

Supplementary material

Pan-oceanic distribution of mercury (Hg) in sea turtles: a review

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Table S1. Review data for loggerhead sea turtle (*Caretta caretta*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
⁺ (Sakai et al., 1995)	1995	<i>Caretta caretta</i>	7	Japan	North Pacific	98.1	Kidney	247
⁺ (Sakai et al., 1995)	1995	<i>Caretta caretta</i>	7	Japan	North Pacific	98.1	Liver	1510
⁺ (Sakai et al., 1995)	1995	<i>Caretta caretta</i>	7	Japan	North Pacific	98.1	Muscle	108
(Gordon et al., 1998)	1998	<i>Caretta caretta</i>	9	Australia	South Pacific	NI	Kidney	45
(Gordon et al., 1998)	1998	<i>Caretta caretta</i>	9	Australia	South Pacific	NI	Liver	15
(Storelli et al., 1998)	1998	<i>Caretta caretta</i>	12	Italy	Mediterranean	Juvenile – Adult*	Kidney	650
(Storelli et al., 1998)	1998	<i>Caretta caretta</i>	12	Italy	Mediterranean	Juvenile – Adult*	Liver	1680
(Storelli et al., 1998)	1998	<i>Caretta caretta</i>	12	Italy	Mediterranean	Juvenile – Adult*	Muscle	690

(Storelli et al., 1998)	1998	<i>Caretta caretta</i>	7	Italy	Mediterranean	Juvenile*	Liver	700
(Godley et al., 1999)	1999	<i>Caretta caretta</i>	7	Cyprus	Mediterranean	63.5	Kidney	470
(Godley et al., 1999)	1999	<i>Caretta caretta</i>	7	Cyprus	Mediterranean	63.5	Liver	2410
(Godley et al., 1999)	1999	<i>Caretta caretta</i>	7	Cyprus	Mediterranean	63.5	Muscle	480
⁺ (Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	6	Japan	North Pacific	88.7	Kidney	237
(Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	1	Japan	North Pacific	88.7	Kidney	304
⁺ (Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	6	Japan	North Pacific	88.7	Liver	400
(Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	1	Japan	North Pacific	88.7	Liver	8150
⁺ (Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	6	Japan	North Pacific	88.7	Muscle	94.4
(Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	1	Japan	North Pacific	88.7	Muscle	189
⁺ (Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	6	Japan	North Pacific	88.7	Scutes	43.2
(Sakai et al., 2000b)	2000	<i>Caretta caretta</i>	1	Japan	North Pacific	88.7	Scutes	159
(Kaska et al., 2001)	2001	<i>Caretta caretta</i>	22	Turkey	Mediterranean	NI	Liver	510
(Torrent et al., 2004)	2004	<i>Caretta caretta</i>	78	Spain	North Atlantic	46.1	Kidney	40
(Torrent et al., 2004)	2004	<i>Caretta caretta</i>	78	Spain	North Atlantic	46.1	Liver	40
(Day et al., 2005)	2005	<i>Caretta caretta</i>	6	United States	North Atlantic	77.7	Kidney	214
(Day et al., 2005)	2005	<i>Caretta caretta</i>	6	United States	North Atlantic	77.7	Liver	594
(Day et al., 2005)	2005	<i>Caretta caretta</i>	6	United States	North Atlantic	77.7	Muscle	155
(Day et al., 2005)	2005	<i>Caretta caretta</i>	6	United States	North Atlantic	77.7	Scutes	941
(Day et al., 2005)	2005	<i>Caretta caretta</i>	34	United States	North Atlantic	77.7	Scutes	461
(Maffuci et al., 2005)	2005	<i>Caretta caretta</i>	29	Italy	Mediterranean	61	Kidney	900
(Maffuci et al., 2005)	2005	<i>Caretta caretta</i>	29	Italy	Mediterranean	61	Liver	1100
(Maffuci et al., 2005)	2005	<i>Caretta caretta</i>	29	Italy	Mediterranean	61	Muscle	400
(Storelli et al., 2005)	2005	<i>Caretta caretta</i>	19	Italy	Mediterranean	49.8	Kidney	160
(Storelli et al., 2005)	2005	<i>Caretta caretta</i>	19	Italy	Mediterranean	49.8	Liver	430
(Storelli et al., 2005)	2005	<i>Caretta caretta</i>	19	Italy	Mediterranean	49.8	Muscle	180
(Kampalath et al., 2006)	2006	<i>Caretta caretta</i>	8	Mexico	North Pacific	59.8	Kidney	157
(Kampalath et al., 2006)	2006	<i>Caretta caretta</i>	8	Mexico	North Pacific	59.8	Liver	148
(Kampalath et al., 2006)	2006	<i>Caretta caretta</i>	8	Mexico	North Pacific	59.8	Muscle	90

