

Table S1. Details on individual false killer whales with dorsal fin injuries considered consistent with fisheries interactions, using photos from 1999 through 2021. One individual was included only in the age analysis (indicated with a ^), but removed from the stock, cluster, and sex assessments based on a low distinctiveness score. Dorsal fins are restricted to sightings with good or better photo quality. “Before” dates represent individuals that had injuries present the first time these individuals were photographically documented. Individuals documented with fisheries-related injuries from more than one interaction are listed multiple times, with subsequent date ranges noted in italics

ID	Stock	MHI cluster	Sex	Mean highest dorsal score	Date range of when injury occurred based on photos
HIPc120	MHI	1	Female	3.00	Between 8-Nov-2007 and 26-Jun-2008
HIPc127	MHI	1	Unknown	3.00	Before 18-Feb-2000
HIPc134	MHI	1	Female	3.00	Between 8-Sep-2007 and 16-Jul-2008
HIPc203*	MHI	1	Female	2.75	Between 1996 and 21-Jan-2004
<i>HIPc203</i>	<i>MHI</i>	<i>1</i>	<i>Female</i>	<i>2.75</i>	<i>Between 26-Jun-2008 and 26-Jul-2008</i>
HIPc310	MHI	1	Female	3.00	Between 16-Nov-2015 and 8-Oct-2016
<i>HIPc310</i>	<i>MHI</i>	<i>1</i>	<i>Female</i>	<i>3.00</i>	<i>Between 2-Nov-2021 and 16-Nov-2021</i>
HIPc114	MHI	1	Male	3.00	Between 17-Apr-2014 and 1-Jan-2015
HIPc132 ⁺	MHI	1	Male	2.50	Before 5-Feb-1999
HIPc118 ⁺	MHI	1	Unknown	3.00	Before 16-May-1990
HIPc220	MHI	2	Female	3.00	Before 7-Aug-2005
HIPc222 ⁺	MHI	2	Female	3.00	Before 7-Aug-2005
HIPc230	MHI	2	Female	3.00	Between 8-Jul-1987 and 22-Oct-2005
HIPc231	MHI	2	Unknown	2.75	Between 14-Aug-2010 and 20-Sep-2016
HIPc398	MHI	2	Female	3.00	Before 23-Nov-2006
<i>HIPc398</i>	<i>MHI</i>	<i>2</i>	<i>Female</i>	<i>3.00</i>	<i>Between 23-Nov-2006 and 14-Aug-2020</i>
HIPc662*	MHI	2	Unknown	3.00	Between 2013 and 6-Jun-2015
HIPc723*	MHI	2	Unknown	2.50	Between 2015 and 12-Oct-2017
HIPc155	MHI	3	Female	2.50	Between 11-Dec-2010 and 26-Oct-2011
HIPc166	MHI	3	Female	3.00	Before 26-May-2003
HIPc170	MHI	3	Female	3.00	Before 26-May-2003
HIPc171	MHI	3	Female	2.75	Between 22-Nov-2016 and 07-May-2019
HIPc173	MHI	3	Female	2.50	Between 26-May-2003 and 13-Sep-2004
HIPc177	MHI	3	Female	3.00	Before 26-May-2003
HIPc186	MHI	3	Female	3.00	Before 29-Mar-1999
HIPc357	MHI	3	Female	2.75	Between 08-Oct-2017 and 04-Nov-2017
HIPc190	MHI	3	Female	3.00	Between 4-Jul-2016 and 17-Nov-2017
HIPc201	MHI	3	Unknown	2.75	Before 03-Dec-2004
HIPc301	MHI	3	Male	2.50	Between 9-Nov-2013 and 17-May-2014
HIPc299	MHI	3	Unknown	3.00	Before 24-Apr-2008
HIPc364 ⁺	MHI	3	Unknown	2.50	Before 10-Dec-2009
HIPc407	MHI	3	Female	2.50	Between 25-Apr-2009 and 15-Oct-2010
HIPc645*	MHI	3	Female	2.75	Between 2013 and 5-Jun-2014

