

Supplementary Table S1. List of sample colonies. Each of 220 colonies of *Corallium japonicum* collected off Cape Ashizuri in Japan during 2006–2008 and 2011–2014 showing sample code, collection date, depth collected, sexuality or immaturity and diameter of gonads.

Sample code	Collection date	Depth (m)	Sexuality or immaturity	Diameter of gonads ( $\mu\text{m}$ )	
				Mean $\pm$ SD (Minimum - Maximum; n=number of gonads counted)	
				Oocytes	Sperm cysts
A06-5/4-01	May 4, 2006	122	female	505.3 $\pm$ 59.6 (319 - 594; n=57)	
A06-5/5-02	May 5, 2006	129	male	295.7 $\pm$ 57.7 (180 - 415; n=62)	
A06-5/5-03	May 5, 2006	123	female	508.6 $\pm$ 60.4 (445 - 598; n=8)	
A06-5/15-04	May 15, 2006	129	female	478.1 $\pm$ 139.9 (154 - 632; n=29)	
A06-5/15-14	May 15, 2006	129	male	218.4 $\pm$ 40.6 (141 - 294; n=13)	
A06-5/15-05	May 15, 2006	121	male	358.0 $\pm$ 69.1 (195 - 462; n=22)	
A06-5/15-06	May 15, 2006	ND	immaturity		
A06-5/16-07	May 16, 2006	108	male	307.1 $\pm$ 91.6 (164 - 461; n=17)	
A06-5/21-08	May 21, 2006	121	male	319.1 $\pm$ 87.7 (112 - 521; n=109)	
A06-5/21-09	May 21, 2006	117	female	537.1 $\pm$ 76.1 (316 - 679; n=49)	
A06-6/30-11	June 30, 2006	138	male	286.0 $\pm$ 41.2 (248 - 329; n=3)	
A06-7/12-12	July 12, 2006	128	immaturity		
A06-8/6-13	August 6, 2006	140	immaturity		
A06-10/10-15	October 10, 2006	133	immaturity		
A07-10/18-01	October 18, 2007	114	immaturity		
A07-11/19-02	November 19, 2007	127-136	immaturity		
A07-12/10-03	December 3, 2007	117	immaturity		
A08-1/9-04	January 9, 2008	149	immaturity		
A08-2/19-05	February 19, 2008	115	female	264.6 $\pm$ 79.5 (149 - 374; n=19)	
A08-2/19-15	February 19, 2008	115	male	142.2 $\pm$ 31.8 (89 - 226; n=25)	
A08-4/22-06	April 22, 2008	116	male	223.4 $\pm$ 59.5 (146 - 379; n=14)	
A08-4/22-16	April 22, 2008	116	female	390.3 $\pm$ 127.7 (149 - 648; n=40)	
A08-5/23-07	May 23, 2008	117	female	433.5 $\pm$ 50.4 (349 - 534; n=13)	
A11-3/31-01	March 31, 2011	129	female	285.3 $\pm$ 135.1 (112 - 476; n=343)	
A11-3/31-11	March 31, 2011	129	male	247.7 $\pm$ 53.4 (100 - 413; n=12)	
A11-4/1-02	April 1, 2011	130	female	119.0 $\pm$ 33.4 (50 - 222; n=105)	
A11-4/3-03	April 3, 2011	96-108	female	398.8 $\pm$ 71.8 (148 - 527; n=122)	
A11-4/6-04	April 6, 2011	118-128	male	301.9 $\pm$ 72.9 (117 - 480; n=121)	
A11-4/7-05	April 7, 2011	117-130	female	125.4 $\pm$ 32.1 (60 - 201; n=33)	
A11-4/11-06	April 11, 2011	113-117	female	409.3 $\pm$ 60.5 (161 - 527; n=101)	
A11-4/11-16	April 11, 2011	113-117	male	337.9 $\pm$ 84.9 (156 - 544; n=106)	
A11-4/11-07	April 11, 2011	128-133	female	385.7 $\pm$ 88.7 (158 - 519; n=80)	
