

Supplemental Information: A comparison of diving behavior of goose-beaked and dense-beaked whales from tagging studies in multiple ocean basins

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Table S1. Information on tagged beaked whales including the deployment identification, species (dense-beaked whales: Md and goose-beaked whales: Zc), location, type of tag, dates and times of the first and last dives used in this report, and durations between the first and last dive.

Table S2. Means and standard deviations (SD) of diving parameters measured from tagged beaked whales summarized for each tagged individual.

Table S3. Percentiles of the distribution of maximum dive depth for all foraging dives for the given species in the given locations.

Table S4. Percentiles of the distribution of dive duration for all foraging dives for the given species in the given locations.

Table S5. Percentiles of the distribution of dive cycle duration for all dive cycles for the given species in the given locations.

Table S6. Percentiles of the distribution of mean echolocation depth for all foraging dives (with acoustic data) for the given species in the given locations.

Table S7. Percentiles of the distribution of the standard deviation echolocation depth for all foraging dives (with acoustic data) for the given species in the given locations.

Table S1. Information on tagged beaked whales including the deployment identification, species (dense-beaked whales: Md and goose-beaked whales: Zc), location, type of tag, dates and times of the first and last dives used in this report, and durations between the first and last dive. Data are not necessarily continuous during the entire deployment period. Tag types include time-depth recorders (TDR), satellite-transmitting behavior recorders (SPLASH10), multi-sensor acoustic recorders (DTAG), and satellite-transmitting acoustic recorders (SMRT). Co-author sources are: a) Durban, b) Claridge, c) Tyack, d) Hickmott, e) Aguilar de Soto, f) Miranda Gonzalez, g) Baird, h) Visser, i) Oudejans, j) Read, k) Schorr, l) Falcone, m) Coates, n) Sweeney, o) DeRuiter, p) Rone, and q) Watwood. Previous papers using the same data are: 1) Johnson et al. 2004, 2) Tyack et al. 2006, 3) Baird et al. 2006, 4) Baird et al. 2008, 5) Tyack et al. 2011, 6) Barlow et al. 2013, 7) Schorr et al. 2014, 8) Falcone et al. 2017, 9) Joyce et al. 2017, 10) Shearer et al. 2019, 11) Barlow et al. 2020, 12) Sweeney et al. 2022, 13) Joyce et al. (2020), and 14) Baird et al. (2019).

Tag #	Deployment ID	Species	Location	Tag type	Start date and time of first dive	End date and time of last dive	Data	Co-author source	Citations
							duration (days)		
1	108419	Md	Bahamas	SPLASH10	6/5/2011 16:54	7/18/2011 19:44	43.12	a,b	9
2	111664	Md	Bahamas	SPLASH10	5/6/2012 14:27	5/21/2012 2:00	14.48	a,b	9,13
3	111670	Md	Bahamas	SPLASH10	5/6/2012 21:44	5/29/2012 5:05	22.31	a,b	9,13
4	111675	Md	Bahamas	SPLASH10	7/2/2012 5:10	7/10/2012 5:17	8.00	a,b	9
5	111680	Md	Bahamas	SPLASH10	6/23/2012 15:41	6/25/2012 16:57	2.05	a,b	9
6	111682	Md	Bahamas	SPLASH10	6/23/2012 6:35	7/7/2012 3:30	13.87	a,b	9
7	133062	Md	Bahamas	SPLASH10	5/10/2015 5:16	5/10/2015 9:51	0.19	a,b,d	
8	133063	Md	Bahamas	SPLASH10	8/21/2015 16:53	8/23/2015 13:11	1.85	a,b,d	
9	133064	Md	Bahamas	SPLASH10	8/21/2015 19:24	8/31/2015 14:18	9.79	a,b,d	
10	133065	Md	Bahamas	SPLASH10	8/22/2015 18:12	8/30/2015 6:59	7.53	a,b,d	
11	133066	Md	Bahamas	SPLASH10	8/22/2015 18:19	8/29/2015 10:04	6.66	a,b,d	
12	133067	Md	Bahamas	SPLASH10	8/21/2015 19:29	8/29/2015 2:34	7.30	a,b,d	
13	143494	Md	Bahamas	SPLASH10	10/30/2015 0:05	11/10/2015 20:30	11.85	a,b	
14	md06_296a	Md	Bahamas	DTAG	10/23/2006 16:11	10/24/2006 10:50	0.78	b,c,d	5,6
15	md07_227a	Md	Bahamas	DTAG	8/15/2007 15:07	8/16/2007 7:55	0.70	b,c,d	5,6
16	md07_248b	Md	Bahamas	DTAG	9/5/2007 18:39	9/6/2007 12:01	0.72	b,c,d	5,6
17	md15_156a	Md	Bahamas	DTAG	6/5/2015 16:33	6/6/2015 0:52	0.35	b,c,d	
18	md15_158a	Md	Bahamas	DTAG	6/7/2015 19:02	6/8/2015 11:25	0.68	b,c,d	
19	md15_160a	Md	Bahamas	DTAG	6/9/2015 17:36	6/10/2015 9:31	0.66	b,c,d	
20	md15_162a	Md	Bahamas	DTAG	6/11/2015 13:51	6/11/2015 23:12	0.39	b,c,d	
21	md16_141a	Md	Bahamas	DTAG	5/20/2016 17:17	5/20/2016 22:19	0.21	b,c,d	
22	md16_149a	Md	Bahamas	DTAG	5/28/2016 14:36	5/28/2016 15:25	0.03	b,c,d	
23	md16_149c	Md	Bahamas	DTAG	5/28/2016 14:36	5/29/2016 6:51	0.68	b,c,d	
24	md16_151a	Md	Bahamas	DTAG	5/30/2016 18:07	5/31/2016 10:12	0.67	b,c,d	
25	md16_205c	Md	Bahamas	DTAG	7/23/2016 19:55	7/24/2016 8:58	0.54	b,c,d	

