

Orca fact sheet

background/information



What is an orca?

Orcas, or killer whales, are the largest member of the dolphin family. They are a top predator in all the oceans of the world. Orcas (*Orcinus orca*) are well known for their strong family ties and often live together in family groups called pods. They are noted for their strength, beauty and intelligence.

Orca facts

The large fin on an orca's back makes it easy to spot them. Adult male orcas may be 30 feet long and have a dorsal fin up to 6 feet tall. Female orcas reach a length of 25 feet and have smaller dorsal fins. Orcas weigh from 8,000-16,000 pounds. Orcas can live long lives. Females sometimes live up to 90 years and males may live to be 60 years old. Orcas can swim 30 mph briefly and dive to 1,000 feet.

Puget Sound orca families

Seattle is the world's only major metropolitan area with a resident population of orcas. Three orca families called J, K and L pods swim regularly in our local waters. They are known as the Southern Resident killer whales (SRKW's). Each family or pod is led by older female whales. The orcas in the resident pods stay together all of their lives. Males mate with females in other pods but then return to live with their mother and other family members. SRKW families are also unusual in that they feed primarily on salmon.

Other Northwest orcas live north of Puget Sound. Several pods of over 200 whales are resident in British Columbia waters. These northern pods and our local resident pods don't intermingle.

Female orcas give birth to a single baby at a time. These orca mothers spend much of their time teaching their baby how to hunt for food. Other whales in the pod sometimes "babysit" so mom can have a break. Orphaned whales may be adopted by other adults in the group who then raise them to adulthood.

Who is that orca?

Each orca has a light-colored saddle patch on their backs next to the base of their dorsal fin. The saddle patch, like a human fingerprint, is unique in each animal. The dorsal fin of each whale is also unique. By carefully photographing and studying the dorsal fin and saddle patch of each SRKW, scientists have been able to identify and name all of our resident orca whales. Every animal in each pod is assigned a letter and number as well as a common name. For instance, J-28 is "Polaris". She is a member of J pod and the mother of J-46 who is known as "Star".

Orca speak

Sound is very important to orcas. If you traveled with orcas, you would soon discover it's not quiet under Puget Sound. Much of the sound underwater comes from boats traveling above. Noisy environments are thought to be harmful to whales as they may interrupt whale communication.

Orcas use two forms of sounds: echolocation (a type of sonar) and vocalizations used for communication. They use echolocation sounds to hunt for food. Sound waves produced by the whales travel through the water, strike an object and bounce back to the whale that then uses these echos to home in on food or navigate. Orcas also make communication calls that can travel long distances through water and help keep pods together when they are traveling or hunting. Each pod uses unique calls and also shares calls with related groups.



What do orcas do?

Orcas do many of the same things people do: they learn, play, look for food and protect their families. While watching orcas you may see them do amazing things.



Breach:

Orcas leap out of the water and crash back down. They are probably playing and letting other whales know “I’m here”.



Spyhop:

Orcas come up for a look around by poking their heads vertically out of the water.



Tail lobe:

Slapping their huge tails (flukes) on the water may be one way they communicate.

The great hunters

If you were a SRKW you would eat your favorite food—chinook salmon. You’d need about 200 pounds of salmon every day. As of the summer of 2016 there were 83 whales in the SRKW community (J, K and L pods). That means they need about 16,600 pounds of salmon per day. Resident orcas live and travel in our local waters because salmon have always been abundant in this region. Both orcas and people depend on having salmon to eat but today salmon populations in Puget Sound are only 10% of historic numbers.

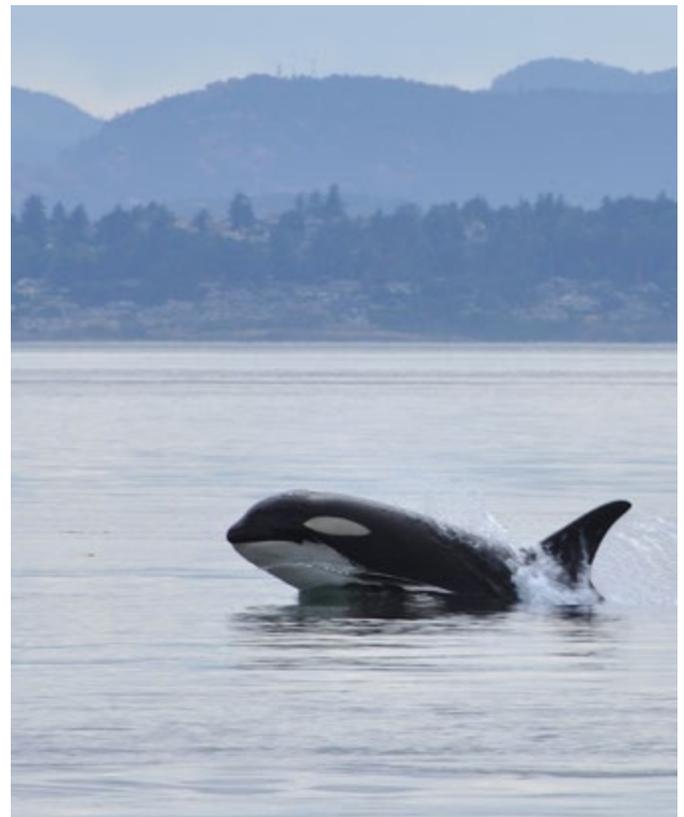
Unlike the SRKW, the “transient” orcas who visit Puget Sound stalk and eat seals, porpoises, even whales larger than themselves. This feeding behavior earned orcas the nick name “killer whale”. Although orcas are the ocean’s top predator, there are no recorded attacks on humans by orcas in the wild.