A11-4/11-17	April 11, 2011	128-133	male	353.1 $\pm$ 69.0 (181 - 489; n=112)	
A11-4/14-08	April 14, 2011	128-136	male	345.4 $\pm$ 93.2 (175 - 567; n=117)	
A11-4/21-10	April 21, 2011	127-136	female	383.1 $\pm$ 51.7 (228 - 455; n=22)	
A11-5/3-15	May 3, 2011	115-124	male	380.0 $\pm$ 92.0 (156 - 602; n=126)	
A11-5/15-16	May 15, 2011	ND	male	299.0 $\pm$ 48.2 (182 - 432; n=114)	
A11-6/22-01	June 22, 2011	136-128	immaturity		
A11-6/29-02	June 29, 2011	113-120	female	197.1 $\pm$ 33.0 (120 - 277; n=67)	
A11-6/30-03	June 30, 2011	124-135	female	166.7 $\pm$ 27.2 (122 - 213; n=7)	
A11-6/30-13	June 30, 2011	124-135	male	290.0 $\pm$ 90.3 (75 - 451; n=22)	
A11-7/3-04	July 3, 2011	135-127	female	273.0 $\pm$ 128.6 (114 - 556; n=63)	
A11-7/12-05	July 12, 2011	126-118	immaturity		
A11-7/29-06	July 29, 2011	120-113	immaturity		
A11-7/30-07	July 30, 2011	120-115	immaturity		
A11-8/23-08	August 23, 2011	134-125	immaturity		
A11-8/24-09	August 24, 2011	134-124	immaturity		
A11-9/7-10	September 7, 2011	116-108	female	311.8 $\pm$ 127.1 (135 - 547; n=46)	
A11-9/8-11	September 8, 2011	130-120	female	212.4 $\pm$ 45.2 (128 - 284; n=11)	
A11-9/24-12	September 24, 2011	115-120	immaturity		
A11-9/25-13	September 25, 2011	120-115	immaturity		
A11-10/2-14	October 2, 2011	115-117	immaturity		
A11-11/6-01	November 6, 2011	109-112	female	180.4 $\pm$ 41.8 (90 - 287; n=58)	
A11-11/8-02	November 8, 2011	107-112	female	210.9 $\pm$ 43.9 (100 - 300; n=54)	
A11-12/5-03	December 5, 2011	111-120	immaturity		
A11-12/29-04	December 29, 2011	117-124	immaturity		
A12-2/12-11	February 12, 2012	116-124	immaturity		
A12-2/12-12	February 12, 2012	116-124	immaturity		
A12-2/12-21	February 12, 2012	142-133	immaturity		
A12-2/12-22	February 12, 2012	142-133	male	90.3 $\pm$ 24.3 (46 - 146; n=27)	
A12-2/12-23	February 12, 2012	142-133	immaturity		

A12-2/12-24	February 12, 2012	142-133	immaturity	
A12-2/12-25	February 12, 2012	142-133	immaturity	
A12-3/8-05	March 8, 2012	134-128	immaturity	
A12-3/8-08	March 8, 2012	134-128	immaturity	
A12-3/8-12	March 8, 2012	134-128	male	257.4±60.5 (115 - 399; n=75)
A12-3/13-01	March 13, 2012	118-110	immaturity	
A12-3/15-02	March 15, 2012	101-103	immaturity	
A12-3/19-03	March 19, 2012	102-104	immaturity	
A12-3/29-05	March 29, 2012	106-116	female	343.2±45.6 (232 - 460; n=34)
A12-3/29-06	March 29, 2012	119-124	immaturity	
A12-4/2-07	April 2, 2012	120-136	immaturity	
A12-4/8-08	April 8, 2012	118-110	male	398.5±74.4 (233 - 534; n=35)
A12-4/9-09	April 9, 2012	137-145	immaturity	
A12-4/14-10	April 14, 2012	102-104	immaturity	
A12-4/14-11	April 14, 2012	102-103	female	455.6±47.2 (392 - 558; n=14)