(Day et al., 2010)	2010	<i>Caretta caretta</i>	44	United States	North Atlantic	NI	Scutes	455
(Jerez et al., 2010)	2010	<i>Caretta caretta</i>	26	Spain	Mediterranean	48.8	Kidney	440
(Jerez et al., 2010)	2010	<i>Caretta caretta</i>	26	Spain	Mediterranean	48.8	Liver	390
(Jerez et al., 2010)	2010	<i>Caretta caretta</i>	26	Spain	Mediterranean	48.8	Muscle	140
(Yipel et al., 2017)	2017	<i>Caretta caretta</i>	10	Turkey	Mediterranean	64.55	Kidney	60
(Yipel et al., 2017)	2017	<i>Caretta caretta</i>	10	Turkey	Mediterranean	64.5	Liver	70
(Nicolau et al., 2017)	2017	<i>Caretta caretta</i>	38	Portugal	North Atlantic	50.1	Kidney	210
(Nicolau et al., 2017)	2017	<i>Caretta caretta</i>	38	Portugal	North Atlantic	50.1	Liver	300
(Nicolau et al., 2017)	2017	<i>Caretta caretta</i>	38	Portugal	North Atlantic	50.1	Muscle	50
(Novillo et al., 2017)	2017	<i>Caretta caretta</i>	25	Spain	Mediterranean	43.7	Muscle	30
⁺ (Perrault et al., 2017)	2017	<i>Caretta caretta</i>	24	United States	North Atlantic	94	Scutes	590
(Casini et al., 2018)	2018	<i>Caretta caretta</i>	23	Spain and Italian coast	Mediterranean	49	Scutes	1090
(Attia El Hili et al., 2018)	2018	<i>Caretta caretta</i>	5	Tunisia	Mediterranean	80.9	Kidney	610
(Attia El Hili et al., 2018)	2018	<i>Caretta caretta</i>	5	Tunisia	Mediterranean	80.9	Liver	1150
(Attia El Hili et al., 2018)	2018	<i>Caretta caretta</i>	5	Tunisia	Mediterranean	80.9	Muscle	120
⁺ (Rodriguez et al., 2018)	2018	<i>Caretta caretta</i>	8	Brazil	South Atlantic	97.5	Scutes	86.7
⁺ (Rodriguez et al., 2018)	2018	<i>Caretta caretta</i>	8	Brazil	South Atlantic	95	Scutes	207.7
⁺ (Rodriguez et al., 2019)	2019	<i>Caretta caretta</i>	76	Brazil	South Atlantic	98.5	Scutes	183.6
(Esposito et al., 2020)	2020	<i>Caretta caretta</i>	30	Italy	Mediterranean	68.3	Liver	90 – 1600**
(Gómez-Ramírez et al., 2020)	2020	<i>Caretta caretta</i>	13	Spain	Mediterranean	46.5	Kidney	996.5
(Gómez-Ramírez et al., 2020)	2020	<i>Caretta caretta</i>	15	Spain	Mediterranean	46.5	Liver	2031
(Gómez-Ramírez et al., 2020)	2020	<i>Caretta caretta</i>	19	Spain	Mediterranean	46.5	Muscle	735.6
(Febrer-Serra et al., 2020)	2020	<i>Caretta caretta</i>	11	Spain	Mediterranean	43.9	Muscle	16.4

NI = No Information. *Studies reporting life stage. **Studies reporting only range. ⁺ Nesting females.