ID	Stock	MHI cluster	Sex	Mean highest dorsal score	Date range of when injury occurred based on photos
HIPc920 [^] *	MHI	3	Unknown	2.50	Between 2019 and 21-Jul-2021
HIPc264	MHI	4	Female	3.00	Before 21-Mar-2003
HIPc270	MHI	4	Female	2.50	Between 21-Mar-2016 and 13-Nov-2017
HIPc805*	MHI	4	Male	3.00	Between 2013 and 19-Sep-2018
HIPc533	NWHI	-	Female	2.50	Before 14-Jun-2012
HIPc292	Pelagic	-	Female	2.50	Before 21-Apr-2008
HIPc746	Pelagic	-	Female	2.50	Before 12-Sep-2017
HIPc861	Pelagic	-	Female	2.50	Before 31-Oct-2019
HIPc767 ⁺	Pelagic	-	Male	2.75	Before 13-Sep-2017
HIPc290	Pelagic	-	Unknown	2.75	Before 21-Apr-2008
HIPc608	Pelagic	-	Unknown	2.50	Before 26-May-2013
HIPc753	Pelagic	-	Unknown	3.00	Before 12-Sep-2017
HIPc689	Unknown	-	Unknown	3.00	Before 3-Sep-2016
HIPc690	Unknown	-	Unknown	3.00	Before 3-Sep-2016

⁺First seen with more than one injury but unknown whether from independent events

*For individuals first documented with injuries as calves, juveniles, or sub-adults a start year is noted for “between” dates based on the year the individual was estimated to be 1-year old, restricted to those with age estimate confidence ratings of 3 or higher (see Kratofil et al. 2023b)

[^]Included in age/year analyses, but removed from stock, cluster, and sex assessments after restrictions

Table S2. Stock, main Hawaiian Island (MHI) cluster, and sex classifications for individual false killer whales with dorsal fin injuries considered possibly consistent with fisheries interactions, using photos from 1999 through 2021. Individuals considered not distinctive are not included. Dorsal fins are restricted to sightings that had no “undeterminable” scores, good or excellent photo quality, and a highest distinctiveness rating of >1. The date range when the injury occurred is noted. “Before” dates represent individuals that had injuries present the first time these individuals were photographically documented. Individuals documented with possible fisheries-related injuries from more than one interaction are listed multiple times, with subsequent date ranges noted in italics

ID	Stock	MHI cluster	Sex	Mean highest dorsal score	Best estimate of when injury occurred based on photos
HIPc117	MHI	1	Female	2.25	Before 1-Feb-1998
HIPc138	MHI	1	Female	2.25	Between 8-Jan-2008 and 16-Jul-2008
HIPc208	MHI	1	Female	2.00	Between 28-Feb-2001 and 3-May-2005
<i>HIPc208</i>	<i>MHI</i>	<i>1</i>	<i>Female</i>	<i>2.00</i>	<i>Between 23-Mar-2006 and 26-Jul-2008</i>
HIPc276	MHI	1	Female	2.25	Between 21-Jan-2004 and 15-Aug-2007
<i>HIPc276</i>	<i>MHI</i>	<i>1</i>	<i>Female</i>	<i>2.25</i>	<i>Between 26-Feb-2009 and 7-Apr-2009</i>
HIPc129	MHI	1	Male	2.25	Between 9-Sep-2006 and 16-Jul-2008
HIPc039	MHI	1	Unknown	2.00	Before 16-May-1990
HIPc040	MHI	1	Unknown	2.00	Before 1-Feb-1998
<i>HIPc040</i>	<i>MHI</i>	<i>1</i>	<i>Unknown</i>	<i>2.00</i>	<i>Between 12-Aug-1999 and 18-Feb-2005</i>
HIPc215	MHI	1	Unknown	2.00	Between 3-Mar-2005 and 11-Apr-2006
HIPc272	MHI	1	Unknown	2.25	Between 15-Sep-18 and 23-Jan 2019
<i>HIPc272</i>	<i>MHI</i>	<i>1</i>	<i>Unknown</i>	<i>2.25</i>	<i>Between 17-Nov-2020 and 20-Jan-2021</i>
HIPc153	MHI	2	Female	2.00	Before 30-Sep-2002
HIPc339	MHI	2	Female	2.00	Before 1-Nov-2008
HIPc381	MHI	2	Female	2.00	Before 14-Aug-2010
HIPc382	MHI	2	Female	2.25	Before 31-Mar-2006
HIPc499	MHI	2	Female	2.25	Before 20-Aug-2011
HIPc196	MHI	2	Male	2.25	Between 6-Jun-2015 and 20-Sep-2016
HIPc197	MHI	2	Male	2.25	Before 2-Oct-1986
HIPc390	MHI	2	Unknown	2.00	Before 20-Aug-2011
HIPc656	MHI	2	Unknown	2.25	Before 1-Mar-2015
HIPc695	MHI	2	Unknown	2.25	Before 20-Sep-2016
HIPc159	MHI	3	Female	2.00	Between 26-May-2003 and 13-Sep-2004
HIPc198	MHI	3	Female	2.00	Before 3-Dec-2004
HIPc218	MHI	3	Female	2.00	Between 5-Jan-2015 and 18-Nov-2017
HIPc713	MHI	3	Female	2.00	Between 23-Sep-2015 and 27-May-2017
HIPc161	MHI	3	Male	2.25	Between 15-Oct-2010 and 26-Oct-2011
HIPc164	MHI	3	Male	2.00	Before 26-May-2003
HIPc187	MHI	3	Male	2.00	Between 6-Oct-2004 and 10-Dec-2009
HIPc192	MHI	3	Male	2.00	Between 10-Dec-2008 and 15-Oct-2010
HIPc200	MHI	3	Male	2.00	Before 3-Dec-2004
HIPc280	MHI	3	Male	2.25	Before 29-Mar-1999
HIPc337	MHI	3	Male	2.00	Between 15-Oct-2012 and 27-May-2017
HIPc366	MHI	3	Male	2.00	Before 10-Dec-2009
HIPc714	MHI	3	Male	2.00	Before 1-Jan-2015