A12-4/15-12	April 15, 2012	115-120	female	461.0±92.0 (308 - 603; n=11)
A12-7/18-13	April 18, 2012	102-104	male	257.8±52.4 (176 - 391; n=23)
A12-4/24-14	April 24, 2012	128-132	male	421.7±51.6 (374 - 495; n=4)
A12-4/25-15	April 25, 2012	116-130	male	315.0±78.7 (167 - 546; n=67)
A12-4/28-16	April 28, 2012	135-140	female	489.7±72.6 (351 - 615; n=17)
A12-4/29-17	April 29, 2012	134-140	immaturity	
A12-4/29-18	April 29, 2012	134-140	immaturity	
A12-5/8-19	May 8, 2012	122-134	female	481.0±44.7 (419 - 573; n=11)
A12-5/8-20	May 8, 2012	120-134	male	362.1±65.7 (160 - 521; n=95)
A12-5/8-21	May 8, 2012	122-134	female	371.0±45.2 (284 - 430; n=11)
A12-5/9-22	May 9, 2012	120-134	female	522.9±54.7 (410 - 641; n=17)
A12-5/10-23	May 10, 2012	117-120	male	396.5±66.0 (218 - 547; n=54)
A12-5/10-24	May 10, 2012	120-136	immaturity	—
A12-5/16-25	May 16, 2012	118-135	male	326.8±51.2 (240 - 498; n=37)
A12-5/19-26	May 19, 2012	118-130	immaturity	
A12-5/24-28	May 24, 2012	110-117	female	464.5±49.7 (370 - 563; n=41)
A12-5/28-29	May 28, 2012	110-120	male	367.8±74.5 (220 - 504; n=20)
A12-5/28-30	May 28, 2012	110-120	female	565.9±52.4(449 - 670; n=35)
A12-5/29-31	May 29, 2012	110-117	male	298.4±57.5 (190 - 443; n=33)
A12-5/29-32	May 29, 2012	110-117	female	500.3±42.8 (430 - 552; n=7)
A12-5/29-33	May 29, 2012	110-117	male	343.1±65.3 (135 - 449; n=54)
A12-5/30-34	May 30, 2012	124-130	male	441.6±67.5 (283 - 577; n=28)
A12-6/24-03	June 24, 2012	ND	male	323.8±54.7 (211 - 421; n=19)
A12-6/24-04	June 24, 2012	ND	male	371.8±61.1 (279- 567; n=27)
A12-7/22-01	July 22, 2012	116-110	immaturity	
A12-8/7-01	August 7, 2012	105	female	190.6±33.1 (134-243, n=9)
A12-8/7-02	August 9, 2012	126-130	immaturity	
A12-8/7-03	August 9, 2012	126-130	immaturity	
A12-8/7-04	August 9, 2012	110-120	immaturity	
A12-8/10-05	August 10, 2012	110-120	immaturity	
A12-8/10-06	August 10, 2012	110-120	immaturity	
A12-8/11-07	August 11, 2012	110-117	immaturity	
A12-8/17-08	August 17, 2012	110-117	immaturity	
A12-8/18-09	August 18, 2012	110-117	immaturity	
A12-8/31-10	August 31, 2012	113-124	immaturity	
A12-8/31-11	August 31, 2012	113-124	immaturity	
A12-9/4-01	September 4, 2012	130-124	immaturity	
A12-9/7-02	September 7, 2012	117-113	immaturity	
A12-9/11-03	September 11, 2012	116-113	immaturity	
A12-9/12-04	September 12, 2012	117-112	immaturity	
A12-9/14-05	September 14, 2012	117-105	immaturity	
A12-9/22-06	September 22, 2012	136-125	female	170.5±41.2 (84-246, n=31)
A12-9/25-07	September 25, 2012	115-112	immaturity	
A12-10/21-08	October 21, 2012	108-120	immaturity	
A12-10/30-09	October 30, 2012	133-124	immaturity	
A12-10/30-10	October 30, 2012	133-124	immaturity	
