

BIGG'S KILLER WHALES OF CLAYOQUOT SOUND

A field guide

STRAWBERRY ISLE MARINE RESEARCH SOCIETY

BIGG'S KILLER WHALES OF CLAYOQUOT SOUND

A field guide

2016 Edition



FIRST CHOICE BOOKS

Victoria, Canada

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Jared Towers, John Ford, and the whole team
at the Pacific Biological Station



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Dr. Michael A. Bigg

1939-1990

Those of us who study wild killer whales today owe much to the pioneering and visionary work of the late Dr. Michael Bigg. In the early 1970s, Mike was faced with the challenge of determining the status of killer whales in coastal waters of the Pacific Northwest for the Canadian Department of Fisheries and Oceans -- at the time, almost nothing was known about the species, either in that area or elsewhere. Early in the study, Mike devised a novel field technique for studying the species--photographic identification of individuals using natural markings. This was a radical approach and some questioned whether it was even possible. While most agreed that some well-marked whales could be recognized and followed, it was Mike's discovery that *every* individual was identifiable with a high quality photo that made the difference. Mike proved beyond any doubt that photo-identification is the key to understanding the lives of killer whales, and it is now the standard tool used in field studies of killer whales globally.

For over 15 years, Mike documented in meticulous detail the demographics and dynamics of killer whales in coastal waters of the Pacific Northwest-- births and deaths, social associations of individuals and pods, and many other aspects of their natural history. What is most astounding is that the majority of this ground-breaking work was done in his spare time, as Mike's official research priorities were seals and sea lions (and his research on those species was impressive as well). Mike was driven by a passion to solve the mysteries of killer whale life history, and his enthusiasm was infectious. He loved to share in the excitement whenever new insights were gained, and he inspired and encouraged many students and research colleagues to undertake studies of their own to better understand this remarkable animal. Mike's office at the Pacific Biological Station on Vancouver Island became a mecca for students from around the world, who would come for advice about how to study these animals in the wild. Always free with his time and knowledge, Mike made sure that they headed off on the right path.

Of all the interesting facets of killer whale life history, Mike was particularly fascinated by the relationship between the "residents" and "transients". The notion that two different forms of killer whale could coexist in social and reproductive isolation, each with its own distinct diet and lifestyle to match, was without precedent and hard to explain. How could this situation have evolved and how was it maintained? Mike pondered such questions at length, discussing his ideas with colleagues and writing copious notes summarizing his thoughts. Sadly, Mike was never able to write up his studies on transient killer whales-- he died of leukemia in 1990, at the age of 51.

Over the two decades that have passed since Mike Bigg's death, much has been learned about killer whales in different parts of the world. It is now clear that distinct, ecologically specialized populations coexist in other regions as well, and may be typical of killer whales globally. How killer whale ecotypes might have developed and what they represent from an evolutionary perspective are hot topics in the current scientific literature on cetaceans. Central to the recent discussion on potential speciation of different killer whales lineages that share the same waters are ideas that Mike had been deliberating on over 25 years ago, as his unpublished notes from 1985 reveal: *"With a high degree of intelligence (i.e., flexible behaviour, not all instinctual) and long lives, differences in behaviour and morphology can develop within separate lineages that are sympatric. This is possible because the social isolation of each lineage [...] in killer whales appears to be so complete as to function in a manner equivalent to geographical isolation."*

The body of evidence that transient killer whales represent a distinct species from other killer whale lines is becoming compelling. Although it may take some time before this is resolved and a new species is formally proposed, there is a growing movement among killer whale researchers that transient killer whales be called "Bigg's Killer Whale;" this would indeed be a fitting way of honoring the memory of this remarkable pioneer of killer whales science.

Dr. John Ford,
Cetacean Research Program
Pacific Biological Station

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(Peter Schulze, 2013)

FOREWORD

There are some moments in life that serve to instill a deep connection with the natural environment that surrounds us. One such memorable moment for me was my first visit to Hesquiaht Harbour, at the northern end of Clayoquot Sound. I had just begun my new career as a fisheries biologist, working out of Tofino for the Nuu-chah-nulth Tribal Council (NTC). It was late March, and I'd spent most of the month in Barkley Sound stationed on a Coast Guard ship assigned to the [West Coast of Vancouver Island] herring fishery. It had been an intense few weeks of following the herring, meeting with government officials and commercial fishermen, listening and learning from Nuu-chah-nulth elders and fishermen, waiting to see when the fishery would open. When the herring were spotted in Clayoquot, the ship moved up and we steeled ourselves – full of anticipation – for the next days when the fishery would finally open.

In the midst of the frenzy, three of my colleagues came by in a Zodiac to pick me up for a run up to Hesquiaht Harbour to look for herring spawn. I zipped up my floater suit, climbed down the side of the ship on a rope ladder, and jumped aboard. Thirty minutes later we entered the harbour. What happened next will remain a crystal clear memory for the rest of my days. Mist and clouds hung over the mountains, obscuring all but the shoreline – it was almost impossible to differentiate the colour of the smooth water from the sky. Thousands of seabirds dotted the surface of the water. I peered into the mist and nearly jumped out of my skin when a grey whale slowly surfaced and exhaled a whoosh of air and water. We immediately stopped, cut the engine, and drifted towards the shore, out of the way. Almost thirty grey whales were feeding on the herring spawn that had been deposited in the shallow harbour the night before, and we spent the next hour drifting silently, watching and listening in amazement as these massive creatures lazily scooped up herring spawn. I had never – and have never again – seen so much life in such a small area.

I understand why Rod Palm and his friends and colleagues at Strawberry Isle Marine Research Society do the work they do. "Work" might not be the right word, in fact, it's more an expression of passion, wonder, and gratitude wrapped up into each day on the water – followed up by countless hours in offices and in front of computers. As you read through this book and use it out on the water to identify individual killer whales, I hope you can reflect on your own memorable moments in nature and that you – like me – will think about how lucky we all are to have Strawberry Isle Marine Research Society at work in our community.

Josie Osborne,
Mayor of Tofino

PREFACE

Killer whales (*Orcinus orca*) or *Kakawin* are a threatened and endangered species in British Columbia. They are a species of immeasurable regional, cultural, and ecological importance. There are three ecotypes or cultures of killer whales in British Columbia's waters: residents, Bigg's (formerly known as transient killer whales), and offshores. In Clayoquot Sound, the mammal-eating Bigg's ecotype is most frequently seen. Bigg's killer whales are threatened because of small population sizes, low reproductive rates, and anthropogenic changes in the marine environment such as pollution, habitat degradation and acoustic disturbances.

For 25 years, Strawberry Isle Marine Research Society (SIMRS) has been using citizen science to collect data on the Bigg's killer whales in Clayoquot Sound. This work does not cover all the Bigg's killer whales of the Pacific Northwest. There are several British Columbian and vagrant animals from Alaska and California that have been recorded in the inside waters of Vancouver Island that we have yet to see here in Clayoquot Sound. Some of the listed individual animals or gangs have not been seen here in the last few years but are included in this catalogue because, on occasion, whales have returned after absences of as long as 14 years.

Our data contributes to the larger research project carried out by the Cetacean Research Program at the Pacific Biological Station. There John Ford, Jared Towers, and their team study the population dynamics of killer whales along the entire BC coast.

This identification catalogue is a unique and user-friendly manual designed to provide information about the Bigg's killer whales that frequent the waters of Clayoquot Sound through local stories, information on the ecotypes, threats to the population, as well as an in-depth guide to identifying individuals. Since the last printing in 2010, we have recorded 79 new animals to the area. Of these new animals, 53 are new to our area and 26 were born in to gangs that have visited before. We have also had record of 92 days of visitation in 2014. Updating this book is an important part of giving back to our community and recognizing all the incredible work they have contributed to our research.

Our goal is that the catalogue and stories will be enjoyed by those with an interest in marine life, and we hope it inspires and educates readers, and encourages responsible environmental stewardship and conservation efforts for Bigg's killer whales. With an ever-changing ocean, it is incredibly important to increase awareness and promote the conservation of the marine environment and the species within it.

All proceeds from this book will go back into SIMRS to allow us to continue this important research.

We hope you enjoy it and have fun identifying these animals!

Rod Palm and the SIMRS team

INTRODUCTION



Strawberry Isle Marine Research Society (SIMRS) is a registered charity based in Clayoquot Sound on the west coast of Vancouver Island, British Columbia. Our small team of researchers work out of the characteristic and landlocked Norvan I on Strawberry Isle. The Norvan I, now retired, was once the North Vancouver ferry that operated in Burrard Inlet in 1900.



The Norvan I (Tofino Photography)

SIMRS' goals are to:

- conduct primary research
- establish long-term monitoring projects
- support researchers in related studies
- promote public awareness of the marine environment and
- encourage public involvement in marine research.

SIMRS has also conducted eelgrass and ghost shrimp habitat mapping projects, pelagic bird and mammal surveys, sea lion counts, and intertidal sea star surveys. We are currently planning a monitoring program to look at the loss and distribution patterns of giant kelp and bull kelp here in Clayoquot Sound.

Bigg's Killer Whale Monitoring Project

The research SIMRS conducts with Bigg's killer whales evolved after Rod Palm spent several hobby years taking identification photos for Dr. Michael Bigg who had come up with the concept that individual killer whales could be distinguished by photo ID.

It soon became apparent that more whales were spending a lot more time in Clayoquot Sound than was previously suspected. This prompted Rod Palm to launch the society on January 1, 1991 as a platform for a more serious monitoring and recording program.

The results of this work are forwarded to the Pacific Biological Station where the Department of Fisheries and Oceans Canada (DFO) biologists identify the individuals and utilize the data for Pacific Northwest whale population studies.

Some of our identifications are still made by locals on the water using our identification catalogue!

As the study has evolved, we now have a network of local people out on the water submitting images and behavioural data for killer whales observed in the area. Killer whales and other marine sightings are reported to SIMRS over channel 18A on the VHF radio, phoned, or emailed in. Having so many eyes on the water has allowed us to produce information on individual identifications of visiting whales, frequency of visitation, routes traveled, and behaviour of Bigg's killer whales in Clayoquot Sound.



Rod Palm- founder of SIMRS (Nora Salland)

CLAYOQUOT SOUND AND OUR STUDY AREA

Clayoquot Sound is located on the rugged west coast of Vancouver Island, British Columbia, Canada, and is bordered by the Esowista Peninsula to the south and the Hesquiat Peninsula to the north. This area is home to the Nuu-chah-nulth people and the areas that we work in and around are the traditional territories of the Hesquiaht, Ahousaht, Tla-o-qui-aht, and the Yuu-tluth-aht First Nations. In this book we often use the Nuu-chah-nulth word for killer whale “*Kakawin*”.

Since 2000, Clayoquot Sound has been a designated UNESCO Biosphere Reserve as it encompasses many important and unique

terrestrial and marine ecosystems. The temperate rainforests and surrounding waters are not only stunningly beautiful but they support an incredible amount of biodiversity that are appreciated by visitors and locals alike.

SIMRS’ study area extends from Quisitis Point (lat. 49° 00.00’, long. 125° 40.00’) at the south end of Long Beach north to Barney Rocks (lat. 49° 20.50’, long. 126° 17.00’). This represents a 33 nautical mile section of the Vancouver Island coast extending as far inland as 25 miles from the open sea. Offshore monitoring is generally within two miles of the coast but has extended as far out as 34.2 miles.

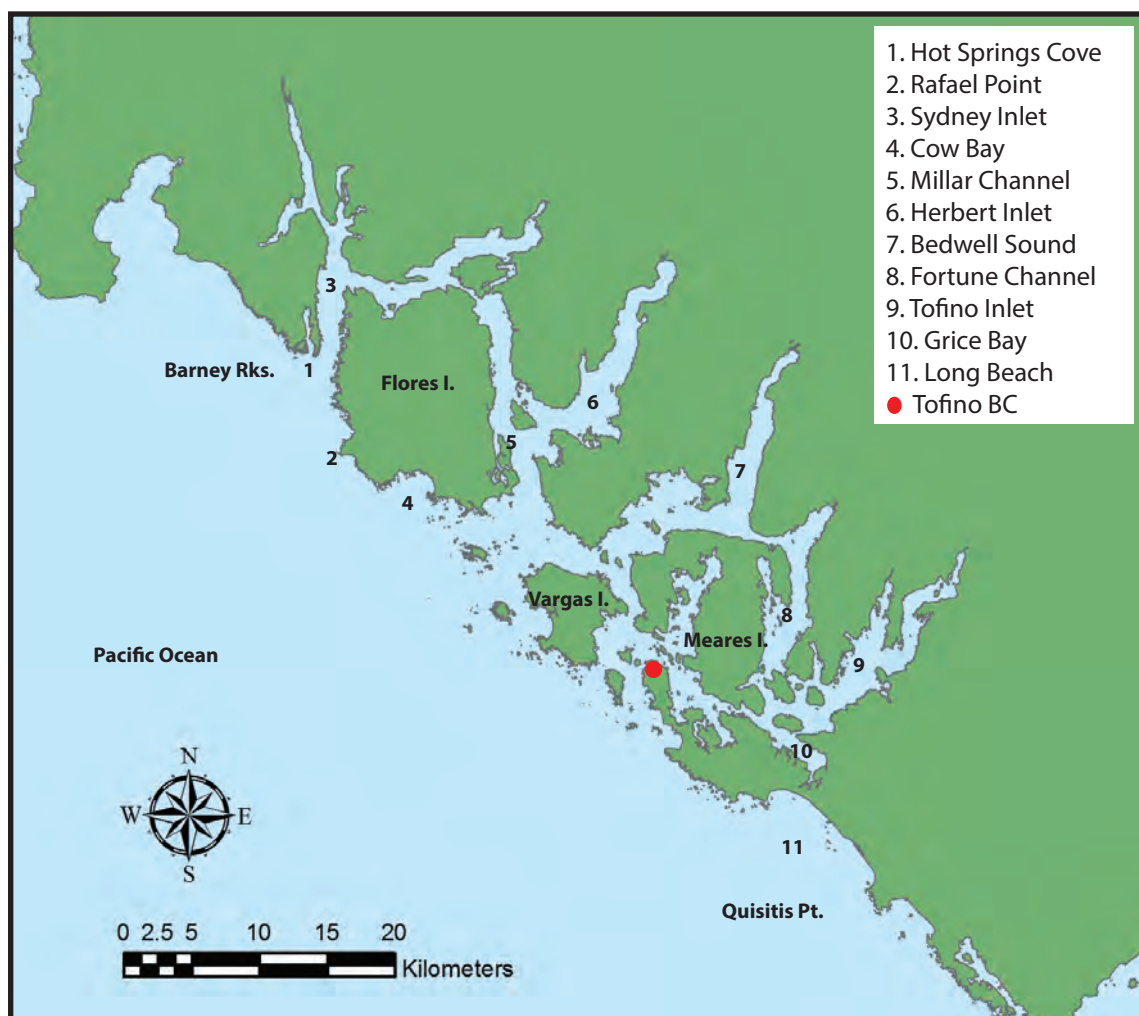
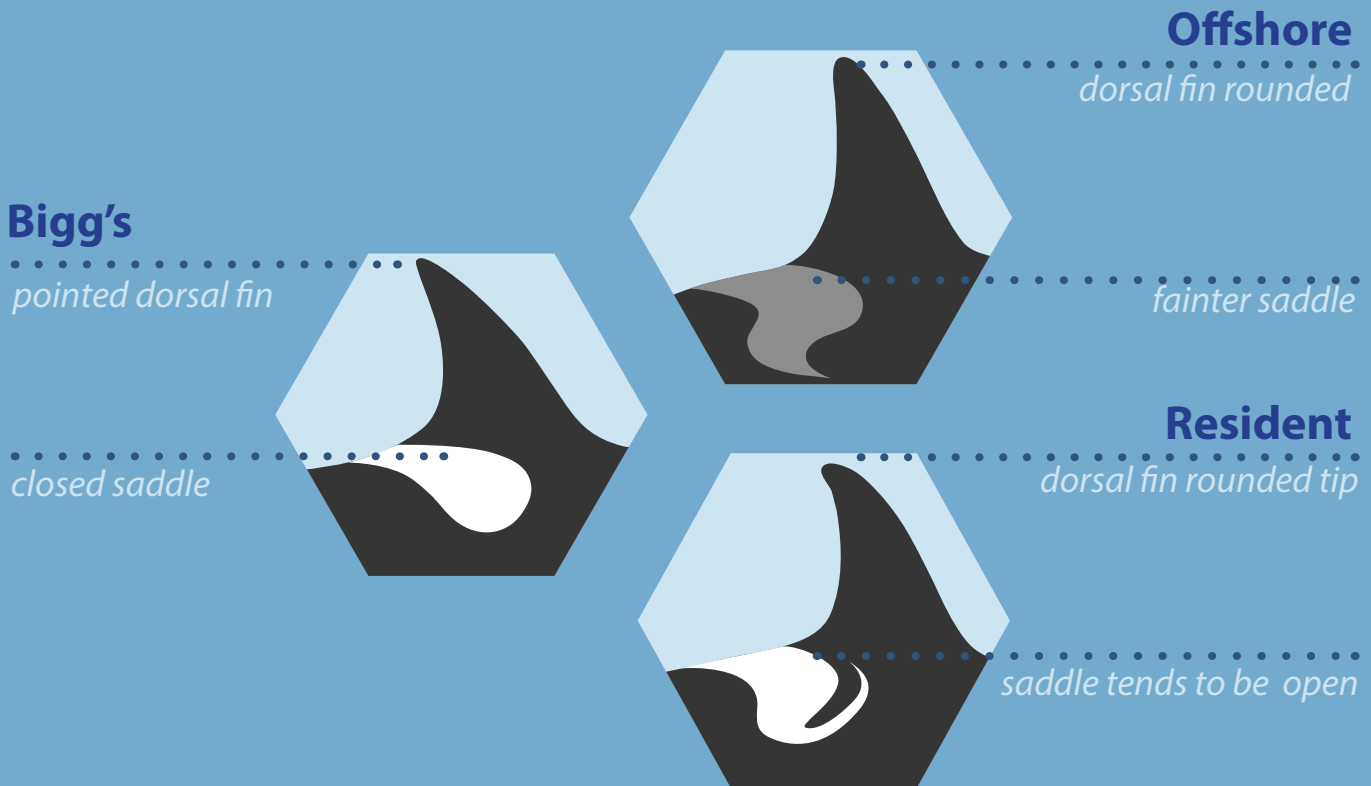
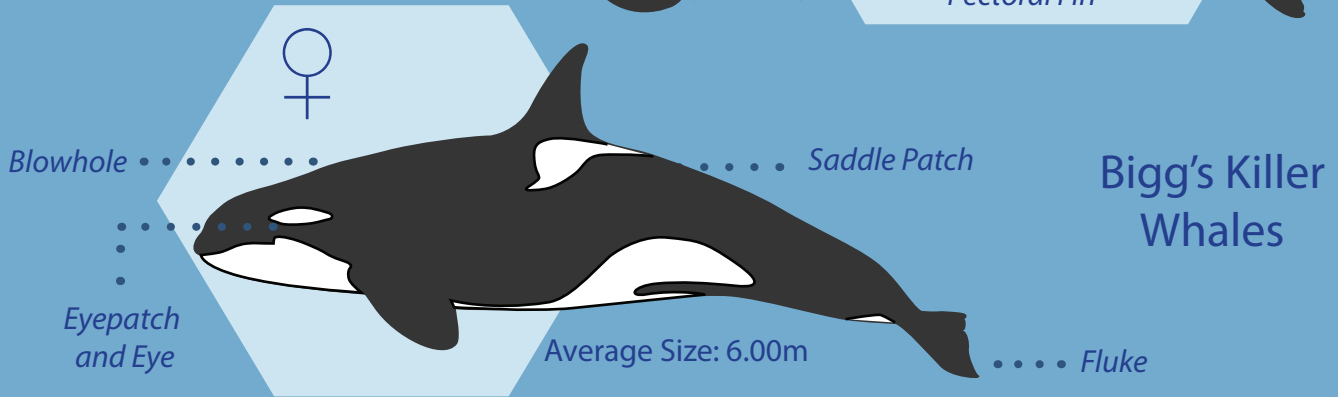
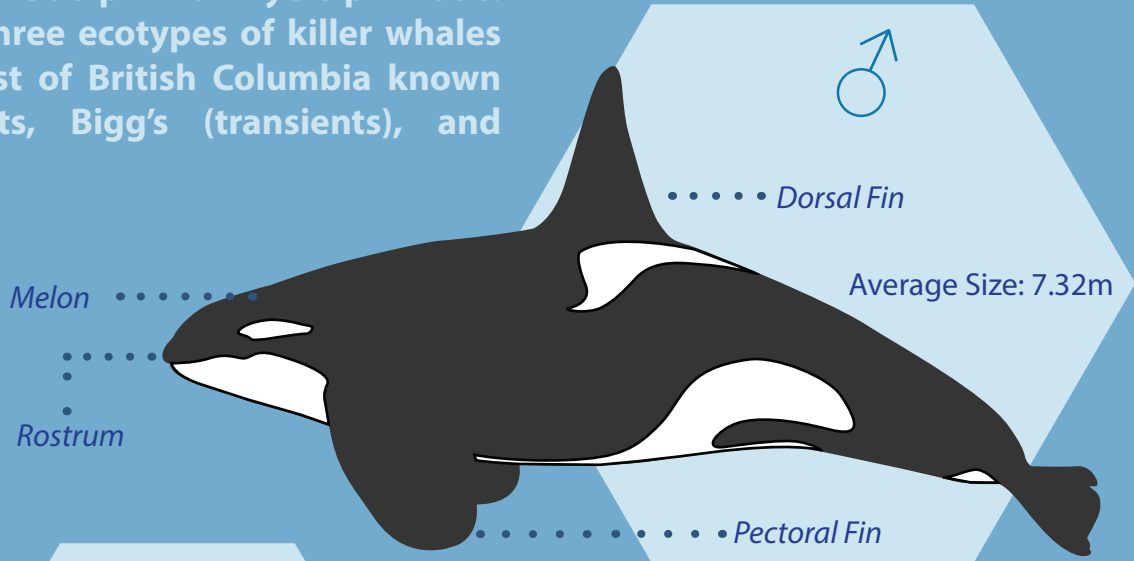


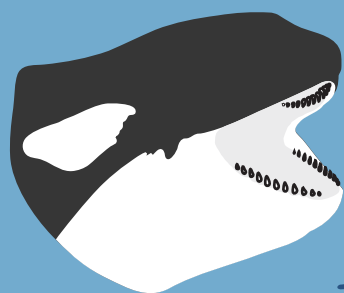
Figure 1: Map of our study area. To the north at Barney Rks and south to Quisitis Pt. Map created with ArcGIS 10.1., 2016.

KILLER WHALES OF THE PACIFIC NORTHWEST

Killer whales (*Orcinus orca*) are the largest member of the dolphin family Delphinidae. There are three ecotypes of killer whales off the coast of British Columbia known as residents, Bigg's (transients), and offshores.



DIET



worn teeth

Offshores eat sharks and bony fish



sharp teeth

Residents eat fish and target Chinook salmon



slightly worn teeth

Bigg's eat marine mammals and birds

SURFACE BEHAVIOUR

Blows/Surfacing



Spy Hopping



Breaching



Porpoising



Tail Slap/Tail Lobbing



Pectoral Slap



MONITORING PROGRAM

Bigg's Killer Whale Use Of Clayoquot Sound

Our focus of study from the beginning has been Bigg's killer whales. Biggs are different from the more commonly known residents and lesser known offshores due to their diet consisting mainly of marine mammals, difference in range, and dialect, and due to the fluid nature of their groups. While remaining matriarchal in makeup, the evolved optimal hunting group size for these marine mammal predators is only 3-6 individuals. For the purpose of our work we refer to these groups as "gangs". Optimal gang size is maintained as second generation females with their own calves may leave the parent group to start their own gangs. We are incredibly fortunate to have such a dedicated group of people out on the water in Clayoquot Sound. Reports are made

to us upon sighting killer whales and they are tracked as they go about their visit to our area. We collect information such as: behaviour, number of animals, direction of travel, and kills made.

The data show that the Bigg's killer whales we have recorded to use different water ways more than others (Figure 2). The reason for these patterns are likely tied to their prey distribution, however more research is needed.