26	md16_205d	Md	Bahamas	DTAG	7/23/2016 20:53	7/23/2016 23:24	0.10	b,c,d	
27	md17_128a	Md	Bahamas	DTAG	5/8/2017 14:41	5/8/2017 22:54	0.34	b,c,d	
28	md17_128b	Md	Bahamas	DTAG	5/8/2017 14:41	5/9/2017 8:48	0.75	b,c,d	
29	md17_129a	Md	Bahamas	DTAG	5/9/2017 22:02	5/10/2017 14:34	0.69	b,c,d	
30	md17_130a	Md	Bahamas	DTAG	5/10/2017 20:03	5/10/2017 23:34	0.15	b,c,d	
31	md03_284a	Md	Canaries	DTAG	10/11/2003 11:57	10/12/2003 0:03	0.50	c,e	1,2,6
32	md03_298a	Md	Canaries	DTAG	10/25/2003 16:17	10/25/2003 18:58	0.11	c,e	1,2,6
33	md04_287a	Md	Canaries	DTAG	10/13/2004 9:23	10/14/2004 1:39	0.68	c,e	2,6
34	md05_277a	Md	Canaries	DTAG	10/4/2005 11:36	10/4/2005 15:09	0.15	e,f	6
35	md05_285a	Md	Canaries	DTAG	10/12/2005 14:53	10/13/2005 7:54	0.71	e,f	6
36	md05_294a	Md	Canaries	DTAG	10/21/2005 14:43	10/21/2005 15:29	0.03	e,f	6
37	md05_294b	Md	Canaries	DTAG	10/21/2005 14:46	10/21/2005 19:38	0.20	e,f	6
38	md08_136a	Md	Canaries	DTAG	5/15/2008 10:39	5/15/2008 13:28	0.12	e,f	6
39	md08_137a	Md	Canaries	DTAG	5/16/2008 13:36	5/17/2008 5:28	0.66	e,f	6
40	md08_148a	Md	Canaries	DTAG	5/27/2008 13:26	5/27/2008 18:31	0.21	e,f	6
41	md08_289a	Md	Canaries	DTAG	10/15/2008 11:16	10/16/2008 6:20	0.79	e,f	6
42	md10_146a	Md	Canaries	DTAG	5/26/2010 10:34	5/26/2010 11:22	0.03	e,f	6
43	md10_163a	Md	Canaries	DTAG	6/12/2010 9:46	6/13/2010 2:29	0.70	e,f	6
44	md17_168a	Md	Canaries	DTAG	6/17/2017 0:04	6/17/2017 21:56	0.91	e,f	
45	md18_297b	Md	Canaries	DTAG	10/24/2018 0:18	10/24/2018 18:12	0.75	e,f	
46	md21_024a	Md	Canaries	DTAG	1/26/2021 0:13	1/26/2021 2:42	0.10	e,f	
47	md22_159a	Md	Canaries	DTAG	6/8/2022 0:02	6/8/2022 0:43	0.03	e,f	
48	md22_165a	Md	Canaries	DTAG	6/14/2022 1:15	6/14/2022 4:24	0.13	e,f	
49	Md_TDR_02	Md	Hawai'i	TDR	9/15/2004 11:21	9/15/2004 14:41	0.14	g	3,4,6,14
50	Md_TDR_03	Md	Hawai'i	TDR	9/27/2004 11:37	9/28/2004 8:17	0.86	g	3,4,6,14
51	Md_TDR_05	Md	Hawai'i	TDR	4/15/2006 11:53	4/17/2006 2:02	1.59	g	4,6,14
52	Md_TDR_06	Md	Hawai'i	TDR	4/20/2006 12:12	4/23/2006 3:53	2.65	g	4,6,14
53	Md_TDR_07	Md	Hawai'i	TDR	4/20/2006 12:12	4/20/2006 13:03	0.04	g	4,6,14
54	Md_TDR_08	Md	Hawai'i	TDR	4/20/2006 14:33	4/21/2006 17:45	1.13	g	4,6,14
55	Md_TDR_09	Md	Hawai'i	TDR	11/22/2006 10:44	11/25/2006 14:41	3.16	g	4,6,14
56	Md_TDR_10	Md	Hawai'i	TDR	7/10/2008 12:21	7/10/2008 18:53	0.27	g	6,14
57	Md_TDR_11	Md	Hawai'i	TDR	7/10/2008 9:06	7/10/2008 9:51	0.03	g	6,14
58	MdTag015	Md	Hawai'i	SPLASH10	10/21/2013 17:00	11/6/2013 0:47	15.32	g	14
59	MdTag019	Md	Hawai'i	SPLASH10	11/3/2017 6:24	11/4/2017 10:29	1.17	g	14
60	MdTag020	Md	Hawai'i	SPLASH10	8/11/2021 23:37	8/18/2021 10:13	6.44	g	14