ID	Stock	MHI cluster	Sex	Mean highest dorsal score	Best estimate of when injury occurred based on photos
HIPc277	MHI	3	Unknown	2.00	Between 5-Jun-2014 and 22-Nov-2016
HIPc184	MHI	4	Male	2.00	Before 1999
HIPc704	MHI	4	Male	2.25	Between 29-Aug-2014 and 21-Oct-2015
HIPc113	MHI	4	Unknown	2.25	Before 9-Jan-2000
HIPc353	MHI	4	Unknown	2.00	Between 4-Feb-2009 and 3-Jul-2010
HIPc676	NWHI	-	Unknown	2.00	Before 6-Sep-2015
HIPc247	Pelagic	-	Unknown	2.25	Before 9-Apr-2006
HIPc485	Pelagic	-	Unknown	2.00	Before 10-Nov-2010
HIPc593	Pelagic	-	Unknown	2.25	Before 15-May-2013
HIPc599	Pelagic	-	Unknown	2.25	Before 15-May-2013
HIPc905	Unknown	-	Male	2.00	Before 3-Jan-2021

Table S3. Contingency table comparison of numbers of individuals by dorsal fin injury consistency score for those with photos of both sides of the fin available versus those with only one side available, restricted to individuals assessed by all four reviewers. A Fisher’s exact test was used to compare consistency when one or both side photos were available, and showed that there is no relationship ($p = 1.000$).

Dorsal fin score category	Number (% of total by row) of individuals	
	With both sides photos	With only one side photos
Consistent	33 (73.3)	12 (26.7)
Possibly consistent	31 (72.1)	12 (27.9)
Not consistent	94 (72.9)	35 (27.1)

Table S4. Contingency table comparison of numbers of individuals by dorsal fin injury consistency score for those with good versus excellent photo quality. A Fisher’s exact test was used to compare consistency against photo quality score, and showed a statistically significant relationship between these two variables ($p = 0.005$), i.e., individuals with excellent quality photos were more likely to have dorsal fin injuries consistent or possibly consistent with fishery interactions than those with good quality photos.

Dorsal fin score category	Number (% of total by row) of individuals	
	With good photo quality	With excellent photo quality
Consistent	8 (17.8)	37 (82.2)
Possibly consistent	8 (18.6)	35 (81.4)
Not consistent	170 (40.9)	246 (59.1)

Table S5. Best age estimates, age confidence ratings, and span of years in catalog for individuals included in the age analyses for dorsal fins. See Kratofil et al. 2023b for methods of age determination.

