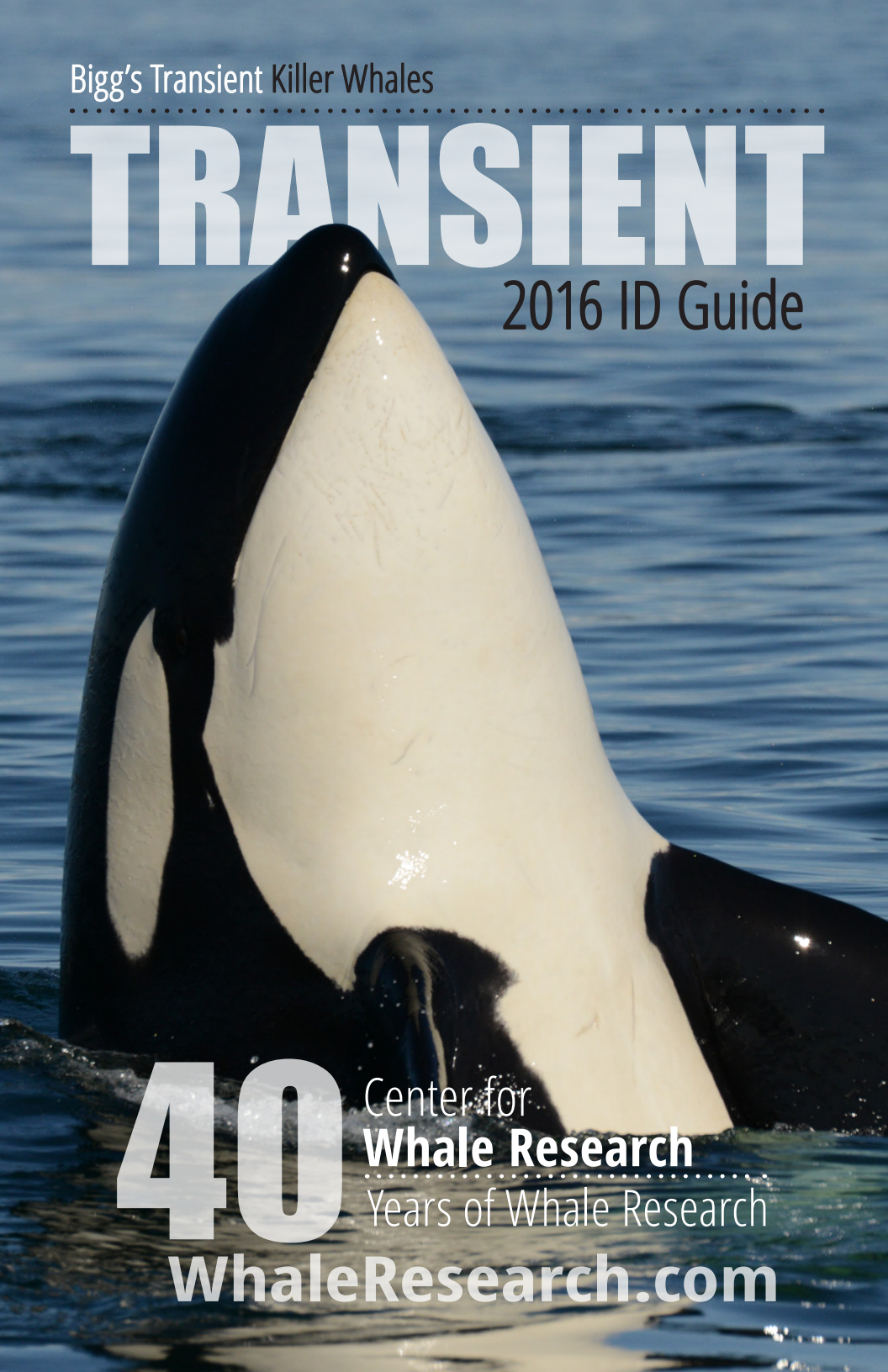
Bigg's Transient Killer Whales

TRANSIENT

2016 ID Guide



40 Years of Whale Research

Center for **Whale Research**

WhaleResearch.com

2016
ID Guide
to Bigg's
Killer Whales

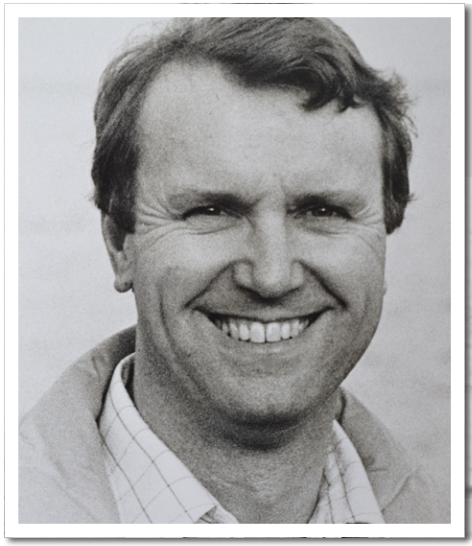
KILLER WHALES

The most cosmopolitan of cetacean species, killer whales (Orcinus orca) can be identified on an individual basis by their natural markings and differences in fin shape, often further adorned with distinctive nicks or scars that are enduring. The saddle patch, a gray pigmented area on the back below the dorsal fin, also varies from individual to individual in shape, size, shading, and scarring. The technique of individual identification from photographs allows us to maintain a fairly complete catalogue of the populations of all Eastern North Pacific killer whale ecotypes, where almost every individual is known and accounted for, though not always on an annual basis. The so-called "Residents" are thoroughly photo-documented each year - (see CWR Southern Resident Killer Whale Matriline ID Guide published annually; and, our website www.whaleresearch.com).

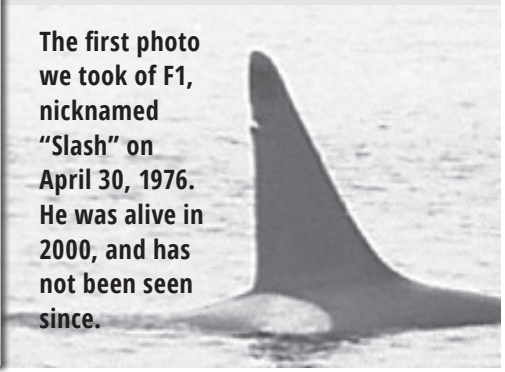
Why do we call them killer whales? The common English name for these magnificent marine mammals derives from the earliest accounts of this species attacking, killing and eating other whales - earning them the name "whale killers".

Why do we call them Transients? To make a long story short, in the early years of this individual identification study these whales, which we now know represent a distinct mammal-eating ecotype, were infrequently seen in the Salish Sea study area, hence we called them "transient". In contrast, the fish-eating ecotype that we annually and frequently encountered foraging upon salmon in this area were called "resident". With an increasing marine mammal food supply (e.g. harbor seals) for the former, and a decreasing food supply (salmon) for the latter in the Salish Sea ecosystem, the residency and transiency roles appear to be shifting.

Why do we call them Bigg's Killer Whales? All of us in this relatively arcane business of cataloging cetaceans based on individual recognition owe deep gratitude to Dr. Mike Bigg, who was among the first biologists to demonstrate the technique of photo-identification to document population size and structure for free-swimming whales. Mike suffered the ridicule of many in the scientific community for maintaining that virtually all individual killer whales can be known, and that this new non-lethal research technique would yield previously intractable discoveries (unknowable details of their population structure and life history). Among these discoveries is the now common knowledge that there are at least ten distinct ecotypes (prey specialists and generalists) of killer whales worldwide, and within these ecotypes are clans, pods, and matrilines that endure through lifetimes and eons - resulting in genetically distinct populations that can share the ocean but not their gametes. Michael Bigg deserves to have these whales named in his honor, and we often use the terms Bigg's Killer Whales and Transient Killer Whales interchangeably.



Dr. Michael Bigg 1939-1990
Founder of modern photo-identification research on killer whales.



The first photo we took of F1, nicknamed "Slash" on April 30, 1976. He was alive in 2000, and has not been seen since.

This is not a complete guide to all West Coast Transients that use or have used the area - see Tower et al., 2012 "Photo-identification Catalogue of Bigg's (Transient) Killer Whales From Coastal Waters of British Columbia, Northern Washington, and Southeastern Alaska" for a complete work. This guide does include approximately 150 whales of the Transient ecotype (arranged in 46 groupings) that most commonly forage in the Salish Sea in recent years, or are historically important to the area. These are the marine mammal-eating killer whales that whale watchers are most likely to see. It is important to keep in mind that individual Transient killer whales may disperse, either temporarily or permanently from their natal group, so one must always be prepared for extra whales in an observed group or individuals missing who usually travel with a group. Identification depends upon individual recognition, and for science it depends upon photo-documentation - no photo, no proof - in the words of our esteemed colleague, Graeme Ellis.

Since the early 2000's there has been a large increase in Transient sightings and the number of groups using the area. Many groups that had not been recorded in this area from the 1970's to the 1990's, but were seen in Northern B.C. or Southeast Alaska, have become relatively common T's here in the recent decade. Conversely, several groups who were once quite common in the mid-1980's to mid-1990's no longer use the Salish Sea area as often.