61	MdTag021	Md	Hawai'i	SPLASH10	8/12/2021 5:15	8/18/2021 13:21	6.34	g	14
62	zc15_205a	Zc	Azores	DTAG	7/24/2015 14:41	7/25/2015 14:07	0.98	h,i	
63	zc15_212b	Zc	Azores	DTAG	7/31/2015 10:52	7/31/2015 20:14	0.39	h,i	
64	zc17_227a	Zc	Azores	DTAG	8/15/2017 10:53	8/16/2017 2:21	0.64	h,i	
65	zc18_185a	Zc	Azores	DTAG	7/4/2018 13:44	7/5/2018 9:48	0.84	h,i	
66	zc19_196a	Zc	Azores	DTAG	7/15/2019 13:51	7/16/2019 0:55	0.46	h,i	
67	zc19_197a	Zc	Azores	DTAG	7/16/2019 17:58	7/17/2019 11:08	0.72	h,i	
68	zc22_202a	Zc	Azores	DTAG	7/21/2022 16:05	7/22/2022 16:10	1.00	h,i	
69	108417	Zc	Bahamas	SPLASH10	6/13/2011 15:39	6/21/2011 4:07	7.52	a,b	9
70	111681	Zc	Bahamas	SPLASH10	6/20/2012 0:58	6/28/2012 6:38	8.24	a,b	9
71	129712	Zc	Bahamas	SPLASH10	6/15/2013 4:07	9/2/2013 14:50	79.45	a,b	9
72	129713	Zc	Bahamas	SPLASH10	6/2/2013 20:16	6/10/2013 12:59	7.70	a,b	9
73	129714	Zc	Bahamas	SPLASH10	6/14/2013 18:06	6/29/2013 23:01	15.20	a,b	9
74	ZcTag029	Zc	Hatteras	SPLASH10	5/13/2014 17:59	7/12/2014 7:22	59.56	g,j	10
75	ZcTag030	Zc	Hatteras	SPLASH10	9/16/2014 20:42	10/23/2014 19:26	36.95	g,j	10
76	ZcTag038	Zc	Hatteras	SPLASH10	6/14/2015 15:27	8/9/2015 21:23	56.25	g,j	10
77	ZcTag040	Zc	Hatteras	SPLASH10	6/14/2015 22:44	6/15/2015 12:46	0.58	g,j	10
78	ZcTag041	Zc	Hatteras	SPLASH10	10/15/2015 16:43	11/16/2015 20:28	32.16	g,j	10
79	ZcTag042	Zc	Hatteras	SPLASH10	10/21/2015 16:32	11/8/2015 12:32	17.83	g,j	10
80	ZcTag046	Zc	Hatteras	SPLASH10	5/25/2016 21:38	6/4/2016 18:06	9.85	g,j	10
81	ZcTag048	Zc	Hatteras	SPLASH10	5/27/2016 19:33	6/23/2016 5:52	26.43	g,j	10
82	ZcTag050	Zc	Hatteras	SPLASH10	8/21/2016 6:49	9/14/2016 16:02	24.38	g,j	10
83	ZcTag051	Zc	Hatteras	SPLASH10	8/22/2016 8:37	8/31/2016 13:38	9.21	g,j	10
84	ZcTag054	Zc	Hatteras	SPLASH10	5/10/2017 18:59	5/28/2017 13:07	17.76	g,j	
85	ZcTag056	Zc	Hatteras	SPLASH10	5/10/2017 22:53	6/27/2017 7:18	47.35	g,j	
86	ZcTag058	Zc	Hatteras	SPLASH10	5/16/2017 22:16	6/25/2017 0:15	39.08	g,j	
87	ZcTag060	Zc	Hatteras	SPLASH10	8/17/2017 19:44	9/19/2017 0:06	32.18	g,j	
88	ZcTag061	Zc	Hatteras	SPLASH10	8/17/2017 19:43	9/30/2017 0:13	43.19	g,j	
89	ZcTag062	Zc	Hatteras	SPLASH10	8/18/2017 0:25	8/28/2017 18:12	10.74	g,j	
90	ZcTag063	Zc	Hatteras	SPLASH10	8/20/2017 18:35	9/18/2017 20:04	29.06	g,j	
91	ZcTag064	Zc	Hatteras	SPLASH10	8/20/2017 18:36	9/23/2017 21:12	34.11	g,j	
92	Zc_TDR_01	Zc	Hawai'i	TDR	11/28/2004 13:05	11/28/2004 22:13	0.38	g	3,4,6
93	Zc_TDR_02	Zc	Hawai'i	TDR	11/30/2006 11:04	12/1/2006 18:15	1.30	g	3,4,6
94	ZcTag009	Zc	Hawai'i	SPLASH10	4/19/2010 23:47	4/23/2010 16:15	3.69	g	6,14
95	ZcTag018	Zc	Hawai'i	SPLASH10	10/19/2011 22:50	11/16/2011 9:57	27.46	g	14