The data show that the the whales are present more often on average in August (Figure 3), while September is a close second followed by June and July. We have also seen an increase in the amount of days that Bigg's killer whales visit our study area (Figure 4). At the time of this printing 2014 was a record year for us here in Clayoquot Sound -- we recorded a total of 92 days of visitation!

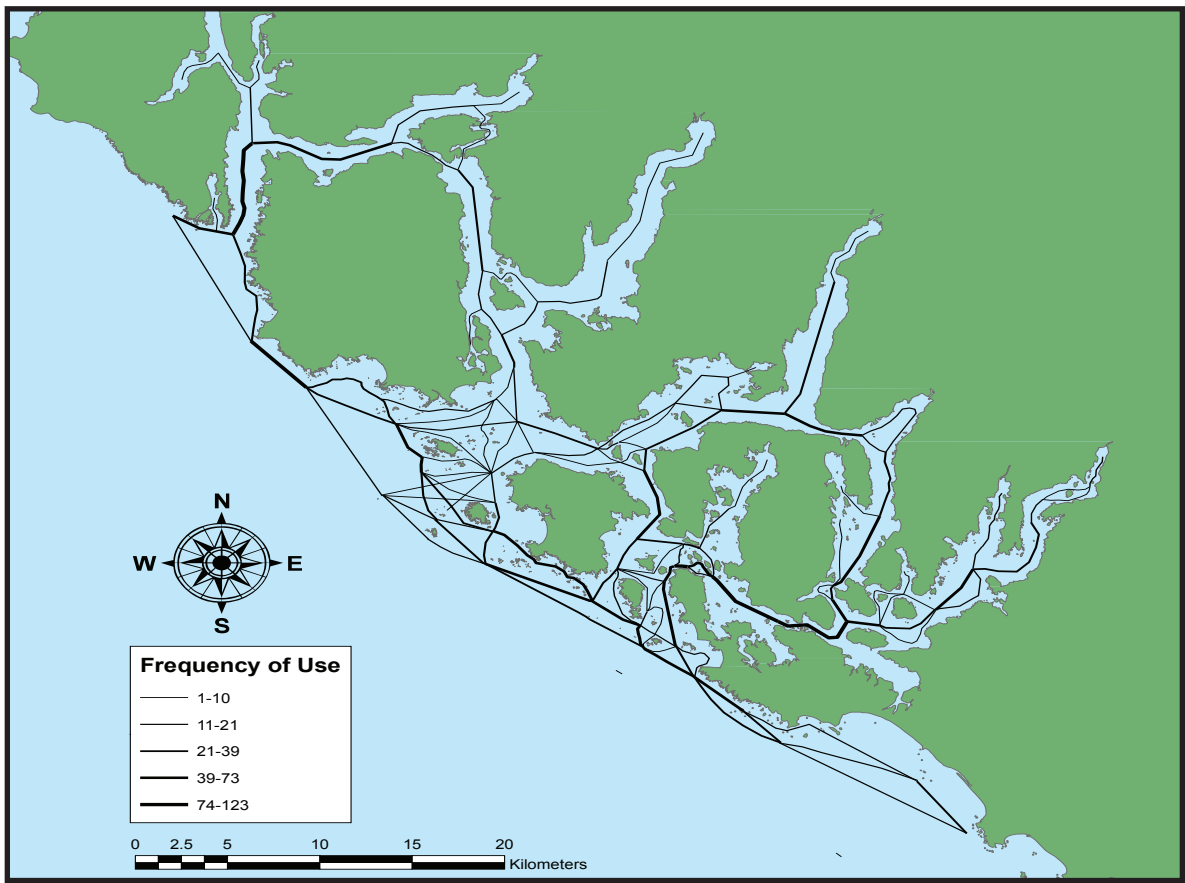


Figure 2: This dataset was created by Strawberry Isle Marine Research Society, Tofino, BC in 2010 using ArcMap 10.1. The data represents routes of killer whales within Clayoquot Sound, BC. Frequency was determined from observations collected from individuals working in the marine industry and tourism sector (1991-2014). The routes were created by Rod Palm based on the observations and his knowledge of working with Strawberry Isle Marine Research Society for over the past 25 years.

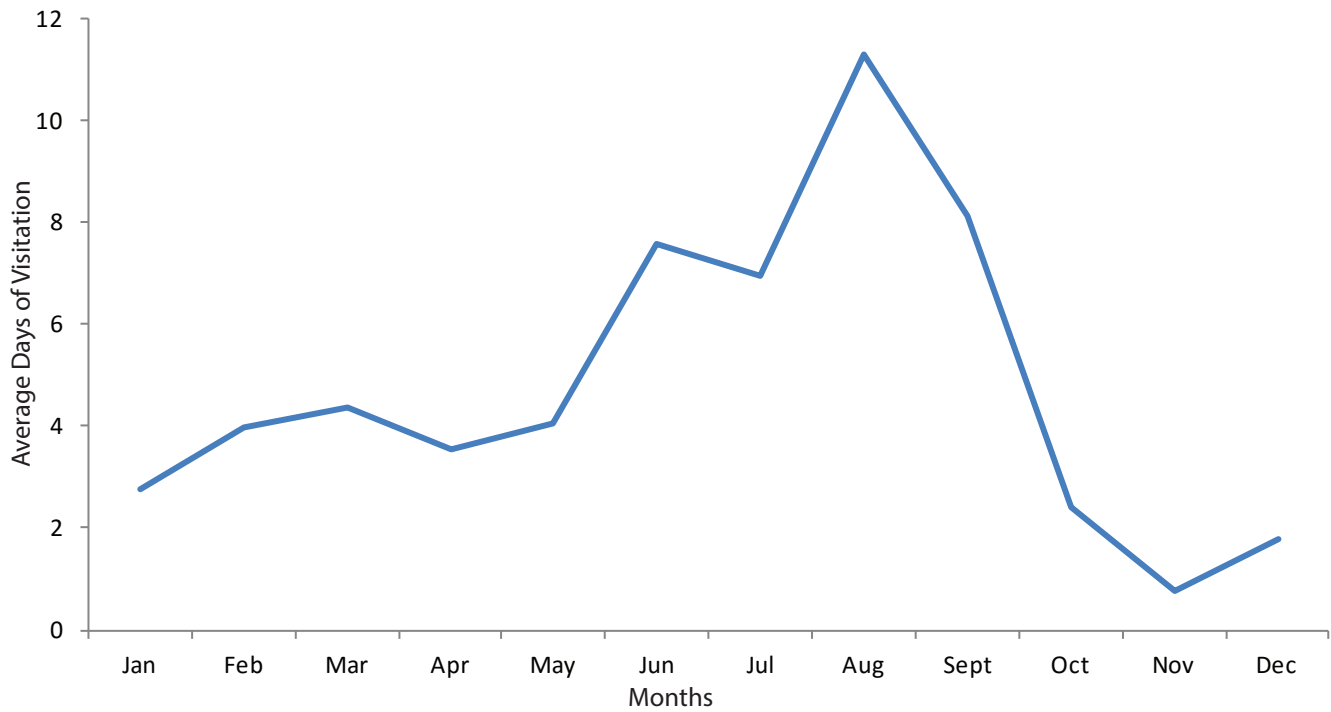


Figure 3: Average days of visitation per month. Data averaged from the years 1991-2015. Peak visitation is between June-September (June, July, August, September). On some of these recorded days there were multiple gangs present in the study area.

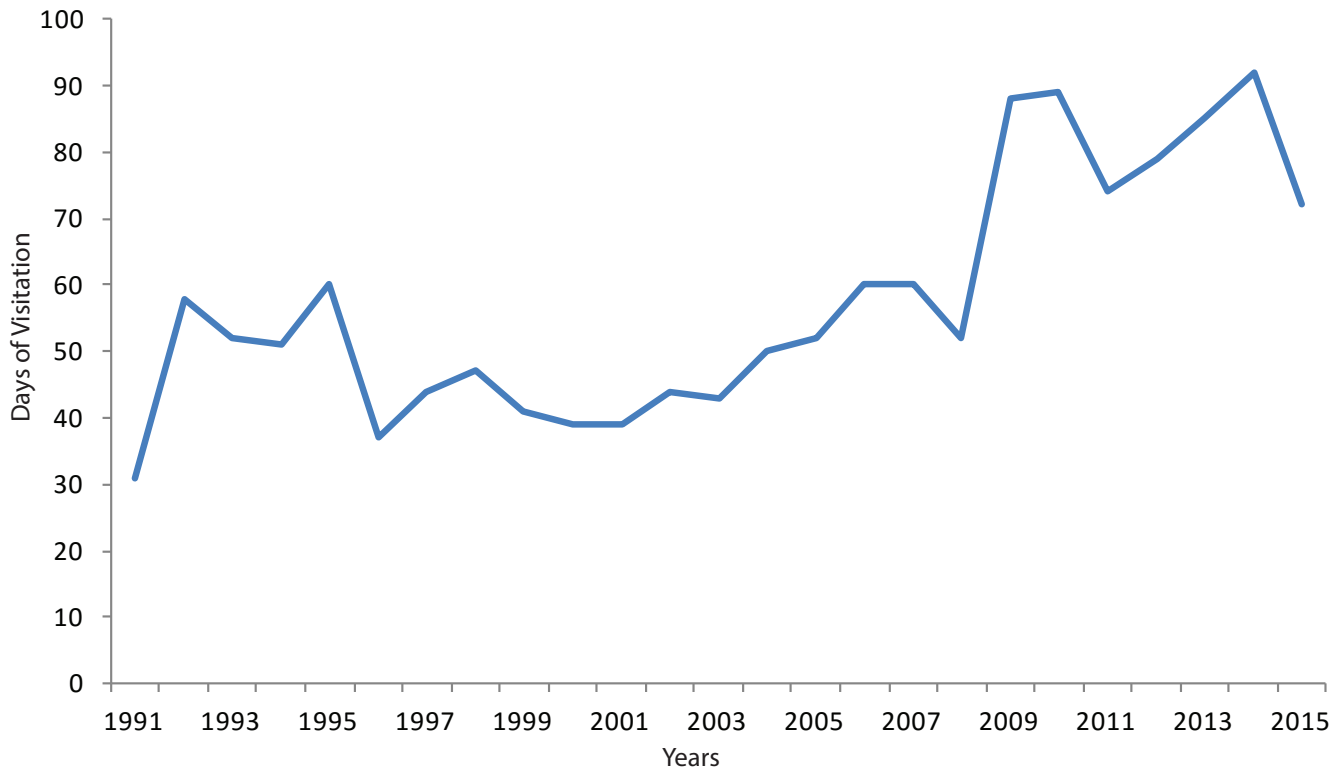


Figure 4: Total days of visitation per year (1991-2015). Days of visitation counted as presence of killer whales, however on some days there were multiple gangs within the study area.

Prey Usage

The ecotype or culture of Bigg’s killer whales are unique in British Columbia in that they hunt mammals. Here in Clayoquot Sound we have healthy populations of their favourite prey items. When a kill is made, the species is visually identified by the observer; if the prey item is only partially identifiable it is listed as likely that species or if it is unidentifiable it is listed as unknown. We have found that the primary prey item for Bigg’s killer whales in our study area is the harbour seal, followed by the harbour porpoise, the Steller sea lion, the California sea lion, sea birds, river otters, and sea otters (Figure 5).

These findings are consistent with those of Dr. John Ford and Graeme Ellis of the Cetacean Research Program at the Pacific Biological Station in Nanaimo, British Columbia. One animal missing from our list of prey is the

Pacific white-sided dolphin; Bigg’s killer whales are known to prey on them occasionally as well.

Bigg’s killer whales are also renowned for their incredibly theatrical hunts; they are often seen launching their prey through the air and delivering deadly blows with their flukes and pectoral fins, stunning their prey. This could also be an opportunity to teach young whales as well as a social act between family groups.

Images: Sea lions scrambling to get out of the way of Nitinat, T012A (top right; Eugene Stewart, 2015). The harbour porpoise is a common prey item utilized by the Bigg’s killer whales here in Clayoquot Sound (bottom right; Ronnie L’Amoureux, 2015).

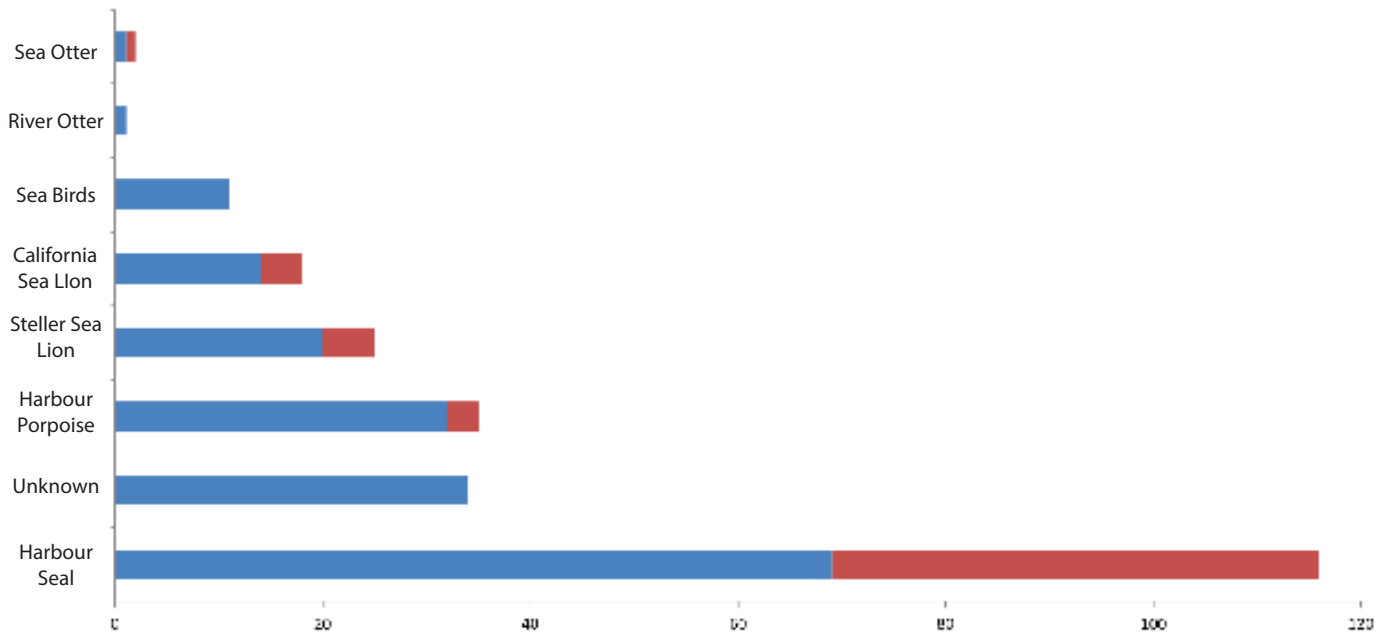


Figure 5 : The different prey items utilized by the Bigg’s killer whales in Clayoquot Sound: sea otter (*Enhydra lutris*), river otter (*Lontra canadensis*), sea birds, California sea lion (*Zalophus californianus*), Steller sea lion (*Eumetopias jubatus*), harbour porpoise (*Phocoena phocoena*), unknown, and harbour seal (*Phoca vitulina*). The category of sea birds includes surf scoter, marbled murrelet, common murrelet, and Cassin’s auklet. The blue bars represent confirmed species and the red bars were unable to be clearly identified; but due to the location they were identified as most likely that species based on knowledge of the area. These sighting records are from the years 1991-2015. Incidents of predation on California sea lions were only witnessed starting in 2005.



Build-A-Whale Educational Program

On August 29, 1997, a dead killer whale was reported drifting 17 miles off of Tofino. SIMRS responded to the call and it took their small research vessel eleven hours to tow the body to Strawberry Isle, with many fuel and food deliveries from supporting whale-watching vessels.



A full necropsy was presided over by veterinarian Dr. Craig Stephen of Malaspina College with Graeme Ellis of the Nanaimo Biological Station, Dr. Jane Watson of Malaspina College and Rod Palm from SIMRS in attendance. DNA analysis from Dr. Lance Barrett-Lennard confirmed that this animal was a member of the offshore community of killer whales and Graeme Ellis later confirmed that the 5.5 (18ft) female was O120. No clear cause of death was found, though her heavily worn teeth and thin blubber suggest that she may have been old and far removed from her home in more southern waters. A massive cavity extending into her jaw bone may also have been a factor as the killer whale's echolocation mechanism is located in their jaw.



After a year of bleaching in the sun, Dominique Dupuis (Pipot) organized a crew of volunteers who put in close to 700 hours scrubbing the bones and treating them with several coats of a non-toxic penetrating epoxy. The result was Build-a-Whale an incredible travelling hands-on educational display that consists of a complete killer whale skeleton that is assembled upon a unique frame that both supports the bones and shows how the skeleton and internal organs of the whale are positioned.



Build-a-Whale has now travelled from BC to Ontario spending time in schools, interpretive centers and museums. The display and educational presentation has been enjoyed by participants ranging from elementary school groups to natural history clubs to seniors.

Images: O120 on Strawberry Island (top left; Rod Palm), O120's upper jaw (bottom left; Rod Palm), Marla and Gwen with O120 at World Oceans Day 2014 (top right; Albert Shepard), and O120 (bottom right; Marla Barker).

Whale Tales - Rod Palm

Tree - August 3rd, 2013

John Forde (skipper for The Whale Centre) shot these two near Tree Island. Mom (T041A) was nudging the calf (T041A2) along and lifting him/her up indicating that the youngster had very recently been born. I'm thinking we may name it Tree. It's curious to me that mom and infant were not with the grandmother (T041). We know that oldest daughters will often leave home to start a new gang when they have their own offspring. This practice regulates optimum gang size but in this case there were only two surviving members as the big male (T044) had died in April 2011. If this new mom does not hook back up with her mother, she will likely join up with another gang in order to help provide for the youngster; ambushing sea mammals is not so easy when you're a single mom. Note that this change will also leave the 40 year-old grandmother on her own*. These two are descended from Ted's gang (T041's).



Mom (T041A) with new calf (T041A2) near Tree Island, Clayoquot Sound (John Forde).

*T041 and T041A have been seen together in August, 2014.

Fortune - June 10, 2015

A new calf is always an exciting time for us *Kakawin* groupies. At last count we had 272 (2012) of these mammal-eating Bigg's whales here in the Pacific Northwest. The population seems to have remained strong over the last few years with our healthy populations of pinnipeds (seals and sea lions) stocking the larder.

We know that when female *Kakawin* are close to due-date they will remove themselves from their gang and go to a sheltered location to give birth. On June 9 a female (T121A) was traveling with the Motley Crew (T023's) along the

backside of Meares Island. The next day, Dave Tom reported two *Kakawin* on the back side of Meares not 2.5 nautical miles from where the whales were on the previous day. They proved to be T121 with a brand new calf. The vessels of the whale watch fleet visited with the mom and calf for several hours giving John the opportunity to shoot numerous images for identification.

Born tail first into a similar saline world as in the womb, the calf is nudged to the surface by its mom for its first breath of air. There it experiences a whole spectrum of new surface sounds – and what's this sensation that pushes back down when the body rises above the water?

This lone mom was not seen here in Clayoquot until 2009 but then, as has been the case with many first time human visitors, she just kept coming back every year. And like other lone females, she is often found in the company of gangs (in her case for hunting support). We are hoping this trend continues allowing us to witness this calf growing up.

There is however a concern here: that this mom is 17 years old and certainly should have had a surviving offspring by now. As the first viable (surviving its first year) calf this offspring of T121A gets the identification T121A1 but I'm thinking "Fortune" would be a good name as this channel is its birth site.

A big tip of the hat to Jennifer Steven and John Forde of the Whale Centre who, after a couple of days, finally nailed this identification. It was particularly difficult as the large scrapes seen on the white saddle patch are new and not present on the most recent identification catalogues.



New calf (T121A1) belonging to T121A born in Fortune Channel, 2015 (John Forde).

Grey Whale Attack - May 5th, 2014

Peter Schulze (skipper for Ocean Outfitters), was hoping to find a whale for his tourists on the return leg of a Hot Springs trip. He was thirteen miles and getting close to home when he saw a disturbance on the surface of the water off Cleland Island. This could be it. Yes! There are several *Kakawin* excited about something. This is the matriarch Esperanza's gang (T018) who we've only seen a half dozen times over our 24 years of monitoring. Oh-oh, is that a grey whale with them, yes, and there is also a calf. It's tough to see what's going on but a pattern emerges, the *Kakawin* are trying to separate the mom from her calf. Mom's not taking this kindly as can be seen by the powerful sideways slashing of her massive tail. This super-sized judo chop could seriously injure or perhaps even deliver a mortal blow.

The greys are rolling with their heads down in order to keep an eye out for any attacks from below while steadily working their way towards shallower water. Josh Bradford (pilot for Atleo Air) above the drama can clearly see a couple of the *Kakawin* hanging back a whale length or two waiting for an opportune moment, then charging in from behind and below in an attempt to ram the calf. On one of these runs, a *Kakawin* gets a grip on the calf's tail but is unable to hang on to the tapered smooth surface. As the calf breaks free, a trickle of

blood can be seen on the trailing edge of his/her tail.

This interaction has been sporadic in nature with periods of relative calm disturbed by flurries of aggression, where the water is white with the thrashings of the combating animals' tails, pectorals and whole bodies for that matter.

The incident was observed for close to an hour; it ended when three of the *Kakawin* backed off leaving just two marauders who, shortly thereafter, also broke off the attack. Both species then calmly travelled their separate ways as though nothing had happened. It's interesting to note that, though excited, the juvenile *Kakawin* was not participating in the attack, perhaps on good advice from his/her mom.

Our BC community of Bigg's *Kakawin* seem to have done quite well on seals, dolphins and other marine mammals; they rarely show any interest in the grey whales and when they do, the attacks appear somewhat disorganized as though they're not quite sure how to deal with the greys.

Images: Juvenile grey whale fluke (bottom; Peter Schulze). Killer whale circles mother and calf grey whale (top-right; Kyler Vos Photography) and juvenile killer whale breaches near the commotion (bottom-right; Kyler Vos Photography).





Identification Catalogue



Identifying a Killer Whale

Identifying a killer whale can be challenging for a beginner, but don't be discouraged. As with many mobile animals, identifications are difficult to confirm without an image to reference. It was DFO scientist, Dr. Michael Bigg, who developed the technique in the 1970s of using photo-identification for identifying individuals of not only killer whales, but other marine mammals.

Because killer whales are typically submerged underwater, and only sometimes surfacing, identifications are made based on the dorsal fin and white marking at the posterior base known as the 'saddle patch'. Bigg's can be even harder to identify than residents because they dive for longer periods of time (5-10 minutes), and change directions underwater making it hard to predict where they will surface next.

Who is Included

This catalogue includes all of the Bigg's killer whales that have been observed and identified in Clayoquot Sound since the beginning of the study in 1991. We have also included, without images, individuals known to travel with gangs that have been here before and offspring of mothers who visit here but have yet to be seen. The animals are organized in numerical order from T002B to T187. All of the photos in this catalogue are taken by local people out on the water who contribute their images to our research program. Animals that have been confirmed deceased have

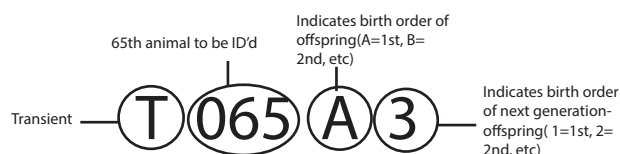
been removed from the ID section.

Because of the unpredictable travel patterns of Bigg's killer whales, we will go many years without sightings in our area of gangs or individuals. It's possible that these animals are no longer living or they're simply taking a long hiatus from Clayoquot Sound. It's also possible that they have visited but without being seen.

Code System and Names

The naming system is different between Bigg's and resident killer whales as they have different social structures. Bigg's killer whales are named using an alpha-numeric code system that shows the matriarchal relationship of the individual. All code names begin with a T for transient, then have an assigned number. Animals who were known before the system began or whose mother is unknown were given a unique number. All known offspring of an identified female share the same code as their mother, then have a letter or number assigned to indicate birth order. In following generations, the indication of birth alternates between letters and numbers.

