Summary of orca Sightings

We have completed five years of orca observations, skipping the entire 2020 season and with an abbreviated and much smaller 2021 season. These are "opportunistic" in that guides as they encounter the animals are encouraged to make notes on them and photograph the animals. This chart includes years with the raw data of observations made. It includes both resident and transient ecotypes.

	2021	2019	2018	2017	2016
Days seen	14	61	35	46	46
Chance of seeing	24%	40%	24%	32%	32%

Orca Ecotypes

Three ecotypes of orca can be found in Alaska waters, resident, transient (Biggs), and offshore. All three have been seen in the Juneau area, but the offshore is extraordinarily rare.

Transient (Biggs) orca

Three population 'stocks' of transient killer whales are recognized in Alaskan waters:

AT1 stock, which occurs from Prince William Sound west through the Kenai Fjords.

GOA/AI/BS stock (Gulf of Alaska, Aleutian Islands, and Bering Sea)

West Coast transients stock, which occurs between Southeast Alaska and California.

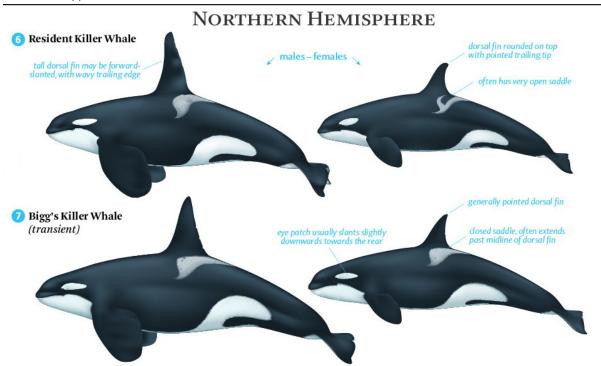
Resident orca

Eastern North Pacific Alaska Resident Stock

Offshore orca

offshore killer whales, which occur from California through Alaska

Orca Ecotype Determination



It seems wise to use several characters to make an ecotype determination.
Only these two are certain:

- If the saddle patch is open, it is a resident.
- If observed feeding and the prey is identified, fish-eating are resident and mammal-eating are transient.

Orca Encounters of 2021

Trip Code	Guide	Time (hh:mm)	Location	Photographs	Ecotype	# Males	# Females	# Juvenile	# undetermined sex	Total Number	Identified Individuals
20210727-A-OB	Ranger	17:00	FC	yes	R	1	3			4	
20210817-A-ZE	Ranger	14:45	FC	yes	Т	1	2	2		5	
20210817-B-OB	Hekkers	16:15	FC	yes	U					15	
20210905-A-ZE	Clough	09:00	FC	yes	U	1	2	1		4	?
20210912-A-EN	Walther	15:15	FC	yes	U			7		12	
20210912-B-RA	Holdener	16:00	FC	yes	U	4	12	6		22	
20210914-A-OB	Pahlke	14:30	FC	yes	U	1				1	
20210927-B-EN	Holdener	16:30	FC	yes	U	1	2	1		4	
20210805-C-RA	Ranger	13:30	NP	yes	Т	0	2	2		4	yes
20210813-A-EN	Clough	15:00	NP	no	U	1	2			3	
20210919-A-OB	Clough	15:30	PR	no	U	2	1			10	
20210731-A-OB	Ranger	09:15	SP	yes	Т		2			2	
20210807-P-ZE	Ranger	11:00	SP	yes	Т	3	1			4	
20210821-P-ZE	Ranger	10:15	SP	yes	Т		4			4	yes
20210901-A-ZE	Eberhardt	08:00	SP	yes	U	1				1	?
20210906-B-RA	Gutleben	16:45	SP	yes	Т					12	
20210906-A-RA	Holdener	14:15	SS	no	U	3	4	1		9	

Unique Individual Orca of 2021

Using multiple catalogs, if a clear photo is made of the dorsal fin and saddle patch, an individual identification can be made. These are some of the individuals seen in 2021, some with multiple views. Most of these are Transients (T) and female (\mathcal{P}). Only two have been identified to individual.





Notable Orca Encounters of 2021

About 2:00 pm on August 5, Captain Jen Levy and Naturalist Scott Ranger came around the northern reef of Shelter Island and headed to the Lincoln Island side of North Pass. While looking for humpbacks, we spot several tall dorsal fins just south of us. A pod of four transients are moving rapidly from the Lincoln Island side of the pass into the center of the pass. Two are adult females and two are juveniles.

One of the females begins to do multiple tail slaps and breaches, swimming in circles. We suddenly spot the flippers of a Steller sea lion! The group is chasing the sea lion and perhaps teaching a younger orca the technique of hunting as we

never see a kill, just a continued corralling of the sea lion, primarily by the α female



While this commotion is going on, Flame (whale #1538) and her 2021 calf, Bolt, come swimming in from the north. Bolt swims (as if he's curious) directly toward the orca to which Flame responds by rapidly swimming in front of him, placing her between the orca and Bolt. The orca seem to pay no attention to the whales, but continue harassing the sea lion. Our 30 minute time limit comes and we must leave this amazing experience.

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