96	ZcTag033	Zc	Hawai'i	SPLASH10	11/23/2014 16:01	12/4/2014 23:26	11.31	g	14
97	ZcTag044	Zc	Hawai'i	SPLASH10	11/3/2015 13:03	12/16/2015 8:46	42.82	g	14
98	zc03_260a	Zc	Liguria	DTAG	9/17/2003 18:00	9/17/2003 18:50	0.03	c	1,2,6
99	zc03_263a	Zc	Liguria	DTAG	9/20/2003 15:42	9/21/2003 6:13	0.60	c	2,6
100	zc04_160a	Zc	Liguria	DTAG	6/8/2004 17:09	6/8/2004 21:10	0.17	c	2,6
101	zc04_161a	Zc	Liguria	DTAG	6/9/2004 14:10	6/9/2004 21:08	0.29	c	2,6
102	zc04_161b	Zc	Liguria	DTAG	6/9/2004 14:10	6/10/2004 4:07	0.58	c	2,6
103	zc04_175a	Zc	Liguria	DTAG	6/23/2004 16:43	6/23/2004 22:49	0.25	c	2,6
104	zc04_179a	Zc	Liguria	DTAG	6/27/2004 14:44	6/27/2004 18:04	0.14	c	2,6
105	zc05_167a	Zc	Liguria	DTAG	6/16/2005 17:13	6/16/2005 23:06	0.25	c	6
106	zc05_170a	Zc	Liguria	DTAG	6/19/2005 16:09	6/20/2005 2:06	0.41	c	6
107	zc06_204a	Zc	Liguria	DTAG	7/23/2006 13:23	7/23/2006 14:31	0.05	c	6
108	zc06_205a	Zc	Liguria	DTAG	7/24/2006 15:03	7/25/2006 1:56	0.45	c	6
109	Zc-CA-10	Zc	SoCal	SPLASH10	6/29/2010 17:37	8/18/2010 14:18	49.86	k,l	6,7,11
110	Zc-CA-11	Zc	SoCal	SPLASH10	6/30/2010 1:39	9/25/2010 20:04	87.77	k,l	6,7,11
111	Zc-CA-14	Zc	SoCal	SPLASH10	1/6/2011 19:42	1/26/2011 0:27	19.20	k,l	7,8,11
112	Zc-CA-15	Zc	SoCal	SPLASH10	1/6/2011 23:18	3/15/2011 16:25	67.71	k,l	7,8,11
113	Zc-CA-16	Zc	SoCal	SPLASH10	1/7/2011 2:45	4/4/2011 4:02	87.05	k,l	7,8,11
114	Zc-CA-17	Zc	SoCal	SPLASH10	7/23/2011 23:46	7/30/2011 15:11	6.64	k,l	7,8,11
115	Zc-CA-19	Zc	SoCal	SPLASH10	1/15/2012 18:41	1/26/2012 20:49	11.09	k,l	7,8,11
116	Zc-CA-20	Zc	SoCal	SPLASH10	1/15/2012 21:41	2/10/2012 5:49	25.34	k,l	7,8,11
117	Zc-CA-21	Zc	SoCal	SPLASH10	3/30/2013 0:49	5/14/2013 22:50	45.92	k,l	7,8,11
118	Zc-CA-22	Zc	SoCal	SPLASH10	3/31/2013 1:29	4/23/2013 17:32	23.67	k,l	7,8,11
119	Zc-CA-23	Zc	SoCal	SPLASH10	3/31/2013 1:08	4/5/2013 19:06	5.75	k,l	7,8,11
120	Zc-CA-24	Zc	SoCal	SPLASH10	1/4/2014 21:24	1/15/2014 18:19	10.87	k,l	7,8,11
121	Zc-CA-25	Zc	SoCal	SPLASH10	1/5/2014 0:50	1/9/2014 4:26	4.15	k,l	7,8,11
122	Zc-CA-26	Zc	SoCal	SPLASH10	1/7/2014 23:48	2/21/2014 19:04	44.80	k,l	7,8,11
123	Zc-CA-28	Zc	SoCal	SPLASH10	1/11/2014 20:56	2/28/2014 21:11	48.01	k,l	7,8,11
124	Zc-CA-34	Zc	SoCal	SPLASH10	1/4/2015 0:40	1/19/2015 22:47	15.92	k,l	7,8,11
125	Zc-CA-35	Zc	SoCal	SPLASH10	1/8/2015 1:06	1/21/2015 6:26	13.22	k,l	7,8,11
126	Zc-CA-36	Zc	SoCal	SPLASH10	1/9/2015 23:40	2/20/2015 18:55	41.80	k,l	7,8,11
127	Zc-CA-37	Zc	SoCal	SPLASH10	1/9/2015 23:40	1/23/2015 4:32	13.20	k,l	7,8,11
128	Zica-151361	Zc	SoCal	SMRT	1/13/2019 23:01	1/14/2019 8:57	0.41	k,l,m,n,o,p,q	12
129	Zica-144029	Zc	SoCal	SMRT	10/12/2019 18:46	10/17/2019 23:34	5.20	k,l,m,n,o,p,q	12
130	Zica-145101	Zc	SoCal	SMRT	10/13/2019 0:44	10/18/2019 0:06	4.97	k,l,m,n,o,p,q	12