HISTORY Of The Naming System

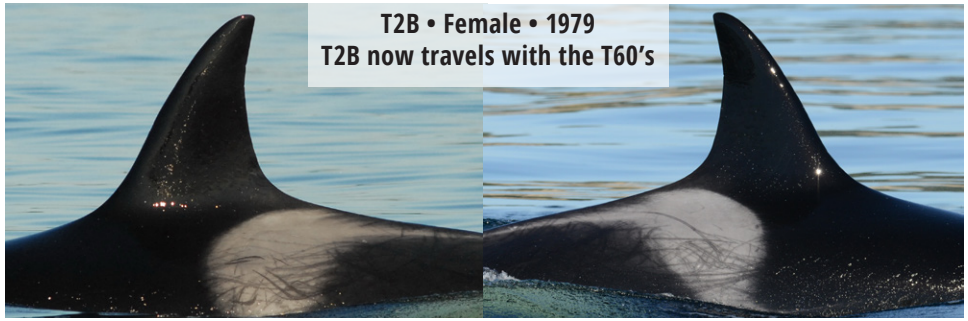
In the early days of the study, transients were given alpha-numeric designations similar to the residents - in the order they were first photo-documented. There were soon more transient groups and individuals than there were letters available in the alphabet, resulting in the same letter being used for multiple groups that were not necessarily related. Many of these same groups were also being given different designations when in Southeast Alaska. Things were rapidly becoming confusing so, in the early 1990's, Graeme Ellis developed a new naming system for transients (see Ford and Ellis, 1999). All transients were given a "T" designation, and calves born during the study were given their mothers number and then a letter depending upon the calf's order of birth. For example, the first calf of T124 is T124A, her next was T124B, etc. Numbers and letters then alternate in subsequent generations. T124A's first calf was T124A1, her next was T124A2, etc. T124A2's first calf is T124A2A, etc.

Most birth years prior to 2013 for individual killer whales found in this guide were derived from Towers et al., 2012 "Photo-identification Catalogue of Bigg's (Transient) Killer Whales From Coastal Waters of British Columbia, Northern Washington, and Southeastern Alaska".

Animals listed as "Lone" individuals are animals who have either dispersed from or are the lone survivors of their matriline. Several of the lone males frequently travel temporarily with a variety of different companions.

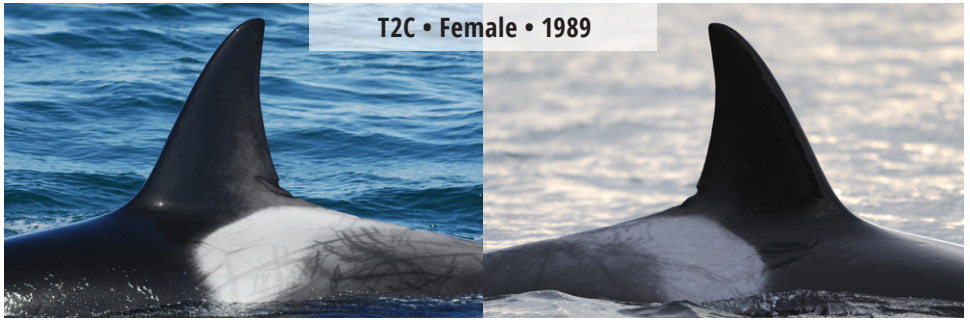
Est. = minimum estimated birth year for whales who were not calves when first seen; some animals may be older (e.g. T21).

T2B's • Lone female



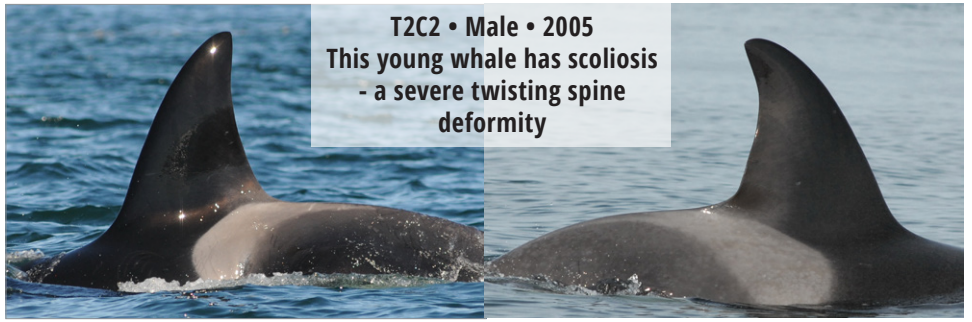
T2B • Female • 1979
T2B now travels with the T60's

T2C's • T2C, T2C1, T2C2, T2C3



T2C • Female • 1989

T2C1 • Male • 2002



T2C2 • Male • 2005
This young whale has scoliosis - a severe twisting spine deformity

T2C3 • Unknown • 2011

T10's • T10, T10B, T10C

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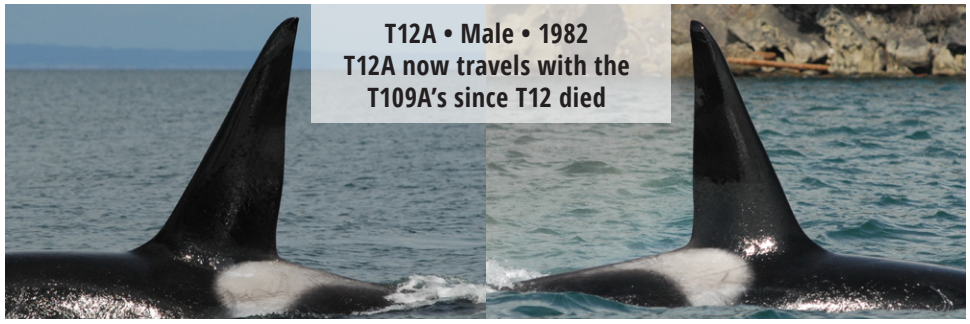
T11's • T11, T11A

T12A • Lone male



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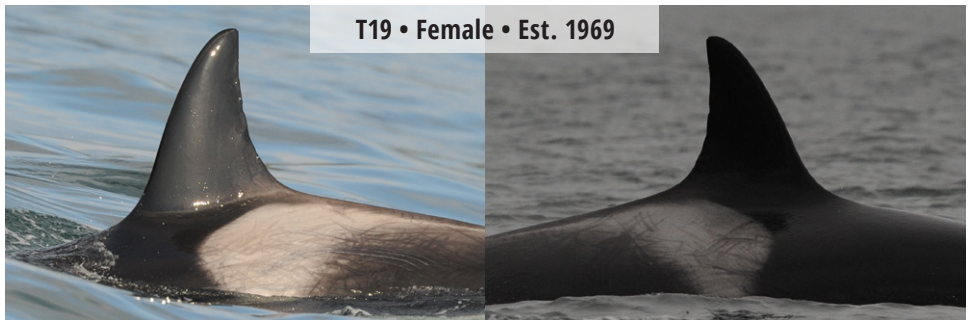
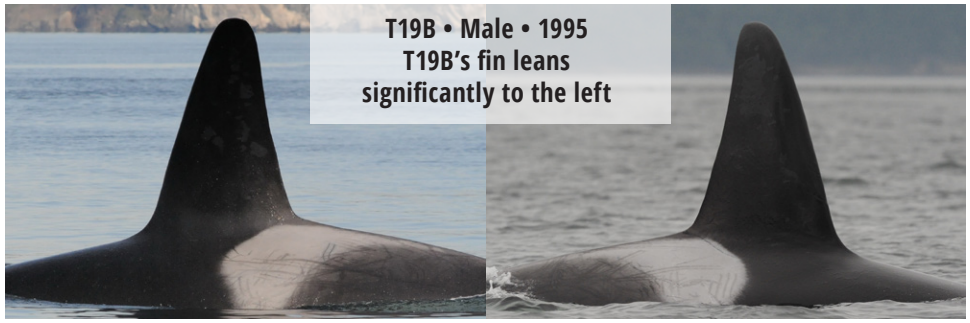
T18's • T18, T19, T19B, T19C

T18 • Female • Est. 1974



T19 • Female • Est. 1969



T19B • Male • 1995
T19B's fin leans significantly to the left

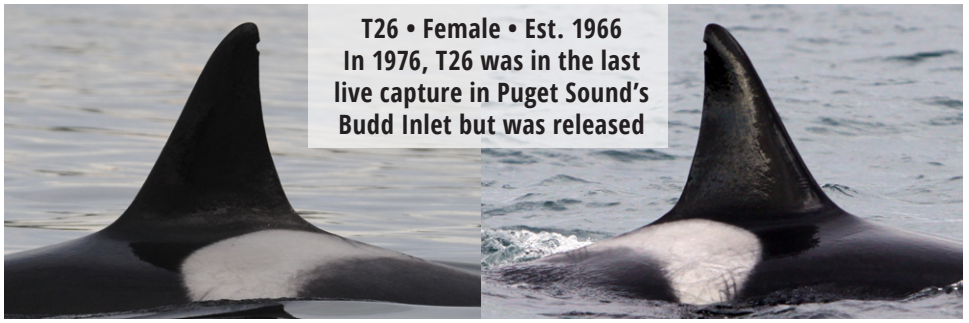
T19C • Male • 2001

T21's • T20, T21

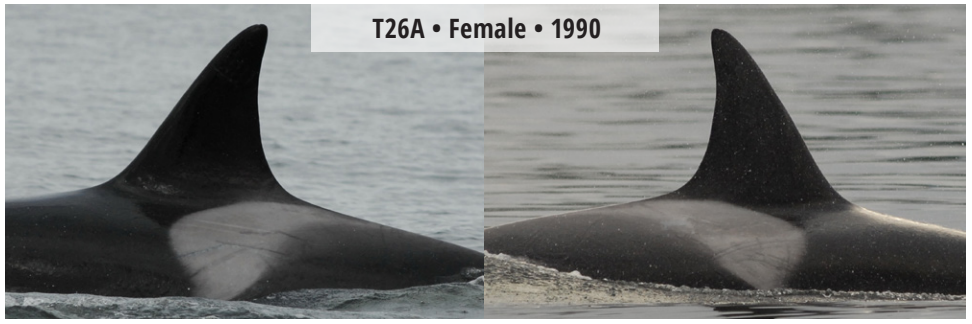
T20 • Male • Est. 1963
T20 & T21 formerly very common whales - both missing since late 2013 and may be dead