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc015	4	44	29
HIPc101	3	31	22
HIPc102	3	25	15
HIPc103	3	40	30
HIPc105	3	38	22
HIPc106	4	30	24
HIPc107	3	20	14
HIPc112	3	11	1
HIPc114	4	43	28
HIPc115	4	42	27
HIPc116	3	36	26
HIPc117	3	42	32
HIPc120	3	26	16
HIPc121	3	29	19
HIPc122	3	33	23
HIPc129	3	40	15
HIPc132	3	37	14
HIPc133	4	29	21
HIPc139	3	13	3
HIPc143	3	34	24
HIPc145	3	33	23
HIPc150	3	29	14
HIPc151	3	32	17
HIPc155	3	33	20
HIPc158	3	32	19
HIPc159	3	32	19
HIPc160	3	25	0
HIPc161	3	23	8
HIPc162	5	25	10
HIPc163	3	19	1
HIPc164	5	19	13
HIPc167	3	11	1
HIPc168	3	25	19
HIPc169	3	20	10
HIPc170	3	26	16
HIPc171	3	32	22
HIPc176	3	25	19
HIPc178	4	9	1

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc179	4	21	12
HIPc181	4	34	24
HIPc184	3	28	13
HIPc187	3	20	10
HIPc188	3	33	18
HIPc189	3	28	18
HIPc190	3	28	18
HIPc192	3	20	10
HIPc196	3	28	18
HIPc197	4	39	33
HIPc198	5	21	11
HIPc199	5	24	6
HIPc202	4	28	20
HIPc203	3	28	19
HIPc204	4	33	18
HIPc205	4	25	22
HIPc207	4	32	24
HIPc208	3	33	24
HIPc210	4	28	22
HIPc211	3	32	17
HIPc214	4	24	18
HIPc215	3	13	7
HIPc216	4	39	24
HIPc217	3	22	16
HIPc221	4	51	14
HIPc223	3	22	12
HIPc230	4	45	35
HIPc231	3	23	17
HIPc232	3	4	1
HIPc233	4	19	13
HIPc262	4	38	23
HIPc266	4	28	22
HIPc270	3	27	17
HIPc271	3	3	0
HIPc272	3	20	17
HIPc273	3	17	5
HIPc274	3	26	16
HIPc276	3	25	13
HIPc277	4	17	15
HIPc281	5	6	5
HIPc282	4	10	6

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc300	5	0	0
HIPc301	5	17	14
HIPc302	4	11	8
HIPc310	5	25	19
HIPc311	3	10	7
HIPc312	5	11	8
HIPc313	4	23	14
HIPc314	3	20	14
HIPc315	4	6	3
HIPc316	3	23	17
HIPc317	3	17	7
HIPc318	4	23	17
HIPc319	4	4	3
HIPc320	5	18	15
HIPc321	4	7	6
HIPc330	4	4	3
HIPc332	3	22	19
HIPc333	4	13	12
HIPc336	4	7	6
HIPc337	4	9	6
HIPc338	3	16	10
HIPc339	3	16	10
HIPc346	4	30	24
HIPc348	3	23	13
HIPc349	3	19	15
HIPc350	3	26	19
HIPc351	3	20	13
HIPc352	4	15	12
HIPc359	5	16	13
HIPc363	5	17	14
HIPc366	4	22	12
HIPc367	4	16	13
HIPc368	3	9	6
HIPc369	3	16	13
HIPc371	3	19	13
HIPc373	3	21	11
HIPc375	3	3	0
HIPc376	4	19	16
HIPc377	3	26	23
HIPc379	3	40	20
HIPc380	3	10	0

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc382	3	26	16
HIPc384	4	13	10
HIPc385	4	3	0
HIPc386	3	19	16
HIPc387	3	6	1
HIPc391	3	16	10
HIPc395	3	4	1
HIPc404	3	3	0
HIPc405	4	15	9
HIPc407	4	14	13
HIPc412	3	8	5
HIPc495	4	2	1
HIPc498	3	11	11
HIPc502	3	4	1
HIPc503	4	1	0
HIPc504	3	4	1
HIPc505	3	1	0
HIPc506	3	20	17
HIPc508	5	25	22
HIPc516	3	25	22
HIPc517	3	6	0
HIPc518	3	14	8
HIPc548	3	3	0
HIPc549	4	1	0
HIPc551	5	0	0
HIPc552	4	1	0
HIPc554	4	1	0
HIPc565	5	0	0
HIPc570	4	3	0
HIPc571	4	6	3
HIPc572	4	3	0
HIPc574	4	5	4
HIPc576	3	3	0
HIPc577	3	11	6
HIPc578	4	14	13
HIPc633	3	16	13
HIPc635	3	2	1
HIPc636	5	1	1
HIPc641	4	2	1
HIPc642	4	3	2
HIPc643	3	1	0