131	Zica-94810	Zc	SoCal	SMRT	11/12/2019 3:09	11/17/2019 0:33	4.89	k,l,m,n,o,p,q	12
132	Zica-195993	Zc	SoCal	SMRT	11/17/2019 20:12	11/18/2019 2:03	0.24	k,l,m,n,o,p,q	12

Table S2. Means and standard deviations (SD) of diving parameters measured from tagged beaked whales summarized for each tagged individual. Sample sizes are given separately for dives and dive cycles. Tagging data (Table 1) are cross-referenced by Tag #. Echolocation depth is only available from acoustic recording tags (DTAG and SMRT).

Tag #	Species	Location	Tag Type	# Foraging dives	Mean maximum foraging dive depth (m)	SD maximum foraging dive depth (m)	Mean echolocation depth (m)	SD echolocation depth (m)	Mean foraging dive duration (min)	SD foraging dive duration (min)	# Dive cycles	Mean dive cycle duration (hrs)	SD dive cycle duration (hrs)
1	Md	Bahamas	SPLASH10	70	1155	247			46.0	6.1	25	2.19	0.65
2	Md	Bahamas	SPLASH10	21	959	122			43.3	4.0	8	2.20	0.95
3	Md	Bahamas	SPLASH10	14	1039	277			53.3	19.5	1	3.01	
4	Md	Bahamas	SPLASH10	38	1225	185			43.6	5.2	16	1.78	0.44
5	Md	Bahamas	SPLASH10	11	1261	195			47.5	3.5	7	2.32	0.71
6	Md	Bahamas	SPLASH10	15	1230	242			54.5	10.3	4	3.10	1.41
7	Md	Bahamas	SPLASH10	3	977	44			41.9	2.5	1	2.62	
8	Md	Bahamas	SPLASH10	13	918	104			46.1	4.9	9	2.33	0.97
9	Md	Bahamas	SPLASH10	29	1020	219			52.1	10.4	22	3.56	2.12
10	Md	Bahamas	SPLASH10	72	1042	121			49.9	5.8	70	2.04	1.02
11	Md	Bahamas	SPLASH10	10	1096	212			50.7	2.9	8	2.49	0.77
12	Md	Bahamas	SPLASH10	64	1155	227			50.3	6.9	60	2.44	1.06
13	Md	Bahamas	SPLASH10	91	1158	248			48.7	7.0	83	2.66	1.02
14	Md	Bahamas	DTAG	7	941	104	884	98	57.4	6.3	6	2.95	1.01
15	Md	Bahamas	DTAG	8	1252	219	975	136	50.8	2.0	7	2.28	0.65
16	Md	Bahamas	DTAG	5	995	77	810	26	64.9	9.1	4	4.13	1.43
17	Md	Bahamas	DTAG	4	1205	156	958	99	48.5	2.7	3	2.52	0.19
18	Md	Bahamas	DTAG	8	1169	142	965	115	47.3	3.2	7	2.23	0.88
19	Md	Bahamas	DTAG	9	805	136	669	111	45.5	5.2	8	1.89	0.44
20	Md	Bahamas	DTAG	5	974	24	877	15	52.2	6.7	4	2.11	0.53
21	Md	Bahamas	DTAG	3	841	98	762	62	54.2	4.9	2	2.08	0.47
22	Md	Bahamas	DTAG	1	1355		1131		49.7		0		
23	Md	Bahamas	DTAG	7	1122	186	949	133	51.3	4.9	6	2.57	0.60
24	Md	Bahamas	DTAG	7	935	122	784	115	49.8	6.1	6	2.53	0.80
25	Md	Bahamas	DTAG	7	811	84	729	72	45.8	4.4	6	2.04	0.73
26	Md	Bahamas	DTAG	2	951	35	870	21	45.7	0.2	1	1.75	
27	Md	Bahamas	DTAG	4	1147	121	993	90	51.5	2.2	3	2.44	0.39

