

# ruffles

J  
1

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## **Paternity:**

Using genetics, scientists can identify which male is the father of a calf. During his long life, J1 successfully fathered many calves.

SeattleAquarium.org

# ruffles

J  
1



© whaleresearch.com

J1's unique dorsal fin + saddle patch

Sex/birth year: Male/~1951–2010

Family tie: Son of L45, father of J14, J22, J27, J28, J32, J33, J39, J41, J46, K14, K27, K37, K43, L103, L108, L109, brother to L57.

**Help our endangered orcas!**

All the southern resident orcas are counted each year, so researchers know when a whale is missing and/or has died.



SEATTLE AQUARIUM

(L45) asterix's matriline

# granny

# J

2

© Jeff Hogan

## Longevity:

Killer whales live a long time. Males can survive into their 50s, and females can live even longer. J2 may have been in her 80s when she passed.

SeattleAquarium.org

# granny

J  
2



© whaleresearch.com

J2's unique dorsal fin + saddle patch

Sex/birth year: Female / ~1930s–2017

Family tie: Possible great-grandmother of J37, J40, J45; possible great-great-grandmother of J49.

**Help our endangered orcas!**

Females are the heads of the family and may play an important role in passing down information to family members.



SEATTLE AQUARIUM

(J2) granny's matriline

# slick

# J

16

© Jeff Hogan



## At birth:

After 17-18 months gestation, orca calves arrive tail first and are usually around 400 pounds in weight and 7 to 8 feet in length. Their mothers help them to the surface to take their first breaths.

# slick

J  
16



© whaleresearch.com

J16's unique dorsal fin + saddle patch

Sex/birth year: Female /~1972

Family tie: Mother of J26, J33, J36,  
J42, J48 and J50.

## Help our endangered orcas!

Researchers use drones to take aerial photos of killer whales to understand if they are healthy or skinny, and to see if female whales are pregnant.



SEATTLE AQUARIUM

(J16) slick's matriline

# princess angeline

J  
17

© Jeff Hogan

## Beneath the surface:

Where there are orcas, there are salmon. Adult resident orcas need to eat 3–4% of their body weight each day, so they follow their food source.

SeattleAquarium.org

# princess angeline

J  
17



© whaleresearch.com

J17's unique dorsal fin + saddle patch

Sex/birth year: Female / 1977

Family tie: Mother of J28, J35, J44 and J53,  
grandmother of J46 and J47.

**Help our endangered orcas!**

Save water for salmon by taking shorter  
showers or not filling the bath quite  
so full.



SEATTLE AQUARIUM

(J5) saratoga's matriline



# shachi

J  
19



© whaleresearch.com

## Mom and baby:

In resident whale groups like J pod, babies stay with their mothers for life.

SeattleAquarium.org

# shachi

J  
19



© whaleresearch.com

J19's unique dorsal fin + saddle patch

Sex/birth year: Female / 1979

Family tie: Daughter of J4, mother of J41, grandmother of J51, sister to J11, J15 and J21.

**Help our endangered orcas!**

Cool the planet: Ask your parents to turn off the car when they're idling the engine for more than 30 seconds.



SEATTLE AQUARIUM

(J4) mama's matriline

# oreo

# J

22

© Jeff Hogan

## Identification:

Unique saddle patches and fin shapes help researchers identify each orca.

Go to [whaleresearch.com](http://whaleresearch.com) to learn more.

[SeattleAquarium.org](http://SeattleAquarium.org)

# oreo

# J 22



© whaleresearch.com

J22's unique dorsal fin + saddle patch

Sex/birth year: Female /1985

Family tie: Daughter of J10 and J1,  
mother of J34 and J38, aunt of J32.

**Help our endangered orcas!**

Much of the rain that falls on and around  
your house eventually drains to the sea.  
Build a rain garden and try not to use  
toxic chemicals or pesticides in your yard.



SEATTLE AQUARIUM

(J10) tahoma's matriline

# mike

J  
26

© whaleresearch.com

## **Similar to elephants:**

Orcas are long lived, family oriented, and led by dominant females.

Both species are intelligent and communicate with sound.

SeattleAquarium.org

# mike

# J 26



© whaleresearch.com

J26's unique dorsal fin + saddle patch

Sex/birth year: Male /1991

Family tie: Son of J16, father of J42, brother to J33, J36, J42, J48 and J50.