T21 • Female • Est. 1968

T26's • T26, T26A

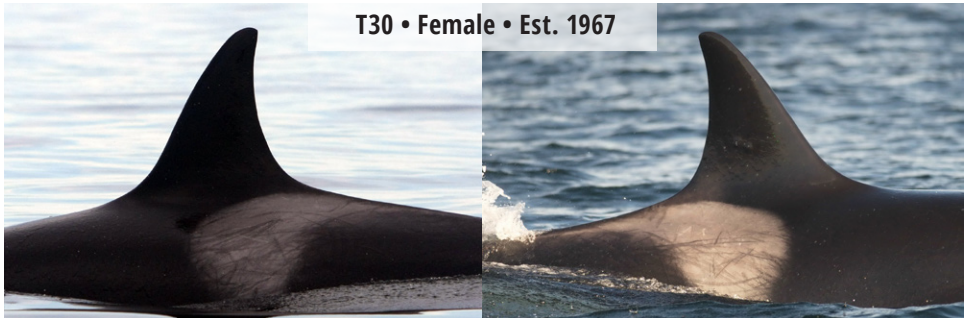


T26 • Female • Est. 1966
In 1976, T26 was in the last live capture in Puget Sound's Budd Inlet but was released



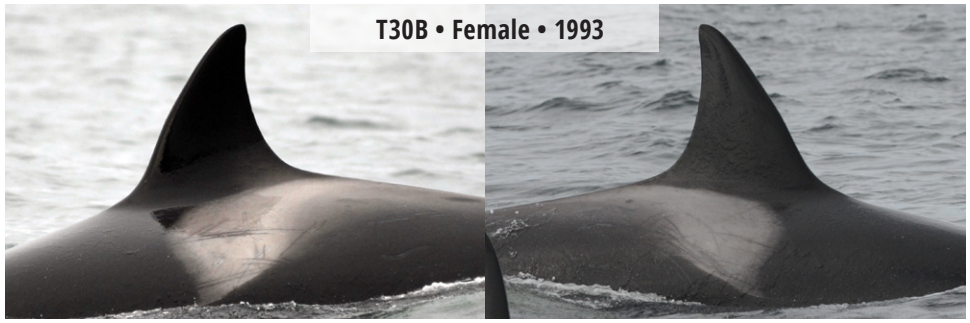
T26A • Female • 1990

T30's • T30, T30A, T30B, T30B1, T30C



T30 • Female • Est. 1967

T30A • Male • 1986



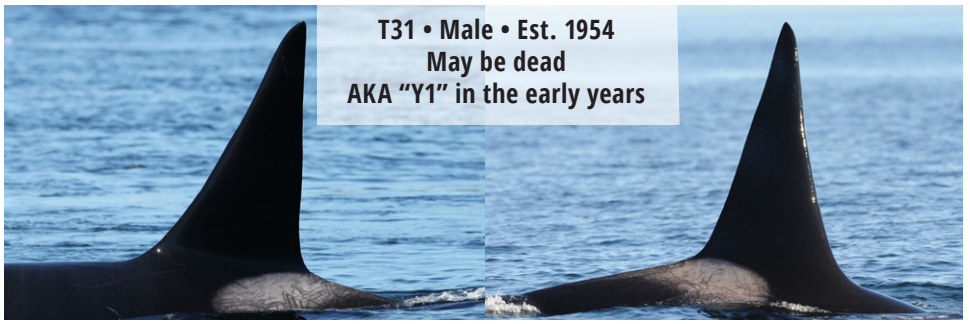
T30B • Female • 1993

T30B1 • Unknown • 2012

T30's (con't)

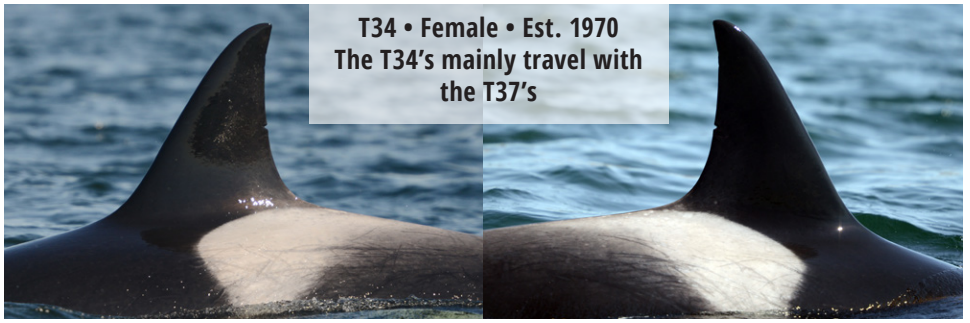
T30C • Male • 2005

T31 • Lone male



T31 • Male • Est. 1954
May be dead
AKA "Y1" in the early years

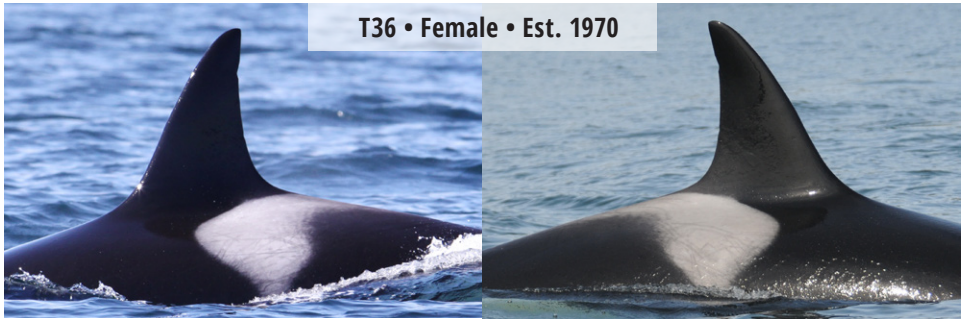
T34's • T34, T34A

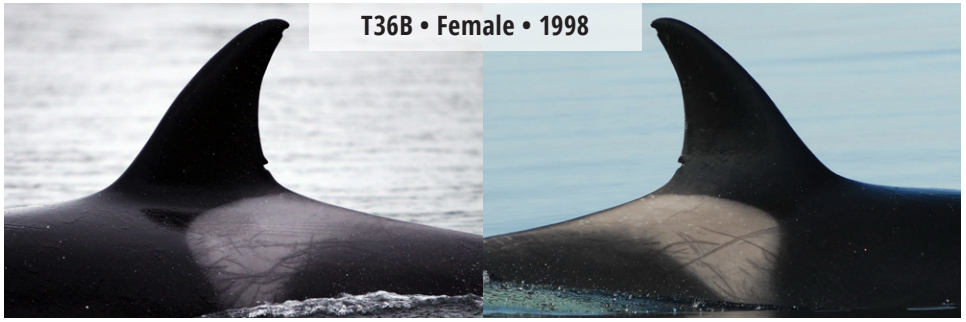


T34 • Female • Est. 1970
The T34's mainly travel with the T37's

T34A • Female • 2007

T36's • T36, T36B, T36B1, T36B2





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T36A's • T36A, T36A1, T36A2, T36A3

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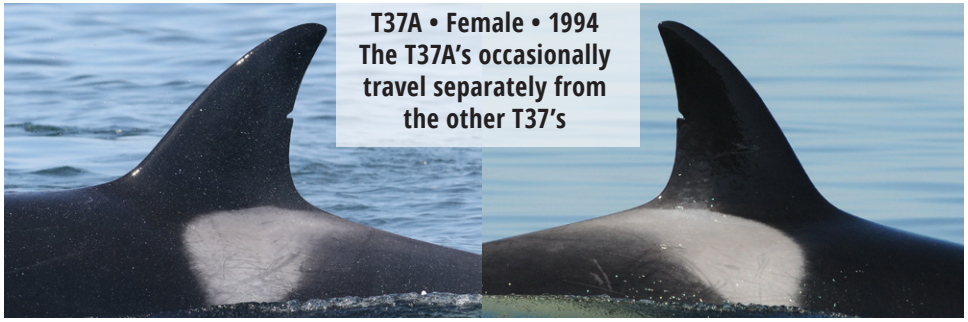
T37's • T37, T37A, T37A1, T37A2, T37A3, T37A4, T37B, T37B1

T37 • Female • 1979
T37 occasionally leaves the rest of the T37's & travels with the T36's



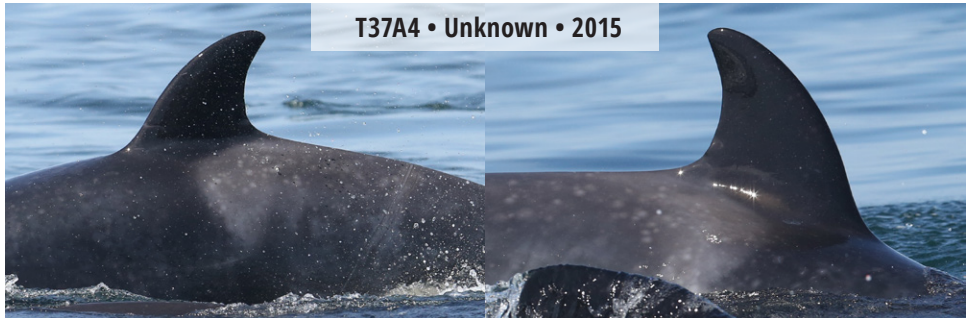
T37A • Female • 1994
The T37A's occasionally travel separately from the other T37's

T37A1 • Unknown • 2007
Dispersed - does not travel with T37A's anymore

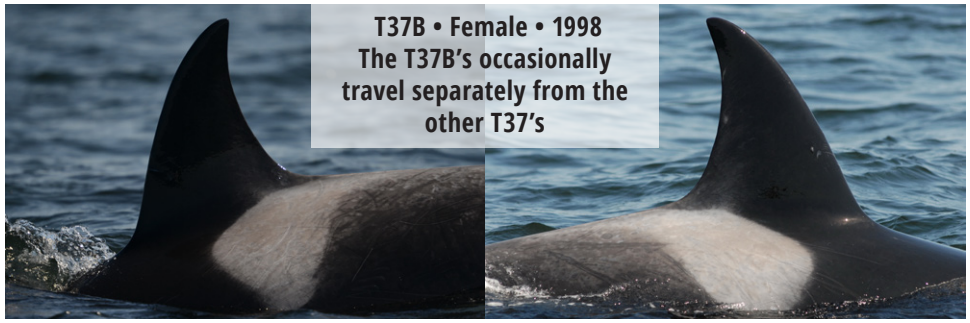
T37A2 • Unknown • 2009

T37's (con't)