28	Md	Bahamas	DTAG	7	1128	192	925	127	53.7	4.3	6	2.87	0.82
29	Md	Bahamas	DTAG	6	1170	222	972	170	53.2	6.2	5	3.13	1.92
30	Md	Bahamas	DTAG	2	991	12	856	48	51.1	1.8	1	2.65	
31	Md	Canaries	DTAG	5	768	80	615	110	50.8	7.7	4	2.80	0.93
32	Md	Canaries	DTAG	2	764	58	652	22	47.0	2.1	1	1.93	
33	Md	Canaries	DTAG	9	886	165	740	145	43.6	7.6	8	1.93	0.74
34	Md	Canaries	DTAG	2	900	60	718	24	53.6	3.4	1	2.69	
35	Md	Canaries	DTAG	7	776	115	702	80	45.6	3.9	6	2.69	1.01
36	Md	Canaries	DTAG	1	623		594		46.5		0		
37	Md	Canaries	DTAG	3	683	101	632	81	47.9	3.8	2	2.07	0.88
38	Md	Canaries	DTAG	2	773	3	659	9	47.3	5.2	1	1.97	
39	Md	Canaries	DTAG	7	921	329	765	261	48.1	10.6	6	2.49	0.73
40	Md	Canaries	DTAG	2	921	128	728	110	57.8	8.6	1	4.22	
41	Md	Canaries	DTAG	7	767	150	608	95	50.0	4.9	6	3.02	0.90
42	Md	Canaries	DTAG	1	913		815		47.7		0		
43	Md	Canaries	DTAG	10	824	47	660	58	41.2	7.0	9	1.76	0.61
44	Md	Canaries	DTAG	9	939	179	767	113	51.4	4.1	8	2.64	0.73
45	Md	Canaries	DTAG	7	1024	117	812	76	47.0	4.5	6	2.85	0.55
46	Md	Canaries	DTAG	2	1072	80	861	20	48.2	2.8	1	1.71	
47	Md	Canaries	DTAG	1	818		707		41.2		0		
48	Md	Canaries	DTAG	2	778	6	699	11	51.5	4.0	1	2.33	
49	Md	Hawai'i	TDR	2	1393	20			47.4	0.6	1	2.56	
50	Md	Hawai'i	TDR	8	1123	148			48.4	5.6	7	2.85	0.44
51	Md	Hawai'i	TDR	15	1236	223			53.6	10.2	14	2.66	1.46
52	Md	Hawai'i	TDR	29	1042	181			53.6	9.5	28	2.24	1.14
53	Md	Hawai'i	TDR	1	988				50.5		0		
54	Md	Hawai'i	TDR	11	991	110			64.0	7.0	10	2.61	1.19
55	Md	Hawai'i	TDR	32	1065	181			50.5	5.5	31	2.42	0.65
56	Md	Hawai'i	TDR	3	978	35			44.0	6.8	2	2.83	0.29
57	Md	Hawai'i	TDR	1	827				45.0		0		
58	Md	Hawai'i	SPLASH10	131	832	139			39.1	6.5	102	1.98	0.95
59	Md	Hawai'i	SPLASH10	9	1084	138			47.0	4.6	7	2.78	0.75
60	Md	Hawai'i	SPLASH10	40.0	1168	206			49.4	8.1	28	2.91	1.00
61	Md	Hawai'i	SPLASH10	54.0	1112	137			51.1	5.1	53	2.85	0.79
62	Zc	Azores	DTAG	9.0	1172	293	948	115	65.6	8.3	8	2.79	0.52

63	Zc	Azores	DTAG	5.0	1670	30	1320	74	60.1	2.4	4	2.08	0.24
64	Zc	Azores	DTAG	6.0	1300	164	1121	103	63.6	6.7	5	2.90	0.98
65	Zc	Azores	DTAG	8.0	1184	171	1000	94	67.1	6.7	7	2.70	0.55
66	Zc	Azores	DTAG	6.0	1424	106			61.1	9.7	5	1.96	0.40
67	Zc	Azores	DTAG	7.0	1514	298	1122	152	65.4	3.4	6	2.69	0.12
68	Zc	Azores	DTAG	11.0	1235	163	1001	86	54.4	7.8	10	2.29	0.58
69	Zc	Bahamas	SPLASH10	14.0	1388	290			59.6	12.5	4	2.21	0.48
70	Zc	Bahamas	SPLASH10	6.0	1525	232			52.9	9.7	0		
71	Zc	Bahamas	SPLASH10	43.0	1138	133			72.2	9.6	18	2.53	0.60
72	Zc	Bahamas	SPLASH10	10.0	1241	40			63.5	4.3	5	2.30	0.75
73	Zc	Bahamas	SPLASH10	26.0	1019	116			67.7	15.9	11	2.70	0.51
74	Zc	Hatteras	SPLASH10	115.0	1676	417			65.2	10.9	59	2.79	0.95
75	Zc	Hatteras	SPLASH10	228.0	1614	273			54.5	8.3	173	2.34	0.78
76	Zc	Hatteras	SPLASH10	304.0	1562	227			60.7	6.7	266	2.57	0.66
77	Zc	Hatteras	SPLASH10	8.0	1416	147			56.7	4.9	7	1.84	0.40
78	Zc	Hatteras	SPLASH10	255.0	1355	206			61.9	9.9	219	2.02	0.57
79	Zc	Hatteras	SPLASH10	77.0	1555	289			59.5	10.4	44	2.18	0.68
80	Zc	Hatteras	SPLASH10	41.0	1094	147			51.3	9.0	20	1.49	0.54
81	Zc	Hatteras	SPLASH10	108.0	1281	222			53.1	10.7	67	2.01	0.83
82	Zc	Hatteras	SPLASH10	8.0	1584	215			71.2	34.7	0		
83	Zc	Hatteras	SPLASH10	57.0	1547	481			59.2	7.7	41	2.27	0.78
84	Zc	Hatteras	SPLASH10	185.0	1567	328			58.4	6.9	184	2.31	0.58
85	Zc	Hatteras	SPLASH10	494.0	1497	321			58.4	7.2	494	2.31	0.96
86	Zc	Hatteras	SPLASH10	346.0	1454	283			59.5	9.8	345	2.72	0.74
87	Zc	Hatteras	SPLASH10	238.0	1737	425			73.4	13.5	230	2.82	1.07
88	Zc	Hatteras	SPLASH10	422.0	1328	260			56.1	11.6	418	2.43	1.20
89	Zc	Hatteras	SPLASH10	87.0	1549	338			68.4	10.1	86	2.98	1.18
90	Zc	Hatteras	SPLASH10	211.0	1458	296			58.9	13.1	197	2.51	1.48
91	Zc	Hatteras	SPLASH10	200.0	1523	432			57.6	10.9	179	2.50	1.14
92	Zc	Hawai'i	TDR	5.0	1294	158			61.6	6.0	4	2.06	0.37
93	Zc	Hawai'i	TDR	11.0	1307	154			74.6	10.1	10	2.96	0.71
94	Zc	Hawai'i	SPLASH10	27.0	1287	263			60.8	14.2	21	1.99	0.80
95	Zc	Hawai'i	SPLASH10	75.0	1487	404			59.6	8.4	42	2.51	0.93
96	Zc	Hawai'i	SPLASH10	44.0	1073	232			49.9	11.3	25	1.75	0.67
97	Zc	Hawai'i	SPLASH10	96.0	1290	256			62.2	12.2	74	2.35	1.01