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc644	3	3	2
HIPc645	3	10	8
HIPc646	5	1	1
HIPc647	3	11	10
HIPc648	3	11	8
HIPc653	4	12	6
HIPc654	4	17	7
HIPc656	3	10	7
HIPc660	3	17	7
HIPc662	3	10	7
HIPc665	5	2	2
HIPc686	4	8	7
HIPc687	3	10	7
HIPc692	3	4	1
HIPc694	4	9	6
HIPc695	3	12	6
HIPc696	3	9	6
HIPc697	4	7	6
HIPc698	4	8	7
HIPc699	4	8	5
HIPc700	5	10	0
HIPc701	4	6	3
HIPc702	3	18	8
HIPc704	5	9	8
HIPc705	3	14	8
HIPc706	3	12	6
HIPc707	3	4	3
HIPc708	3	18	10
HIPc709	3	11	8
HIPc710	3	10	4
HIPc711	3	26	20
HIPc712	3	11	1
HIPc713	4	9	8
HIPc715	5	0	0
HIPc716	4	5	2
HIPc717	4	8	5
HIPc718	4	6	5
HIPc720	4	6	5
HIPc722	4	3	0
HIPc723	4	9	6
HIPc724	4	6	1

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc725	4	8	5
HIPc726	5	15	12
HIPc727	4	1	0
HIPc799	4	7	4
HIPc805	3	10	4
HIPc806	3	3	0
HIPc807	3	3	0
HIPc808	4	9	5
HIPc809	4	4	3
HIPc839	4	2	1
HIPc840	4	8	3
HIPc841	4	5	2
HIPc842	4	6	3
HIPc844	4	3	0
HIPc851	3	6	3
HIPc854	4	4	3
HIPc896	5	3	3
HIPc899	4	1	0
HIPc900	4	1	0
HIPc901	3	9	3
HIPc913	4	3	2
HIPc914	4	2	1
HIPc915	4	1	0
HIPc916	4	3	0
HIPc917	4	5	2
HIPc920	3	4	1

Table S6. Summary of when injuries were first documented by age class and sex for all known-sex individuals that were included in the age class assessment. Percentages represent the number of individuals with injuries first documented in an age class, out of the total number of individuals documented in an age class.

Age class	Dorsal fin		Mouthline	
	Males % age class injury first documented	Females % age class injury first documented	Males % age class injury first documented	Females % age class injury first documented
calves, juveniles, subadults	5.7	4.8	11.8	8.0
adult	4.2	16.9	8.1	7.8

Table S7. Details on individual false killer whales with mouthline injuries considered consistent with fisheries interactions. All individuals were seen in 1999 or later, and all but one individual included as consistent in only the age analysis (indicated with a ^) had no “undeterminable” scores, >50% of the mouthline visible, and a highest distinctiveness rating of >1. “Before” dates represent individuals that had injuries present the first time these individuals were photographically documented