T37A3 • Unknown • 2012/13



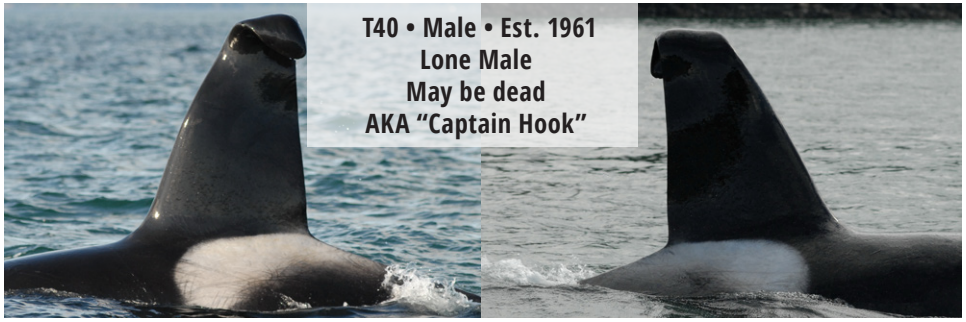
T37A4 • Unknown • 2015



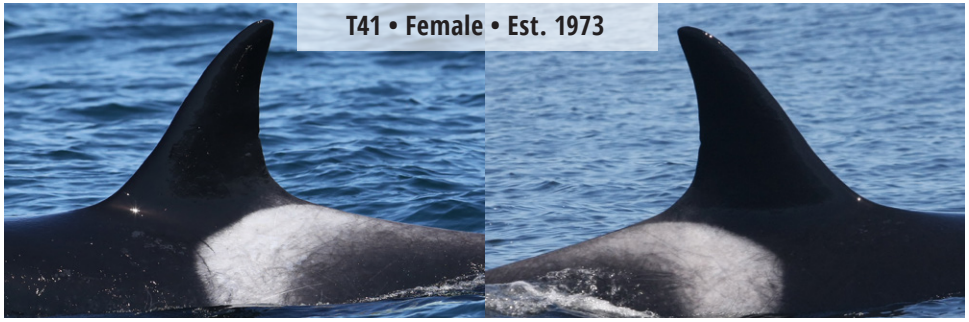
T37B • Female • 1998
The T37B's occasionally travel separately from the other T37's

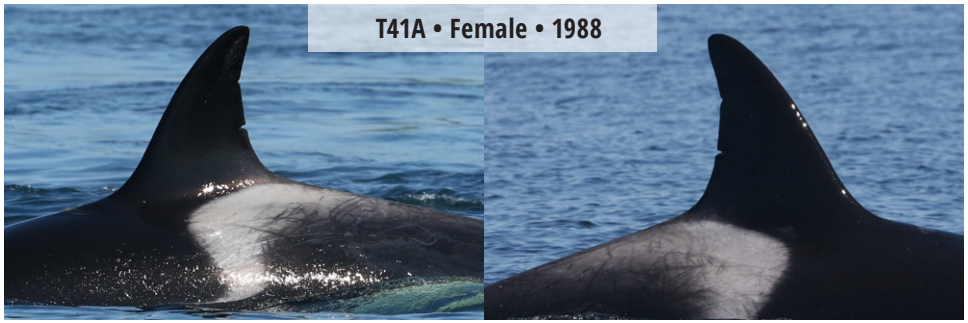
T37B1 • Male • 2012

T40 • Lone male

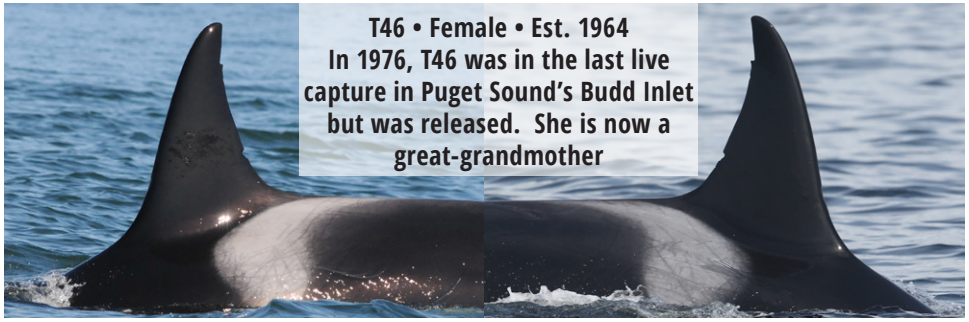


T41's • T41, T41A, T41A2

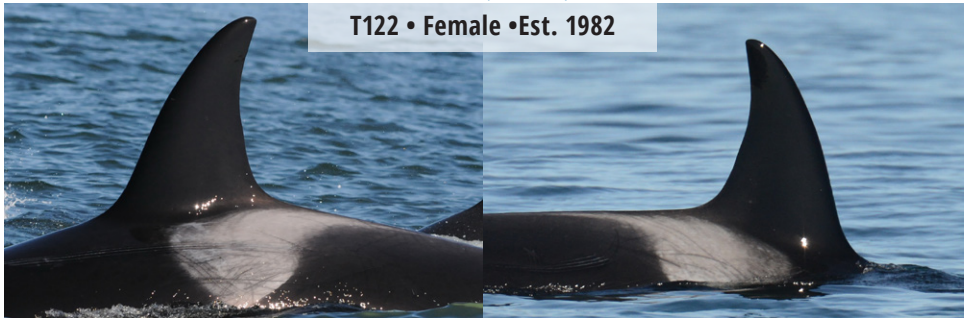




T46's • T46, T46D, T46E, T46F, T122

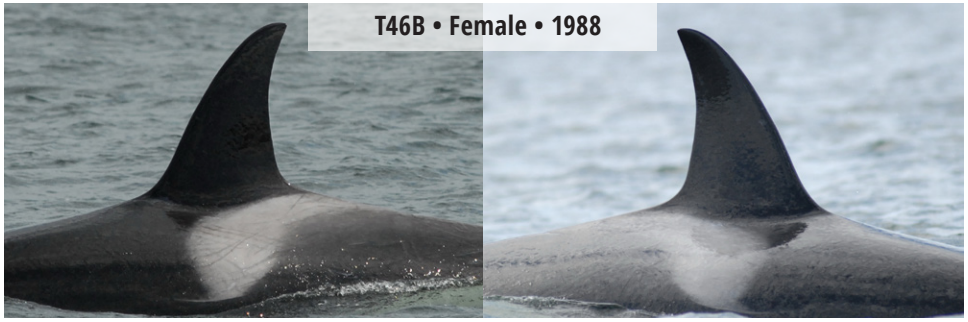


T46's (con't)



T122 • Female •Est. 1982

T46B's • T46B, T46B2, T46B3, T46B4, T46B1, T46B1A



T46B • Female • 1988

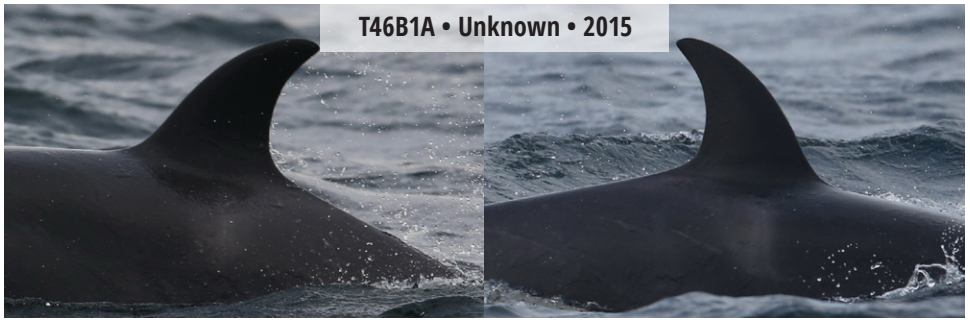
T46B2 • Unknown • 2008

T46B3 • Unknown • 2011

T46B's (con't)

T46B4 • Unknown • 2014/15

T46B1 • Female • 2003

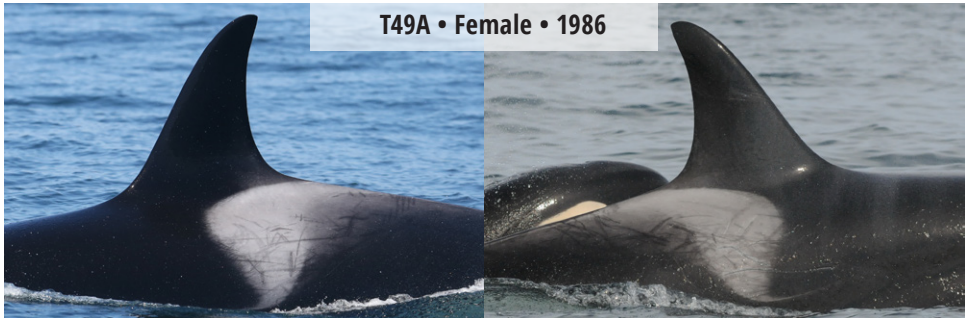


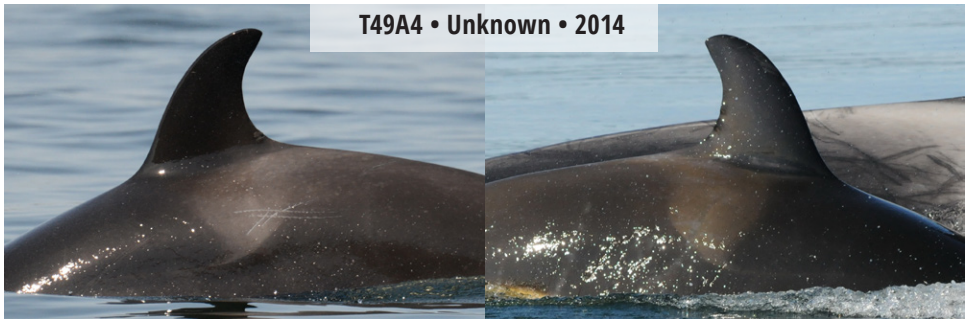
T46B1A • Unknown • 2015

T46E does a cartwheel

T46C's • T46C, T46C1, T46C2, T46C3

T49A's • T49A, T49A1, T49A2, T49A3, T49A4

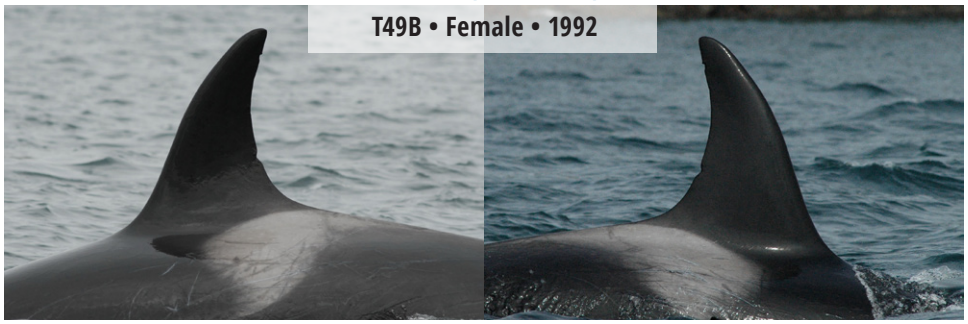




T49A's (con't)