Table S2. Review data for green sea turtle (*Chelonia mydas*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
(Sakai et al., 1995)	1995	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Kidney	1320
(Sakai et al., 1995)	1995	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Liver	287
(Sakai et al., 1995)	1995	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Muscle	19
(Gordon et al., 1998)	1998	<i>Chelonia mydas</i>	23	Australia	South Pacific	NI	Kidney	20
(Gordon et al., 1998)	1998	<i>Chelonia mydas</i>	23	Australia	South Pacific	NI	Liver	21
(Godley et al., 1999)	1999	<i>Chelonia mydas</i>	6	Cyprus	Mediterranean	49.5	Liver	550
(Godley et al., 1999)	1999	<i>Chelonia mydas</i>	6	Cyprus	Mediterranean	49.5	Muscle	90
(Presti et al., 1999)	1999	<i>Chelonia mydas</i>	17	United States	North Pacific	70.8	Scutes	50.9
(Sakai et al., 2000a)	2000	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Kidney	44.8
(Sakai et al., 2000a)	2000	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Liver	71.7
(Sakai et al., 2000a)	2000	<i>Chelonia mydas</i>	50	Japan	North Pacific	53.6	Muscle	3.8
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	97.7	Kidney	42.2
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	101.9	Kidney	47.8
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	88.7	Liver	301
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	101.9	Liver	76.7
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	97.7	Muscle	6.94
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	101.9	Muscle	2.13
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	97.7	Scutes	2.79
(Sakai et al., 2000b)	2000	<i>Chelonia mydas</i>	1	Japan	North Pacific	101.9	Scutes	2.03
(Anan et al., 2001)	2001	<i>Chelonia mydas</i>	26	Japan	North Pacific	53.8	Kidney	300
(Anan et al., 2001)	2001	<i>Chelonia mydas</i>	26	Japan	North Pacific	53.8	Liver	420
(Anan et al., 2001)	2001	<i>Chelonia mydas</i>	26	Japan	North Pacific	53.8	Muscle	40
(Lam et al., 2004)	2004	<i>Chelonia mydas</i>	2	China	North Pacific	NI	Kidney	341.7
(Lam et al., 2004)	2004	<i>Chelonia mydas</i>	4	China	North Pacific	NI	Liver	125.7
(Lam et al., 2004)	2004	<i>Chelonia mydas</i>	2	China	North Pacific	NI	Liver	780.6