ID	Stock	MHI cluster	Sex	Mean highest mouthline score	Date range of when injury occurred based on photos
HIPc127	MHI	1	Unknown	2.75	Before 17-Apr-2014
HIPc134	MHI	1	Female	2.75	Before Sep-2004
HIPc358	MHI	1	Female	2.75	Before 10-Nov-2017
HIPc210	MHI	1	Male	3.00	Before 16-Oct-2009
HIPc281 [*]	MHI	1	Male	2.50	Between 2005 and 26-Jul-2008
HIPc717	MHI	1	Unknown	3.00	Between 25-Feb-2018 and 31-Jan-2020
HIPc230	MHI	2	Female	2.75	Before 22-Oct-2005
HIPc338 [*]	MHI	2	Female	2.75	Between 2000 and 1-Nov-2008
HIPc339	MHI	2	Female	3.00	Before 14-Aug-2010
HIPc398	MHI	2	Female	3.00	Before 20-Aug-2011
HIPc177	MHI	3	Female	2.75	Before 15-Oct-2010
HIPc218	MHI	3	Female	2.75	Before 24-Apr-2008
HIPc346	MHI	3	Female	2.75	Before 12-Nov-2017
HIPc356	MHI	3	Female	3.00	Before 5-Jun-2014
HIPc365	MHI	3	Female	2.75	Before 10-Dec-2009 ⁺
HIPc578 [*]	MHI	3	Female	2.75	Between 2008 and 9-Oct-2016
HIPc161	MHI	3	Male	3.00	Before 26-Oct-2011
HIPc164	MHI	3	Male	2.75	Before 28-Sep-2016
HIPc201	MHI	3	Unknown	2.75	Before 3-Dec-2004 ⁺
HIPc337 [*]	MHI	3	Unknown	3.00	Between 2006 and 15-Oct-2012
HIPc277 [*]	MHI	3	Unknown	2.75	Between 2007 and 22-Nov-2016
HIPc687	MHI	3	Male	2.50	Between 20-Jun-2019 and 11-Nov-2021
HIPc111	MHI	4	Unknown	2.75	Before 15-Mar-2019
HIPc516	MHI	4	Female	2.50	Between 25-Dec-2013 and 3-Dec-2020
HIPc104	MHI	4	Male	3.00	Before 19-Dec-2009
HIPc185	MHI	4	Unknown	2.75	Before 1-Jan-1999
HIPc800	MHI	4	Unknown	2.75	Before 4-Mar-2018 ⁺
HIPc284	Pelagic	-	Unknown	2.75	Before 21-Apr-2008 ⁺
HIPc829	Pelagic	-	Unknown	3.00	Before 12-Apr-2018 ⁺
HIPc865	Pelagic	-	Unknown	3.00	Before 31-Oct-2019 ⁺
HIPc810	Unknown	-	Unknown	2.50	Before 3-Sep-2016 ⁺

⁺Mouthline photos available for injury assessment in first encounter with these individuals

^{*}For individuals first documented with injuries as calves, juveniles, or sub-adults a start year is noted for “between” dates based on the year the individual was estimated to be 1-year old,

restricted to those with age estimate confidence ratings of 3 or higher (see Kratofil et al. in review)

^Included in age/year analyses, but removed from stock, cluster, and sex assessments after

Table S8. Stock, main Hawaiian Island (MHI) cluster, and sex classifications for individual false killer whales with mouthline injuries considered possibly consistent with fisheries interaction, using photos from 1999 through 2021. Individuals considered not distinctive are not included. Mouthlines are restricted to individuals with sightings with 50% or more of the mouthline visible, and no “undeterminable” scores. The date range when the injury occurred is noted. “Before” dates represent individuals that had injuries present the first time these individuals were photographically documented

ID	Stock	MHI cluster	Sex	Mean highest mouthline score	Best estimate of when injury occurred based on photos
HIPc117	MHI	1	Female	2.25	Before 5-Aug-2010
HIPc120	MHI	1	Female	2.25	Before 17-Feb-2007
HIPc135	MHI	1	Female	2.25	Between 16-Jul-2008 and 22-Jun-2020
HIPc114	MHI	1	Male	2.00	Between 16-Jul-2008 and 1-Jan-2015
HIPc281	MHI	1	Male	2.25	Before 26-Jul-2008
HIPc573	MHI	1	Unknown	2.00	Before 22-Oct-2012
HIPc155	MHI	3	Female	2.00	Before 4-Jun-2019
HIPc158	MHI	3	Female	2.00	Before 27-May-2017
HIPc173	MHI	3	Female	2.00	Between 13-Sep-2004 and 25-Apr-2009
HIPc198	MHI	3	Female	2.25	Before 26-Oct-2011
HIPc367	MHI	3	Female	2.00	Before 9-Oct-2016
HIPc176	MHI	3	Male	2.00	Before 4-Jun-2019
HIPc281	MHI	3	Male	2.25	Before 26-Jul-2008
HIPc654	MHI	3	Male	2.00	Before 28-Jul-2021
HIPc364	MHI	3	Unknown	2.00	Before 8-Aug-2021
HIPc712	MHI	3	Unknown	2.25	Before 27-May-2017
HIPc101	MHI	4	Female	2.25	Before 15-Mar-2019
HIPc431	NWHI	-	Female	2.25	Before 6-Sep-2015
HIPc456	NWHI	-	Unknown	2.00	Before 7-Oct-2010
HIPc677	NWHI	-	Unknown	2.00	Before 6-Sep-2015
HIPc625	Pelagic	-	Female	2.25	Before 22-Oct-2013
HIPc819	Pelagic	-	Unknown	2.00	Before 30-Jul-2017