T49A2 • Unknown • 2007
Often travels separately from the rest of the T49A's

T49B's • T49B, T49B2, T49B3



T49B • Female • 1992

T49B2 • Unknown • 2010

T49B3 • Unknown • 2013

T49C • Lone male

T49C • Male • 1998

T51 • Lone male

T51 • Male • 1981

T60's • T60, T60C, T60D, T60E, T60F

T60 • Female • Est. 1980
T2B currently travels with the T60's

T60C • Male • 2001

T60's (con't)

T60D • Male • 2004

T60E • Unknown • 2008

T60F • Female • 2012

T65B1, T65B & T63

T65's • T63, T65, T65B, T65B1

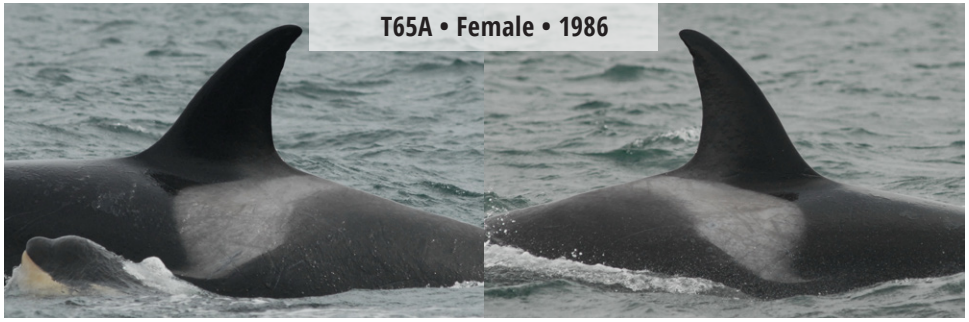
T63 • Male • 1978
AKA "Chainsaw"

T65 • Female • Est. 1971

T65B • Female • 1993
T65B & T65B1 sometimes travel separately from T63 & T65

T65B1 • Male • 2011

T65's • T65A, T65A2, T65A3, T65A4, T65A5


T65A • Female • 1986


T65A2 • Male • 2004


T65A3 • Unknown • 2007

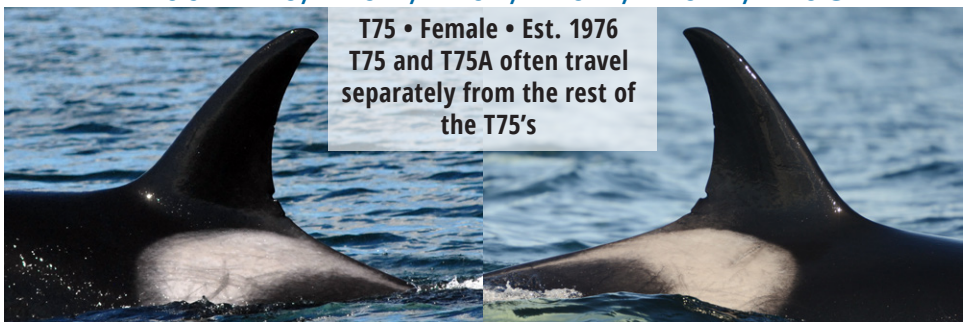

T65A4 • Unknown • 2011

T65A's (con't)


T65A5 • Unknown • 2014

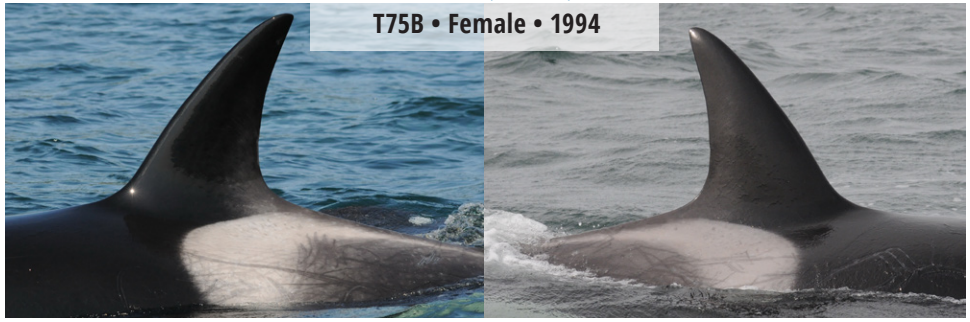

Transient group size has increased in the last decade

T75's • T75, T75A, T75B, T75B1, T75B2, T75C


T75 • Female • Est. 1976
T75 and T75A often travel separately from the rest of the T75's

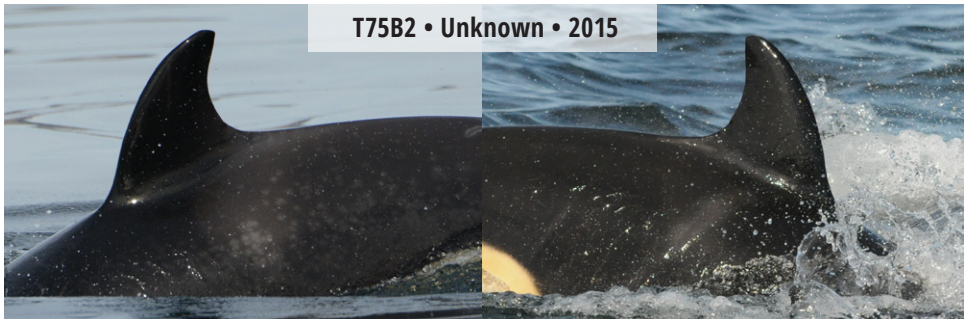

T75A • Male • 1991

T75's (con't)

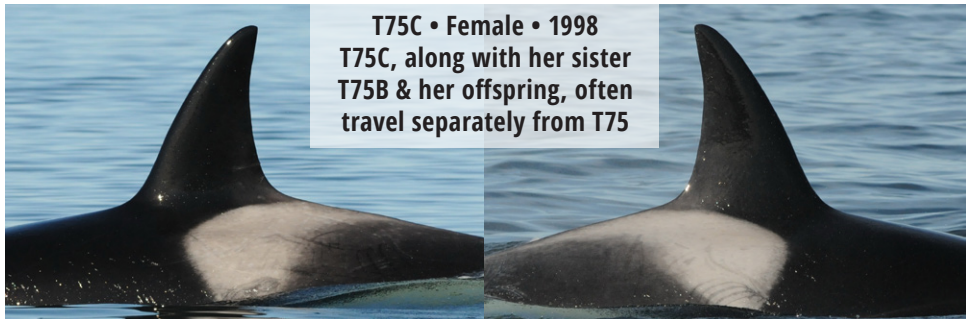


T75B • Female • 1994

T75B1 • Unknown • 2007
Missing after July 2013 & may be dead

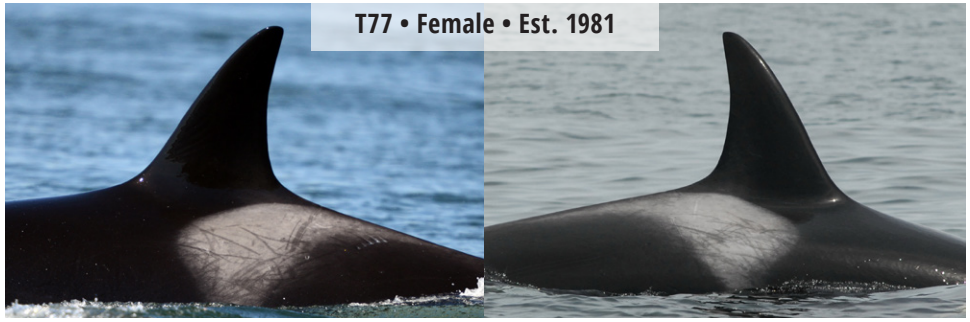


T75B2 • Unknown • 2015



T75C • Female • 1998
T75C, along with her sister T75B & her offspring, often travel separately from T75