For example:



Often individuals or gangs, have names associated with them in addition to their code. Names are often assigned based on the geographic location where an animal was born. For example, new calf T121A2 is named Tree after Tree Island in Clayoquot Sound. Other times individuals are named after their distinguishing traits, like Captain Hook (T040) who has a unique hooked dorsal fin. Some whales in this study have names inspired by their behaviours or people.

Alaskan/Californian Designations

Sometimes Bigg’s killer whales are sighted in Clayoquot Sound that spend most of their time in more northern or southern waters. These animals often have BC code names, but also Alaskan or Californian designations. For example, T124C is also known as AL18; an Alaskan animal and T129 is also known as CA52; a Californian animal.

Sizing Breakdown

For the purpose of this catalogue we have divided the whales into three size categories: 1) bulls, 2) mature females and older juveniles, and 3) young juveniles and calves.

Bulls (image height: 8.5 cm): mature males who are partially sprouted or completed sprouting. Males go through a stage of rapid growth in their dorsal fin around the age of 13-15 where their dorsal fin can reach a height of nearly two metres.

Mature females and older juveniles (image height: 6 cm): includes mature females and all whales over the age of four (excluding bulls). These animals have much smaller dorsal fins. Even a mature female will only have a dorsal height of up to 0.9 metres in height. These animals should have a defined saddle patch.

Younger juveniles and calves (image height 4.5 cm): includes young animals between 1-3 years of age. These animals are often harder to distinguish as they have not yet developed their saddle patch and have fewer identifiable scrapes and scars.

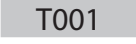
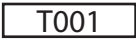





Names, Sex, and Birth Years

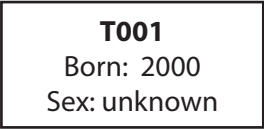
Every animal has a code name, sometimes a nickname, or Californian/Alaskan designation; the birth year and sex is indicated when known.

Determining gender is difficult in younger immature animals. Sex can be determined when an animal shows their underside when breaching or rolling on the surface and the pigmentation patterns in the genital area are exposed. Females also have mammary slits which are visible on their underside. Most birth years are obtained from the Department of Fisheries and Oceans study on Bigg’s killer whales unless we are lucky enough to witness the birth of a calf in our area. Often the exact year of birth is unknown and must be estimated.

Family Trees

Each gang page has a relevant family tree* in the top right corner. The family trees are used to visualize both known and possible relationships between killer whale individuals and indicate which whales travel together. They can be interpreted as follows:

-  Deceased
-  Travels in gang
-  Travels in different gang
-  Related and travel together
-  Likely related and travel together
-  Related but do not travel with this gang
-  Likely related but do not travel with this gang

 Animals that appear in a box are animals that we have not recorded here or have been born into the gang after the last visitation.

*Family trees are adapted from work done by DFO (Towers *et al.*, 2012). Our family trees do not include gangs that we haven’t recorded within our study area.

KILLER WHALES WITH MARKED FINS

The first letter describes overall fin size:

- X Medium - adult females and pre-sprouted (immature) males.
- B Very large - obvious adult male.

The second letter describes the feature:

- C Cocked - fin bends back on itself less than 90 degrees.
- H Hooked - fin bends back on itself more than 90 degrees.
- N Notched - if more than one notch, most pronounced is used.

The third letter describes location on the fin:

- T Top
- M Middle
- L Lower

The fourth letter describes which edge or side the feature is on:

- A After edge
- F Forward edge
- P Port or left
- S Starboard or right

Dorsal fin codes (preceded by an X, or B size designation):

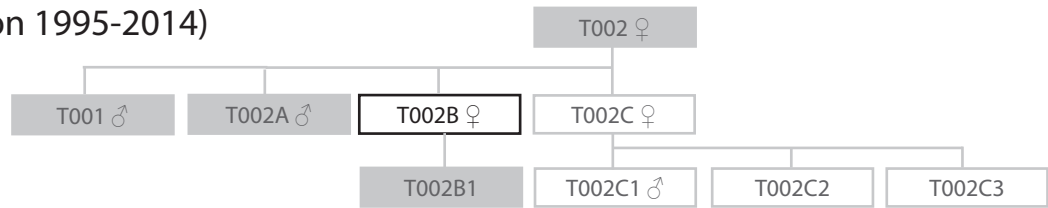
- NTA notch on the top of the after edge.
- NMA notch on the middle quarter of the after edge.
- NLA notch on the lower section of the after edge.
- NTF notch on the top of the forward edge.
- NMF notch on the middle quarter of the forward edge.
- NLF notch on lower section of the forward edge.
- HTP hooked top to port
- HTS hooked top to starboard
- CTP cocked top to port
- CTS cocked top to starboard

FEMALES & JUVENILES						BULLS		
CODE	NUMBER	GANG	CODE	NUMBER	GANG	CODE	NUMBER	GANG
XNLA	T002C	T002s	XNMA	T125	T125s	BCTP	T175	T173s
XNLA	T010	T010s	XNMA	T125A	T125s	BHTP	T040	T040
XNLA	T018	T018s	XNMA	T137	T137s	BNLA	T054	
XNLA	T023D	T023s	XNMA	T146C	T146s	BNLA*	T127	T125s
XNLA	T046C1	T046	XNMTA	T028	T028's	BNLMA	T137A	T137s
XNLA	T065B	T065s	XNMTA	T041A	T041's	BNLTA	T170	T171s
XNLA	T068B1	T068s	XNMTA	T046	T046	BNMA	T049C	T049s
XNLA	T068B2	T068s	XNTA	T011	T011's	BNMA	T068A	T068s
XNLA	T069	T069s	XNTA	T023	T023's	BNMA	T072	
XNLA	T069A	T069As	XNTA	T026	T026s	BNMA	T077A	T077A
XNLA	T075	T075s	XNTA	T046D	T046	BNMA	T124C	T0124C
XNLTA	T036B	T036s	XNTA	T064	T064s	BNMA	T150	T151s
XNMA	T036B1	T036s	XNTA	T064A	T064s	BNMTA	T160	T160s
XNMA	T037	T037s	XNTA	T065A	T065s	BNMTA	T063	T065s
XNMA	T041	T041s	XNTA	T073C	T073Cs	BNTA	T020	T021s
XNMA	T046E	T046	XNTA	T086A	T086As	BNTA	T060C	T065s
XNMA	T049B	T049s	XNTA	T100	T100s	BNTA	T074	T073s
XNMA	T058	T058s	XNTA	T109	T109s	BNTA	T087	T088s
XNMA	T065	T065's	XNTA	T109C	T109s	BNTA	T123A	T123s
XNMA	T068	T068's	XNTA	T137D	T137s	BNTA	T129	MOVIE
XNMA	T086A3	T086As	XNTA	T152	T152s	BNTF	T142	T143s
XNMA	T099B	T099s	XNTA	T160	T160s			
XNMA	T100C	T100's	XNTF	T050	T049s			

*large tear on the top of the dorsal

T002B

(22 days of visitation 1995-2014)



T002B



T002B (background) travelling with T109, Big Momma (Jason Feaver)

When this animal was a teenager in 1992, she ran away from her gang (T002s) then showed up a year later around Victoria and here in Clayoquot (Feb. 1993) with three whales (T088s) from Alaska. It was as though she was bringing them back to her hometown to show them where she grew up, and yes, one of her travelling companions was a bull. In 1994 she met with her parent gang at a big killer whale party but has been wandering alone ever since. Lone females are a rare phenomenon in our study population. To date she is known to have had only one calf in 2006, but it did not survive.



J. Feaver

Aug 2013

T002B
Alaskan: AM3
Born: 1979
Sex: female

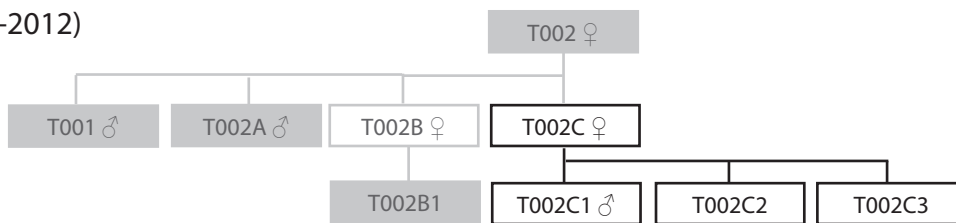


J. Forde

Sept 2013

T002Cs

(7 days of visitation 1995-2012)



T002C and T002C2 paid an early morning visit to Clayoquot Sound in 2011 (Peter Schulze).

While we have not seen a lot of this matriarch, we have known her since 1991 when she was a two year old and have followed her as she grew. As a young teen, she left her parent gang (T002s--now deceased) to form her own gang. She now has three surviving offspring. As is common they travelled with other gangs until the kids grew up enough to help with the hunt. The first time we saw them travelling on their own was in 2011 when they leisurely circumnavigated Meares Island. The last time was in 2012 when they were observed hunting on the sheltered side of Flores Island.



H. Tom

June 2011

T002C
Alaskan# AM5
Born: 1989
Sex: Female



P. Schulze

June 2011

T002Cs



H. Tom June 2011

T002C1
Born: 2002
Sex: male



P. Schulze June 2011



E. Stewart March 2012

T002C2
Born: 2005
Sex: unknown



P. Schulze June 2011



E. Stewart March 2012

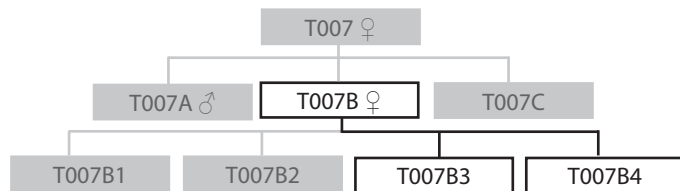
T002C3
Born: 2011
Sex: unknown



NO IMAGE
AVAILABLE

T007Bs

(6 days of visitation 2002-2013)



Spiller (T007B) left the Secret Agents (T007's) in 2002 to start her own gang. Curiously, we didn't see her again with her parent gang until just before they disappeared and as of 2008 are presumed dead. We still mourn their passing as they visited Clayoquot on several occasions annually since we started our monitoring in 1991. We got to know them well and will miss seeing them around. Spiller lost her first two calves but the two surviving calves seem strong and are learning to be great hunters, although they still often travel with others for help in the hunt. On two occasions in the last seven years they have been seen travelling with Big Momma's gang (T109s).



T007B3 and T007B4 passing through a bed of kelp in late summer 2012 (Eugene Stewart).



R. Chiovitti March 2008

T007B
SPILLER
Born: 1982
Sex: female



J. Feaver Sept 2013

T007Bs



J. Feaver Sept 2013

T007B3
Born: 2005
Sex: unknown



J. Feaver Sept 2013



E. Stewart Aug 2012

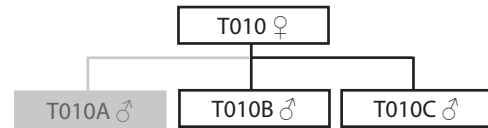
T007B4
Born: 2010
Sex: unknown



J. Feaver Sept 2013

T010s - LANGARA

(33 days of visitation 1991-2013)



In our study population, Langara (T010) shares oldest living female status with Wakana (T011) who are thought to be around 53 years old. On publication of the first Killer Whale ID catalogue in 1986, by Michael Bigg, Graeme Ellis, John Ford and Ken Balcomb, Langara had two offspring -- the oldest was born in 1978 and died or disappeared while in his 30s. In 1999 she gave birth to her third offspring (T010C) and they were last seen here with their mother in August of 2013.

It's interesting to note that Langara's gang were annual visitors to Clayoquot from the start of our monitoring up to 2002, when they only occasionally showed up and we have only seen them once since our last publication in 2010. This small hunting group frequently teams up with one of the other gangs when making a pinniped kill here in the sound.

In October of 1992 Langara's gang was hunting along the back side of Meares Island with Wakana's gang, Pachena's gang and T016s. Around Warn Bay, Langara and her kids broke off from the main body of whales and headed back around the east side of Meares Island. As they made their way towards the open ocean, we started to hear faint calls through the hydrophone. The vocalizing got progressively louder until we arrived at Wilf Rocks where, sure enough, the rest of the *Kakawin* were waiting.

It is interesting that there are 18 years between Langara giving birth to Siwash (T010B) and her latest offspring, Bubba (T010C). Another curiosity is that Langara has had three offspring and they were all males. I can't find three male-only offspring in any gang unless T085's third born is found to be a male when it grows up.



W. Szaniszlo

July 2009

T010
LANGARA
Born: ≤ 1963
Sex: female

Tip: This animal looks very similar to T069



P. Schulze

Aug 2013



W. Szaniszlo

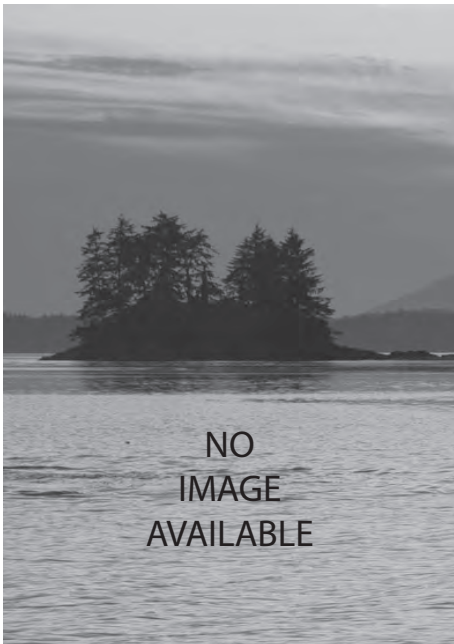
July 2009

**T010B
SIWASH**
Born: 1983
Sex: male



W. Szaniszlo

July 2009



NO
IMAGE
AVAILABLE

**T010C
BUBBA**
Born: 1999
Sex: male

Tip: This animal has
sprouted since this
image was taken

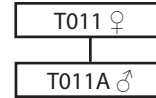


T. Heald

Aug 2008

T011s - WAKANA

(99 days of visitation 1992-2014)



In our study group, Wakana shares oldest living female status with Langara (T010). This mother-son team have been frequent visitors here in Clayoquot. They attend the odd party but generally travel on their own.

It took a few years to gain the confidence of these *Kakawin*. We have found a great deal of variation between the individual gang's acceptance of the accompaniment of boats.



E. Stewart

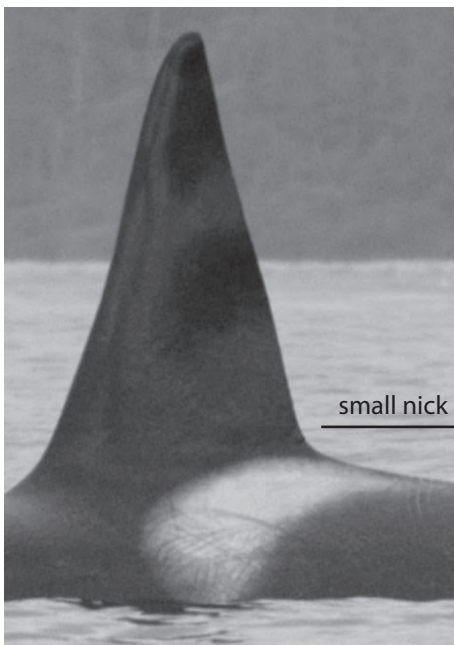
March 2013

T011
WAKANA
Born: ≤ 1963
Sex: female



H. Tom

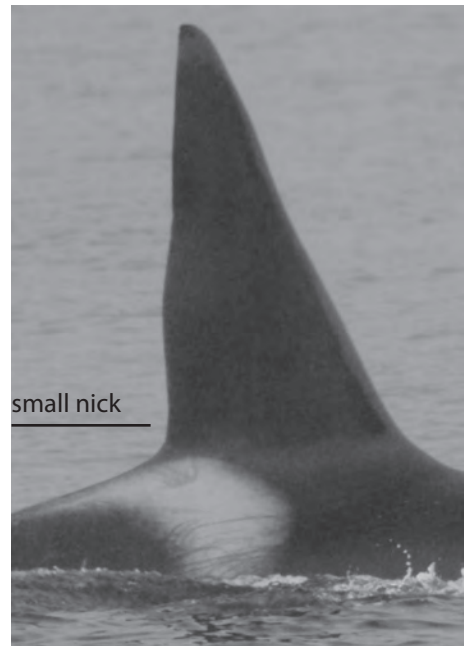
March 2013



P. Schulze

March 2013

T011A
RAINY
Born: ≤ 1978
Sex: male

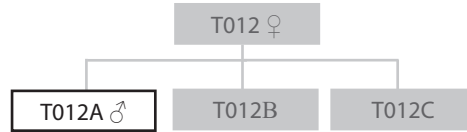


E. Stewart

Oct 2012

T012A - NITINAT

(86 days of visitation 1992-2015)



Nitinat (T012A) is well-known to the whale watching community in this area and is a favourite to many. On first sighting in 1992 there was Pachena (T012) and her strapping son Nitinat. In 1993, Pachena delivered Vargas (T012C) who only survived for three years. Vargas was quite a character as we saw this whale take great delight in slapping around a seal that one of the adult whales had already maimed. The way Vargas strutted about poking its head out of the water to have a look at you, along with the habit of coming quite close to the boat, gave the impression that he reckons himself to be one very tough customer. In September '94, Vargas popped to the surface, hot in pursuit of a Marbled Murrelet bouncing across the water trying to get airborne. The alcid dove with the young whale hot on his tail. Half a minute later they were back up and on the fourth bounce, the yearling whale scooped the bird right out of the air. Vargas is very much missed.

In August 1995, hundreds of whale watching tourists were entertained as Pachena's gang swam through Tofino harbour. It was quite a sight to see these magnificent animals bursting to the surface amidst a scattering of as many as thirty boats. How the *Kakawin* were able to navigate through that gauntlet was most impressive. With their acute hearing, the sound of all the moving boats must have been a challenge for them to sort out. After this congested encounter I thought, "That's likely the last we'll see of these animals for a while", but damned if they didn't show up again two days later. Mind you, this time they stayed out of the harbour.

Sad to say, Pachena disappeared in 2007 and is now presumed dead leaving Nitinat as the last known animal in her blood line.



H. Tom

Sept 2011

**T012A
NITINAT**
Born: 1982
Sex: male

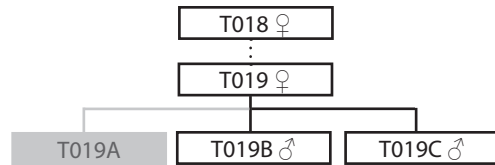


J. Steven

June 2015

T018s - ESPERENZA

(9 days of visitation 1991-2014)



In May 2014, the Esperanza's attacked a gray whale calf. The attack was not fatal and the gang moved onward. See *Whale Tales* (pg 20) for the full story (Kyler Vos).

Although Esperanza's relationship to the other members of this gang is unknown, she is the matriarch, giving her authority over Nootka and her two male offspring. We've only seen these animals on nine occasions but it is interesting to note that on every occasion but one they have been travelling companions with other gangs. In August of 1992, while hunting with old friends the T010s, the group got hold of a Steller sea lion not far from the Plover Reef haul-out. They spent more than an hour divvying up the bits and pieces as they frolicked about and loudly vocalized about what great hunters they were. About a mile away from this action, a lone gray whale who had been feeding in Ahous Bay was not particularly delighted with the sound of all this. He swam right into the shallow surf zone, dove, came up two minutes later about 100 metres away and then continued this evasive behaviour until the *Kakawin* had left. This is a typical response from a gray whale when orcas are vocalizing in the area.



K. & R. Palm

Aug 1997

T018
ESPERENZA
Born: <1974
Sex: female



P. Schulze

Sept 2002



K. & R. Palm

Aug 1997

T019
NOOTKA
Born: ≤ 1969
Sex: female



P. Schulze

Sept 2012

T018S



R. Chiovitti

Sept 2007

T019B
Born: 1995
Sex: male



P. Schulze

Sept 2007



W. Szaniszlo

Sept 2007

T019C
Born: 2001
Sex: male

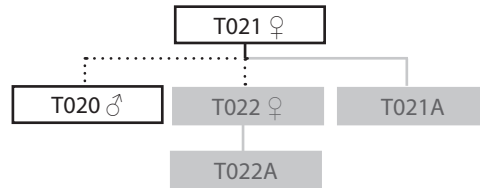


P. Schulze

Sept 2007

T021s - PANDORA

(52 days of visitation 1991-2013)



Pandora's gang have been frequent visitors to Clayoquot Sound since the beginning of our monitoring project. Pandora (T021), is thought to have been born around 1968. She has delivered two offspring in her time, but neither one survived. Kawatsi (T020) born around the year 1963 has quite the lump on his left side behind his left pectoral fin. Research folks have known about this deformity for some time but weren't sure what it was. Dr. Martin Haulena veterinarian from the Vancouver Aquarium suggested an abscess or seroma (ruptured small blood vessels). Dr. Stephen Raverty pathologist for the Provincial Animal Health Center agreed that it might have been an abscess and added hernia or tumour to the list.

These whales have not been by seen since their last recorded visit to Clayoquot Sound on August 15th 2013. The average life span for killer whales is 50 years of age for females and 30 years of age for males; in 2013 Pandora would have been around 45 years of age and Kawatsi 50. Due to their long absence and age we presume them to be dead.



Images: Kawatsi and Pandora on their last recorded visit to Clayoquot Sound August 15th 2013, a beautiful calm day (top; John Forde); Kawatsi showing off his lump in 2013 (left; Peter Schulze).



H. Tom

May 2005

T021
PANDORA
Born: ≤ 1968
Sex: female



H. Tom

July 2011



unknown

T020
KAWATSI
Born: ≤ 1963
Sex: male

Tip: Top of dorsal fin
leaning to port side

This whale looks
similar to T087

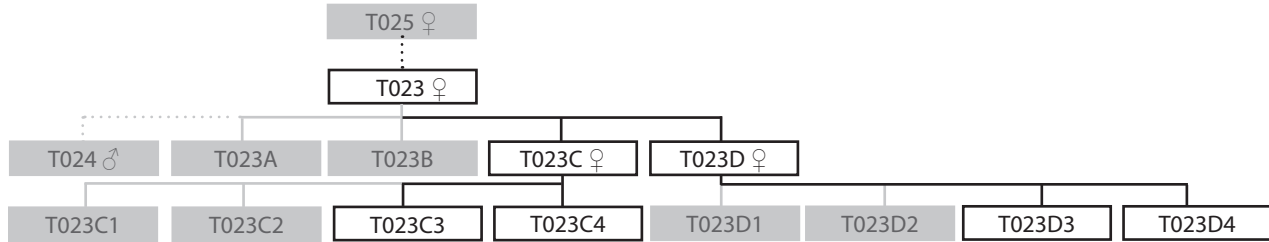


J. Forde

June 2006

T023s - MOTLEY CREW

(56 days of visitation 1991-2014)



This gang has taken a real beating since we first met them in April of 1991. At that time they were one of the strongest gangs around, with five members, and visited Clayoquot Sound more frequently than any other group. First, the middle aged bull U2 (T024) disappeared in 2001 and is now presumed dead. Cindi (T025) was last seen by us in 2004 and is also presumed dead. Shortly after, T023C's first two offspring didn't survive, followed by daughter Axle (T023D) also losing two offspring. That's six family losses in about ten years but hopes are up for more grandchildren with T023C and Axle (T023D) delivering two more viable calves, bringing their gang size up to seven animals. It is likely that one of the daughters will leave to form her own gang.



P. Schulze May 2010

**T023
JANICE**
Born: ≤ 1965
Sex: female



J. Forde May 2010



P. Schulze May 2010

T023C
Born: 1990
Sex: female



J. Forde May 2010

T023D4
Born: unknown
Sex: unknown



J. Feaver June 2014

T023C3
Born: 2009
Sex: unknown



J. Forde June 2014



J. Forde June 2014

T023C4
Born: 2013
Sex: unknown



J. Forde June 2014



J. Feaver June 2014

**T023D
AXLE**
Born: 1993
Sex: female



P. Schulze May 2010



J. Feaver June 2014

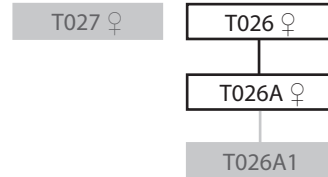
T023D3
Born: 2012
Sex: unknown



J. Forde June 2014

T026s

(1 day of visitation: 2010)



This image was taken in 2010 on the one day T026 was observed in Clayoquot Sound. She is easily identified by a notch in the top of her dorsal fin (Nick Templeman).

