

## **Harbor Seal** *Phoca vitulina*

**Speedy Swimmers** - Harbor seals have a streamlined body and strong muscles that enable them to swim with speed and grace; harbor seals can swim up to 12 miles per hour (19 kph)! Their rear flippers are used to propel the seal through the water, while front flippers are used for steering. Unlike sea lions, seals cannot rotate their rear flippers forward to walk on land.

**Underwater Adaptations** - Seals have large eyes adapted to see well in low light; they are able to see better than humans underwater. They have sensitive whiskers called "vibrissae" which help them detect and capture prey in murky water. They also have a higher metabolism than land mammals which help them keep warm. Harbor seals can slow their heart rate when diving and have more blood than a land mammal of the same size to conserve oxygen.

### **Classification**

Also known as the common seal, there are five subspecies of harbor seal, all geographically separated from one another. The harbor seal is often also classified as order "Pinnipedia."

Class: Mammalia

Order: Carnivora

Family: Phocidae

Genus: *Phoca*

Species: *vitulina*

### **Distribution**

Harbor seals are found along coastal regions and near islands of both the northern Atlantic and the northern Pacific oceans over a wide range of latitudes.

### **Habitat**

Harbor seals live in temperate, subarctic and Arctic Ocean waters, and occasionally fresh water lakes and rivers. They tend to stay within 12 miles of the coast. They are often seen at sandy beaches, mudflats, bays and estuaries.

### **Physical Description**

- Harbor seals are four to six feet long (1.2-1.9 m).
- Weight ranges from 110-300 pounds (50-140 kg) with males slightly larger than females.
- Harbor seals are covered with short, thick fur ranging in color from silver gray to black or dark brown covered with spots.
- They have a rounded body shape and webbed flippers.
- Are true, or crawling seals, with no external earflaps.

### **Diet**

What Does It Eat?

*In the wild:* An opportunistic feeder of squid, medium-sized fish, crustaceans, mollusks and octopus. They eat five to six percent of their body weight each day.

*At the zoo:* Capelin, herring and mackerel supplemented with vitamins and minerals. They are also fed a ground up fish product.

What Eats It?

Killer whales, sharks, polar bears, Steller sea lions, walruses, and scavengers including coyotes and eagles.

### **Social Organization**

Harbor seals are mostly solitary animals except during mating season and females with pups. Seals will haul out on land in loosely organized groups. Hierarchies are based on size and sex with adult males dominant. The more dominant a seal the drier or warmer the spot of land they can claim.

### **Life Cycle**

Males are sexually mature at three to seven years and females at three to six years. During mating season, males will mate with several females. After a gestation of nine to 11 months (including a delayed implantation period of one to three months), females give birth to one pup on land, ice or in the water. The seal pup is large – 29-39 inches long (74-99 cm) weighing 18-26 pounds (8-12 kg). Pups are well developed at birth, their eyes are open and they are immediately able to swim with their mother. Seal milk is 45% fat so pups grow quickly, and they are weaned at four to six weeks when they weigh about 50 pounds (23 kg)

and are able to catch and eat crustaceans. Pup mortality is about 21% in the first year. Females mate again soon after the pups are weaned, and generally give birth to one pup each year. Harbor seals live 15-20 years in the wild and 25-30 years in captivity.

## **Adaptations**

### **Speedy Swimmers**

Harbor seals have a rounded and streamlined body with strong muscles that enable them to swim with speed and grace. In fact, harbor seals can swim up to 12 miles per hour (19 kph)! Instead of arms and legs, seals have flippers that look like wings. Their rear flippers are used to propel the seal through the water, while front flippers are used for steering. Unlike sea lions, seals cannot rotate their rear flippers forward to walk on land.

### **Underwater Adaptations**

Seals have large eyes adapted to enable them to see well in low light. They are able to see better than humans underwater but are slightly near-sighted on land. They have sensitive whiskers called "vibrissae" which help them detect and capture prey in murky water. They close their nostrils and ears to keep out water when swimming. They also have a higher metabolism than land mammals, which helps them keep warm by generating body heat. Harbor seals can slow their heart rate when diving and have more blood than a land mammal of the same size to conserve oxygen.

### **Blubber Is Best**

Seals have a thick layer of blubber under their skin that helps keep them warm in cold ocean water. Blubber also helps streamline their body and provides buoyancy enabling them to float in the water. The blubber also provides an energy source when food is scarce, during periods of fasting and when females are feeding the young.

## **Conservation Connection**

*IUCN Status: Lower Risk Least Concern.*

In US waters, seals are protected by the Marine Mammal Protection Act of 1972. They are threatened by pollution, competition with the fishing industry, oil spills and disease.

## **Fun Facts**

- Harbor seals can leap completely out of the water – a maneuver called "porpoising".
- Adult males are called bulls, adult females are cows and babies are called pups.
- On land, seals can't use their rear flippers like feet so they inch along with a sort of caterpillar-like motion.
- The Latin name, *Phoca vitulina*, means calf-like seal.