**Help our endangered orcas!**

Be Whale Wise: Watch whales and other marine life responsibly. For boat and kayak guidelines, go to [bewhalewise.org](http://bewhalewise.org).



SEATTLE AQUARIUM

(J16) slick's matriline

# blackberry

J  
27



© whaleresearch.com

## Saddle patch:

The gray spot behind the orca's dorsal fin. Saddle patches are unique to each whale and can be used to identify individual animals.

# blackberry

J  
27



© whaleresearch.com

J27's unique dorsal fin + saddle patch

Sex/birth year: Male /1991

Family tie: Son of J1 and J11, brother to J31 and J39.

**Help our endangered orcas!**

Ask your parents or school about composting (recycling food waste), which keeps waste out of the landfill and creates new soil!



SEATTLE AQUARIUM

(J11) blossom's matriline



# tsuchi

# J

31



© whaleresearch.com

## Brain:

Orca brains are four to five times larger than human brains. They are among the largest brains in the animal kingdom.

[SeattleAquarium.org](http://SeattleAquarium.org)

# tsuchi

J  
31



© whaleresearch.com

J31's unique dorsal fin + saddle patch

Sex/birth year: Female / 1995

Family tie: Daughter of J11, sister to J27 and J39.

**Help our endangered orcas!**

Choose one day a week to eat meat-free meals. Raising animals for food takes more energy than growing grains, fruits and vegetables.



SEATTLE AQUARIUM

(J11) blossom's matriline

# tahlequah

J  
35

© whaleresearch.com



## Pod:

An extended family of orca mothers and their offspring, usually consisting of five to 50 whales.

Pods are given letter names to help scientists identify and track them.

SeattleAquarium.org

# tahlequah

J  
35



© whaleresearch.com

J35's unique dorsal fin + saddle patch

Sex/birth year: Female / 1998

Family tie: Daughter of J17 and L41,  
mother of J47, sister to J28, J44 and J53.

## Help our endangered orcas!

Get involved with the American Cetacean Society, which works to protect whales and their habitats. Visit [acspugetsound.org](http://acspugetsound.org) for information.



SEATTLE AQUARIUM

(J5) saratoga's matriline

# alki

# J

36



© whaleresearch.com

## Toothed whales:

Whales have either teeth or baleen in their mouths. Toothed whales, including dolphins and porpoises, use echolocation to hunt their prey.

SeattleAquarium.org

# alki

# J 36



© whaleresearch.com

J36's unique dorsal fin + saddle patch

Sex/birth year: Female / 1999

Family tie: Daughter of J16 and L41, mother of J52, sister to J26, J33, J42, J48 and J50.

## Help our endangered orcas!

Help restore salmon habitat in your watershed. Visit [whalescout.org](http://whalescout.org) to learn about volunteer opportunities and events.



SEATTLE AQUARIUM

(J16) slick's matriline

# hy'shqa

J

37



© whaleresearch.com

## **Dolphin:**

Orcas are the largest species of dolphin. Dolphins are usually larger and more slender than porpoises and have cone-shaped teeth; porpoise teeth are spade-shaped.

SeattleAquarium.org

# hy'shqa

J  
37



© whaleresearch.com

J37's unique dorsal fin + saddle patch

Sex/birth year: Female / 2001

Family tie: Daughter of J14 and L41,  
mother of J49, sister to J23, J30, J40, J43  
and J45.

**Help our endangered orcas!**

Don't flush your kitty litter: Cats carry  
diseases that can sicken marine life.



SEATTLE AQUARIUM

(J12) sissy's matriline



# cookie

J  
38



© Jeff Hogan

## **Matriline:**

The term for a dominant female and her close relatives. Matrilines stick together within their pods. Oreo's matriline includes kids DoubleStuf and Cookie and niece Rhapsody.

[SeattleAquarium.org](http://SeattleAquarium.org)

# cookie

J  
38



© whaleresearch.com

J38's unique dorsal fin + saddle patch

Sex/birth year: Male / 2003

Family tie: Son of J22, brother to J34.

**Help our endangered orcas!**

Invite Killer Whale Tales to your school—  
they can teach you about orcas and how  
to help them. Visit [killerwhaletales.org](http://killerwhaletales.org).



SEATTLE AQUARIUM

(J10) tahoma's matriline

# mako

J  
39



© Jeff Hogan

## Size:

Orcas are the largest members of the dolphin family. On average, females are 20' long; males, 25' long.