This is one of the most elusive of all the Bigg's killer whale gangs. We have only seen T026 once, in June of 2010, partying it up with T073s, T073As and T173s. We didn't see her female travelling companion T027 with her then and by 2012 this animal was presumed deceased. Since we have seen her in Clayoquot Sound she has given birth to T026A, and the two of them travel together.

Note that this gang is seldom seen anywhere in the Pacific Northwest. T026s were first identified when they were sighted in Puget Sound along with four other whales. Until 1991, they had only been sighted on four occasions.



T026
Born: <1966
Sex: female

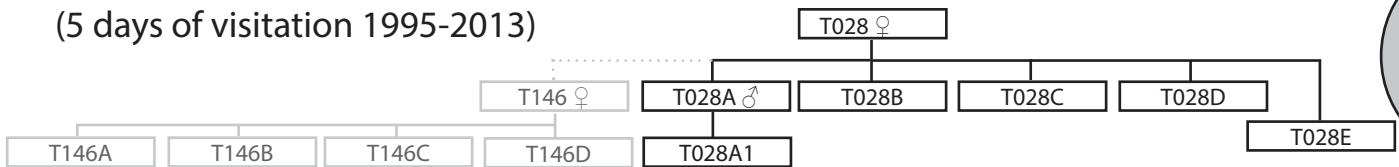


N. Templeman June 2010

T026A
Born: 1990
Sex: female

T028s

(5 days of visitation 1995-2013)



The T028s visited Clayoquot August 31, 2013 along with T069s and T146s. They are travelling on a full stomach as these animals just made a Steller sea lion kill at Rafael Point right before this photo was taken (Peter Schulze).

We first met these animals by chance in March 1995. We were returning from one of our offshore transects* when there they were, a few miles off the Lennard Island lighthouse. They were very elusive so it was with a great deal of difficulty that we were able to get the photographs required to make the identification. We were pleased to see these animals as they are seldom reported anywhere in the Pacific Northwest. Note that all of T028's offspring have survived.

T146 travelled with and was believed to be an offspring of T028's and in 2010 our prediction, "With the introduction of T146's new calf in 1999 we may see this gang split into two gangs." proved true. For her story see T146 in this publication.

*Every month for three years we ran along an offshore transect that runs out past the continental shelf to a point thirty five nautical miles out in the open ocean. The purpose of this run was to monitor the birds and marine mammals present during the different seasons.



J. Feaver

May 2013

T028
Born: ≤ 1972
Sex: female



J. Feaver

May 2013



J. Feaver

May 2013

T028A
Born: 1994
Sex: male



J. Feaver

May 2013



J. Feaver

May 2013

T028A1
Born: 2013
Sex: unknown



J. Feaver

May 2013



J. Feaver

May 2013

T028B
Born: 1997
Sex: unknown



J. Feaver

May 2013

T028S



J. Feaver

May 2013

T028C
Born: 2003
Sex: unknown



NO
IMAGE
AVAILABLE



J. Feaver

May 2013

T028D
Born: 2007
Sex: unknown



J. Feaver

May 2013



J. Feaver

May 2013

T028E
Born: 2013
Sex: unknown

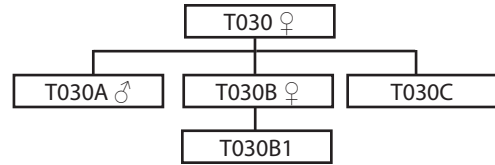


J. Feaver

May 2013

T030s

(4 days of visitation 2005-2010)



These animals were first seen here June 9, 2005 while travelling along several miles off Tofino heading up the coast and again on the June 21, hunting closer to shore with T065s. We didn't see them again until five years later when they showed up with three other gangs and much to the delight of waterfront folks, paraded right through the Tofino harbour. We have not seen them since. These animals normally frequent Alaskan waters and have previously rarely been seen in BC waters.



P. Schulze

June 2005

T030

Born: ≤ 1967

Sex: female



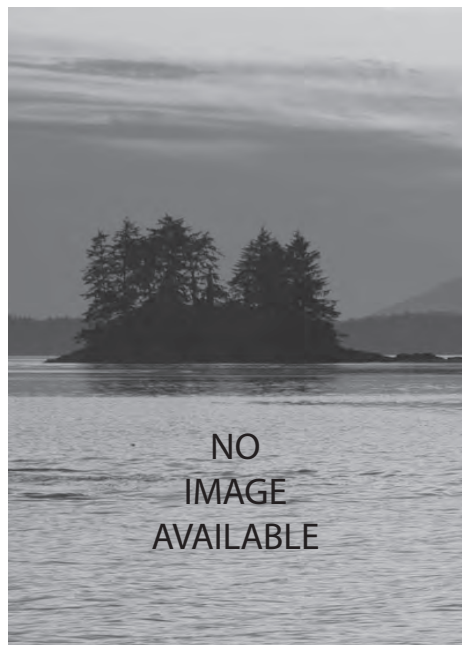
P. Schulze

June 2005

T030A

Born: 1986

Sex: male





P. Schulze

June 2005

T030B
Born: 1993
Sex: female



T030B1
Born: 2012
Sex: unknown



P. Schulze

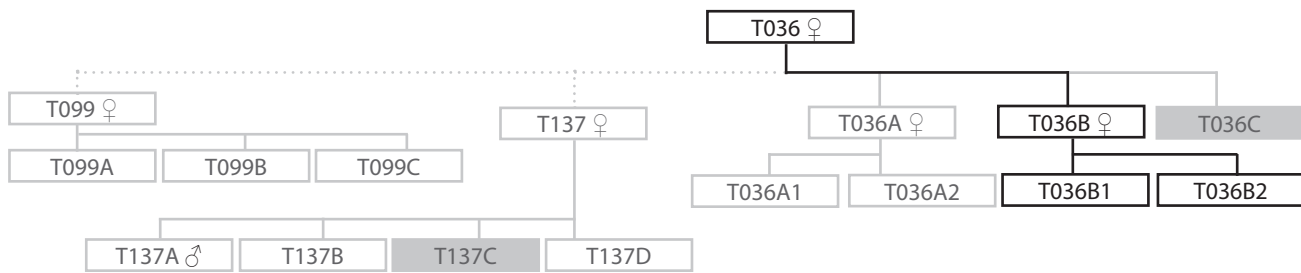
June 2005

T030C
Born: 2005
Sex: unknown



T036s

(4 days of visitation 2004-2014)



Every once and awhile we get lucky out on the water. In August 2014, four gangs of killer whales visited Clayoquot Sound at the same time. This image shows T124E, T124, T036, and T099 cutting through the water together. The T036s were seen with the T124s here once before in Sept 2011 (Jennifer Steven).

In our 2010 printing, this gang consisted of 6 members but in the interim, as is common, the oldest daughter (T036A) broke off to form her own gang.

There is an association with T137 indicating that she is a possible daughter of T036. After having two of her own offspring she moved on starting her own gang. See her story also in this publication.

These animals are not seen often; we recognize them as recent immigrants from Alaska. Our first encounter with these animals was in July 2004 when Jason Feaver photographed them travelling off the open coast with Rainny and Wakana (T011 & T011A). In subsequent visits, they have always been with other gangs and have not ventured into the inlets.



J. Feaver

Sept 2011

T036
Alaskan: AB31
Born: ≤ 1970
Sex: female



E. Stewart

Aug 2014

T036s



J. Feaver

Sept 2011

T036B
Born: 1998
Sex: female



E. Stewart

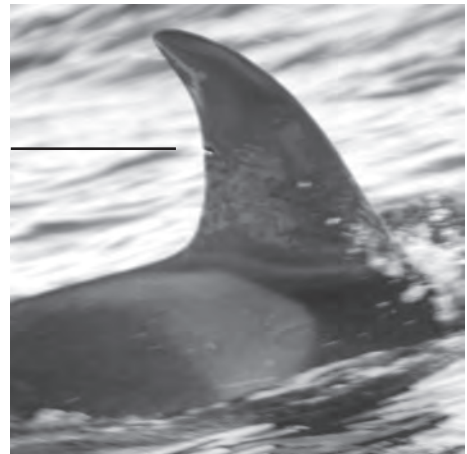
Aug 2014



J. Feaver

Sept 2011

T036B1
Born: 2009
Sex: unknown



E. Stewart

Aug 2014



NO IMAGE
AVAILABLE

T036B2
Born: 2013
Sex: unknown

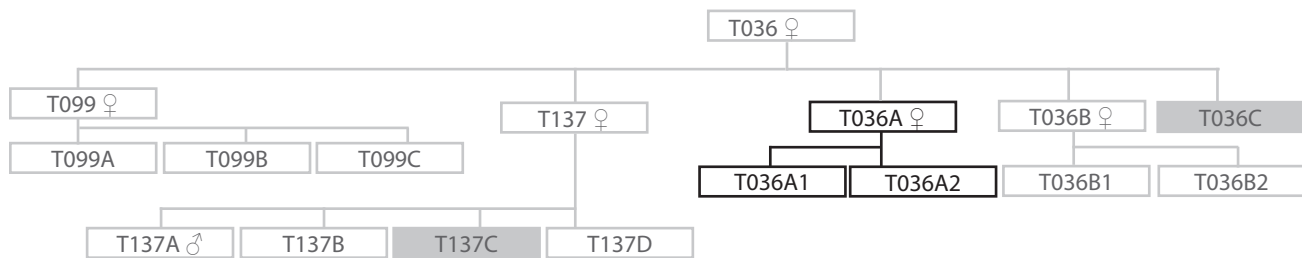


J. Kalwa

Aug 2014

T036As

(1 day of visitation: 2010 as her own gang)



At some point, likely not long after 2005, T036A broke away from her parent group (T036s) and started her own gang. She comes from hearty stock as evidenced by, as far as we know, the survival of all of her and her mother's offspring. We look forward to following this vibrant new gang as it grows and hopefully spends more time in Clayoquot than her mother and family did.



T036A
Alaskan: AM35
 Born: 1990
 Sex: female



P. Schulze Aug 2010



P. Schulze Aug 2010

T036A1
 Born: 2005
 Sex: unknown



T036A2
 Born: 2012
 Sex: unknown

T040 - CAPTAIN HOOK

(4 days of visitation 1993-2009)

T040 ♂

T036AS

T040



Captain Hook's dorsal fin resembles a hook when he moves along the surface of the water (Peter Schulze).

In our study group, Captain Hook is the oldest living male at over 55 years. This animal has always been seen here travelling with other gangs and has never been seen to enter our inlet waters. Captain Hook has been named for his rare flopped over dorsal fin, which is a rarity for killer whales in the wild. Though he travels as a lone bull, he has been seen with other gangs including T021's on two occasions and only in the spring and summer.



P. Schulze

June 2009

T040
CAPTAIN HOOK
Alaskan: AL40
Born: ≤ 1961
Sex: male

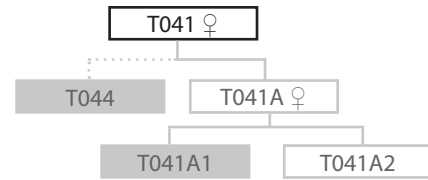


P. Schulze

June 2009

T041s - TED'S GANG

(Our most frequent visitor to Clayoquot Sound)
(104 days of visitation 1991-2014)



In June 1991, Ted Goodspeed and Rod Palm spent a day photographing the T041s off Lennard Island. In June 1992, the day of Ted's eulogy, Rod was with them again, this time off Long Beach. Their old letter designation was "T", so from then on we have referred to these guys as Ted's Gang. Ted was a great lover of whales and all wild things. His film footage of gray whale bottom feeding was the first close up footage of this behaviour in Canadian waters.

In September 1996, Ted's Gang were on the move, dodging in and out of the kelp beds and surge channels as they went with short bursts of thrashing about and the odd harassment of sea birds; these guys were intense. No kills were actually seen but you can be sure that they were getting something. As the whales rounded Siwash Point, their mood made a complete change. They slowed right down to a speed of perhaps one knot and moved right over to our boat. At this time we were a little confused about what was going on, so we slowed the engine down to a dead idle. Even though we were not at all conscious of trying to follow them, about every two minutes the whales surfaced right beside the boat. This behaviour carried on for almost an hour. At times like this it is hard to keep the *Kakawin* in a research perspective. I must confess lapsing into abstract reveries that were much too cosmic to relate in a report such as this. Suffice to say that whales, living under limited visual conditions have evolved into extremely acoustic animals; their hearing is sharper than ours and sound travels faster through water than air.

Ted's Gang has visited Clayoquot Sound every year since we started our monitoring in 1991. The male (T044) with this gang, as it was in 1991, died in 2011.



H. Tom

July 2012

T041

Born: ≤ 1973
Sex: female

Tip: Similar to
T007 & T053

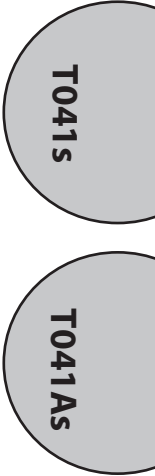
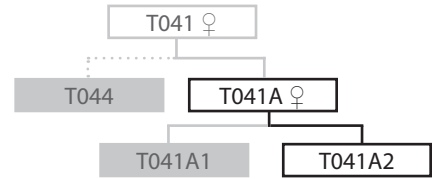


P. Schulze

July 2012

T041As

(13 days of visitation 2013-2014)



Mom and Tree (T041 and T041A2). Tree was born in Clayoquot Sound August 13, 2013. See the full story in the *Whale Tales* section (John Forde).

T041A had a calf near Tree Island in Clayoquot Sound in 2013. After the birth of her second calf, she never returned to Ted’s gang. T041’s first calf did not survive her early years.



J. Forde Aug 2013

T041A
Born: 1988
Sex: female



P. Schulze July 2012



J. Feaver Sept 2011

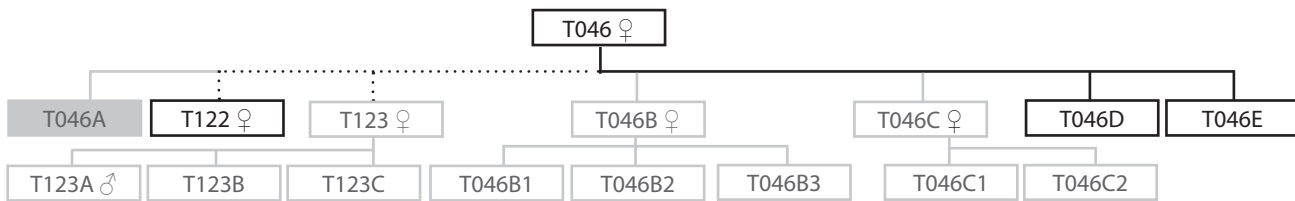
**T041A2
TREE**
Born: 2013
Sex: unknown



J. Feaver Sept 2011

T046s

(6 days of visitation 2004-2009)



T046 receiving the tail end of a tail slap (Unknown).

We rarely see these animals and when we do they seem to prefer travelling with other well-known gangs while visiting our waters. On August 2, 2008, they were travelling with the lone bull Pender (T014), T002s and T060s—quite a crowd. They were all sociably making their way up the coast, snacking on a harbour porpoise along the way. Curiously, one of the females was seen trailing the porpoise’s intestines draped across its back on the dorsal fin. Our network tracked these animals from Barkley Sound to Estevan Point where they were last seen still heading up coast. That’s 26.3 nautical miles, as the gull flies, in about six hours or 4.3 nautical miles per hour, a comfortable speed for travelling.

Back in the day, this gang had seven members that likely made hunting a challenge until T046B and T046C both broke away to form their own gangs (see following pages).

Due to these animals being so seldom seen, it’s speculated that T122 may actually be T046’s first born.



J. Feaver

April 2009

T046
Born: ≤ 1964
sex: female



R. Frank

Aug 2009



P. Schulze

June 2009

T122
Born: 1982
Sex: female



NO
IMAGE
AVAILABLE

T046S



W. Tom

Aug 2008

T046D
Born: 2000
Sex: unknown



C. Mullin

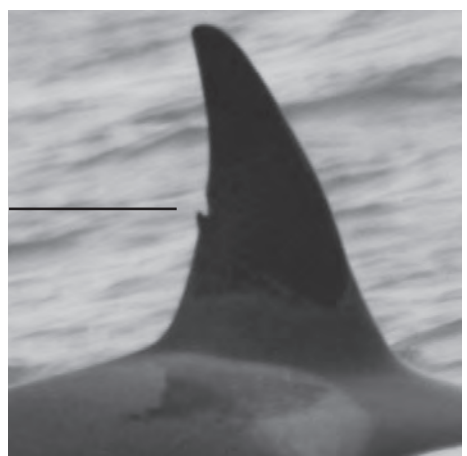
Aug 2009



R. Frank

Aug 2009

T046E
Born: 2003
Sex: unknown

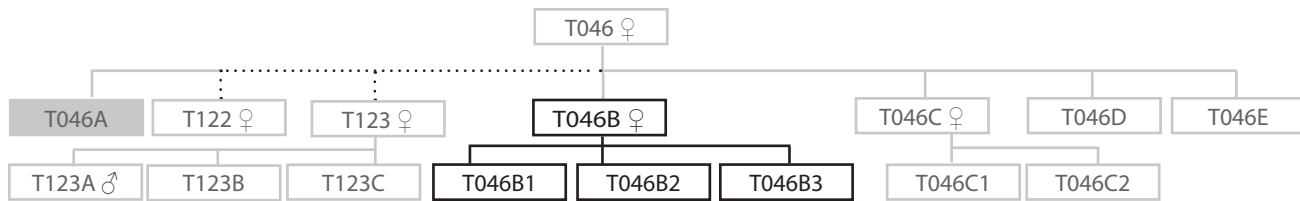


J. Feaver

April 2009

T046Bs

(1 day of visitation in 2009)



This female and offspring broke away from her parent gang (T046s) at some point within our one and only sighting in 2009 and then had a third calf. As far as we know T046B is of healthy stock with all three of her calves living.

On this sighting of the T046Bs, they were still with their parent gang (T046s) and the T046Cs (see facing page) working their way lazily up coast from Amphitrite Point in the company of three other, more regularly seen, gangs.



J. Feaver

April 2009

T046B
Born: 1988
sex: female



J. Feaver

April 2009

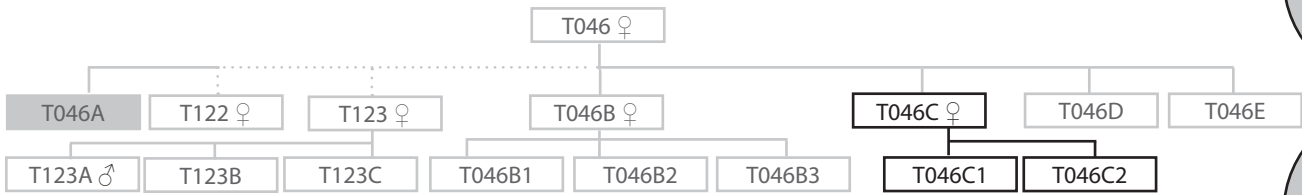
T046B1
Born: 2003
Sex: unknown

T046B2
Born: 2008
Sex: unknown

T046B3
Born: 2011
Sex: unknown

T046Cs

(1 day of visitation in 2009)



T046Bs
T046Cs

This younger sister of T046B and offspring broke away from her parent gang (T046s) around 2011 with both her calves surviving. As far as we know T046C is of healthy stock; both of her calves remain alive.



J. Feaver April 2009

T046C
Born: 1994
Sex: female



J. Feaver April 2009



J. Feaver Aug 2009

T046C1
Born: 2006
Sex: unknown

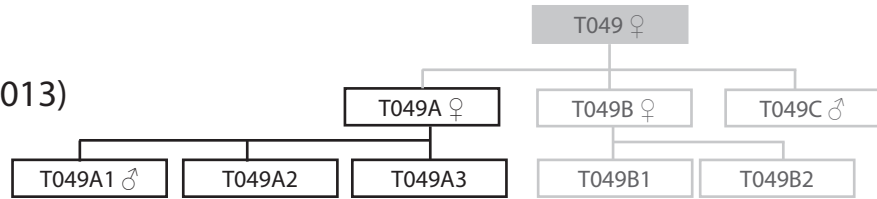


NO
IMAGE
AVAILABLE

T046C2
Born: 2009
Sex: unknown

T049As

(2 days of visitation 2010-2013)



The first time we saw these animals was in the spring of 1994, but they foraged around in the inlets as though they had lived there all their lives. They didn't seem to mind us tagging along and we followed them right up into the head of Herbert Arm, where they nabbed a harbour seal. This was the first time we have tracked killer whales into this inlet.

When we have seen these animals, they have all but once been with other gangs and all but once have visited the inside waters. The matriarch of this gang (T049) was last seen in 2003 and is now presumed dead. The sprouting bull T049C left his family in 2004. Was his mother's passing a factor in him leaving his family?



T049A
Alaskan: AL12
 Born: 1986
 Sex: female



R. Palm March 1994



E. Stewart March 2013

T049A2
 Born: 2007
 Sex: unknown

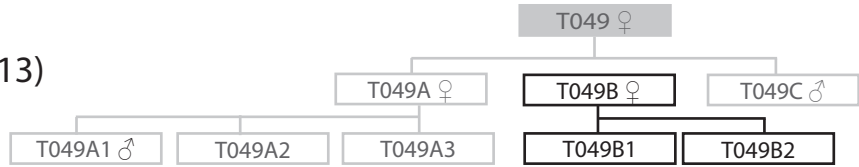


T049A1
 Born: 2001
 Sex: male

T049A3
 Born: 2011
 Sex: unknown

T049Bs

(6 days of visitation 2005-2013)



T049As

T049Bs

This female left her parent gang around 2006 and since then we haven't seen a lot of her, but she seems to be doing well. In July 2009 she joined five other gangs for a big party in Lemmens Inlet with two harbour seals on the menu. We have yet to see her and her offspring travelling without the company of at least one other gang.



E. Stewart March 2013

T049B
 Alaskan: AL20
 Born: 1992
 Sex: female



M. Francis Oct 2015



P. Schulze July 2009

T049B1
 Born: 2006
 Sex: unknown



NO
 IMAGE
 AVAILABLE



E. Stewart March 2013

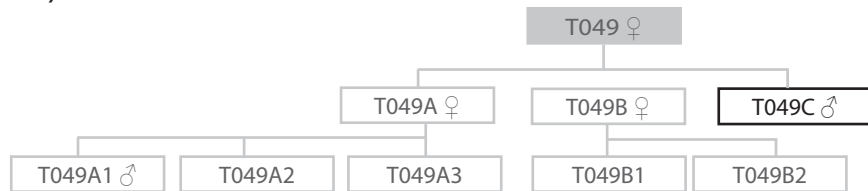
T049B2
 Born: 2010
 Sex: unknown



E. Stewart March 2013

T049C

(3 days of visitation 2009-2010)



Having only seen this bull on three occasions, there's not a lot to say except that on two of these sightings he was travelling with T073B, who is another lone bull. We thought they might be forming their own patriarchal gang but when we next saw T049C, cruising by Opitsaht in 2010, he was on his own.

In June of 2009, we were treated with 10 hours of monitoring T049C with T073B as they from the open ocean at Gowland Rocks through Tofino harbour and 14 miles up into the head of Tranquil Inlet where they dined on a seal and, as is typical, they kicked back for several hours before we lost track of them. They were located the next day moseying around the Catface Mountain shoreline but were soon lost. T049C and T077A are so similar in appearance that they are often referred to as the twins.



E. Stewart

June 2009

T049C

Born: 1998

Sex: male

Tip: This animal is very similar in appearance to T077A

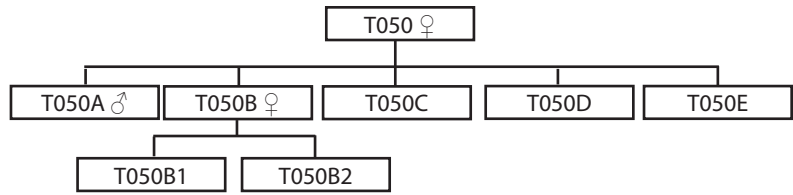


E. Stewart

June 2009

T050s

(11 days of visitation 1994-2015)



T049C

T050S



The T050s are one of the bigger gangs we have seen in Clayoquot Sound (Peter Schulze).