T77's • T77, T77B, T77C, T77D



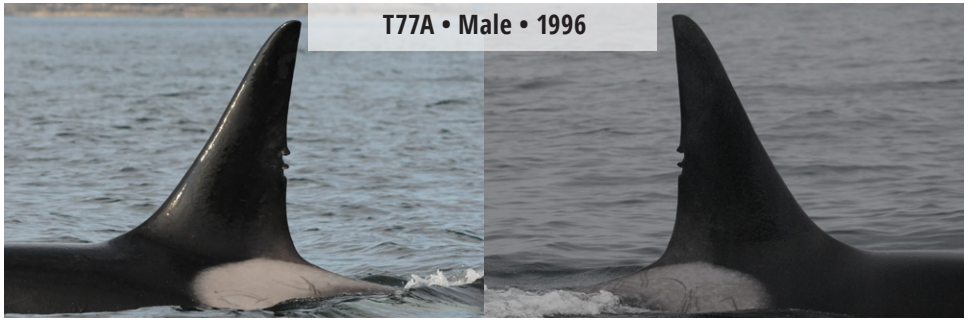
T77 • Female • Est. 1981

T77B • Male • 2000

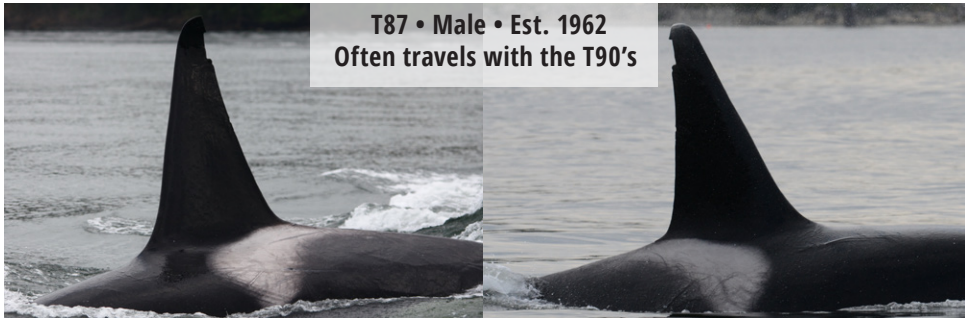
T77C • Unknown • 2006

T77D • Unknown • 2009

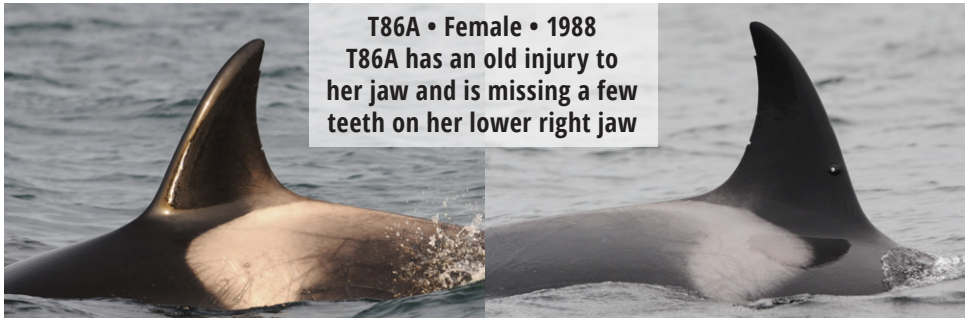
T77A • Lone male



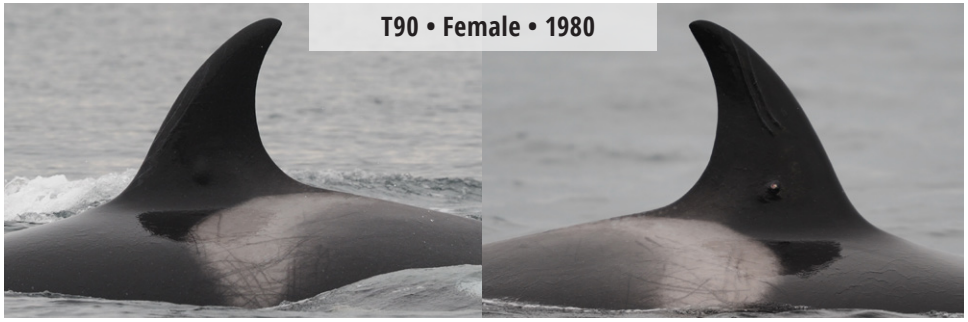
T87 • Lone male

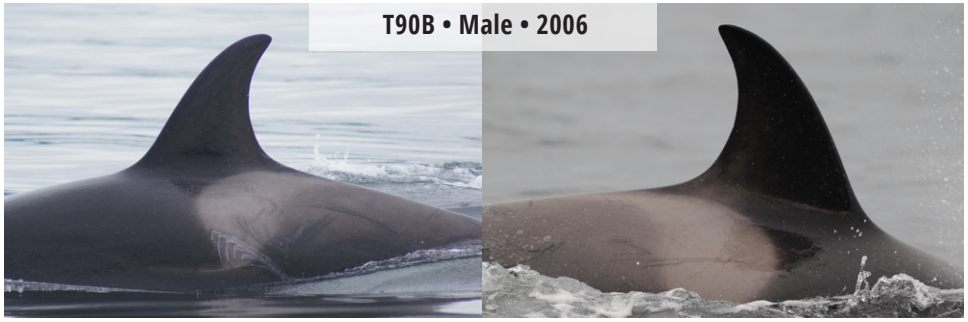


T86A's • T86A, T86A1, T86A3

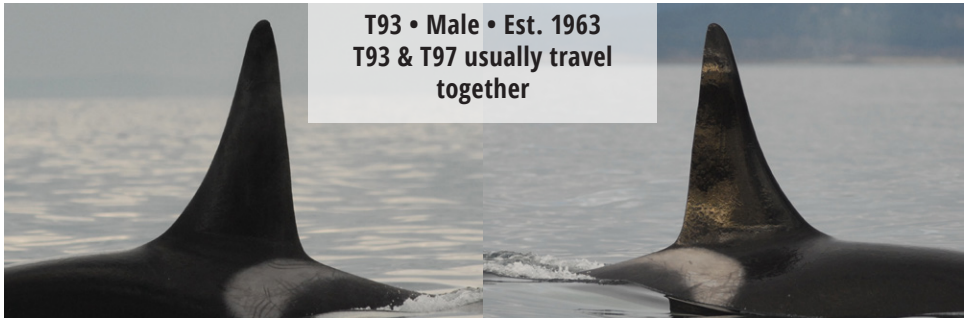


T90's • T90, T90B, T90C

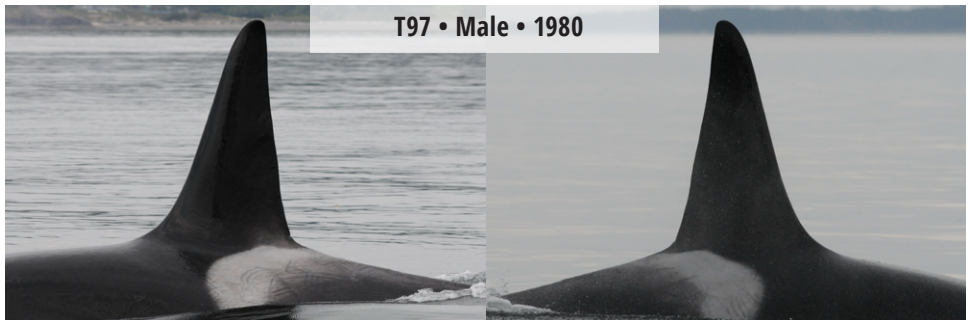


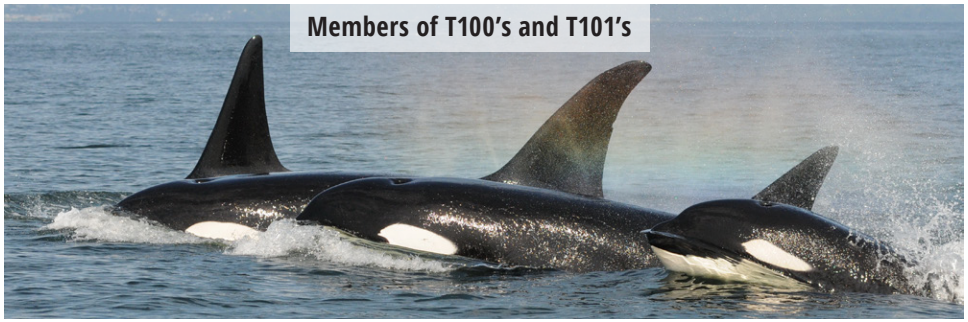


T93 • Lone male

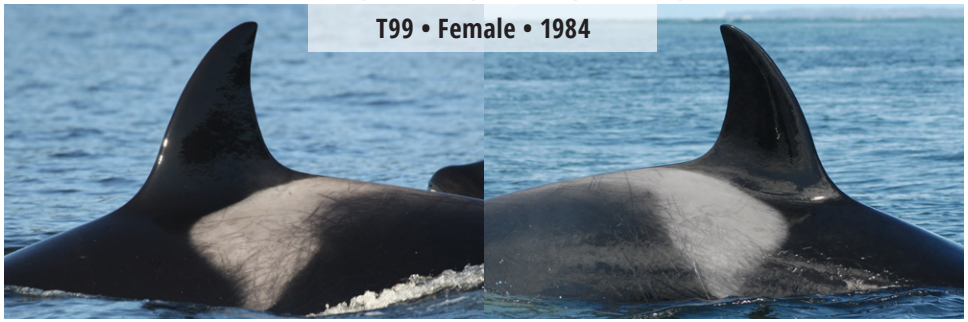


T97 • Lone male

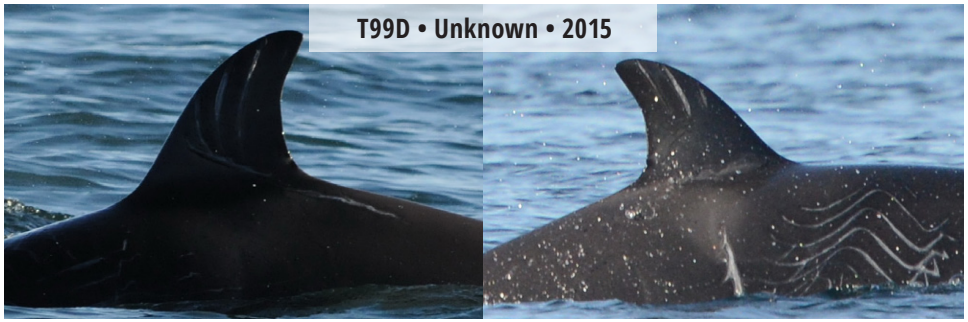




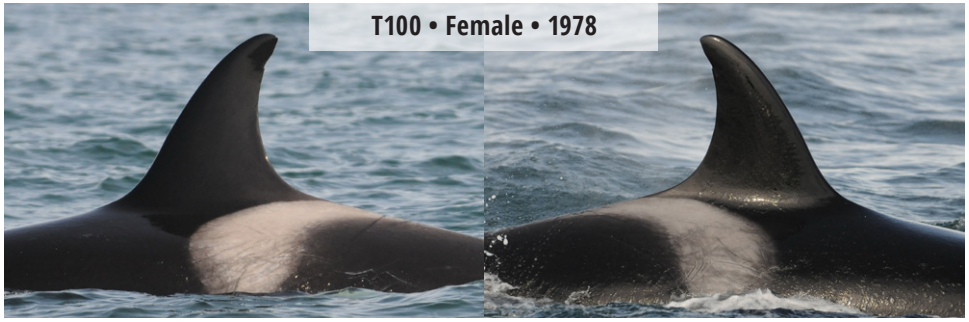
T99's • T99, T99A, T99B, T99C, T99D



T99's (con't)