A12-11/4-11	November 4, 2012	134-125	immaturity	
A12-11/8-12	November 8, 2012	100-105	immaturity	
A12-11/19-13	November 19, 2012	108	immaturity	
A12-11/21-14	November 21, 2012	108-105	immaturity	
A12-11/25-15	November 25, 2012	117-114	immaturity	
A12-12/13-16	December 13, 2012	120-109	immaturity	

A12-12/27-17	December 27, 2012	102-108	immaturity		
A13-1/25-01	January 25, 2013	148	immaturity		
A13-1/25-02	January 25, 2013	148	immaturity		
A13-1/25-04	January 25, 2013	148	immaturity		
A13-1/25-07	January 25, 2013	148	immaturity		
A13-1/25-08	January 25, 2013	148	female	485.1±59.8 (359-601, n=32)	
A13-1/25-09	January 25, 2013	148	female	229.0±54.7 (107-333, n=49)	
A13-2/17-01	February 17, 2013	ND	immaturity		
A13-2/17-02	February 17, 2013	ND	immaturity		
A13-2/17-03	February 17, 2013	ND	immaturity		
A13-2/17-04	February 17, 2013	ND	immaturity		
A13-2/17-05	February 17, 2013	ND	immaturity		
A13-3/3-01	March 3, 2013	138-148	immaturity		
A13-3/3-02	March 3, 2013	138-148	immaturity		
A13-3/6-04	March 6, 2013	143-148	immaturity		
A13-3/9-05	March 9, 2013	134-140	immaturity		
A13-3/11-06	March 11, 2013	114-122	immaturity		
A13-3/11-07	March 11, 2013	118-122	female	375.5 (n=1)	
A13-3/20-08	March 20, 2013	146	male		254.3±76.2 (176-490, n=21)
A13-3/20-09	March 20, 2013	146	immaturity		
A13-3/20-10	March 20, 2013	146	immaturity		
A13-3/26-11	March 26, 2013	128-136	female	352.7±34.9 (290-402, n=13)	
A13-3/31-12	March 31, 2013	128-136	male		236.2±57.4 (135-330, n=20)
A13-4/1-13	April 1, 2013	128-136	immaturity		
A13-4/4-14	April 4, 2013	126-136	immaturity		
A13-4/4-15	April 4, 2013	128-136	male		193.1±42.4 (119-270, n=17)
A13-4/5-16	April 5, 2013	136-148	male		220.7±53.2 (127-338, n=25)
A13-4/8-17	April 8, 2013	113-117	immaturity		
A13-4/16-18	April 16, 2013	115-120	immaturity		
A13-4/22-19	April 22, 2013	115-120	immaturity		
A13-4/23-20	April 23, 2013	144-150	male		272.8±70.1 (110-403, N=56)
A13-4/27-21	April 27, 2013	143-150	male		396.5±46.9 (349-487, n=8)
A13-4/29-22	April 29, 2013	143-150	immaturity		
A13-4/29-23	April 29, 2013	143-150	male		292.4±57.6 (177-381, n=18)
A13-5/1-24	May 1, 2013	143-150	immaturity		
A13-5/3-01	May 3, 2013	143-150	male		232.1±47.6 (148-314, n=27)
A13-5/4-02	May 4, 2013	127-136	female	398.7±59.3 (257-476, n=11)	
A13-5/5-03	May 5, 2013	143-150	immaturity		
A13-5/5-04	May 5, 2013	144-150	male		284.2±50.6 (200-448, n=29)
A13-5/6-05	May 6, 2013	141-152	immaturity		
A13-5/9-06	May 9, 2013	138-152	female	490.7±58.2 (409-597, n=17)	
A13-5/12-07	May 12, 2013	141-152	immaturity		
A13-5/13-08	May 13, 2013	141-154	immaturity		