This gang has remained at four animals for nine years then T050 had her fourth calf (T050D) in 2013, and now has her fifth T050E and also T050B has had two calves (2012 and 2013). We don't see a lot of these animals and have gone through an 11 year stint without seeing them at all between 1996-2007. Since their hiatus, we have been seeing them more frequently including a visit in October of 2015. They frequently work the inlets and have been seen to be successful hunters while here with a taste for harbour seals. They are more frequently seen in Alaskan waters.



J. Forde

April 2007

T050
 Alaskan: AL8
 Born: 1980
 Sex: female



M. Francis

Oct 2015



P. Schulze

May 2013

T050A
Born: 1995
Sex: male



M. Francis

Oct 2015



J. Forde

April 2007

T050B
Born: 1999
Sex: female



J. Forde

April 2007



P. Schulze

May 2013

T050B1
Born: 2012
Sex: unknown



R. Frank

Jan 2014



T050B2
Born: ~ 2013
Sex: unknown



R. Frank

Jan 2014

T050S



J. Forde

April 2007

T050C
Born: 2005
Sex: unknown



J. Forde

April 2007



P. Schulze

May 2013

T050D
Born: 2013
Sex: unknown



E. Stewart

June 2009

T050E
Born: 2014
Sex: unknown

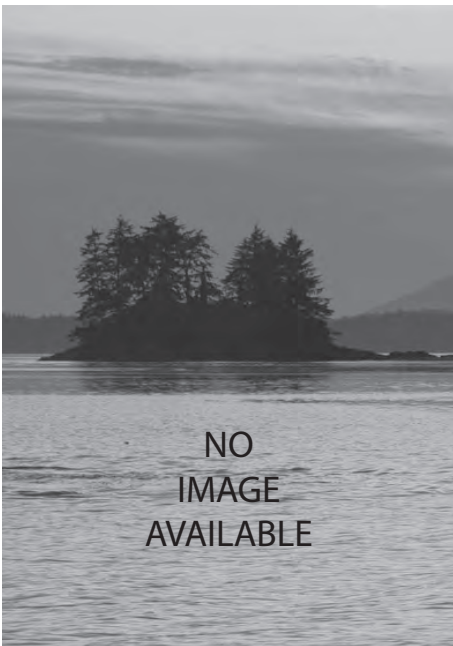
T051

(1 day of visitation in 1996)

T051 ♂

This big bull is another single sighting *Kakawin*. We saw him in April '96, travelling with T049s and T050s as they worked their way around the back side of Meares Island where we lost them in the darkness as they entered Tofino Inlet.

It was tempting to lump this guy in with T050s gang but he is only occasionally reported to be travelling with them.



T051
Alaskan: AL9
Born: 1981
Sex: male



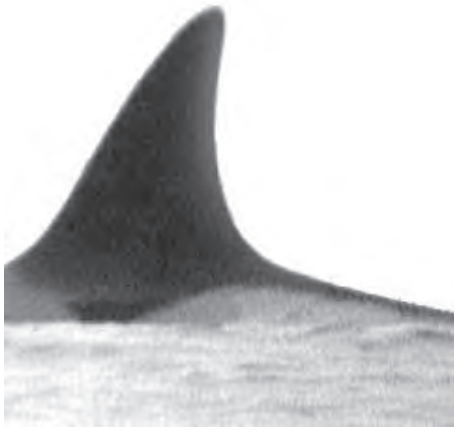
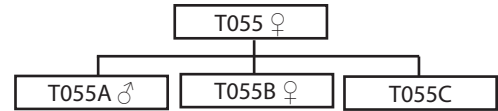
R. & K. Palm

April 1996

T055s

(2 days of visitation 2003-2011)

This gang has been very difficult for us to keep track of. We tend to get only partial photo ID coverage on each visit. They mostly work our outer coast but have been followed into our outer harbour, but then did not venture deep in inlet waters.



R. & K. Palm May 1998

T055
Born: ≤ 1974
Sex: female



H. Tom Aug 2011

T055A
Born: 1989
Sex: male



P. Schulze Oct 2003



R. & K. Palm May 1998

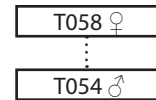
T055B
Born: 1994
Sex: female



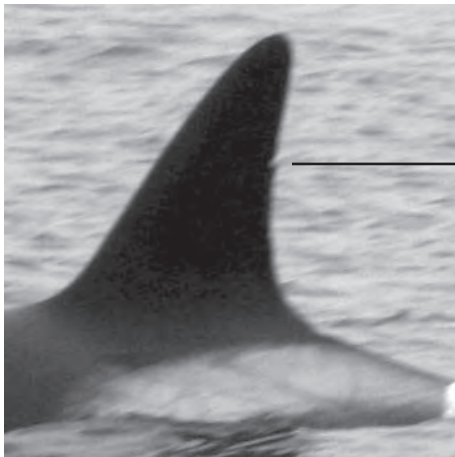
T055C
Born: 2004
Sex: unknown

T058s

(4 days of visitation 2002-2011)



Having only seen these animals four times, there is not a lot to say except that on each visit they not only enter our outer harbour, but also navigate the deep inlets as though they own the place.

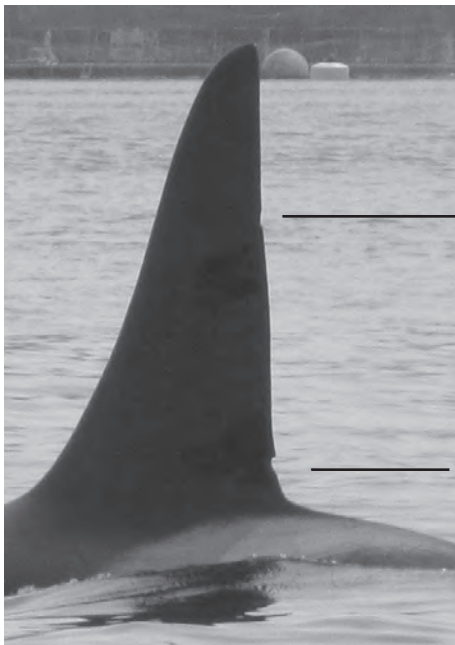


R. Orr May 2009

T058
Born: ≤ 1976
Sex: female



J. Feaver May 2010



T. Tom May 2010

T054
Born: 1972
Sex: male

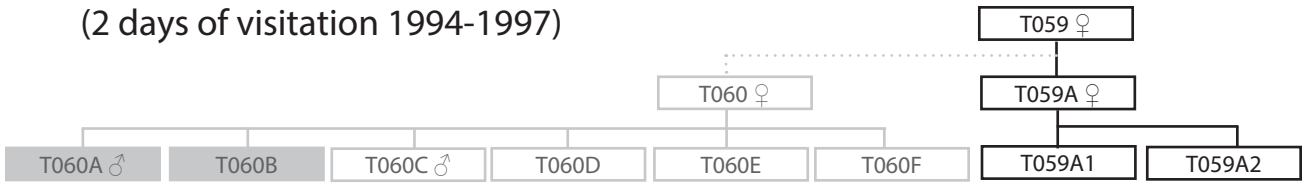


J. Feaver May 2010

Note: This animal has been seen on his own so is likely not an integral part of this gang.

T059s

(2 days of visitation 1994-1997)



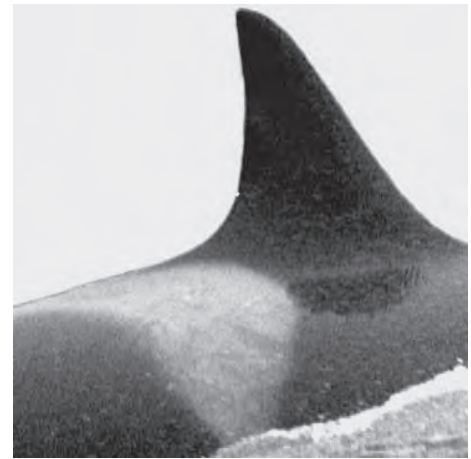
T058s

T059s

The first time we saw these animals was at the big whale party in 1994. On the second occasion they were also having a good time with a couple of other gangs - real party animals. T059s are normally found in more northern waters such as Haida Gwaii.



T059
Born: ≤1977
Sex: female



R. Palm Feb 1995



R. & K. Palm Aug 1997

T059A
Born: 1995
Sex: female

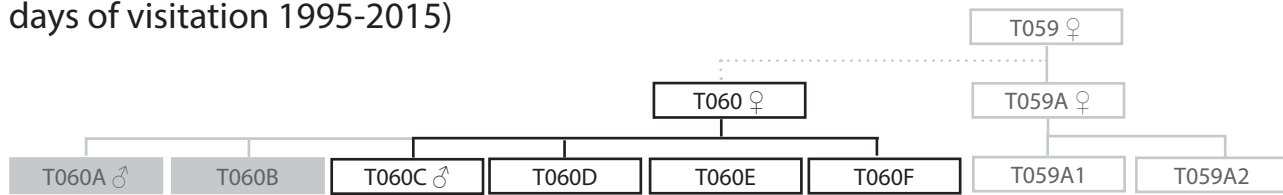


T059A1
Born: 2006
Sex: unknown

T059A2
Born: 2009
Sex: unknown

T060s

(22 days of visitation 1995-2015)



We didn't really see a lot of T060s until 2009 when we had them pillaging the open ocean coastline and the inside waters of northern Clayoquot Sound on seven occasions in the later part of the year. They were particularly apt at hunting down California sea lions as we have them recorded as successfully putting three of them on the menu in December while working Herbert Inlet, although they did have the help of T018 and her crew of three.

Untill 2011, T060s had always been seen in the company of as many as three other gangs but in recent years have been seen on their own.



H. Tom

Sept 2011

T060
Born: ≤1980
Sex: female



R. & K. Palm

Aug 1997



E. Stewart

June 2013

T060C
Born: 2001
Sex: male



J. Feaver

Sept 2012



P. Schulze

Sept 2009

T060D
Born: 2004
Sex: unknown



P. Schulze

July 2012

T060S



P. Schulze

July 2012

T060E
Born: 2008
Sex: unknown



E. Stewart

June 2013



P. Schulze

July 2012

T060F
Born: 2012
Sex: unknown

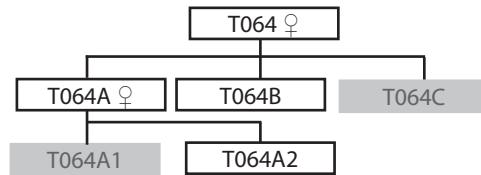


P. Schulze

July 2012

T064s

(4 day of visitation 2006-2012)



Proud mom T064A travelling with her new calf T064A2 and sibling T064B (Eugene Stewart).

In May 2006, the T064s were travelling up the coast with T021s and T023s. At Siwash Point there was a flurry of activity and blood in the water but the identity of the victim was not established. In June 2007 they were travelling with Ted's Gang (T041s). On all visits they have stuck as much as six miles off the open ocean waters. T064, the matriarch of this gang, has a very similar nick to T109C who belongs to a gang we see frequently in Clayoquot. Remarkably they both showed up in Clayoquot on the same day in June 2012, when T109C gave birth to her calf.



J. Feaver

June 2012

T064
Alaskan: AM21
Born: 1971
Sex: female

Tip: this animal looks very similar to T109C



E. Stewart

May 2011

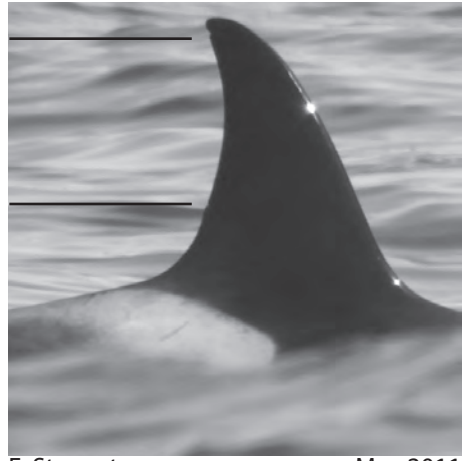
T064S



J. Feaver

June 2012

T064A
Alaskan: AM27
Born: 1993
Sex: female



E. Stewart

May 2011



J. Feaver

June 2012

T064A2
Born: 2012
Sex: unknown



J. Feaver

June 2012



J. Feaver

June 2012

T064B
Born: 2002
Sex: unknown

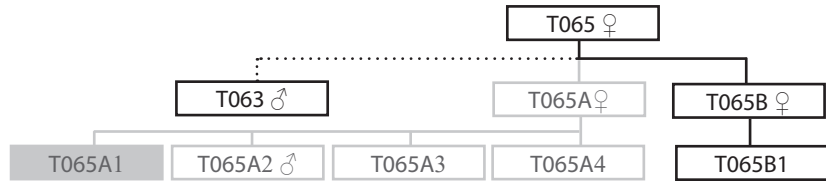


J. Feaver

June 2012

T065s

(9 days of visitation 2005-2015)



On their first four visits, these infrequent Alaskan visitors had been travelling with at least one other gang. In 2008 and 2009 they showed up on their own. They have always stuck to the open ocean waters.

We have only seen T065 once since our last publication in 2010. The event was a big open ocean party, off Rafael Point, with five other gangs for a total of 21 socializing Bigg's killer whales.



T065s visit Clayoquot Sound in August of 2015 (John Forde).



J. Feaver

Aug 2011

T065
Alaskan: AM22
Born: 1971
Sex: female



P. Schulze

Aug 2008

T0655



P. Schulze

Aug 2008

T065B
Alaskan: AM26
Born: 1993
Sex: female



R. Chiovitti

June 1996

T065B1
Born: 2011
Sex: unknown



J. Feaver

Aug 2009

T063
CHAINSAW
Alaskan: AM20
Born: 1978
Sex: male

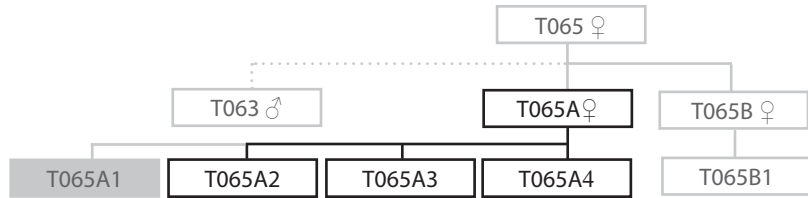


R. Chiovitti

June 2006

T065As

(2 day of visitation 2005-2013)



As a gang, we've only seen these animals briefly in June of 2005 as they stalked the reef on the open ocean side of Vargas Island travelling at a leisurely pace of about 2.5 knots. We first saw T065A in 2005 when she was still travelling with her mom who she probably broke away from very shortly after, as she already had one calf at that time.



P. Schulze

Aug 2008

T065A
Alaskan: AM25
 Born: 1986
 Sex: female



J. Forde

Aug 2015



P. Schulze

June 1995

T065A2
 Born: 2004
 Sex: male

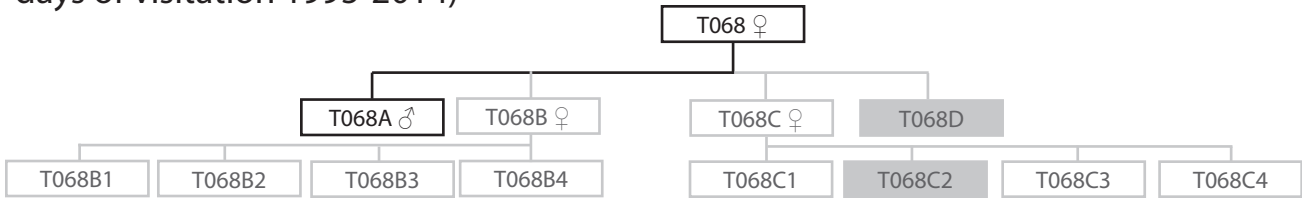


T065A3
 Born: 2007
 Sex: unknown

T065A4
 Born: 2011
 Sex: unknown

T068s

(27 days of visitation 1995-2014)



T065AS

T068s

This gang has visited us quite regularly since our study began, and usually they never go more than a few years without being sighted. Interestingly, these animals have always visited the inner sound rather than passing by on their way up or down the coast as gangs most often do. One time in 1997 this gang was seen pummeling a sea lion. The sea lion escaped and took refuge underneath our research vessel, but the whales surfaced a hundred meters away leaving the sea lion in rather poor shape.



H. Tom Dec 2014

T068
Alaskan: AQ10
 Born: ≤1970
 Sex: female



P. Schulze May 2013



J. Forde Sept 2014

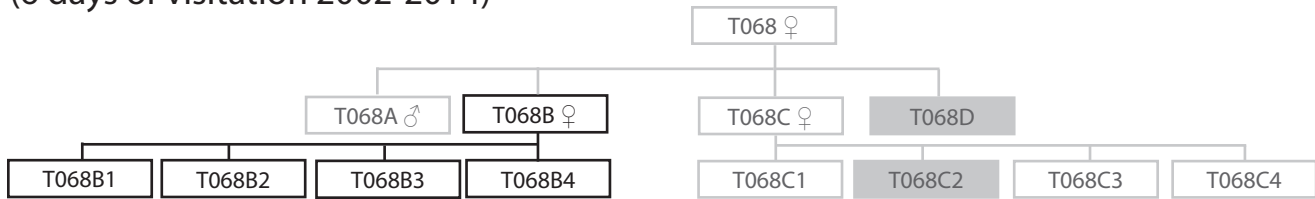
T068A
Alaskan: AQ11
 Born: 1984
 Sex: male



P. Schulze May 2013

T068Bs

(6 days of visitation 2002-2014)



T068B3 checking things out above the water (Eugene Stewart).

This female (T068B) was a regular visitor to Clayoquot Sound back to 1995. She broke away from her parent gang at some point previous to 2012 but still enjoys an occasional visit with the family. All the offspring in this gang have survived. This gang was once seen harassing a river otter.



P. Schulze

May 2013

T068B
Alaskan: AQ12
Born: 1987
Sex: female



P. Schulze

May 2013



E. Stewart

May 2013

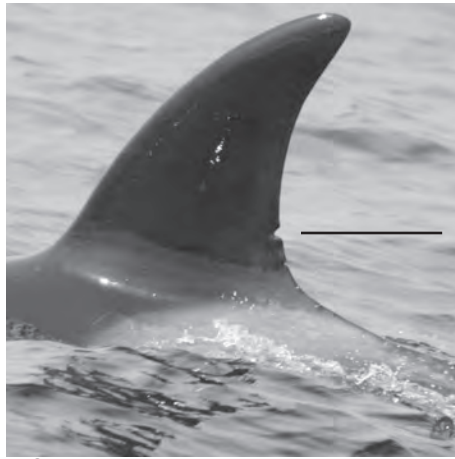
T068B1
Born: 2001
Sex: unknown



E. Stewart

May 2013

T068Bs



E. Stewart

May 2013

T068B2
Born: 2004
Sex: unknown



NO
IMAGE
AVAILABLE



E. Stewart

May 2013

T068B3
Born: 2010
Sex: unknown

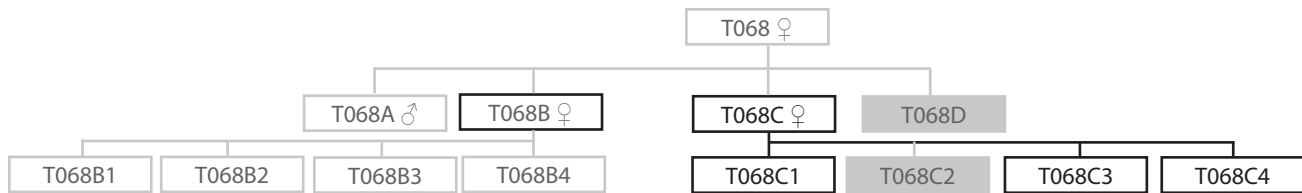


NO
IMAGE
AVAILABLE

T068B4
Born: unknown
Sex: unknown

T068Cs

(1 day of visitation in 2014)



2014 Sunset spyhop. A winter visit from T068Cs two days before the new year (Tofino Photography).

T068Cs were travelling with the T068s when they visited us in 2013, but the next time we saw them in 2014 they were on their own. It was great to see them again and they seemed to be doing just fine as their own gang as they travelled right up into the Tofino Inlet. Although T068C's second calf did not survive, her three others are healthy as far as we know.



P. Schulze

May 2007

T068C
Alaskan: AQ14
Born: 1992
Sex: female



J. Forde

Dec 2014

T068Cs



P. Schulze

May 2013

T068C1
Born: 2007
Sex: unknown



J. Forde

Dec 2014



T068C3
Born: 2012
Sex: unknown



J. Forde

Dec 2014



T068C4
Born: 2014
Sex: unknown

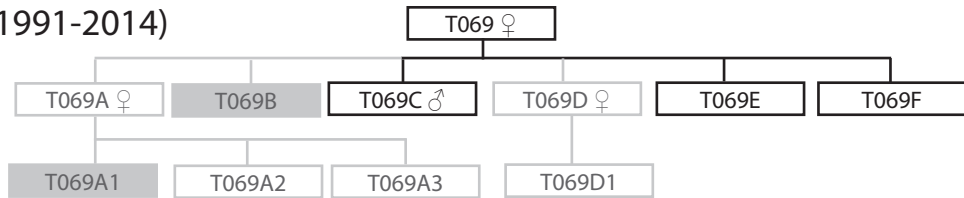


J. Forde

Dec 2014

T069s

(78 days of visitation 1991-2014)



Beautiful shot of the T069's taken on a summer evening in 2013 (Jennifer Steven).

These animals have been here every year and have pretty much explored all the routes in Clayoquot Sound.

In July 2015, a killer whale was seen stranded on the rocks in the northern Squally Channel near the Hartley Bay village. It was identified as T069E, a young female. She had gotten herself stuck on the rocks when the tide went out while hunting seals. A team of people helped keep her skin moist and cool for 8 hours before the tide came up and she could maneuver herself back into the water where the rest of her family was waiting.



E. Stewart

Feb 2012

T069

Born: ≤ 1974

Sex: female

Tip: This animal looks similar to T010



E. Stewart

Feb 2012



E. Stewart

Feb 2012

T069C
Born: 1995
Sex: male



J.Steven

June 2013

T069S



H. Tom

June 2013

T069E
Born: 2004
Sex: unknown



J. Feaver

Aug 2013



H. Tom

June 2013

T069F
Born: 2010
Sex: unknown

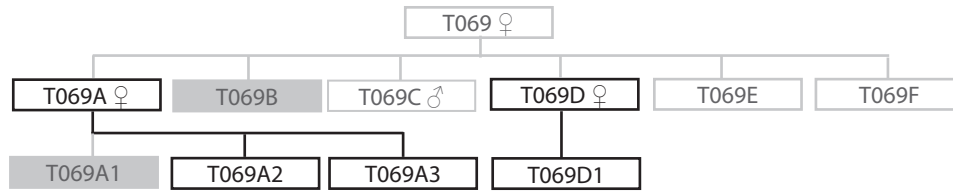


J. Feaver

Aug 2013

T069As

(15 days of visitation 2011-2014)



T121A, T069A2 and T069A quietly moving through the sound (Howard Tom)

The matriarch of this gang (T069A) has been known to us since 1991 when she was but two years old and still with her mom’s gang (T069s). After having lost her first born in the early 2000’s she successfully birthed a calf in 2006, and by 2011 she had run away to form her own gang and had a second calf.

T069As seem to be doing well but to date we have only seen them on one occasion to be on their own without the hunting assistance of another gang. T069Ds have been sighted on their own and have possibly formed their own gang now.



P. Schulze March 2013

T069A
Born: 1989
Sex: female



J. Forde Aug 2014

T069AS



P. Schulze

March 2013

T069A2
Born: 2006
Sex: unknown



J. Forde

Aug 2014



P. Schulze

March 2013

T069A3
Born: 2011
Sex: unknown



J. Forde

Aug 2014



J. Forde

Sept 2014

T069D
Born: 2001
Sex: female



H. Tom

Aug 2011



J. Forde

Sept 2014

T069D1
Born: 2013
Sex: unknown

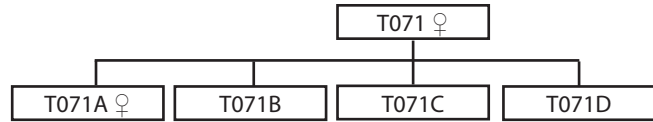


J. Steven

July 2014

T071s

(1 day of visitation 2010)



We were overjoyed to welcome this matriarch in June 2010 with her brood of four calves, but we have not seen them since. These are among several gangs who are more regularly seen in Alaskan and Haida Gwaii waters. On their visit they were heading up the coast but didn't get any closer than 6.7 nautical miles from shore.