[SeattleAquarium.org](http://SeattleAquarium.org)

# mako

J  
39



© whaleresearch.com

J39's unique dorsal fin + saddle patch

Sex/birth year: Male / 2003

Family tie: Son of J11 and J1, brother to J25, J27 and J31.

**Help our endangered orcas!**

Strive to waste less. Use up every last bit of shampoo, toothpaste and other items before recycling the containers.



SEATTLE AQUARIUM

(J11) blossom's matriline

# suttles

© whaleresearch.com

J  
40

## Countershading:

Orcas' black and white color may help them hunt. From above, their black backs blend in with the water; from below, their white stomachs blend with the light shining on the water's surface.

SeattleAquarium.org

# suttles

J  
40



© whaleresearch.com

J40's unique dorsal fin + saddle patch

Sex/birth year: Female / 2004

Family tie: Daughter of J14 and L41, sister to J23, J30, J37, J43 and J45, aunt of J49.

**Help our endangered orcas!**

To report harassment of marine mammals, call the NOAA Fisheries hotline: (800) 853-1964. To report stranded animals, call (866) 767-6114.



SEATTLE AQUARIUM

(J12) sissy's matriline

# eclipse

J 41

## **Tactile:**

Orcas enjoy touching and rubbing each other and draping kelp over their bodies.

© whaleresearch.com

SeattleAquarium.org

# eclipse

J  
41



© whaleresearch.com

J41's unique dorsal fin + saddle patch

Sex/birth year: Female / 2005

Family tie: Daughter of J19 and J1,  
mother of J51, sister to J29.

**Help our endangered orcas!**

Enjoy the beach but pick up only trash.  
Leave sea creatures and shells in their  
homes where they belong!



SEATTLE AQUARIUM

(J4) mama's matriline



# echo

J  
42



© Uko Gorter

## **Naming:**

When baby whales survive one year, they are named by The Whale Museum.

[SeattleAquarium.org](http://SeattleAquarium.org)



© whaleresearch.com

J42's unique dorsal fin + saddle patch

Sex/birth year: Female / 2007

Family tie: Daughter of J16 and J26, sister to J26, J33, J36, J48 and J50.

## Help our endangered orcas!

The Whale Museum's Soundwatch boater education program teaches boaters and kayakers how to boat safely and legally around orcas and other wildlife.



SEATTLE AQUARIUM

(J16) slick's matriline

# moby

J  
44



## Hearing:

Orcas' most important sense is hearing — they listen to navigate and find food. Orcas need to be kept safe from loud noises, and boats must stay at least 200 yards away.

SeattleAquarium.org

# moby

# J 44



© whaleresearch.com

J44's unique dorsal fin + saddle patch

Sex/birth year: Male / 2009

Family tie: Son of J17 and L41, uncle of J47, brother to J28, J35 and J53.

**Help our endangered orcas!**

Join us! Become a teen or adult volunteer. Visit [SeattleAquarium.org/volunteer](http://SeattleAquarium.org/volunteer) to find out how.



SEATTLE AQUARIUM

(J5) saratoga's matriline

# se-yi'-chn

J  
45



© whaleresearch.com

## Blubber:

Orcas use blubber as insulation to keep themselves warm. Contaminants are easily stored in fat, which is why marine mammals can be loaded with toxins.

SeattleAquarium.org

# se-yi'-chn

# J 45



© whaleresearch.com

J45's unique dorsal fin + saddle patch

Sex/birth year: Male / 2009

Family tie: Son of J14 and L41, uncle of J49,  
brother to J23, J30, J37, J40 and J43.

**Help our endangered orcas!**

Ask your family and school to buy  
recycled products when available.



SEATTLE AQUARIUM

(J12) sissy's matriline

# star



## Eyes:

An orca's eyes are approximately the same size as a cow's. Orcas have excellent eyesight and can focus both above and below the water.

# star

# J 46



© whaleresearch.com

J46's unique dorsal fin + saddle patch

Sex/birth year: Female / 2009

Family tie: Daughter of J28 and J1,  
granddaughter of J17, cousin to J47.

**Help our endangered orcas!**

Paper or plastic? Neither! Bring a  
reusable bag or a backpack with you  
when shopping.