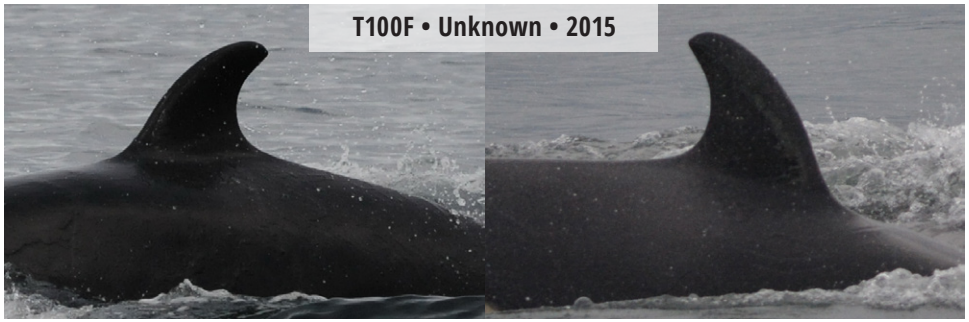
T100's • T100, T100C, T100E, T100F, T100B, T100B1



T100 • Female • 1978

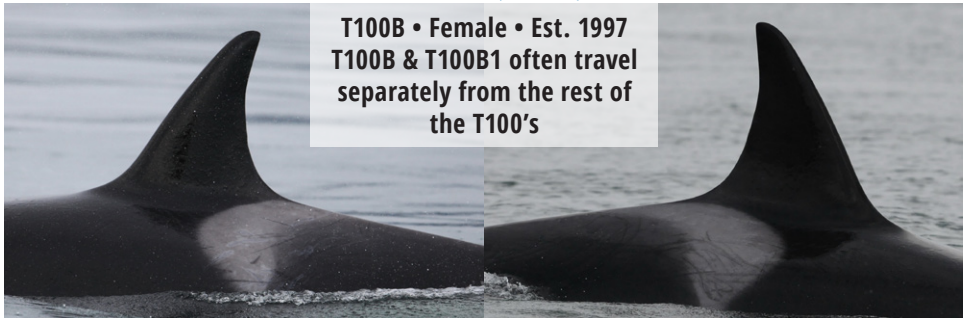
T100C • Male • 2002

T100E • Unknown • 2009



T100F • Unknown • 2015

T100's (con't)



T100B • Female • Est. 1997
T100B & T100B1 often travel separately from the rest of the T100's

T100B1• Unknown • 2010

The brothers T10C and T10B

T101's • T101, T101A, T101B, T102

T101 • Female • Est. 1973

T101A • Male • 1993

T101B • Male • 1997

T102 • Male • 1984

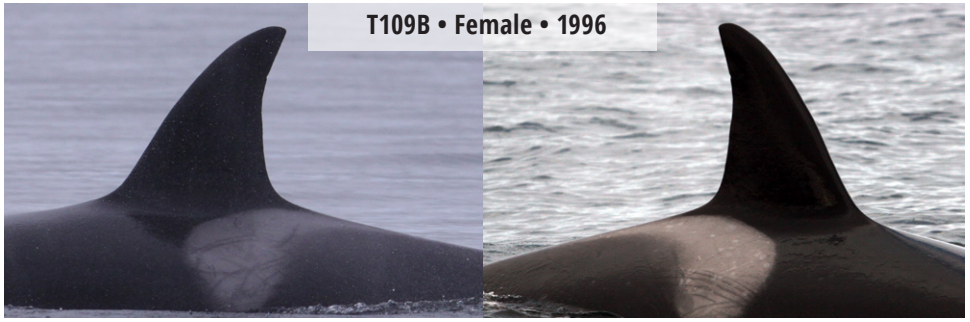
T103 • Lone male

T103 • Male • Est. 1967
T103 usually travels alone

T75B spyhopping in front of Mt. Rainier

Nervous sea lions watching Transient killer whales

T109's • T109, T109B, T109C, T109D



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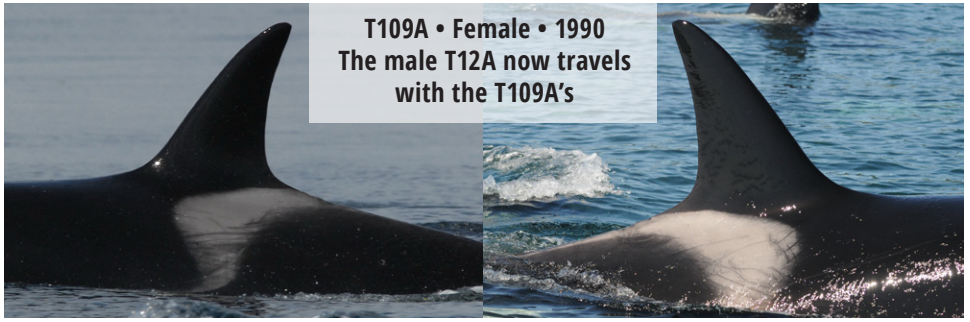
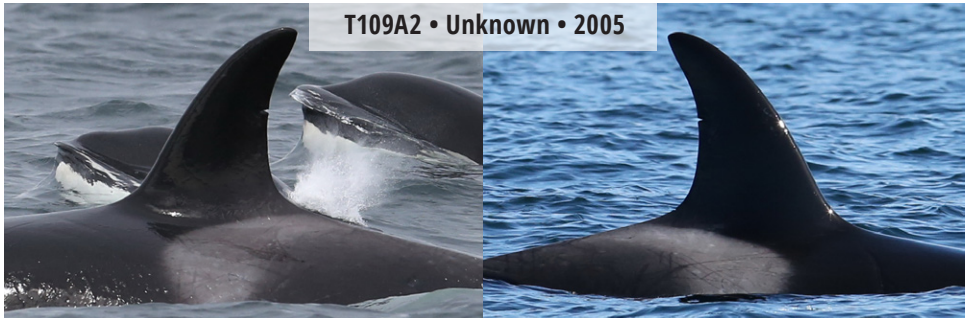
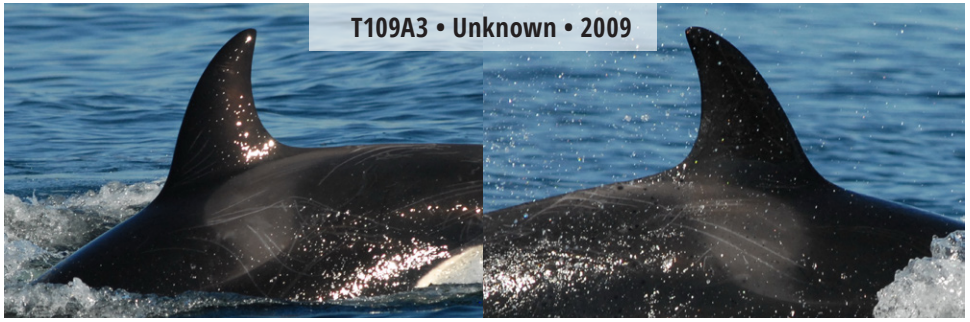
T109A's • T109A, T109A2, T109A3, T109A4, T109A5







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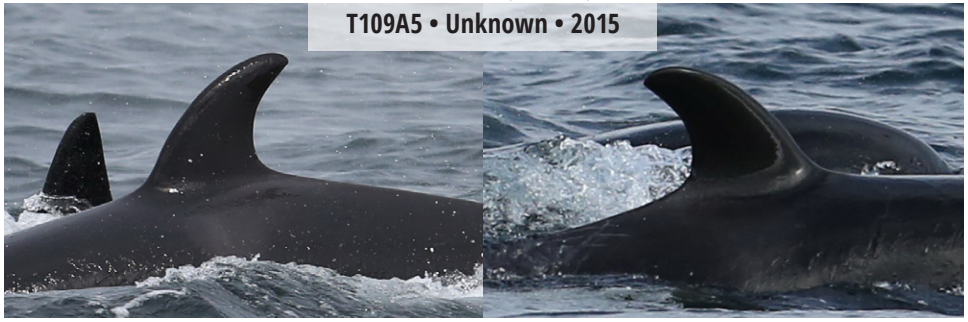
T109A's (con't)



T109A5 • Unknown • 2015

T123's • T123, T123A, T123C

T123 • Female • 1985

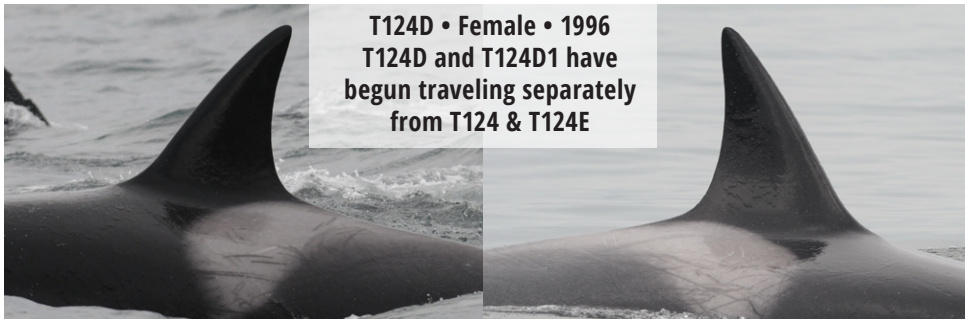
T123A • Male • 2000

T123C • Female • 2012

T124's • T124, T124E, T124D, T124D1

T124 • Female • Est. 1967

T124E • Male • 1999



T124D • Female • 1996
T124D and T124D1 have begun traveling separately from T124 & T124E