A13-5/14-09	May 14, 2013	142-154	male		276.4±75.2 (112-524, n=67)
A13-5/15-10	May 15, 2013	142-154	immaturity		
A13-5/21-11	May 21, 2013	138-152	female	469.0±46.2 (363-556, n=30)	
A13-5/21-12	May 21, 2013	138-152	immaturity		
A13-5/21-13	May 21, 2013	138-152	male		422.4±65.8 (286-573, n=18)
A13-5/22-14	May 22, 2013	142-148	female	516.2±72.0 (419-611, n=5)	
A13-5/22-15	May 22, 2013	138-152	immaturity		
A13-5/22-16	May 22, 2013	138-154	immaturity		
A13-5/25-17	May 25, 2013	105	male		395.0±101.9 (180-674, n=38)
A13-5/31-18	May 31, 2013	130-140	immaturity		
A13-5/31-19	May 31, 2013	130-140	female	329.3±57.6 (186-413, n=19)	
A13-6/17-11	June 17, 2013	ND	immaturity		
A13-6/17-12	June 17, 2013	ND	immaturity		
A13-6/17-13	June 17, 2013	ND	immaturity		
A13-6/17-14	June 17, 2013	ND	immaturity		
A13-6/17-15	June 17, 2013	ND	immaturity		
A13-8/4-01	August 4, 2013	107-113	immaturity		
A13-9/6-02	September 6, 2013	135-150	immaturity		
A13-9/27-03	September 27, 2013	143-145	immaturity		
A13-10/3-04	October 3, 2013	138-148	immaturity		
A13-11/4-05	November 4, 2013	138-150	immaturity		
A13-11/24-06	November 24, 2013	116-121	female	239.0±47.8 (178-326, n=14)	
A13-12/2-07	December 2, 2013	114-122	immaturity		
A13-12/23-08	December 23, 2013	115-121	female	240.0±65.7 (125-339, n=16)	

A14-3/9-01	March 9, 2014	115-124	male		285.6±58.4 (166-406, n=67)
A14-3/16-02	March 16, 2014	117-124	immaturity		
A14-3/23-03	March 23, 2014	124-135	immaturity		
A14-3/28-04	March 28, 2014	132-140	immaturity		
A14-4/5-05	April 5, 2014	128-140	immaturity		
A14-4/8-06	April 8, 2014	115-124	female	406.3±82.9 (261-546, n=22)	
A14-4/17-07	April 17, 2014	132-144	immaturity		
A14-5/1-08	May 1, 2014	135-144	male		387.9±102.4 (165-178, n=31)
A14-5/7-09	May 7, 2014	132-145	immaturity		
A14-5/7-10	May 7, 2014	115-124	immaturity		
A14-5/14-11	May 14, 2014	135-140	female	440.9±70.7 (342-505, n=4)	
A14-5/16-12	May 16, 2014	135-140	female	435.9±80.5 (319-555, n=7)	
A14-5/17-13	May 17, 2014	128	male		254.7±50.3 (99-338, n=44)
A14-5/19-14	May 19, 2014	128	immaturity		
A14-5/23-15	May 23, 2014	114-120	female	476.1±84.7 (261-624, n=24)	
A14-5/25-16	May 25, 2014	145-150	female	503.1±32.0 (478-546, n=4)	
A14-6/25-01	June 25, 2014	140-150	immaturity		
A14-6/25-02	June 25, 2014	140-150	female	366.8 (n=1)	
A14-6/25-03	June 25, 2014	140-150	immaturity		
A14-6/25-04	June 25, 2014	140-150	immaturity		
A14-7/18-01	July 18, 2014	135-145	immaturity		
A14-7/18-02	July 18, 2014	135-145	immaturity		
A14-7/18-03	July 18, 2014	135-145	immaturity		
A14-7/18-04	July 18, 2014	135-145	immaturity		
A14-7/18-05	July 18, 2014	135-145	immaturity		

ND: no data