N. Templeman June 2010

T071
Alaskan: AL10
 Born: 1980
 Sex: female



N. Templeman June 2010

T071A
 Born: 1995
 Sex: female



N. Templeman June 2010

T071C
 Born: 2007
 Sex: unknown



T071B
 Born: 2000
 Sex: unknown

T071D
 Born: 2011
 Sex: unknown

T072

(2 days of visitation 1991-2012)

T072 ♂



In July 2012, T072 teamed up with T124C (Howard Tom).

This is another rarely sighted lone bull from Alaskan waters. On our first visit with him, in May of 1991, he was briefly seen in Bedwell Sound with T066 who is another lone bull since passed away. They swam right up into the head of the sound, then, without hesitation, turned and swam right back out again.

We didn't see him again until a blustery day in July of 2012 when he was with yet another lone bull (T124C).



H. Tom

July 2012

T072
Alaskan: AQ2
 Born: 1974
 Sex: male

Tip: Lone bull sometimes travels with other lone bulls

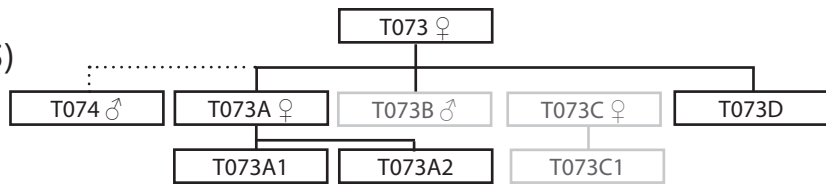


H. Tom

July 2012

T073s

(7 days of visitation 2009-2015)



More Alaskans! We first recorded these animals in June 2009 when they were with T049Cs and they spent 15 hours hunting their way through our inner maze of islands, inlets and reefs before the last monitoring boat had to leave them. On the very next day, they were seen to be still in the inlets. In the summer of 2015, T074 came right into the Tofino harbour and put on an incredible show by showing off his immense strength and size by breaching out of the water.



T'ashii Paddle gets an incredible visit from T074 (John Forde).



J. Forde

June 2015

T074
Alaskan: AQ32
Born: 1979
Sex: male



J. Forde

May 2015



J. Forde June 2015

T073
Alaskan: AQ33
Born: ≤ 1972
Sex: female



J. Forde May 2015



N. Templeman June 2010

T073A1
Born: 2005
Sex: unknown



T073D
Born: 2005
Sex: unknown



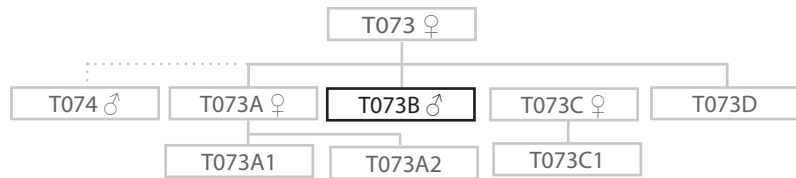
J. Forde June 2015

T073A
Born: 1987
Sex: female

T073A2
Born: 2010
Sex: unknown

T073B

(3 days of visitation 2009-2011)



The lone bulls T049C and T073B cruise the inside waters of Clayoquot Sound (Rod Palm)

This bull spent two days in Clayoquot Sound in June of 2009. Interestingly, his Alaskan family was nowhere in sight. He was travelling with T049C who is another bull with a large Alaskan family, also nowhere to be seen. It wasn't until June 2010 when we saw his family, but T073B was not with them.



R. Palm

June 2009

T073B
Alaskan: AQ35
Born: 1991
Sex: male

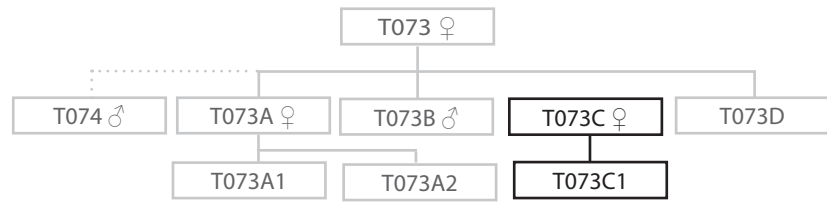


E. Stewart

June 2009

T073Cs

(0 days of visitation recorded as a new gang)



T073B

T073Cs

T073Cs split off from the T073s shortly after we first saw her. Although we have yet to see her since she had her first calf and started her own gang, we hope that she remembers these waters and returns at some point in the future to show off her offspring. As a member of the T073s we had only seen her once. The next time we saw her here, she was with her brother, T073B. The two siblings came right into the Tofino harbour and passed by Strawberry Island, to our delight. It makes things easier when we can make our observations from the comfort of our office though sadly it doesn't happen all too often.



N. Templeman

June 2010

T073C
Born: 1998
Sex: female



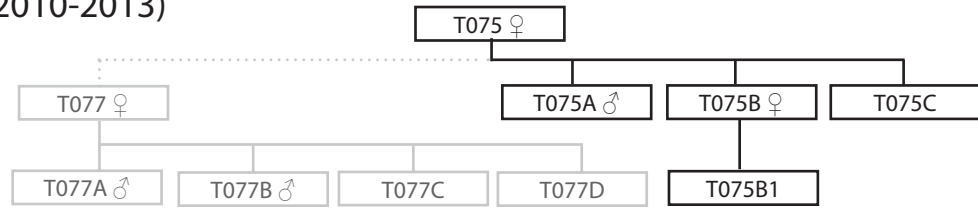
P. Schulze

March 2011

T073C1
Born: 2012
Sex: unknown

T075s

(5 days of visitation 2010-2013)



T075 and her kids are a great hunting team. In August of 2010, in the company of Ted’s Gang, they got three harbour seals at the lagoon in front of the Lennard Island lighthouse and were seen to get another two days later at Bartlett Island.



E. Stewart July 2013

T075
Alaskan: AQ3
 Born: ≤1976
 Sex: female



P. Schulze June 2011



E. Stewart July 2013

T075A
Alaskan: AQ9
 Born: 1991
 Sex: male



H. Tom June 2011



E. Stewart

June 2011

T075C
Born: 1998
Sex: unknown



H. Tom

June 2011

T075S



H. Tom

June 2011

T075B
Alaskan: AQ15
Born: 1994
Sex: female



H. Tom

June 2011



E. Stewart

June 2011

T075B1
Born: 2007
Sex: female

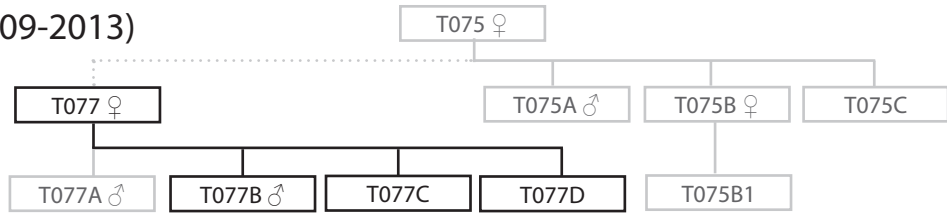


E. Stewart

June 2011

T077s

(2 days of visitation 2009-2013)



T075A, T077C, T077D, T077B. It is easy to see the difference in size between the mature bull (T077B) and the younger offspring when they are so close (Eugene Stewart).

In 2009 we first saw these Alaskan *Kakawin* travelling up the open coast with T175, T187 and Big Momma's Gang (T109). On their second in 2013 visit they were sighted with T075A.



E. Stewart

July 2013

T077
Alaskan: AQ7
 Born: ≤1981
 Sex: female



NO
 IMAGE
 AVAILABLE



E. Stewart

July 2013

T077B
Born: 2000
Sex: male



NO
IMAGE
AVAILABLE



E. Stewart

July 2013

T077C
Born: 2006
Sex: unknown



NO
IMAGE
AVAILABLE



E. Stewart

July 2013

T077D
Born: 2009
Sex: unknown

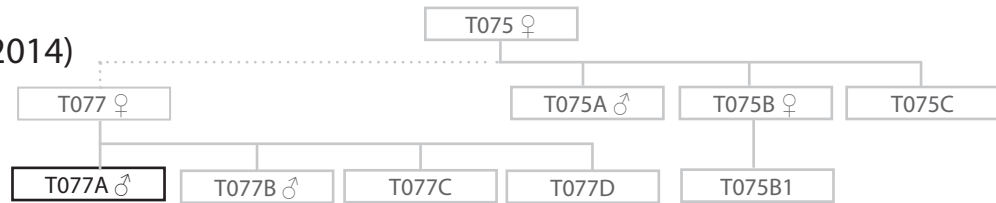


NO
IMAGE
AVAILABLE

T077S

T077A

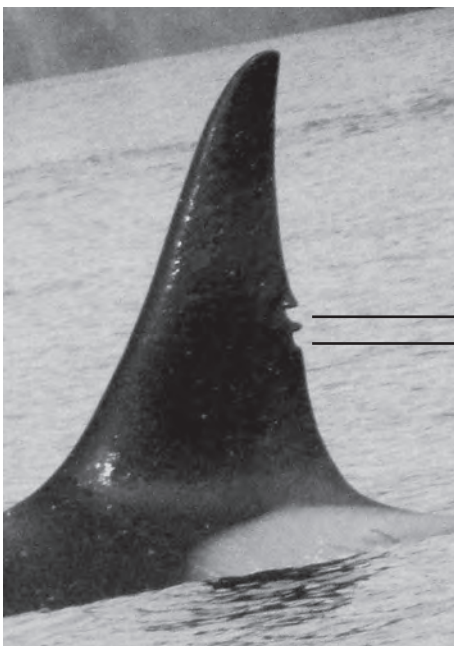
(4 days of visitation 2014)



T077A showed up in 2014 for the first time and put on quite a show (Tofino Photography).

This bull showed up for the first time in June of 2014 and hung around for four days, dumbfounding us as to who he was. The internet grapevine pointed out that this whale had a twin in T049C, but Jared Towers confirmed that we had it right. During his four day visit T077A spent all his time in the inlets and seemed to be enjoying himself judging by his exuberant behaviour of breaching , rolling, tail slapping, and all sorts of high energy antics.

This whale was sighted November 2015 near Nanaimo with a rope and buoy wrapped around his dorsal fin. Killer whale entanglements are not common but have been documented. T077A has been sighted since this event and is free of the equipment.



T. Tom

June 2014

T077A
Born: 1996
Sex: male

Tip: This animal is very close in appearance to T049C

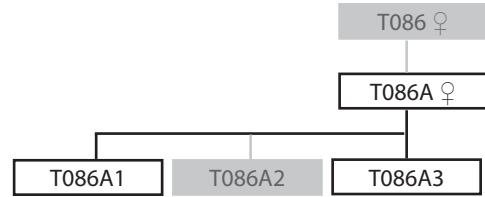


Tofino Photography

June 2014

T086As

(1 day of visitation 2013)



T077A
T086As

Having only seen these Alaskan animals once, there's not much to say. They showed up in May of 2013 one nautical mile off the Lennard Island lighthouse, ducked in behind Vargas Island for an hour and a half then headed back out to continue their journey up the coast.



E. Stewart May 2013

T086A
Alaskan: AL15
Born: 1988
Sex: female



J. Feaver May 2013

T086A1
Born: 2001
Sex: unknown



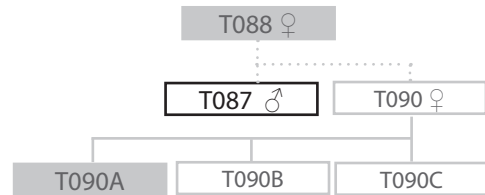
J. Feaver May 2013

T086A3
Born: 2011
Sex: unknown



T087

(5 days of visitation 1993-2013)



Another lone bull, T087 has always been seen by us to be travelling with other *Kakawin*. From 1993 to 2010 we always saw him with gangs of the T002 bloodline, along with others. On all but one of his visits, up to 2013, he has been with members of the T090 blood line. He has also only been seen here during the fall and winter.



T090B and T087 in late December. T090s are often seen with T087 (Tim Tom).



T. Tom

Dec 2013

T087
Alaskan: A01
Born: ≤ 1962
Sex: male

Tip: This animal is very close in appearance to T020

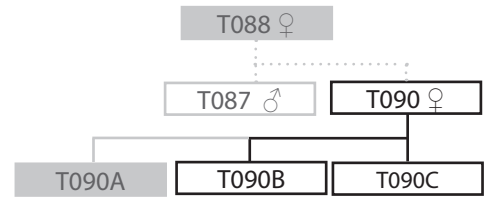


J. Lewis

Dec 2013

T090s

(3 days of visitation 2011-2013)



T087s

T090s

These animals have their roots with the dearly departed matriarch T088 who died around 2011 leaving T090 to form her own gang with the bull T087 (see previous page). They have been seen to forage both open ocean and inside waters.



P. Schulze Sept 2011

T090
Alaskan: A04
 Born: 1980
 Sex: female



J. Darling Aug 2013



T. Tom Dec 2013

T090B
 Born: 2006
 Sex: unknown



J. Darling Aug 2013



T. Tom Dec 2013

T090C
 Born: 2010
 Sex: unknown



P. Schulze Aug 2013

T093 and T097

(1 day of visitation 2011)

T097 ♂

T093 ♂

This is another lone bull that we've only seen once. In April of 2011 he was identified as participating in a jubilant gathering of seven other gangs for a total of about 25 *Kakawin* revellers. On this day he was seen with T097, another Alaskan lone bull who has not been seen since this day. We have no images of this whale.



R. Frank

April 2011

T093
Alaskan: AH1
Born: <1963
Sex: male



R. Frank

April 2011

T097
Alaskan: AH5
Born: 1980
Sex: male

BIGG'S KILLER WHALES AND SEA BIRDS

T093

T097

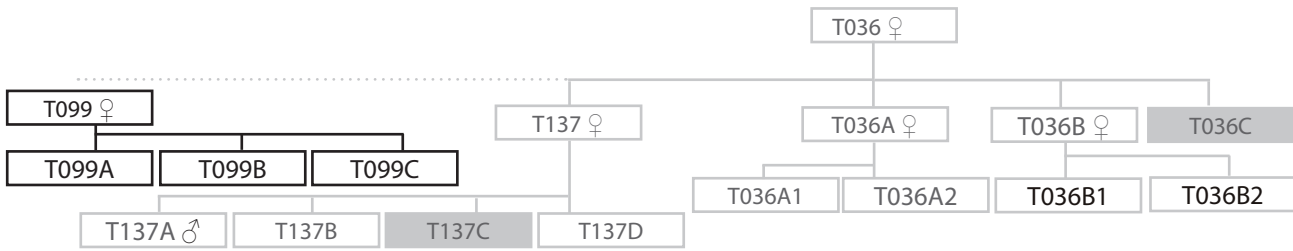


Killer whale sneaking up on a surf scoter (Wilfred Atleo).

It is not totally uncommon to see killer whales in Clayoquot Sound preying on seabirds. Killer whales will often harass water birds such as this surf scoter and they appear to take great delight in dragging them underwater for considerable lengths of time before releasing them to pop back up to the surface. The final indignity for this poor scoter, was to have his head torn off and his decapitated carcass left to drift on the surface. We have also recorded Bigg's killer whales preying on marbled murrelet, common murrelet, and Cassin's auklet.

T099s

(1 day of visitation 2014)



T124E, T124, T036, T036B1, T036B (likely) and T099. This posse of whales visited us summer 2014 (Jennifer Steven).

This is a strong gang with all offspring of T099 having survived. It's thought that they may be of the T036 blood line. On their one and only visit, in August of 2014, they were wandering their way down the outside coast with a social group of three other gangs who are also not particularly well known to us.



T099
Alaskan: AM34
Born: < 1984
Sex: female



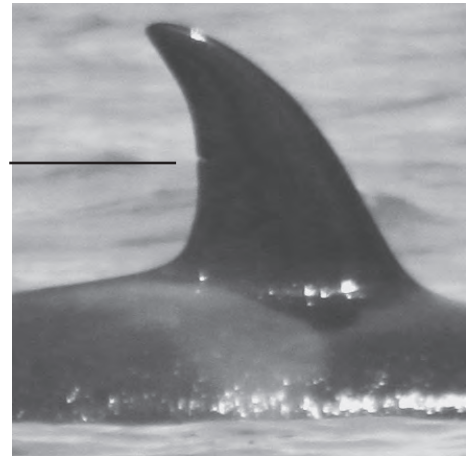
J. Forde

Aug 2014

T099s



T099B
Born: 2007
Sex: unknown



J. Kalwa

Aug 2014



T099C
Born: 2009
Sex: unknown



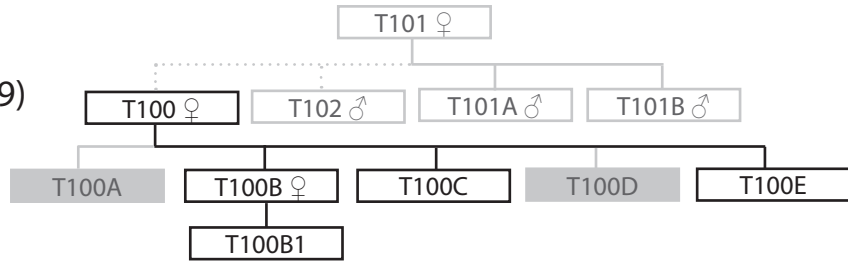
J. Forde

Aug 2014

T099A
Born: 2003
Sex: unknown

T100s

(2 day of visitation 2004-2009)



We briefly first saw these animals in September 2004 travelling up the coast past Hot Springs Cove. We didn't see them again until August 2009 when they were making their way up the coast, staying way offshore. A nautical mile off Gowland Rocks they were seen to be harassing a harbour porpoise and likely got it as the porpoise disappeared and the whales remained lazing about as is their habit after dining. On this occasion they were hunting with our long time visitors Langara's gang.



T100
Alaskan: AL41
 Born: ≤1978
 Sex: female



J. Feaver Sept 2012



R. Frank Aug 2009

T100C
 Born: 2002
 Sex: unknown



J. Feaver Sept 2012

T100B
 Born: 1997
 Sex: female

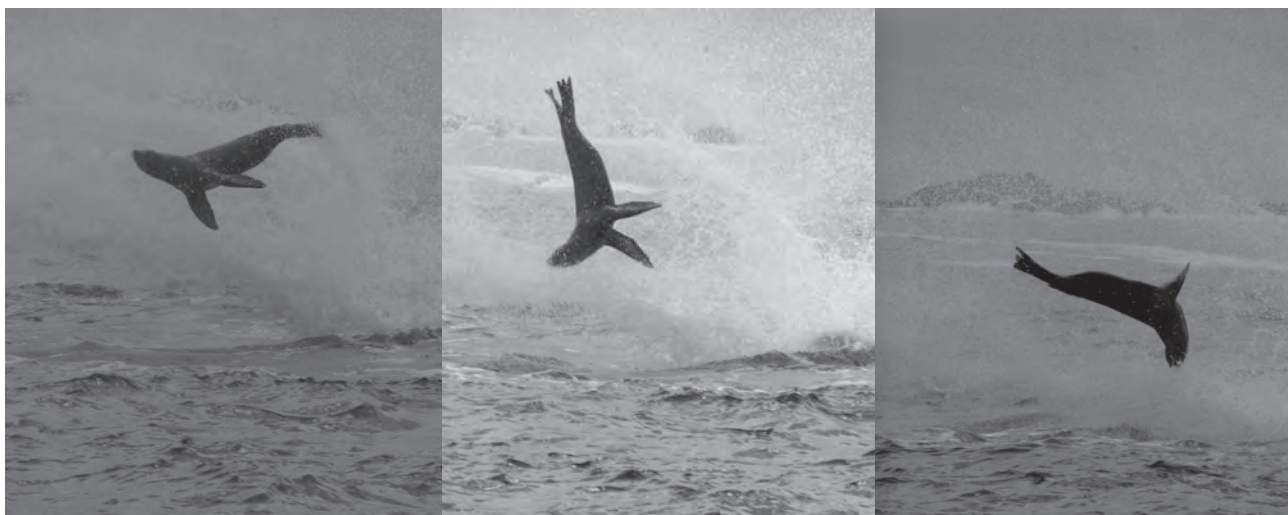
T100E
 Born: 2009
 Sex: unknown

T100B1
 Born: 2010
 Sex: unknown

HUNTING

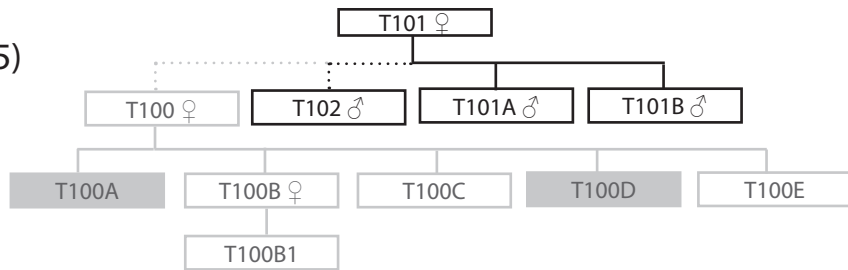
Bigg's killer whales feed primarily on mammals. We have often seen one of these whales slap a sea lion or a harbour porpoise for around an hour or more before actually killing it or perhaps just leaving it. It's not uncommon to see a sea lion of 700 kg being tail slapped clear out of the water. Is this a means of tenderizing the meat or simply a training session for the youngsters? These images show a Stellar sea lion and a harbour porpoise taking a serious beating.

Images: In 2005, the T069s were seen slapping around a female Stellar Sea Lion (John Forde, top). Harbour porpoise taking a serious beating (Brady Clarke, bottom).



T101s

(3 day of visitation 2004-2015)



These whales are a breakaway gang from T100s who appear to be doing well, and may be unique in being a gang with three strapping sons and no daughters.

We first saw them in September 2004 when they briefly showed up off Barney Rocks heading up the coast out of our study area. On the last occasion, with three other lesser known gangs, they were wandering their way down the outside coast.



J. Forde

Aug 2014

T101
Alaskan: AL42
Born: ≤ 1973
Sex: female



J. Forde

Aug 2015



J. Forde

Aug 2014

T102
Born: 1984
Sex: male



J. Forde

Aug 2014



J. Forde

Aug 2015

T101A
Alaskan: AL45
Born: 1993
Sex: male



J. Forde

Aug 2015



J. Forde

Aug 2014

T101B
Born: 1997
Sex: male

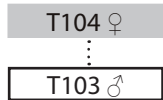


J. Forde

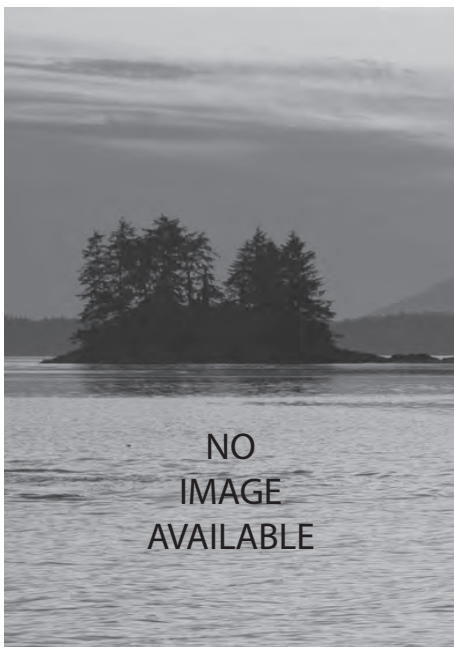
Aug 2015

T103

(2 days of visitation 1998-2006)



This is yet another lone bull whose common habitat is BC's northern waters to Alaska. Unlike many similar ranged *Kakawin*, he explored our inner waters in December of 1998 in the company of regular visitors T068s. Eight years later, he showed up with three other gangs working their way down the open coast. In past years T103 regularly travelled with the female T104 but she passed on some time between 2006 and 2012 leaving him on his own.