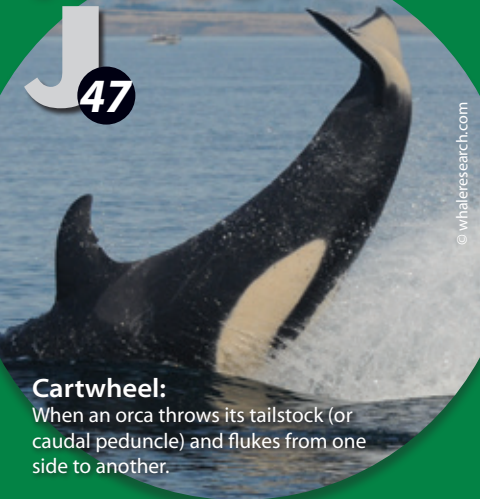
SEATTLE AQUARIUM

(J5) saratoga's matriline



# notch

J  
47



© whaleresearch.com

## **Cartwheel:**

When an orca throws its tailstock (or caudal peduncle) and flukes from one side to another.

# notch

# J 47



© whaleresearch.com

J47's unique dorsal fin + saddle patch

Sex/birth year: Male /2010

Family tie: Son of J35, grandson of J17,  
nephew of J28, J35, J44 and J53.

**Help our endangered orcas!**

Try to buy products with less packaging.  
Less packaging = less wasted energy  
and materials.



SEATTLE AQUARIUM

(J5) saratoga's matriline

# t'ilem J i'nges

49



© whaleresearch.com

## **Rivers:**

Northwest rivers are critical salmon habitats, and salmon are essential for orcas. Dams make energy, but they also make it difficult for salmon to reproduce.

SeattleAquarium.org

# t'ilem i'nges J

49



© whaleresearch.com

J49's unique dorsal fin + saddle patch

Sex/birth year: Male /2012

Family tie: Son of J37 and L79, nephew of J40 and J45.

**Help our endangered orcas!**

Organic food is grown with fewer pesticides, which means less pesticide ends up in the sea. Try to eat something organic this week.



SEATTLE AQUARIUM

(J12) sissy's matriline

# scarlet

J  
50



© whaleresearch.com

## Spyhopping:

The term for when an orca pokes its head above the surface to survey its surroundings. Whales often spyhop in unison when different pods come together.

SeattleAquarium.org

# scarlet

J  
50



© NOAA

J50's unique dorsal fin + saddle patch

Sex/birth year: Female/2014-2018

Family tie: Daughter of J16, sister to J26, J33, J36, J42 and J48.

**Help our endangered orcas!**

Look from a distance, but don't touch or feed wildlife. Stay at least 200 yards away from orcas and 100 yards from other marine mammals.



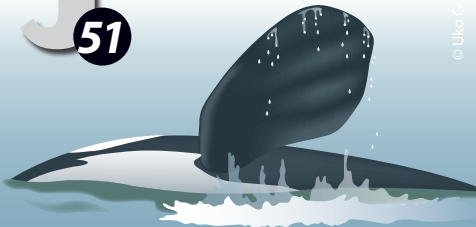
SEATTLE AQUARIUM

(J16) slick's matriline

# nova

J  
51

© Uko Gorter



## **Pectoral fins:**

Orcas use these fins to turn and brake during swimming; slap the water's surface for possible communication or prey herding; and, perhaps, play. Male orcas have much larger pectoral fins than females.

[SeattleAquarium.org](http://SeattleAquarium.org)

# nova

# J 51



© whaleresearch.com

J51's unique dorsal fin + saddle patch

Sex/birth year: Male / 2015

Family tie: Son of J41, grandson of J19.

**Help our endangered orcas!**

Reduce your use of plastics that can end up in the ocean. Choose a reusable water bottle or bag instead.



SEATTLE AQUARIUM

(J4) mama's matriline



# kiki

# J

53



© whaleresearch.com

## Play:

Young and old, whales play together quite often. Their games include breaching and an orca version of follow-the-leader.

SeattleAquarium.org

# kiki

# J 53



© whaleresearch.com

J53's unique dorsal fin + saddle patch

Sex/birth year: Female / 2015

Family tie: Daughter of J17 and L41,  
sister to J28, J35 and J44.

**Help our endangered orcas!**

Help reduce marine debris. Say "no  
thanks" to plastic straws and join a  
beach cleanup in your community.



SEATTLE AQUARIUM

(J5) saratoga's matriline