

# ORCA (*Orcinus orca*)

## A FIELD GUIDE TO KILLER WHALE WATCHING IN SOUTHERN BC AND WASHINGTON Understanding behaviors and individual identification of J Clan members for safe and respectful viewing.



**Head Viewing**

The head is raised out of the water exposing up to 2/3 of the body. They are viewing the area. Also called “spyhopping” this occurs more often during socializing or after rest. Two orcas may rub their heads.



**Socializing**

This includes most behaviours and sexual activities for about 15% of their lives. At the surface they will chase, roll, thrash and lift each other. Play includes rubbing oneself with help for tactile stimulation.



**Breach**

At speeds of up to 35 km/h orcas break the water surface, exposing 2/3 or more of their massive body. Re-entries can be a belly-flop or side flop. Breaching may occur during play, foraging or when disturbed.



**Speed Swim**

When travelling or trying to escape from danger or human harassment orcas can obtain speeds of up to 35 km/h. Evasive tactics include change of direction and rapid swim at the surface.



**Blow**

A mist of water droplets is produced above the orca's blow-hole during exhalation. Resident orca typically breathe 3–4 times then dive for 3–4 minutes. Transient orcas dive times last 5-10 minutes.



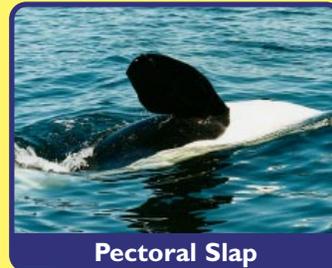
**Resting**

Orcas spend about 13% of their time resting in tight groups or a line in proximity to relatives with a mother and her newborn often resting in physical contact. Breathing follows a stereotypical pattern. They have 2–3 minute surfacings and 3–5 minute dives while moving 1.8 – 3.7 km/h or less during less than one hour to more than seven hour periods. While resting, orcas are more susceptible to disturbance than at other times.



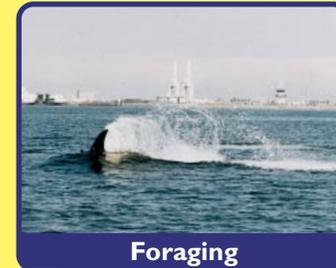
**Travelling**

Orcas travel either close to each other or spread out over several kilometers. They generally cruise at speeds of 7.5 – 11 km/h or more and travel up to 160 kms per day. During travel some may breach or tail slap. At “hot spots”, such as riptides, activity may increase. Care-giving behaviour may occur to support one who is injured or is giving birth.



**Pectoral Slap**

Orcas lay on their sides at the surface and slap their pectoral flippers on the water. The pectoral slap may be forceful or playful depending on the mood and the individual. A pectoral slap is done during resting, socializing or when disturbed. It may also help herd fish. The pectoral fins of males are much longer and broader.



**Foraging**

Residents may spend 65% of the time feeding in small groups of 1–3 individuals. Groups can be spread out over several kilometers, travelling at 3.7 – 5.5 km/h and vocalizing frequently. Transients generally hunt in small groups, but may congregate to attack larger prey. Transients rarely vocalize during the hunt. Orca can eat 4% of their weight per day.



**Tail Slap**

Forceful slaps of the tail fluke on the water surface occur during socializing, after resting or when agitated. A tail slap can sound like a gunshot. Slapping can be playful and this lobtailing behavior may be used to herd prey. North Atlantic orcas have been filmed using their tail flukes to stun herring after herding them. Tail flukes of males are usually bent downwards while females and juveniles are straight.