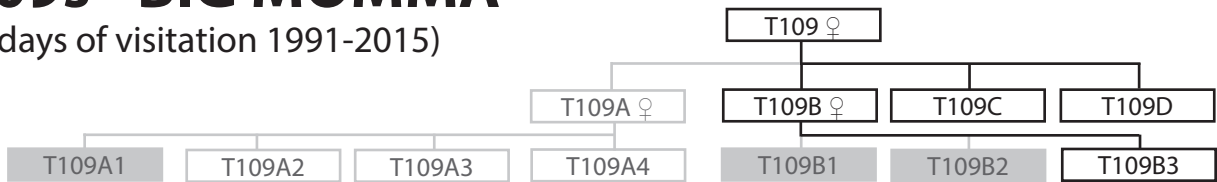


T103
Alaskan: AM23
Born: ≤ 1968
Sex: male



T109s - BIG MOMMA

(105 days of visitation 1991-2015)



The T109's charging through Clayoquot Sound (Peter Schulze).

Until 1996, we had only seen this very sociable female and her infant visit Clayoquot Sound with other whales. They spent a lot of time with Ted's Gang in 1991-92, Langara's in 1994 and take periodic sojourns with the Secret Agents. This wandering from gang to gang is commonly seen amongst the Bigg's, in contrast with the lifelong family bonds held by the fish-eating resident orcas that frequent the inside of Vancouver Island.

In August of 1996, T109 showed up with another calf. The last time we had seen her was six days prior, so this frisky little guy was less than a week old. Young killer whales think they're hot stuff. When popping up to the surface they seem to like to lift their eye out of the water to have a peek at you; T109B even came right over to the boat just long enough to splash Kechura with a flick of its tail. It's great to see him so full of energy. Mortality in new born killer whale calves is thought to be as high as 50 percent. This is now an optimum gang size for hunting but it wasn't until June 1998 before we saw them hunting on their own.

In July of 1996 these whales were travelling up the coast with Wakana's gang and surprise, T109 had yet another calf (T109D).

In August of 1994, T109s were making their way down the coast with Langara's gang. They charged into the east lagoon at Gowland Rocks and very quickly nabbed a seal and dragged it out into open water to share the spoils. This done, they dashed back in and scooped up another. Gowland is the largest harbour seal rookery in the study area so it is understandably a very important hunting site for the whales. In 2005, Big Momma became a grandmother when her eldest daughter T109A delivered a rambunctious calf.





P. Schulze

March 2012

T109
BIG MOMMA

Born: ≤ 1975

Sex: female



J. Forde

Sept 2014



J. Feaver

Sept 2013

T109B
Born: 1996
Sex: female



P. Schulze

March 2012



J. Feaver

Sept 2013

T109B3
Born: 2013
Sex: unknown



J. Feaver

Sept 2013



J. Feaver

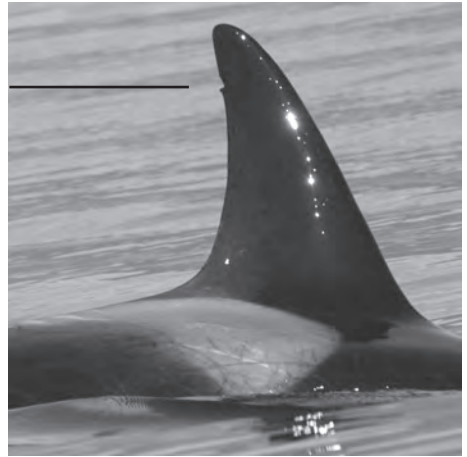
Sept 2013

T109C

Born: 2002

Sex: female

Tip: This animal looks very similar to T064



P. Schulze

Sept 2012



P. Schulze

Feb 2012

T109C1

Born: 2012

Sex: unknown



J. Forde

Sept 2014



J. Feaver

Sept 2013

T109D

Born: 2007

Sex: unknown



P. Schulze

March 2012



J. Forde

Aug 2013

T109E

Born: 2013

Sex: unknown

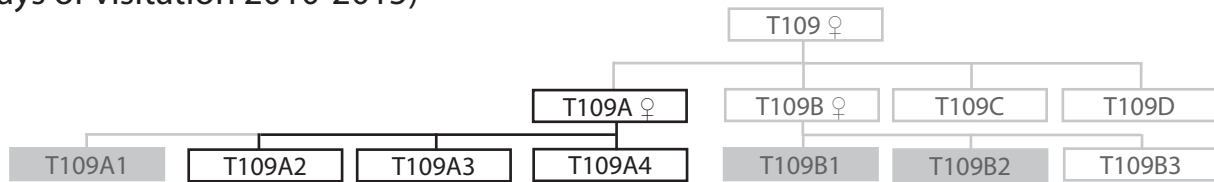


J. Forde

Aug 2013

T109As - RUNAWAY

(37 days of visitation 2010-2015)



This, now matriarch broke away from Big Momma around 2010 and has been a frequent visitor ever since. She seems to have inherited her mother's child bearing success as she has had three viable calves in seven years.

T109As definitely prefer to hunt the exposed open ocean shores having been sighted only once briefly in the inlet followed by them heading back out to open waters.

It's kind of mushy to think back and recall that we've known Runaway since she was an infant and now she has her own family.



T109A and T109A4 (John Forde).



R. Palm

March 2014

T109A
RUNAWAY
Born: 1990
Sex: female



H. Tom

March 2014

T109As



J. Feaver

July 2012

T109A2
Born: 2005
Sex: unknown



P. Schulze

Feb 2012



J. Feaver

July 2012

T109A3
Born: 2009
Sex: unknown



J. Feaver

Sept 2012



J. Feaver

July 2012

T109A4
Born: 2012
Sex: unknown

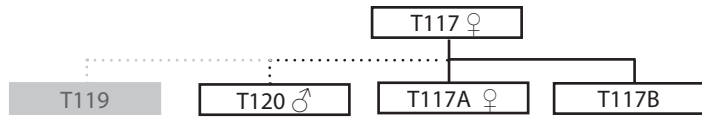


J. Forde

Aug 2014

T117s

(1 day of visitation in 2009)



T117's headed up the coast with Ted's gang (Randy Frank).

What can I say? These animals were seen heading up the coast in June of 2009 with Ted's Gang (T041s) then two days later were heading back down the coast with Big Momma's (T109) gang and we haven't seen them since -- in fact they're rarely seen anywhere.



P. Schulze

June 2009

T117
Born: ≤ 1977
Sex: female





P. Schulze

June 2009

T117A
Born: 1992
Sex: unknown



T117S



A. Jennings

June 2009

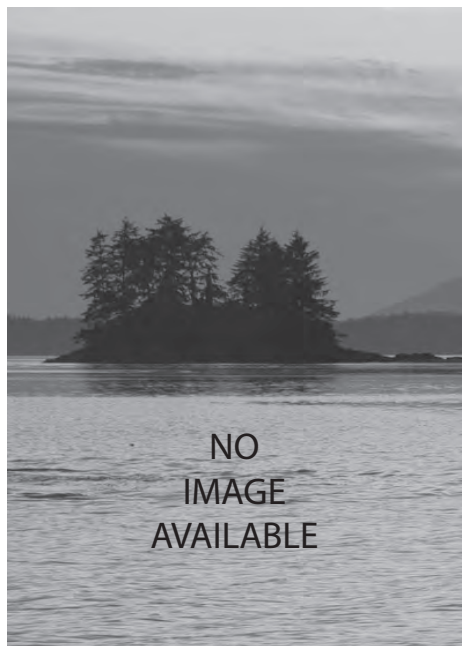
T117B
Born: 2005
Sex: unknown



R. Chiovitti

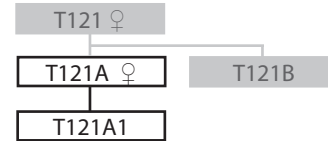
June 2009

T120
Born: 1986
Sex: male



T121As

(22 days of visitation 2009-2015)



In all the days we've seen T121A, she has only once been travelling on her own. In August of 2012 she was seen to be wasting no time heading up coast then angling offshore and was last be seen eight nautical miles off Rafael Point. The first time we saw her was in June of 2009 when she spent five consecutive days mostly hunting the inlets with the Secret Agents (T007). Within a year, the Agents disappeared or more likely died. A year later T121A had taken up the Motley Crew (T023), among others, as preferred travelling companions. In 2011 until our last record of seeing her in July of 2012, she was consistently been in the company of Ted's Gang (T041s), among others. In total, we've seen this social female in the company of 12 distinct gangs.

In the summer of 2015 the fleet on the water was alerted to a lone whale with a very young calf. T121A had separated from the gang she was traveling with to find calmer waters in Fortune Channel to have her calf (see the whole story in the Whale Tales section of the book p.19).



J. Steven

June 2015

T121A

Born: 1998

Sex: female



J. Steven

June 2015



J. Forde

June 2015

T121A1

FORTUNE

Born: 2015

Sex: unknown

Born June 10
in Clayoquot Sound



J. Forde

June 2015

THE BLOWHOLE

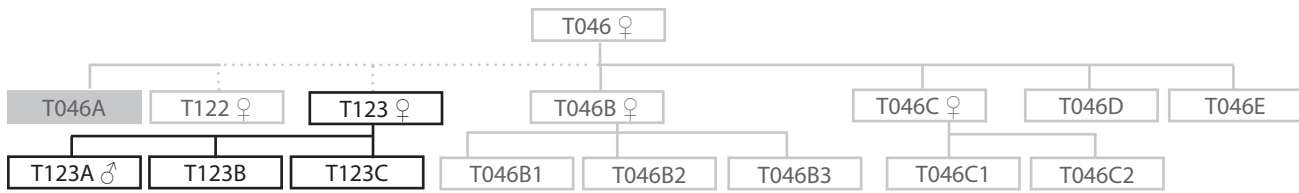


Nitinat (T012A) surfacing with Tree Island in the background (Shaun Parniak).

Often the first indication that killer whales are nearby is the characteristic sound of them forcing air out of their blowhole when they come to the surface followed by a cloud of mist in the air. The blowhole is located on the top of whale's head and similar to nostrils on other mammals.

T123s

(3 days of visitation 2000-2013)



T123A about to make a huge splash (Howard Tom).

The first sighting of this elusive matriarch and her brood was in September of 2000 in sheltered waters on the west side of Meares Island. They disappeared only to show up many hours and 15 nautical miles away at Hesquiaht. Nine years later, there they were at Sea Otter Rocks but immediately disappeared not to be relocated that day. Finally, in 2013, we got to spend some time with them but it was a bit of a fluke as they were called in by an exploring whale watch boat looking for humpback whales. They were travelling with T124s at 12 nautical miles off Cleland Island pounding on a California sea lion. The beating continued for over an hour before they actually killed it and divvied up the spoils.



J. Feaver Sept 2013

T123
Born: 1985
Sex: female



H. Tom Sept 2013

T123S



J. Feaver Sept 2013

T123A
Born: 2000
Sex: male



H. Tom Sept 2013



P. Schulze June 2009

T123B
Born: 2009
Sex: unknown



J. Feaver Sept 2013

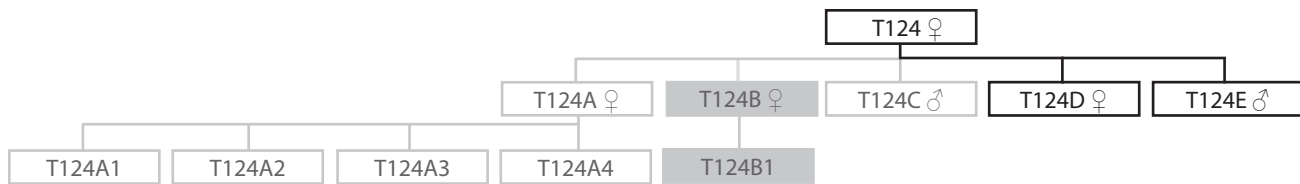
T123C
Born: 2013
Sex: unknown



H. Tom Sept 2013

T124s

(5 days of visitation 2011-2014)



T124E, T124, T036, T036B, T099 travelling in a perfect formation (John Forde).

This matriarch's roots go back to southeastern Alaska and we didn't see them venturing down to Clayoquot until August of 2011 when they were travelling with a large group of more regularly seen gangs. We observed them for one and a half hours before daylight faded and they were lost; during that time they only covered about one nautical mile.

They must have liked the area as in the last few years we've recorded them on five additional forays in both sheltered and exposed waters. As yet, we've never seen them travelling without the company of other gangs – learning the hot hunting spots perhaps.



J. Feaver

Sept 2013

T124
Born: <1967
Sex: female



P. Schulze

Sept 2013

T124S



J. Feaver

Sept 2013

T124D
Born: 1996
Sex: female



P. Schulze

Sept 2013



J. Feaver

Sept 2013

T124E
Born: 1999
Sex: male

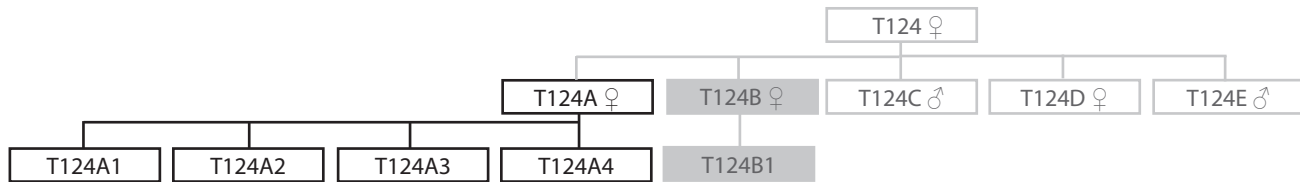


P. Schulze

Sept 2013

T124As

(2 days of visitation 2012-2013)



This female, in her 20s, built up a crew with four viable offspring. At this rate, it will not be long before they will also split up to form another gang generation as the two oldest offspring, likely females are both of a child bearing age.

We only just met this gang in April of 2012 when they surprised us by popping up beside Deadman Islets right in Tofino harbour then they promptly disappeared. The next year they showed up a mile off the Lennard Island lighthouse, and wandered into Father Charles Channel to explore the inside waters for four hours before heading back to the open ocean to continue their voyage up the coast.



Whale tail of the T124As on their second day of visitation in Clayoquot (Eugene Stewart).



R. Frank

April 2012

T124A
Born: 1984
Sex: female





E. Stewart May 2013

T124A1
Born: 1996
Sex: unknown



R. Frank April 2012

T124A2
Born: 2001
Sex: unknown



R. Frank April 2012



R. Frank April 2012

T124A3
Born: 2006
Sex: unknown



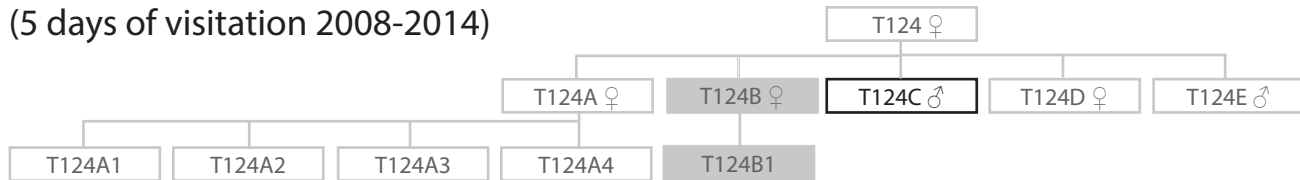
R. Frank April 2012

T124A4
Born: 2010
Sex: unknown



T124C

(5 days of visitation 2008-2014)



T072 and T124C coming to check out one of the fleet boats in Clayoquot (Howard Tom).

Jared Towers advises us that this young guy inexplicitly left his gang (T024As) at the tender age of about five years old, which is unusual. He came from a strong Alaskan family of four members. On this bull's first few visits he was travelling with Clayoquot regulars, preferring Big Momma's (T109s). Then on his last visit in 2012 he showed up with another Alaskan lone bull (T072) who is also very seldom seen. T124C has never been seen venturing into our inland waterways.



H. Tom

July 2012

T124C
Alaskan: AL18
Born: 1992
Sex: male



H. Tom

July 2012

SPYHOPPING

T124C



Beautiful shot of the spyhop behaviour (Artie Ahier).

Spyhopping is when a whale raises its body vertically up and out of the water enough to expose its head allowing orientation to its prey and surroundings. Killer whales have good vision both above and below the water. This is a useful trait for Bigg's killer whales who hunt marine mammals, such as sea lions, that are often hauled out of the water and on land.

T125s

(1 day of visitation 2000)



Our only encounter with these *Kakawin* was in August of 2000 when we followed them down the open ocean coast off the entrance to Tofino. Within the period of two hours they had killed a harbour seal pup, a river otter, and a duck (likely a surf scoter). They travelled the same route as the killer whales who visit our area on a regular basis. The route regularity that we see on most hunting visits leads me to speculate that perhaps the whales are following topographical cues rather than working on a memory of previous kills.

T125s have seldom been seen anywhere in the Pacific Northwest. Graeme Ellis (DFO) has only recorded them a handful of times in Haida Gwaii and around Vancouver Island.



T125
Alaskan: AV52
Born: ≤ 1979
Sex: female



M. Martin

Aug 2000

T128
Alaskan: AV51
Born: 1988
Sex: male



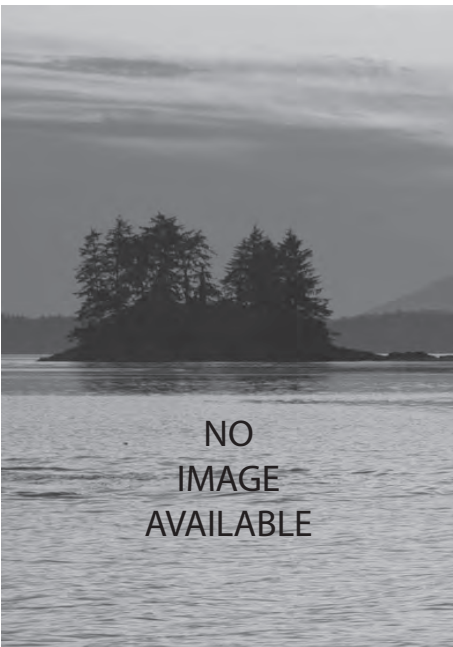
T125A
Born: 1998
Sex: unknown



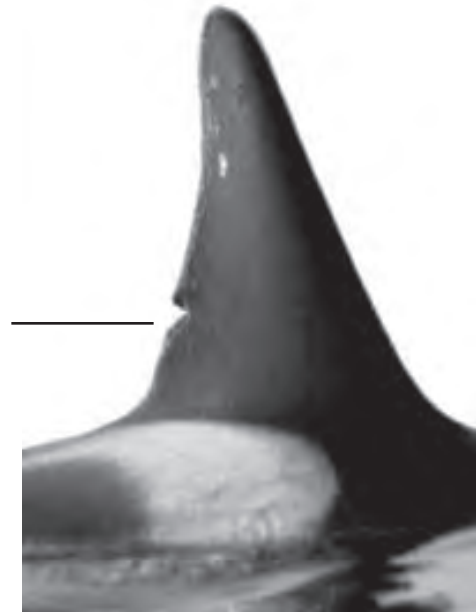
M. Martin

Aug 2000

Tip: this whale now has a nick in the middle of her dorsal on the posterior side



T127
Alaskan: AV53
Born: 1984
Sex: male



M. Martin

Aug 2000

Tip: this whale now has a large tear in the top of his dorsal fin that exposes the cartilage

TAIL LOBBING



Tail slap (Jennifer Steven).

The tail of a whale is called a fluke. Tail lobbing or tail slapping is when a whale lifts the fluke out of the water and brings it down on the surface of the water making a slapping sound.

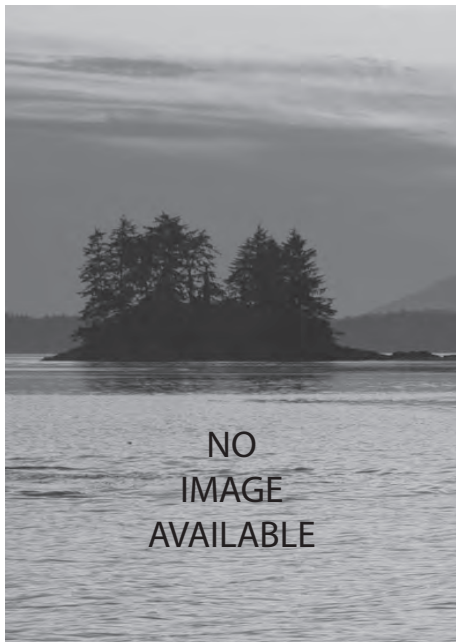
T132

(1 day of visitation 2014)

T132 ♂

T132

This animal has earned itself both Alaskan and Californian designations, so he must be an avid traveller. We saw this lone bull only on one occasion in the summer of 2014 but we hope to see this whale again.



T132
Californian: CA20
Alaskan: A010
Born: <1968
Sex: male

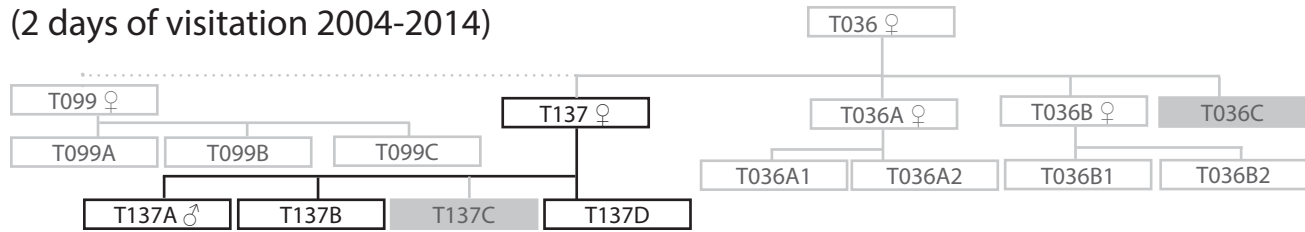


J. Kalwa

Aug 2014

T137s

(2 days of visitation 2004-2014)



T137 and T137D in August 2014 (John Forde).

We know little about this female's lineage except that it is suspected she may be an offspring of T036 who she was with on her 2004 visit, but not 10 years later. We believe she broke away to form her own gang. On T137s last visit in August of 2014, they were hunting their way down our open ocean coast without the company of any other travelling companions.



J. Forde

Aug 2014

T137
Born: 1983
Sex: female



J. Forde

Aug 2014



J. Forde Aug 2014

T137A
Born: 2002
Sex: male



J. Forde Aug 2014



J. Forde Aug 2014

T137B
Born: 2006
Sex: unknown



J. Forde Aug 2014



J. Forde Aug 2014

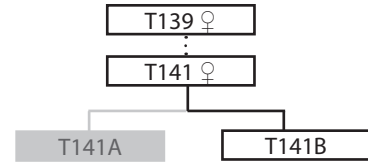
T137D
Born: 2012
Sex: unknown



J. Forde Aug 2014

T139s

(1 day of visitation 2014)



There have been few sightings of this gang anywhere in British Columbian waters. Our only encounter with T139s was in May of 2014 when they were spotted, with two other gangs, four nautical miles off Tree Island. They slowly worked their way closer to shore then were lost at dusk while heading down the coast.



P. Schulze

May 2014

T139

Born: <1978

Sex: female



P. Schulze

May 2014



P. Schulze

May 2014

T141

Born: 1989

Sex: female



P. Schulze

May 2014

T141B

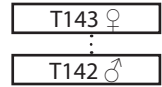
Born: unknown

Sex: unknown



T143s

(5 days of visitation 1995-2012)



These *Kakawin* are usually only seen on their own over the years and though their relationship is not confirmed, they are thought to be blood relatives along with T044 (not shown), who travelled with them but died sometime between 1999 and 2012.

June 18, 1992 was a miserable, windy day on the west coast. We followed these *Kakawin* up the outside coast from Schooner Cove to Leeke Island. Days like this are most aggravating for trying to do photo ID work and T143 was not actually verified as the female with T142. It is risky with the Bigg's whales to assume anything — you have to get the photo. These killer whales prefer hunting the open ocean reefs but, on occasion do work the inside waters.