T124D1 • Unknown • 2014

T124A's • T124A, T124A1, T124A2, T124A2A, T124A3, T124A4

T124A • Female • 1984

T124A1 • Female • 1996
T124A1 now mostly travels separately from the T124A's

T124A2 • Female • 2001

T124A2A • Unknown • 2013

T124A's (con't)

T124A3 • Unknown • 2006

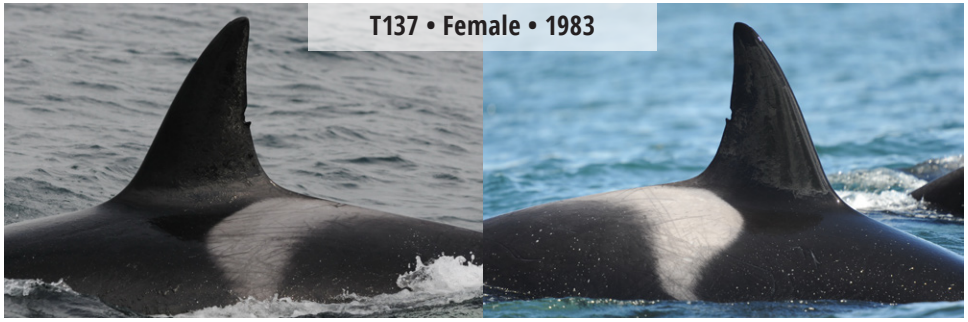
T124A4 • Unknown • 2010

The T100's, T101's, and all the T124's were first identified in Southeast Alaska before they became regular visitors to the Salish Sea

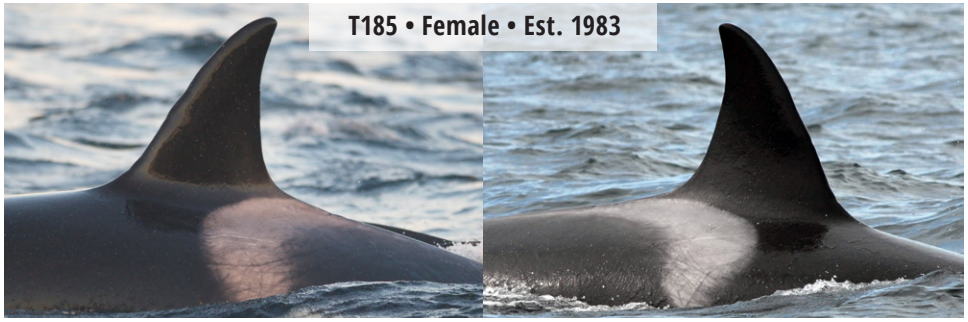
T124C • Lone male

T124C • Male • 1992

T137's • T137, T137A, T137B, T137D



T185's • T185, T185A, T186, T187

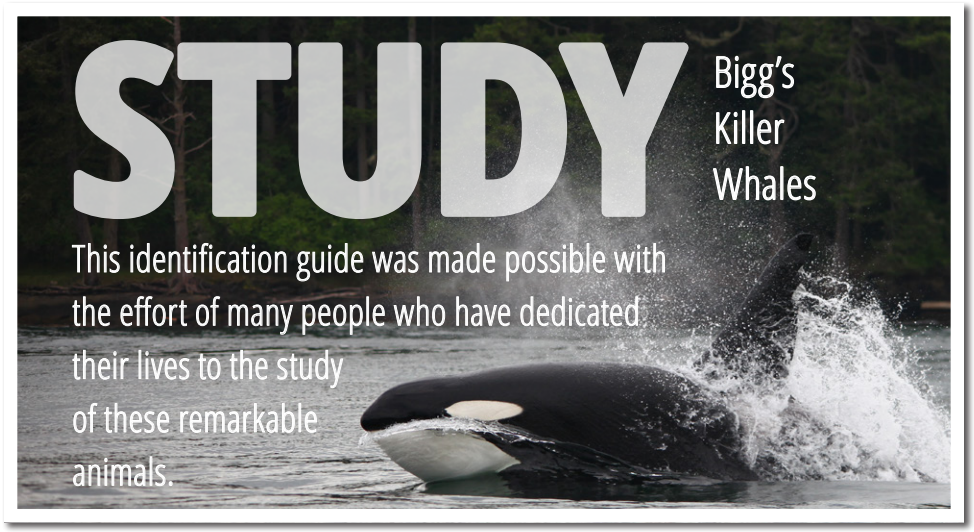


What we do at the Center for Whale Research

Today our mission remains as always: to conduct benign studies of regional killer whales (orcas) for the purpose of conserving populations and informing both the government and the public of their ecosystem needs. CWR is a non-profit [IRS 501(c)(3)] corporation registered with the Attorney General in Washington State. CWR funding historically has come from government contracts, other non-profit organizations, and charitable public contributions. Like many organizations these days, CWR is faced with government funding cutbacks. As our funding from government agencies declines each year, we must look to the public for more support. This guide is produced for the purpose of raising public awareness and for raising funds to continue our important research. We need your support and membership now more than ever.

Our Objective

During the 40 years since we began the Orca Survey of the Southern Resident Killer Whales (orcas) we have had a variety of funders and supporters, as well as different methods, goals and logistics, but our objective has remained the same: to monitor and conduct an annual photo-identification census of all ecotypes of orcas occurring in western Washington State and southern British Columbia.



The identification study of the Pacific Northwest killer whales was initiated by Michael Bigg in the early 1970's and has been continued by:

Jared Towers
Mark Malleson
Dr. John Ford
Graeme Ellis
David Ellifrit
Kenneth Balcomb III

Proceeds from the sale of this guide help to support ongoing studies of all of the ecotypes of killer whales that frequent or pass through the Salish Sea.

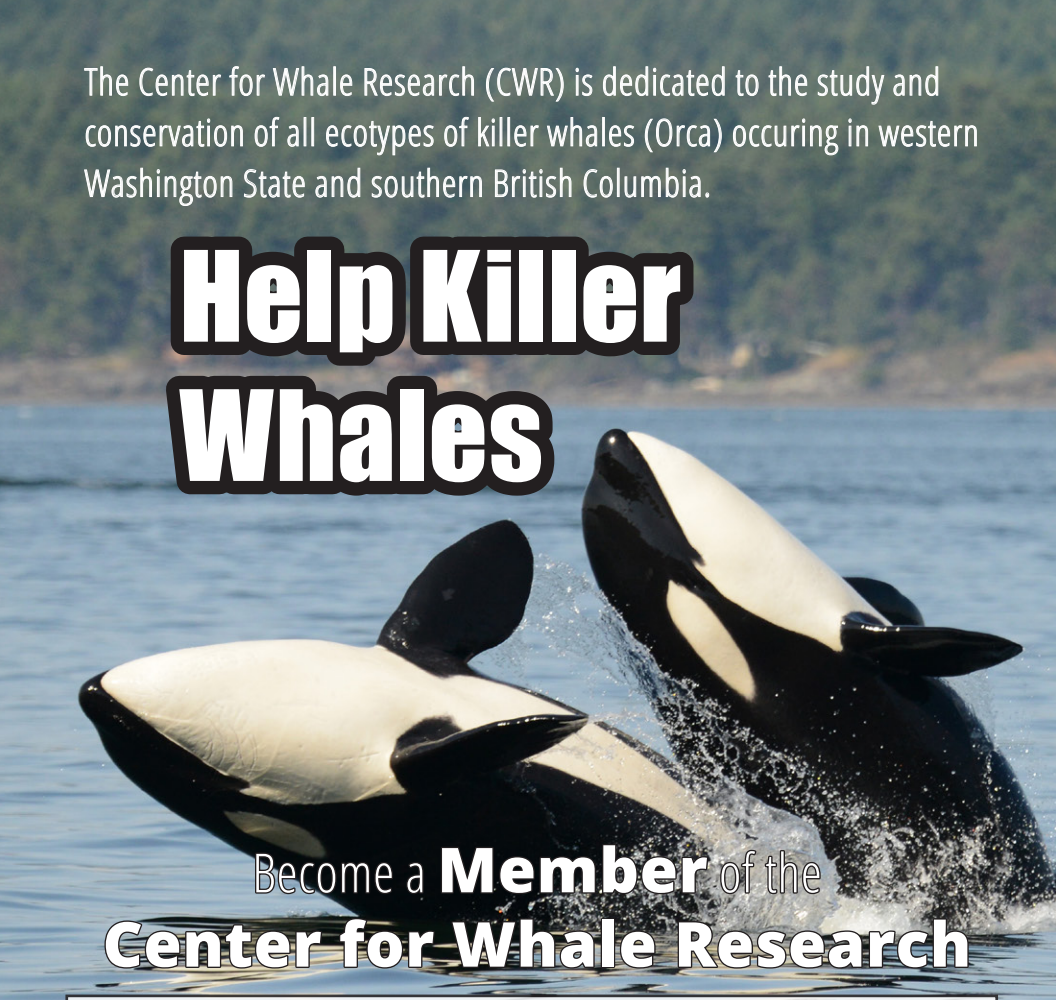
With many thanks to the whale-watchers and whale enthusiasts that report whale sightings to Orcanetwork.org (877-ORCANET). Please send photos to us at Center for Whale Research: info@whaleresearch.com

ID Guide production and design:
Lisa Moorby, Center for Whale Research

Erin Heydenreich, CWR Staff
Dr. Deborah Giles, CWR Staff

The Center for Whale Research (CWR) is dedicated to the study and conservation of all ecotypes of killer whales (Orca) occuring in western Washington State and southern British Columbia.

Help Killer Whales



Become a **Member** of the
Center for Whale Research

40 Years of Whale Research

Your participation in the Center for Whale Research membership program is essential in our efforts to protect all ecotypes of Killer Whales (Orcas) in the Pacific Northwest.

WhaleResearch.com

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