98	Zc	Liguria	DTAG	1.0	815		722		50.0		0		
99	Zc	Liguria	DTAG	8.0	1131	98	894	90	55.1	12.8	7	1.88	0.92
100	Zc	Liguria	DTAG	2.0	1304	789	1141	657	84.3	0.6	1	2.62	
101	Zc	Liguria	DTAG	4.0	925	406	731	213	54.9	6.5	3	2.01	0.41
102	Zc	Liguria	DTAG	8.0	1053	355	876	222	54.6	4.9	7	1.86	0.38
103	Zc	Liguria	DTAG	3.0	1181	111	974	58	67.7	0.9	2	2.48	0.47
104	Zc	Liguria	DTAG	2.0	728	16	630	55	50.5	0.5	1	2.49	
105	Zc	Liguria	DTAG	3.0	1274	90	1036	26	57.6	4.4	2	2.44	1.12
106	Zc	Liguria	DTAG	6.0	1301	361	1081	270	59.6	9.7	5	1.76	0.80
107	Zc	Liguria	DTAG	1.0	831		725		68.8		0		
108	Zc	Liguria	DTAG	7.0	824	58	723	55	45.0	8.4	6	1.68	1.12
109	Zc	SoCal	SPLASH10	148.0	1395	242			60.4	12.5	92	2.55	0.86
110	Zc	SoCal	SPLASH10	108.0	1482	327			79.9	12.9	58	3.53	0.98
111	Zc	SoCal	SPLASH10	15.0	1556	227			64.4	11.6	3	2.02	0.13
112	Zc	SoCal	SPLASH10	279.0	1525	355			64.9	12.0	217	3.27	1.29
113	Zc	SoCal	SPLASH10	215.0	1357	241			71.9	12.6	140	3.20	1.13
114	Zc	SoCal	SPLASH10	23.0	1567	233			76.5	11.3	11	3.81	0.92
115	Zc	SoCal	SPLASH10	45.0	1359	294			64.4	12.9	27	3.16	1.36
116	Zc	SoCal	SPLASH10	124.0	1280	279			66.3	13.8	95	3.16	1.00
117	Zc	SoCal	SPLASH10	163.0	1586	237			66.1	9.5	119	3.13	0.84
118	Zc	SoCal	SPLASH10	58.0	1459	243			53.4	12.8	24	2.67	1.37
119	Zc	SoCal	SPLASH10	29.0	1410	252			67.8	8.4	21	3.17	0.86
120	Zc	SoCal	SPLASH10	46.0	1518	274			67.0	14.2	32	2.86	1.00
121	Zc	SoCal	SPLASH10	22.0	1678	167			69.2	7.1	18	3.03	1.00
122	Zc	SoCal	SPLASH10	261.0	1207	115			58.7	9.2	237	2.90	0.90
123	Zc	SoCal	SPLASH10	377.0	1508	225			60.7	11.0	361	2.82	1.06
124	Zc	SoCal	SPLASH10	125.0	1570	269			67.2	15.4	124	3.07	1.26
125	Zc	SoCal	SPLASH10	26.0	1188	287			62.8	12.7	16	2.68	1.28
126	Zc	SoCal	SPLASH10	280.0	1306	184			69.0	10.8	266	3.24	1.41
127	Zc	SoCal	SPLASH10	90.0	1277	185			70.6	10.2	88	3.56	1.72
128	Zc	SoCal	SMRT	4.0	1368	143	1096	107	64.3	20.2	3	2.96	0.35
129	Zc	SoCal	SMRT	37.0	1465	338	1105	251	74.7	11.3	36	3.43	2.82
130	Zc	SoCal	SMRT	40.0	1326	185	1079	150	64.1	8.2	39	3.03	1.05
131	Zc	SoCal	SMRT	38.0	1416	232	1188	196	70.2	10.3	37	3.14	1.36

132 Zc SoCal SMRT 3.0 1192 298 967 300 53.4 21.4 2 2.57 0.99

Table S3. Percentiles of the distribution of maximum dive depth for all foraging dives for the given species in the given locations.

