

## Orcas (Killer Whales) <sup>[1]</sup>

Submitted by Dwight Owens Sun, 2013-12-01 10:37

Orcas, also known as killer whales or blackfish, are the largest species of dolphin, growing to a maximum of 9.8 m long and 10,000 kg. They can swim at a maximum speed of 48 kilometres per hour and travel 120-160 km per day. They are a cosmopolitan species, living in all oceans of the world. Orcas are highly social creatures. They are one of few species that are known to exhibit culture, and one of fewer still with different cultural groups inhabiting the same geographic area without interacting with one another. Cultural groups of orcas differ in vocal dialect, social organization, behaviour, prey and hunting tactics. Some groups have not interbred with others for hundreds of thousands of years, and may actually be different species. There are several described *ecotypes* of orcas, which differ both in culture and in physical morphology. There are three ecotypes and four cultural groups of orcas in the northeast Pacific Ocean.

### Resident Orcas

Resident orcas are the most studied group of orcas in the northeast Pacific Ocean, because they return yearly to the same summer and fall feeding grounds. They are strongly matrilineal, and have the most stable social organization of any known animal. They remain with their mothers throughout their lives. They eat chinook salmon almost exclusively, though their diet may include other salmonids, rockfish and Pacific herring to a lesser extent. They depend on echolocation to find their food, and have been known to share their catches with each other. They can be differentiated from the other two ecotypes in this geographic area by their falcate, rounded dorsal fins and variation in ?openness? of their saddle patches. They typically have fewer scars than the other ecotypes. Male resident orcas average 8.2 m long and 4,082 kg. Females average 7.3 m long and 3,175 kg.

There are two separate populations of the northeast Pacific Ocean. The Northern Resident population is the larger of the two, and includes three different acoustic clans. They range from Southern Vancouver Island to Alaska, and are often seen in Johnstone Strait during the summer and fall. The smaller population, the Southern Residents, consists of only one acoustic clan, and is considered endangered. They spend much of the summer near and around San Juan Island, though their full range extends South to California and North to Haida Gwaii.

# Bigg's Orcas

Previously known as *transient* orcas, the Bigg's orcas have been renamed in honour of Dr. Michael Bigg, who was one of the first to research wild orcas and established modern photo-identification techniques. They are slightly larger than Resident orcas. Bigg's orcas eat marine mammals, and their diet can include seals, sea lions, porpoises, dolphins, minke whales, and the calves of larger baleen whales. Bigg's orcas must be careful not to alert their prey to their presence, and so they travel in smaller groups of 1-7, rarely vocalize (except during or after a hunt), and their swimming patterns are often erratic. They rarely use echolocation, although they sometimes emit single clicks, called *cryptic clicks*. Their social patterns are somewhat fluid. Some Bigg's orcas remain with their mothers, while others leave their birth pods and may spend much of their time alone or temporarily join other pods. Bigg's orcas range all along the west coast of North America. Some groups may travel vast distances while others remain in home ranges. They can be distinguished from the other ecotypes within this range by their pointed, triangular dorsal fins which may have several nicks, and their closed saddle patches which may be more heavily scarred than those of residents.

# Offshore Orcas

Offshore orcas are the least known of the three orca ecotypes in the northeast Pacific Ocean. They range from California to Alaska and are typically seen 15 km or more offshore, though they are occasionally seen closer to shore. They are the smallest of the northeast Pacific orca ecotypes and travel in the largest groups. Little is known about their social structure. They are usually seen in groups of 30 to 70 individuals.

Offshore orcas are physically very similar to residents, and may also feed primarily on fish. However, their severely worn teeth and large number of nicks and scars suggest that their fish of choice may be sharks. They are known to eat Pacific sleeper sharks and other large oceanic fish.

Call Type(s)	Call Description(s)	Frequency Ranges	Source Levels (dB with reference to 1 micropascal)
Communication	Whistles, pulsed calls	0.3kHz to 18.5kHz	133 to 174
Echolocation	Clicks	4kHz to 50kHz (typically <18kHz)	200 to 225

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document.getElementById("breadcrumb"); if (ONC_breadcrumb) { var ONC_innerHTML =  
ONC_breadcrumb.innerHTML; ONC_innerHTML = ONC_innerHTML.replace("&", "&");  
ONC_breadcrumb.innerHTML = ONC_innerHTML; }
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document.getElementById("copyright-date").innerHTML = year; })();
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