Are our orcas healthy?

Orcas have the sad distinction of carrying the highest levels of toxins stored in their bodies of any animals in the world. Like humans, orcas are on the top of their food chain. That means they have no predators but it also causes some problems. Salmon, the resident orcas’ favorite food, eat thousands of krill to survive. If each tiny krill is contaminated with a toxin, the salmon store (bioaccumulate) large quantities of toxins in their bodies. Next in the food chain are the orcas who may eat hundreds of salmon each week. Mammal eating orcas eat even higher on the food chain. Toxic chemical compounds end up stored in the whale’s blubber. The fatty milk of mother whales transfers the toxins to their nursing calves.

What’s next for our endangered orcas?

Human influences on the ocean ecosystem affect whales everywhere. Local orcas, The Southern Resident Killer Whales (SRKW’s), were listed as endangered in 2005. The Center for Biological Diversity has analyzed our local resident orca population. They say “if current population trends continue, the SRKW population will go extinct within 100 years, possibly as soon as 30 years. Even if the birth and death rates are averaged out over the past several decades, the orcas’ risk of extinction is greater than 50% in the next 100 years and 99% in the next 200 years. Just one or two oil spills, strandings or disease outbreaks per century dramatically increased the risk of extinction.”



You can help orcas

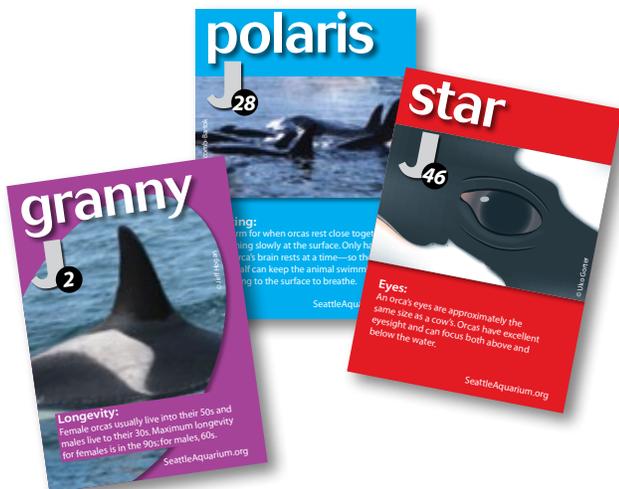
People and whales both need a clean, safe environment in order to survive and thrive in the Puget Sound region. Our resident whales need an abundant supply of healthy salmon and so do humans. Keeping toxic chemicals out of Puget Sound and preventing oil spills helps keep the food supply safe for orcas and people. We must respect our whales and their environment because it is our environment, too. As powerful and strong as they are, their fate is in our hands.

How we can help Puget Sound orcas:

- Protect and help restore salmon habitat.
- Practice natural yard care at home and at school.
- When whale watching in your own boat follow federal whalewatch guidelines. Stay well away from whales and never cross their travel paths. Encourage commercial operators to do the same.
- Help friends and neighbors learn and care about our marine environment by sharing your knowledge with them.
- For more information visit bewhalewise.org.

Orca trading cards

Orca trading cards are great learning tools and collector items for your students. Each card has an individual orca photo, name and story. They are available at the Puget Sound Orcas: Family Activity Center for students participating in the Center activities and in the gift shop. Cards provided with support from the Seattle Aquarium Society, National Oceanic and Atmospheric Administration (NOAA), and the Center for Whale Research.



Orca study resource list

Books for adults

Orcas in Our Midst, Howard Garrett, 2005.

Contact info@orcaneetwork.org for copies.

(Focuses on local orcas; highly recommended)

Killer Whales: The Natural History and Genealogy of Orcinus Orca in British Columbia and Washington State, John K. B. Ford, Graeme M. Ellis, Kenneth C. Balcomb, University of Washington Press, 2000 (Second edition)

Orca: Visions of the Killer Whale, Peter Knudtson, Greystone Books, 1996

Orca: The Whale called Killer, Erich Hoyt, Camden House, 1990

Story Books

Stormboy, Paul Owen Lewis, Tricycle Press, 1995

Springer's Journey, Naomi Black, San Juan Publishing, 2006

Granny's Clan, Sally Hodson, Dawn Publications, 2012

Online Resources

Orca Network: orcaneetwork.org

Center for Whale Research: whaleresearch.com

Whale Museum: whalemuseum.org

OrcaLab: orcalab.org

Center for Biological Diversity:

[biologicaldiversity.org/species/mammals/
Puget_Sound_killer_whale/](http://biologicaldiversity.org/species/mammals/Puget_Sound_killer_whale/)

NOAA Fisheries:

[nmfs.noaa.gov/pr/species/mammals/whales/
killer-whale.html](http://nmfs.noaa.gov/pr/species/mammals/whales/killer-whale.html)



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