Species	Location	Foraging dives (n)	Quantiles of maximum depth (m)						
			5th percentile	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile
Md	Bahamas	543	791	864	954	1,072	1,232	1,424	1,488
Md	Canaries	79	622	666	769	820	944	1,037	1,225
Md	Hawaii	336	688	744	848	960	1,168	1,296	1,350
Zc	Azores	52	942	974	1,127	1,311	1,523	1,681	1,701
Zc	Bahamas	99	924	956	992	1,136	1,280	1,520	1,584
Zc	Hatteras	3,384	1,040	1,136	1,264	1,424	1,648	2,000	2,160
Zc	Hawaii	258	928	960	1,072	1,248	1,456	1,650	1,913
Zc	Liguria	45	698	727	787	1,037	1,251	1,346	1,575
Zc	SoCal	2,556	993	1,072	1,200	1,392	1,648	1,776	1,840

Table S4. Percentiles of the distribution of dive duration for all foraging dives for the given species in the given locations.

Species	Location	Foraging dives (n)	Quantiles of dive duration (min)						
			5th percentile	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile
Md	Bahamas	543	38.0	40.7	44.5	48.5	53.0	57.8	60.3
Md	Canaries	79	34.5	39.4	44.2	47.2	51.8	55.9	56.9
Md	Hawaii	336	31.5	34.6	40.4	47.2	52.7	57.8	61.9
Zc	Azores	52	51.4	52.5	56.2	61.8	68.2	72.3	75.2
Zc	Bahamas	99	46.1	51.6	59.8	68.0	74.4	81.6	88.8
Zc	Hatteras	3,384	43.4	47.4	52.7	59.0	65.5	73.1	79.0
Zc	Hawaii	258	42.2	44.0	51.8	59.2	66.6	74.2	80.5
Zc	Liguria	45	41.3	46.1	49.0	53.0	63.5	68.6	78.1
Zc	SoCal	2,556	45.4	50.4	57.1	65.1	73.7	81.3	86.9

Table S5. Percentiles of the distribution of dive cycle duration for all dive cycles for the given species in the given locations.

Species	Location	Dive cycles (n)	Quantiles of dive duration (hrs)						
			5th percentile	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile
Md	Bahamas	389	1.20	1.37	1.70	2.24	2.94	3.76	4.61
Md	Canaries	61	1.08	1.43	1.89	2.42	2.97	3.61	3.98
Md	Hawaii	283	0.92	1.22	1.73	2.33	3.03	3.57	4.16
Zc	Azores	45	1.68	1.88	2.08	2.48	2.75	3.39	3.51
Zc	Bahamas	38	1.61	1.82	2.06	2.51	2.98	3.21	3.39
Zc	Hatteras	3,029	1.26	1.47	1.88	2.34	2.82	3.42	4.01
Zc	Hawaii	176	0.94	1.07	1.56	2.26	2.90	3.45	4.00
Zc	Liguria	34	0.92	0.99	1.44	1.74	2.44	3.00	3.30
Zc	SoCal	2,066	1.57	1.83	2.35	2.93	3.60	4.38	4.92

Table S6. Percentiles of the distribution of mean echolocation depth for all foraging dives (with acoustic data) for the given species in the given locations. Values are not available (NA) for locations where acoustic tags were not used on the given species.

Species	Location	Dives with acoustic data (n)	Quantiles of mean echolocation depth (m)						
			5th percentile	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile
Md	Bahamas	86	654	687	771	885	944	1,074	1,118
Md	Canaries	68	504	593	630	700	777	876	946
Md	Hawaii	-	NA	NA	NA	NA	NA	NA	NA
Zc	Azores	46	842	868	943	1,071	1,133	1,269	1,326
Zc	Bahamas	-	NA	NA	NA	NA	NA	NA	NA
Zc	Hatteras	-	NA	NA	NA	NA	NA	NA	NA
Zc	Hawaii	-	NA	NA	NA	NA	NA	NA	NA
Zc	Liguria	41	622	642	692	921	1,036	1,119	1,165
Zc	SoCal	122	734	869	966	1,165	1,275	1,349	1,376

Table S7. Percentiles of the distribution of the standard deviation echolocation depth for all foraging dives (with acoustic data) for the given species in the given locations. Values are not available (NA) for locations where acoustic tags were not used on the given species.

Species	Location	Dives with acoustic data (n)	Quantiles of the standard deviation of echolocation depth (m)						
			5th percentile	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile	95th percentile
Md	Bahamas	86	58	63	81	108	164	247	270
Md	Canaries	68	19	28	67	96	142	173	188
Md	Hawaii	-	NA	NA	NA	NA	NA	NA	NA
Zc	Azores	46	76	83	109	180	245	288	322
Zc	Bahamas	-	NA	NA	NA	NA	NA	NA	NA
Zc	Hatteras	-	NA	NA	NA	NA	NA	NA	NA
Zc	Hawaii	-	NA	NA	NA	NA	NA	NA	NA
Zc	Liguria	41	33	38	54	133	190	267	332
Zc	SoCal	122	108	130	181	241	300	372	403