Table S9. Summary of mean highest percent mouthline visible by ID for various groupings. Kruskal-Wallis ANOVAs were used to test for differences in highest % visible by ID by stock and cluster, but there was little evidence to support such differences ($H = 1.91$, $p = 0.384$ for stocks, and $H = 2.47$, $p = 0.480$ for MHI clusters). A Mann-Whitney U test was used to test for differences in highest % visible by ID by sex, but there was no evidence to support such differences ($W = 1448.5$, $p = 0.762$)

	Min/Max mean highest % visible by ID	Median mean highest % visible by ID
Stock		
MHI	50/100	60
NWHI	50/100	50
Pelagic	50/100	60
MHI cluster		
1	50/100	60
2	50/100	50
3	50/100	50
4	50/100	80
Sex		
Female	50/100	50
Male	50/100	60

Table S10. Best age estimates, age confidence ratings, and span of years in catalog for individuals included in the age analyses for mouthlines. See Kratofil et al. 2023b for methods of age determination.

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc101	3	31	22
HIPc102	3	25	15
HIPc103	3	40	30
HIPc105	3	38	22
HIPc106	4	30	24
HIPc107	3	20	14
HIPc114	4	43	28
HIPc115	4	42	27
HIPc116	3	36	26
HIPc117	3	42	32
HIPc120	3	26	16
HIPc121	3	29	19
HIPc122	3	33	23
HIPc132	3	37	14
HIPc133	4	29	21
HIPc143	3	34	24
HIPc145	3	33	23
HIPc150	3	29	14
HIPc155	3	33	20
HIPc158	3	32	19
HIPc159	3	32	19
HIPc161	3	23	8
HIPc162	5	25	10
HIPc164	5	19	13
HIPc168	3	25	19
HIPc169	3	20	10
HIPc170	3	26	16
HIPc171	3	32	22
HIPc176	3	25	19
HIPc181	4	34	24
HIPc184	3	28	13
HIPc187	3	20	10
HIPc189	3	28	18
HIPc190	3	28	18
HIPc192	3	20	10
HIPc197	4	39	33
HIPc198	5	21	11
HIPc199	5	24	6

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc202	4	28	20
HIPc203	3	28	19
HIPc204	4	33	18
HIPc205	4	25	22
HIPc207	4	32	24
HIPc208	3	33	24
HIPc210	4	28	22
HIPc214	4	24	18
HIPc216	4	39	24
HIPc217	3	22	16
HIPc221	4	51	14
HIPc223	3	22	12
HIPc230	4	45	35
HIPc232	3	4	1
HIPc233	4	19	13
HIPc262	4	38	23
HIPc266	4	28	22
HIPc270	3	27	17
HIPc272	3	20	17
HIPc273	3	17	5
HIPc276	3	25	13
HIPc277	4	17	15
HIPc281	5	6	5
HIPc282	4	10	6
HIPc300	5	0	0
HIPc301	5	17	14
HIPc302	4	11	8
HIPc310	5	25	19
HIPc311	3	10	7
HIPc312	5	11	8
HIPc313	4	23	14
HIPc314	3	20	14
HIPc315	4	6	3
HIPc316	3	23	17
HIPc317	3	17	7
HIPc318	4	23	17
HIPc319	4	4	3
HIPc320	5	18	15
HIPc321	4	7	6
HIPc330	4	4	3
HIPc332	3	22	19

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc333	4	13	12
HIPc336	4	7	6
HIPc337	4	9	6
HIPc338	3	16	10
HIPc339	3	16	10
HIPc346	4	30	24
HIPc348	3	23	13
HIPc349	3	19	15
HIPc350	3	26	19
HIPc351	3	20	13
HIPc352	4	15	12
HIPc359	5	16	13
HIPc363	5	17	14
HIPc366	4	22	12
HIPc367	4	16	13
HIPc371	3	19	13
HIPc373	3	21	11
HIPc375	3	3	0
HIPc376	4	19	16
HIPc377	3	26	23
HIPc382	3	26	16
HIPc384	4	13	10
HIPc385	4	3	0
HIPc386	3	19	16
HIPc387	3	6	1
HIPc391	3	16	10
HIPc395	3	4	1
HIPc405	4	15	9
HIPc407	4	14	13
HIPc412	3	8	5
HIPc498	3	11	11
HIPc502	3	4	1
HIPc503	4	1	0
HIPc504	3	4	1
HIPc516	3	25	22
HIPc517	3	6	0
HIPc518	3	14	8
HIPc551	5	0	0
HIPc565	5	0	0
HIPc570	4	3	0
HIPc571	4	6	3