**Report Sightings, Strandings and Harassment to:**  
**Whale and Dolphin Hotline (604) 649-5258**  
**Lifeforce Standing by on VHF 16 & CB 3**  
**Report Guideline Violations and Strandings to:**  
**Department of Fisheries and Oceans (BC) 1-800-465-4336**  
**National Marine Fisheries Service (WA) 1-800-853-1964**

# The Southern Community - J Pod, K Pod and L Pod

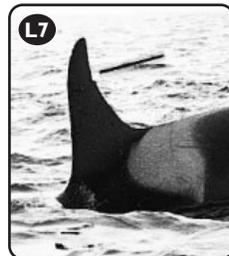
**LIFE FACTS:** Orcas are members of the dolphin family. They possess all human senses except smell. The J Clan is called the Southern Community. The three pods are “resident” who primarily eat fish while “transients” eat marine mammals. There are also “Offshore” orcas which are poorly understood. **NATURAL LIVES:** They live in a complex matriarchal social structure. Residents remain with their family pods for their entire lives. Large congregations of orcas will gather in what is called a “greeting ceremony”. They have no natural enemies except man. **BIRTH AND NUTRITION:** Orcas are about 2.5 metres at birth and weigh approximately 200 kilograms after a 15 to 17 month gestation period. Births usually occur from October to March. They are born tail first and are reddish brown. Nursing lasts from six months to three years. The mothers’ fat rich milk is emitted – they do not suckle. **LIFE EVENTS:** Males begin to mature at 12 to 14 years. Males gain full physical maturity at 20 years. They attain lengths up to 9 metres and weight up to 8200 kg. Males’ average lifespan is about 29 years but they can live up to at least 50 years. Females first give birth at 14 to 15 years of age and can have four to six babies over the next 25 years. Mature females average about 7 metres in length and can weigh up to 5500 kg. The average lifespan is 50 years but some live over 80 years. **COMMUNICATION:** They communicate through a complex system of clicks, whistles and other sounds. They have dialects which are pod specific. They also use sonar to echolocate during foraging and other activities. They hear by receiving sounds through their jawbone to their middle and inner ears. **POPULATION:** As of July 1998 there were only 89 animals in the Southern Community. There was a loss of 12 within two years. The normal sex and age structure was altered by aquarium captures in the 60s and early 70s and it will take many decades to recover. Threats include dwindling food, pollution, noise, climactic changes, boat collisions and human disturbances.

## IDENTIFICATION BY BEHAVIOUR (Behaviours of individuals which may not be life long patterns.)



**PORPOISING:** This is seen with smaller dolphins and porpoises when they ride the wake from a boat. Some orcas may porpoise through the air in single or repeated leaps. **BACK FLOP:** A juvenile does a back flop. Some individuals will travel on one side. **HEAD SLAP:** While travelling the head is lifted entirely out of the water and slapped on the water surface. **BREACH CYCLE:** Individuals in some pods will repeatedly breach up to three times (see front Breach). **HEIGHTEN BEHAVIOUR:** Some appear to accent certain behaviours such as a tail fluke slap. Shown is **J2 (Granny)** born est. 1911. **PAIR SWIM:** Orcas with similar saddle patches. Shown are **L43 (Jelly Roll)** born est. 1972 with daughter **L72 (Racer)** born in 1986.

## IDENTIFICATION BY MARKINGS (Identification by the unique size, shape and injuries of the dorsal fin and saddle patch.)



**J1 (Ruffles):** This male was born in est. 1951. The rear edge of dorsal fins of older males are often wavy. **K7 (Lummi):** Born in est. 1910 she has two nicks on the rear edge of her dorsal fin with an “open” saddle patch. **K40 (Raggedy):** Born in est. 1963 she has a ragged rear edge. **L7 (Canuck):** Born in 1961 she has one notch and a “closed” saddle patch. **L57 (Faith):** Born in 1977 he has a dorsal fin which has a sharp top. **Young orcas** may have poorly defined saddle patches. This orca has blotch marks and these types of skin markings are usually not permanent.

## RESPECT WILDLIFE - DO NOT ATTEMPT TO TOUCH, FEED OR SWIM WITH WILDLIFE

Let Them Be! Stay at least 100 meters away, Use binnoculars and Get a copy of the Marine Mammal Protection Regulations

Please Report All Sightings to Lifeforce

Join the Lifeforce Foundation:

Box 3117, Vancouver, BC , V6B 3X6 or Box 121, Pt. Roberts, WA 98281-0121. Phone 604-649-5258.

## HOME TERRITORY



Sightings of J Pod are reported year round while K Pod and L Pod usually return in June and stay through to October. It is not known where they reside in the winter. Activities during darkness and winter may be similar but are not known. The map depicts locations of sightings.