H. Tom

June 2011

T143
Born: ≤ 1978
Sex: female



J. Feaver

June 2011



J. Feaver

June 2011

T142
Born: ≤ 1967
Sex: male

Tip: fin
very floppy

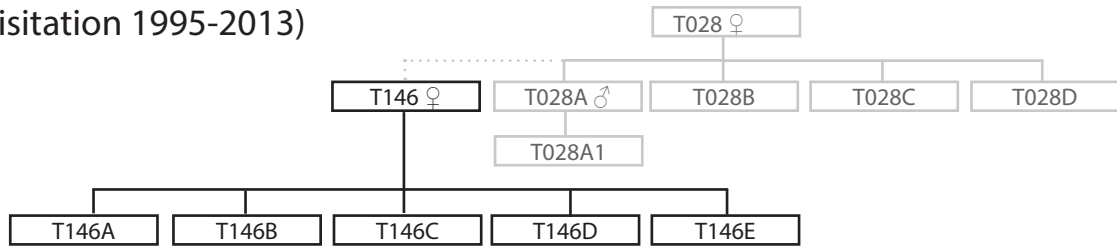


H. Tom

June 2011

T146s

(6 days of visitation 1995-2013)



Wow, this matriarch is a real baby whale making machine with five living offspring delivered over a period of 12 years, and she is still at an age that she may yet have another ... or two? We don't know the T146s lineage, but they are likely related to T028s. These animals have always travelled with other gangs except on the most recent visitation in 2013 when they were snooping around Tofino harbour before heading up coast.

An interesting visitation was in August of 2011 when T146s were working their way up coast with two other gangs when they were joined by a humpback whale off Rafael Point who swam along with them, without incident, for a half hour before parting company. It is curious that not long after the encounter, the killer whales were joined by another humpback whale. Shortly after the fleet lost track of them so we don't know the results of this meeting.



H. Tom

Aug 2011

T146
Born: 1984
Sex: female



P. Schulze

Aug 2013

T146A
Born: 1999
Sex: female



P. Schulze

Sept 2013



P. Schulze Sept 2013

T146B
Born: 2002
Sex: unknown



P. Schulze Sept 2013

T146S



P. Schulze Sept 2013

T146C
Born: 2004
Sex: unknown



P. Schulze Sept 2013

T146D
Born: 2009
Sex: unknown



P. Schulze Sept 2013

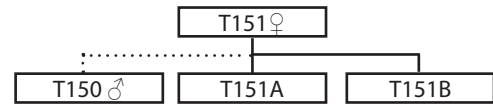
T146E
Born: 2011
Sex: unknown



E. Stewart May 2013

T151s

(1 day of visitation in 2013)



What can I say? These animals have been described as rare and not a lot is known about their lineage. The bull is thought as likely T151's son while the remaining two, of unknown sex, are recognized as her offspring.

On their one and only visit they were seen travelling down coast with the also little known T185s and well known Ted's Gang (T041s). They were leisurely moving slowly and combing the shoreline.



T150 and T151A are suspected of being siblings of one another and were born fifteen years apart (Peter Schulze).

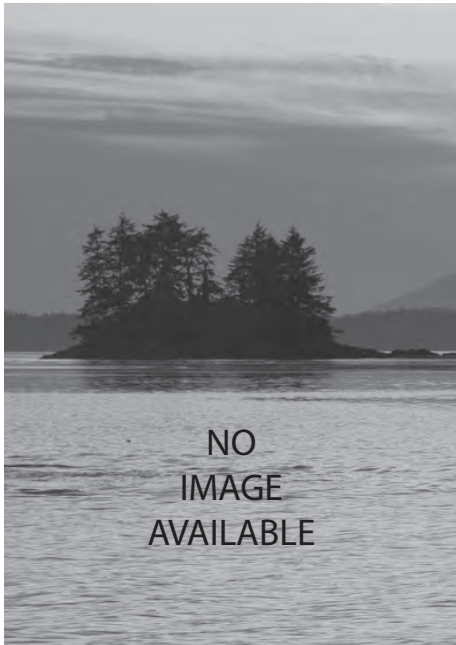


T151
Born: <1985
Sex: female



P. Schulze

May 2013



T150
Born: 1990
Sex: male



T151A
Born: 2005
Sex: unknown



T151B
Born: 2010
Sex: unknown

T152s

(3 days of visitation 2011-2014)



We believe that this female, in her prime, broke away from her parent gang (T147s), who we've never seen, around 2011.

T152's got her introduction to Clayoquot at the big party in April of 2011. This was a gathering of nine gangs or 21 animals not hunting but rather boisterously frolicking and bragging about their prowess. A few lone bulls were on scene so I'm guessing it was a singles' bar. On all three of her visits, T152 was accompanied by Ted's Gang (T041s) who are frequent visitors in our waters. On their last visit (May 2014), they ventured, for the first time, into our inlet waters.

T152 has been observed with her presumed mother only once since her birth year. That being said, all animals from this matriline are rarely observed so it is challenging to know how much time they spend apart or together. There have been very few records of T152 with her new offspring.



K. Vos

Dec 2013

T152
Born: 1995
Sex: female



K. Vos

Dec 2013



K. Vos

Dec 2013

T152A
Born: 2013
Sex: unknown

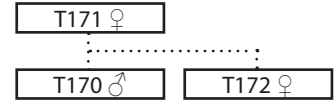


K. Vos

Dec 2013

T171s

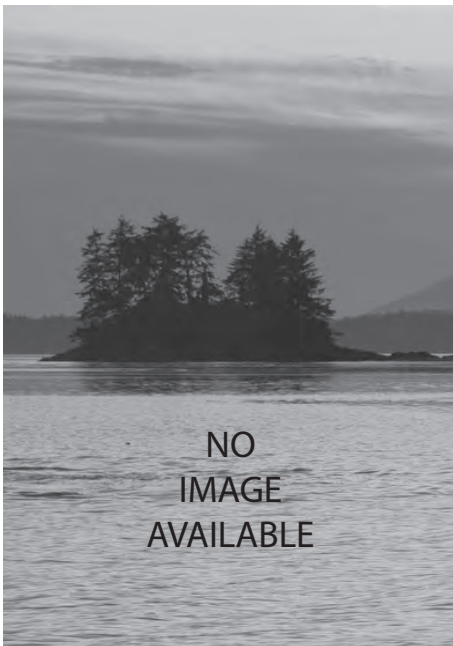
(2 days of visitation 1996-2006)



T152s

T171s

These animals were first seen by Dr. Jim Darling off Gowland Rocks in May of 1996. We saw them again in June of 2006 partying their way up the coast with at least five other gangs. On this occasion, only the big bull T170 was positively identified. The 1996 sighting was the first time these animals had been recorded anywhere in the Pacific Northwest.



T170
Born: ≤ 1973
Sex: male



Unknown

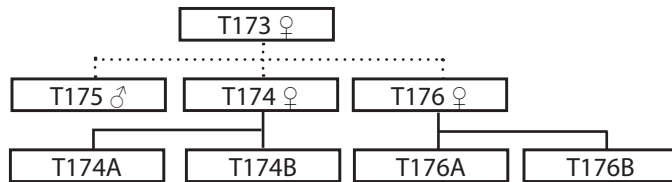
June 2006

T171
Born: ≤ 1984
Sex: female

T172
Born: 1989
Sex: female

T173s

(4 days of visitation 2009-2014)



On most of their visits they stay well offshore and don't mind travelling without the company of other gangs. They do, however, occasionally enjoy a party as in July 2009 when they were with five other gangs composed of about 20 *Kakawin* having a frolicking good time just off Cleland Island. This gang is apparently camera shy, and may be one of the last gangs of coastal Bigg's to not be well photographed in this decade.



N. Templeman June 2010

T173
Born: ≤1989
Sex: female



J. Forde Sept 2014

T175
Born: 1981
Sex: male

Note: This animals dorsal fin is starting to lean to the right.



P. Schulze Jan 2013



N. Templeman

June 2010

T176
Born: 1994
Sex: female



P. Schulze

Jan 2013

T173S



N. Templeman

June 2010

T176A
Born: 2007
Sex: unknown



NO
IMAGE
AVAILABLE



J. Forde

Sept 2014

T176B
Born: 2009
Sex: unknown



NO IMAGE
AVAILABLE

T185s

(2 days of visitation 2009-2013)



This is another rarely seen gang with little known about their lineage. It is likely that T185 is the mother of T186 and T187.

On their only two visits they stuck to the open coast. Clearly these are social animals as they were in attendance of the gathering in July 2009 with five other gangs making about 20 *Kakawin* off Cleland Island. This appeared to be a great time for both the whales and the observers and there was much activity above the water.



P. Schulze

July 2009

T185

Born: 1983
Sex: female



E. Stewart

July 2009



P. Schulze

July 2009

T185A

Born: 2007
Sex: unknown



P. Schulze

May 2013



E. Stewart

July 2009

T186
Born: 1995
Sex: male



P. Schulze

May 2013



P. Schulze

July 2009

T187
Born: 1999
Sex: unknown



NO
IMAGE
AVAILABLE

Movie Stars

The *Kakawin* in this section are normally seen in California and its adjacent waters. Our society has the distinction of having been the first to photo record (July 1992) their presence in Pacific Northwest waters. These animals are known for their predation on grey whale calves who are migrating with their mothers from Mexico up into Pacific Northwest and Alaskan waters. At the point in time when the greys are passing the Californian killer whale's waters they are a mere three or four thousand pounds. By the time they reach our waters, they are much bigger, stronger and more agile. Our regular Bigg's killer whales generally show little interest in the mom-calf groups. They may move in and harass them but it appears to be half hearted as though they're not sure what to do with them. I think this lack of interest may be relevant to our whales evolving along a coastline that is so rich in seals and sea lions that they haven't really bothered to figure out how to deal with the grey whales. The greys, on the other hand, don't seem to trust the *Kakawin* and may move right into the surf zone close to the beach taking only one breath every few minutes.

T131s

(2 days of visitation 1992-1995)

In July 1992, we followed these *Kakawin* with Langara's and Wakana's as they travelled up the coast from Long Beach. They didn't stop to hunt at the Gowland Rocks harbour seal rookery, nor did they pay any attention to a raft of sea lions. From Gowland they angled offshore until they were heading due south. We parted company about 12 miles straight out from Lennard Island.

Being strangers to us, we sent photos to Graeme Ellis at the Pacific Biological Station in Nanaimo but he was also stumped. They remained a mystery until Graeme spotted a suspicious photo in a collection while he was in Los Angeles. On his return to Canada he was able to verify that these whales were indeed the same animals that frequent the waters off the California coast. Up to this time, these were the most southern visitors to be recorded in Canadian waters. We saw these animals again 18 nautical miles offshore in August of 1995. At the time we were on a pelagic survey and couldn't stop for any longer than it took to take the ID images.



R. Palm

July 1992

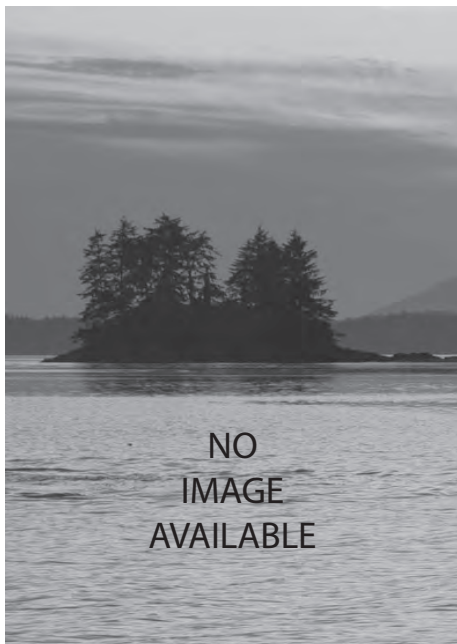
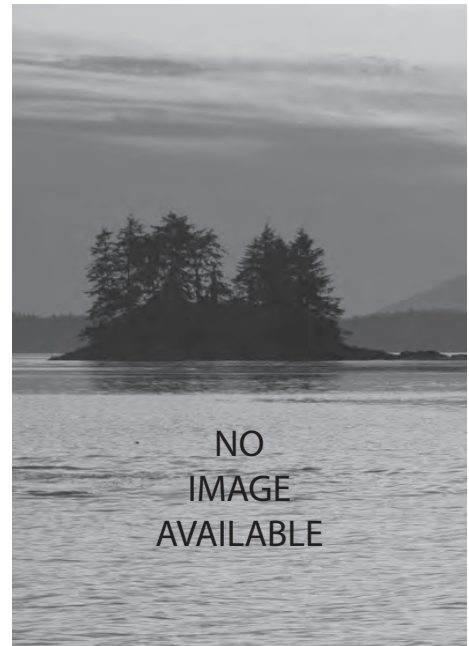
T131
Born: ≤ 1982
Sex: female



R. Palm

July 1992

T129
CA52
Born: ≤ 1971
Sex: male



T130
CA59
Born: ≤ 1971
Sex: male



R. Palm

July 1992

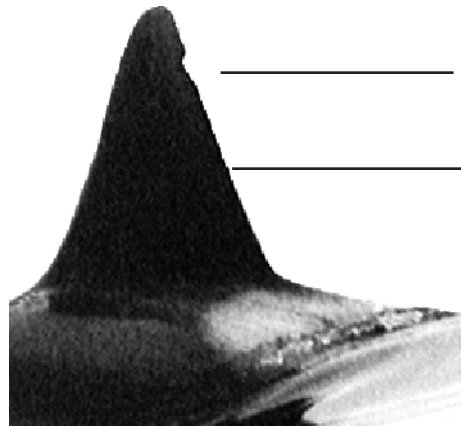
T160s

(1 day of visitation 1995)

On July 27 1995, while doing our monthly open ocean monitoring of birds and marine mammals, we encountered five killer whales 34 nautical miles straight out from Wilf Rocks. This was a landmark as it was the furthest offshore that we have ever seen killer whales. On top of that, it was a year before Graeme Ellis was able to find a match for our photos. They turned out to be animals that have been photographed by researchers in California who have seen them as far south as the Farallon Islands.



T160
CA28
Born: ≤ 1972
Sex: male

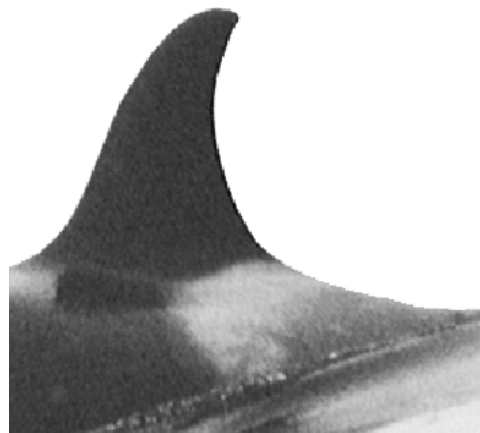


R. & K. Palm

Aug 1995



T161
CA38
Born: unknown
Sex: female



R. & K. Palm

Aug 1995

MORE MOVIE STARS

(1 day of visitation 2003)

This is a group of animals who showed up on July 28, 2003. They were heading up the coast a couple of miles offshore. As with the 1995 sighting, these Californians had not previously been recorded in Pacific Northwest waters. They were travelling with regulars T011 (likely) and T011A (positive). We thank Jason Feaver for the images. Note: All the animals are not identified. There were in total about a dozen animals in the group.



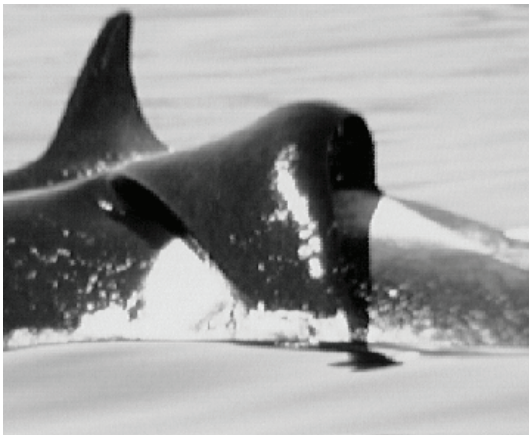
Unknown



CA21



CA113



CA43



CA71



CA170

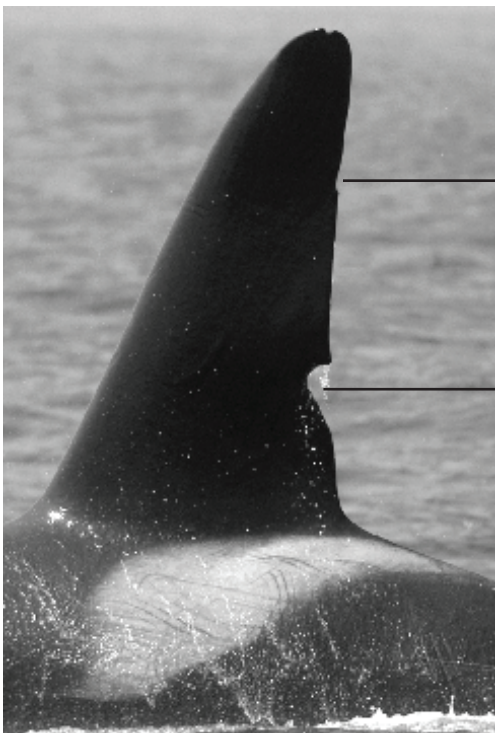


Unknown

MORE MOVIE STARS

(1 day of visitation 2008)

On August 14, 2008, these animals appeared out of the fog two miles off Vargas Island. Within an hour, they dissolved back into the fog and were not seen again. This is yet another group of Californians only seen right here off Clayoquot. We're fortunate that Peter was there with one of our cameras. All images were taken by Peter Schulze.



**CA60
CAN OPENER**



Unknowns with CA60

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- Virginia, M. 2015. How Orcas Work Together to Whip Up a Meal. National Geographic. Retrieved from <http://ngm.nationalgeographic.com/2015/07/orca-feeding/morell-text> on 5 January 2016.

PHOTO CREDITS

Peter Schulze (94)
Jason Feaver (75)
John Forde (67)
Eugene Stewart (47)
Howard Tom (33)
Randy Frank (13)
Nick Templeman (11)
Rod Palm (10)
Kechura and Rod Palm (9)
Jennifer Steven (9)
Kyler Vos (7)
Tofino Photography (6)
Richard Chiovitti (5)
Tim Tom (5)
Wendy Szaniszlo (4)
Jens Kalwa (3)
Marcel Martin (3)

Megan Francis (3)
Jim Darling (2)
Josh Lewis (2)
Wayne Tom (1)
Ceara Mullin (1)
Robin Orr (1)
Tony Heald (1)
Andrew Jennings (1)
Nora Salland (1)
Shaun Parniak (1)
Ronnie L'Amoureux (1)
Albert Shepherd (1)
Marla Barker (1)
Wilfred Atleo (1)
Brady Clark (1)
Artie Ahier (1)

HOW TO GET INVOLVED

Report your sightings information to: **info@strawberryisle.org**. Be sure to include: the date and time, GPS coordinates, direction of travel, behaviours, number of animals (males and females or infants), and if there are any distinguishing features. Photo identification shots of both the left and right of the animal's dorsal fin and saddle patch if possible are also a great help to the research.



Tofino Photography

Be Whale Wise

MARINE WILDLIFE GUIDELINES FOR BOATERS, PADDLERS AND VIEWERS



TRANS-BOUNDARY GUIDELINES FOR THE UNITED STATES AND CANADA APPLIES TO ALL MARINE MAMMALS AND BIRDS.

- DO NOT APPROACH** or position your vessel closer than 200 metres/ yards to any killer whale in the U.S. **DO NOT APPROACH** or get closer than 100 metres/yards to any other marine mammals or birds, whether on the water or on land.
- BE CAUTIOUS, COURTEOUS AND QUIET** when around areas of known or suspected marine wildlife activity, in the water or at haul-outs and bird colonies on land. Especially from May to September during breeding, nesting and seal pupping seasons.
- LOOK** in all directions before planning your approach or departure from viewing wildlife.
- SLOW DOWN** reduce speed to less than 7 knots when within 400 metres/yards of the nearest marine mammal to reduce your engine's noise and vessel's wake.
- ALWAYS** approach and depart from the side, moving parallel to the animal's direction of travel. If the animal(s) are approaching you, cautiously move out of the way and avoid abrupt course changes. **DO NOT** approach from the front or from behind.
- If your vessel is not in compliance with the 100 metres/yards approach guideline (#1), place engine in neutral and allow animals to pass.
- PAY ATTENTION** and move away, slowly and cautiously, at the first sign of disturbance or agitation.
- STAY** on the **OFFSHORE** side of the whales when they are traveling close to shore.
- ALWAYS** avoid going through groups of porpoises or dolphins and hold course and reduce speed gradually to discourage bow or stern-riding.
- LIMIT** your viewing time to 30 minutes or less. This will reduce the cumulative impact of all vessels and give consideration to other viewers.
- DO NOT** disturb, swim with, move, feed or touch any marine wildlife. If you are concerned about a potentially sick, stranded animal, or entangled animal, contact your local stranding network.

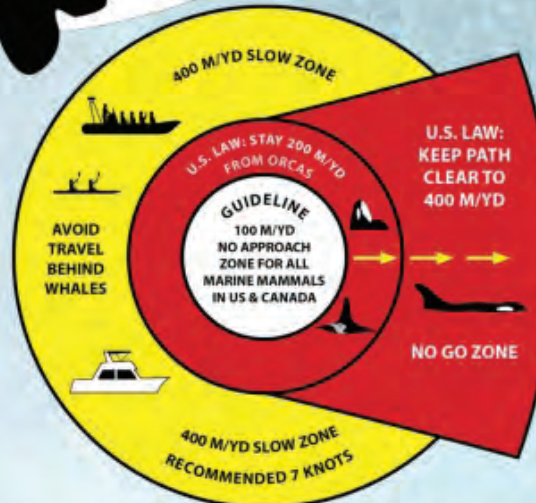
DRONES/UNMANNED AIRCRAFT VEHICLE OR SYSTEM (UAV/UAS) GUIDANCE

It is illegal to harm or disturb wildlife. To prevent disturbances from an unmanned aerial vehicle (UAV/drone) over the marine environment operators must use extreme caution. UAV/drones may cause a disturbance to the animal. Fly during daylight hours, keep your drone in sight and limit your viewing time to reduce the cumulative impact. This is rapidly evolving technology. Know and follow all local regulations.

MARINE PROTECTED AREAS, WILDLIFE REFUGES, ECOLOGICAL RESERVES AND PARKS

- CHECK** your nautical charts for the location of various protected areas.
- ABIDE** by posted restrictions or contact a local authority for further information.

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IN INLAND WATERS OF WASHINGTON IT IS UNLAWFUL FOR ANY PERSON TO:

- Cause a vessel to approach, in any manner, within 200 yards/metres of any killer whale.
- Position a vessel to be in the path of any killer whale at any point located within 400 yards/metres of the whale.

The regulation applies to all motorized and non-motorized vessels (including kayaks and paddleboards) with exemptions for government vessels conducting official duties, ships in the shipping lanes, permitted research vessels, and vessels lawfully engaged in commercial or treaty Indian fishing that are actively setting, retrieving, or tending fishing gear.

LAWS: Regulations in Canada and the U.S. prohibit the harassment and disturbance of marine mammals. Many species are threatened or endangered and subject to additional protections under the Endangered Species Act (U.S.) and the Species at Risk Act (CANADA).

TO REPORT A MARINE MAMMAL DISTURBANCE OR HARASSMENT

CANADA/B.C. GULF ISLANDS: To report injured, distressed, dead, stranded or entangled marine mammals or sea turtles:
Fisheries & Oceans Canada/B.C. Marine Mammal Incident
24/7 Hotline: **1-800-465-4336**

US/INLAND WA WATERS: To report a marine mammal harassment, entanglement or stranding:
NOAA Fisheries, Office for Law Enforcement: **1-800-853-1964**
Entanglements: **1-877-707-9425** / Strandings: **1-866-767-6114**
Download the dolphin and whale 911 app

DID YOU SEE A WHALE?

TO REPORT A MARINE MAMMAL & SEA TURTLE SIGHTING:

CANADA/B.C. GULF ISLANDS: B.C. Cetacean Sightings Network
1-866-472-9663 or sightings@vanaqua.org / www.wildwhales.org
WhaleReport app available on iTunes and Google Play

US/INLAND WA WATERS: The Whale Museum Hotline (WA):
hotline@whalemuseum.org or **1-800-562-8832**

Orca Network (WA): info@orcaneetwork.org or **1-866-672-2638**



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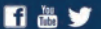
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