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc574	4	5	4
HIPc577	3	11	6
HIPc578	4	14	13
HIPc633	3	16	13
HIPc635	3	2	1
HIPc636	5	1	1
HIPc641	4	2	1
HIPc642	4	3	2
HIPc644	3	3	2
HIPc645	3	10	8
HIPc646	5	1	1
HIPc647	3	11	10
HIPc648	3	11	8
HIPc653	4	12	7
HIPc654	4	17	7
HIPc656	3	10	7
HIPc662	3	10	7
HIPc665	5	2	2
HIPc686	4	8	7
HIPc687	3	10	7
HIPc692	3	4	1
HIPc694	4	9	6
HIPc695	3	12	6
HIPc696	3	9	6
HIPc697	4	7	6
HIPc698	4	8	7
HIPc699	4	8	5
HIPc701	4	6	3
HIPc702	3	18	8
HIPc704	5	9	8
HIPc705	3	14	8
HIPc706	3	12	6
HIPc707	3	4	3
HIPc709	3	11	8
HIPc710	3	10	4
HIPc711	3	26	20
HIPc712	3	11	1
HIPc713	4	9	8
HIPc716	4	5	2
HIPc717	4	8	5
HIPc718	4	6	5

ID	Best age estimate confidence rating	Best age estimate for when ID last documented	Span of years in catalog (year last seen - year first seen)
HIPc720	4	6	5
HIPc722	4	3	0
HIPc723	4	9	6
HIPc724	4	6	1
HIPc725	4	8	5
HIPc726	5	15	12
HIPc727	4	1	0
HIPc799	4	7	4
HIPc805	3	10	4
HIPc806	3	3	0
HIPc807	3	3	0
HIPc808	4	9	5
HIPc809	4	4	3
HIPc839	4	2	1
HIPc840	4	8	3
HIPc841	4	5	2
HIPc842	4	6	3
HIPc844	4	3	0
HIPc851	3	6	3
HIPc854	4	4	3
HIPc899	4	1	0
HIPc900	4	1	0
HIPc913	4	3	2
HIPc914	4	2	1
HIPc915	4	1	0
HIPc916	4	3	0
HIPc917	4	5	2

Table S11. Contingency table comparison of mean % mouthline visible by ID by varying degrees of consistency. Kruskal-Wallis ANOVAs were used to compare the highest % mouthline visible by ID by degree of mouthline consistency for each of the three categories of dorsal fin consistency, but no statistical relationships were found (consistent dorsal fin scores $H = 0.112$, $p = 0.946$, possibly consistent dorsal fin scores $H = 1.949$, $p = 0.378$, not consistent dorsal fin scores $H = 1.402$, $p = 0.496$)

Dorsal fin score category	Median mean highest % mouthline visible by ID for		
	Consistent mouthline scores	Possibly consistent mouthline scores	Not consistent mouthline scores
Consistent	55	50	55
Possibly consistent	85	75	50
Not consistent	80	50	50

Table S12. Comparison of associations between individuals with fishery-related injuries (FI) and those without (non-FI). Restricted to individuals slightly distinctive and above with fair or better photo quality that were seen on at least five days. Values shown are means (SD)

	# Individuals	Maximum HWI	Strength	Eigenvector centrality	Clustering Coefficient
FI Classes					
FI	46	0.60 (0.15)	9.92 (3.95)	0.04 (0.05)	0.23 (0.05)
Non-FI	129	0.60 (0.12)	10.71 (3.64)	0.05 (0.06)	0.24 (0.05)
Population	175	0.60 (0.13)	10.51 (3.73)	0.05 (0.06)	0.24 (0.05)
Association (within and between classes)					
FI with FI			2.53 (1.09)	0.10 (0.11)	0.27 (0.10)
FI with non-FI			9.77 (4.06)	-	-
Non-FI with FI			2.59 (0.80)	-	-
Non-FI to Non-FI			8.08 (3.02)	0.06 (0.06)	0.30 (0.08)