territoriality: HOME RANGE, AND Known to nest with other colonial waterbirds, including: Common Tern, Least Tern, Gull-billed Tern, Royal and Sandwich Tern, Black Skimmer and Brown Pelican, which form nesting colonies after oystercatchers have initiated nesting. In many cases, oystercatchers maintain their territories within the colonies but are occasionally displaced. Although Herring and Great Black-backed gull colonies are established prior to or concurrent with oystercatcher nest initiation, oystercatchers are often observed establishing nesting territories within and/or on the periphery of these colonies where the ranges of these species overlap.
Mating: Female adopts a stiff, stationary posture, bending forward with legs straight, neck drawn in, bill horizontal, and tail elevated. Male mounts, briefly waving wings, calling and pecking at female's head, then lowers himself onto tarsi. Copulations usually last 1–2 s. Female appears to initiate all copulations.
Nesting: The female selects the nest site in vegetation on barrier beaches (usually within or behind dunes), shelly islands, dredge-spoil islands, or high marsh. The nest site usually features dune vegetation such as sea oats or beach grass and is less often among short bushes. Some pairs have been found nesting on gravel rooftops or rocky artificial islands. The nest is simply a scrape in the sand, without lining.
Egg-Laying: Clutch Size: 2-4 eggs Number of Broods: 1 brood Egg Length: 2.2-2.3 in (5.6-5.8 cm) Egg Width: 1.5-1.6 in (3.9-4 cm) Incubation Period: 24-28 days Egg Description: Buffy gray with dark brown speckling.
Hatching and Incubation/Gestation: Active and coordinated, covered in tan down; leaves the nest within one day of hatching.

Development: Chicks precocial and downy. Mandibles of hatchlings hooked downward at tip, after 2–3 wk bill resembles that of plover; typical bill begins to develop at 4–5 wk. Average mass at hatching 37.3 g.
Parental Care: During the chick-rearing period the parents brood the chicks 7.9% and 3.1% of the time for females and males, respectively. Both adults feed young, but males feed young slightly more frequently than females do. Chicks depend on adults for food for at least 60 d after hatching. Adults will excise shellfish from shells, then deliver soft parts to young chicks; older chicks (3+ wk) are often brought unopened shellfish
Lifespan: Up to 23 years, mostly around 10-17 years.

Conservation:

Official Federal Status: Least Concern
Special Statuses in Individual States: NONE
Threats: American Oystercatcher populations can be highly variable from year to year in response to food supplies, and their highly restricted habitat means the birds are never particularly numerous. Partners in Flight estimates the global breeding population at 74,000. During the early 2000s, the United States breeding population was estimated at about 11,000. Partners in Flight rates the species a 14 out of 20 on the Continental Concern Score and places it on the Yellow Watch List in light of its restricted range and narrow habitat preference. American Oystercatcher is also a species of special concern in several coastal states. Oystercatchers are sensitive to human disturbance and to loss, degradation, or development of their beach habitat. Their young are vulnerable to attack by many predators, including gulls. Storms and high tides can swamp eggs or nestlings. Projections of sea-level rise suggest further steep declines during the current century without management interventions. One benefit of human activity has been the appearance of sand islands made from dredging spoils. These are usually isolated from mammalian predators and often fairly high above the water, creating safe nesting habitat.
Conservation Efforts: ^^^^^^

Extra Facts:

1. Recent tracking studies have revealed that oystercatchers make tremendously variable movements after the breeding season. Young birds do not follow their parents to wintering locations; in fact, young from the same nest may even migrate in completely different directions in autumn. Adults are also idiosyncratic in their movements, with some staying on the breeding territory year-round, others moving hundreds of miles away.
2. American Oystercatchers are the only birds in their environment with the ability to open large molluscs such as clams and oysters (except for large gulls that drop clams onto pavement). Foraging oystercatchers often attract other birds eager to share (or steal from) the oystercatcher's "raw bar," including Willets, large gulls, and Ruddy Turnstones.
3. American Oystercatchers don't always win out in their battles against oysters and clams. Occasionally, a shellfish gets its revenge by clamping down on an oystercatcher's bill and holding the bird tight. When the tide comes back in, it can spell bad news for the would-be predator.
4. The closely related Black Oystercatcher of the Pacific Coast often hybridizes with American Oystercatchers in Southern California, where the two species' ranges meet. Most oystercatchers that resemble American Oystercatcher observed in California turn out to have some Black Oystercatcher ancestry.
5. The oldest American Oystercatcher was at least 23 years, 10 months old. It had been banded as an adult in Virginia in 1989 and was found in Florida in 2012.

Notable Species:

1. H. p. palliatus - Resident along Atlantic coast of North America from New Jersey (breeding north to Massachusetts) south to central Florida, along nearly the whole coast of the Gulf of Mexico.
2. H. p. frazari - Resident in w. Mexico from n. Baja California (rarely to s. California) and along w. Mexico south to the Isthmus of Tehuantepec.
3. H. p. galapagensis - Resident on the Galapagos Is.
4. H. p. pitanay - Resident along Pacific coast of South America from Ecuador to Chile
5. H. p. durnfordi - Resident along the Atlantic coast of South America from s. Brazil south to central Argentina.