(Lam et al., 2004)	2004	<i>Chelonia mydas</i>	4	China	North Pacific	NI	Muscle	52.5
(Lam et al., 2004)	2004	<i>Chelonia mydas</i>	2	China	North Pacific	NI	Muscle	425.6
(Kampalath et al., 2006)	2006	<i>Chelonia mydas</i>	12	Mexico	North Pacific	48.2	Kidney	92
(Kampalath et al., 2006)	2006	<i>Chelonia mydas</i>	12	Mexico	North Pacific	48.2	Liver	90
(Kampalath et al., 2006)	2006	<i>Chelonia mydas</i>	12	Mexico	North Pacific	48.2	Muscle	21
(Salim et al., 2007)	2007	<i>Chelonia mydas</i>	50	Oman	Indian Ocean	NI	Liver	220
(Van de Merwe et al., 2010)	2010	<i>Chelonia mydas</i>	16	Australia	South Pacific	57.5	Kidney	60
(Van de Merwe et al., 2010)	2010	<i>Chelonia mydas</i>	16	Australia	South Pacific	57.5	Liver	190
(Van de Merwe et al., 2010)	2010	<i>Chelonia mydas</i>	16	Australia	South Pacific	57.5	Muscle	30
(Komoroske et al., 2011)	2011	<i>Chelonia mydas</i>	31	United States	North Pacific	90.5	Scutes	47.5
(Bezerra et al., 2012)	2012	<i>Chelonia mydas</i>	22	Brazil	South Atlantic	50.5	Scutes	154.8
(Bezerra et al., 2012)	2012	<i>Chelonia mydas</i>	3	Brazil	South Atlantic	50.5	Scutes	2.5
(Bezerra et al., 2013)	2013	<i>Chelonia mydas</i>	17	Brazil	South Atlantic	39.13	Kidney	70
(Bezerra et al., 2013)	2013	<i>Chelonia mydas</i>	15	Brazil	South Atlantic	39.13	Liver	120
(Bezerra et al., 2013)	2013	<i>Chelonia mydas</i>	15	Brazil	South Atlantic	39.13	Muscle	40
(Bezerra et al., 2013)	2013	<i>Chelonia mydas</i>	10	Brazil	South Atlantic	39.13	Scutes	320
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	4	Brazil	South Atlantic	46	Kidney	753
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	1	Brazil	South Atlantic	52	Kidney	1225
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	4	Brazil	South Atlantic	46	Liver	529
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	1	Brazil	South Atlantic	52	Liver	4234
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	4	Brazil	South Atlantic	46	Muscle	97
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	1	Brazil	South Atlantic	52	Muscle	816
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	4	Brazil	South Atlantic	46	Scutes	296
(Bezerra et al., 2014)	2014	<i>Chelonia mydas</i>	1	Brazil	South Atlantic	52	Scutes	1155
(Faust et al., 2014)	2014	<i>Chelonia mydas</i>	12	Mexico	Caribbean	52.4	Kidney	23
(Faust et al., 2014)	2014	<i>Chelonia mydas</i>	12	Mexico	Caribbean	52.4	Liver	81
(Faust et al., 2014)	2014	<i>Chelonia mydas</i>	12	Mexico	Caribbean	52.4	Muscle	12
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	16	Brazil	South Atlantic	32.5	Kidney	386.9
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	26	Brazil	South Atlantic	36.4	Kidney	429.5

(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	16	Brazil	South Atlantic	32.5	Liver	475.9
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	26	Brazil	South Atlantic	36.4	Liver	982.4
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	16	Brazil	South Atlantic	32.5	Muscle	173.1
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	26	Brazil	South Atlantic	36.4	Muscle	184.3
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	25	Brazil	South Atlantic	36.4	Scutes	354.1
(Bezerra et al., 2015)	2015	<i>Chelonia mydas</i>	16	Brazil	South Atlantic	32.5	Scutes	404.4
(Macedo et al., 2015)	2015	<i>Chelonia mydas</i>	10	Brazil	South Atlantic	35.6	Kidney	360
(Macedo et al., 2015)	2015	<i>Chelonia mydas</i>	10	Brazil	South Atlantic	35.6	Liver	1340
(Yipel et al., 2017)	2017	<i>Chelonia mydas</i>	3	Turkey	Mediterranean	74.5	Kidney	30
(Yipel et al., 2017)	2017	<i>Chelonia mydas</i>	3	Turkey	Mediterranean	74.5	Liver	40
(Rodriguez et al., 2018)	2018	<i>Chelonia mydas</i>	8	Brazil	South Atlantic	45.1	Scutes	19.3
(Rodriguez et al., 2018)	2018	<i>Chelonia mydas</i>	8	Brazil	South Atlantic	44.3	Scutes	159.3
(Di Benedetto et al., 2019)	2019	<i>Chelonia mydas</i>	29	Brazil	South Atlantic	35.1	Liver	492.5
(Di Benedetto et al., 2019)	2019	<i>Chelonia mydas</i>	29	Brazil	South Atlantic	35.1	Muscle	100.2
(Bazarra et al., 2019)	2019	<i>Chelonia mydas</i>	16	United States	North Pacific	70.7	Scutes	70
(Rodriguez et al., 2020)	2020	<i>Chelonia mydas</i>	47	Brazil	South Atlantic	36.4	Kidney	303.4
(Rodriguez et al., 2020)	2020	<i>Chelonia mydas</i>	47	Brazil	South Atlantic	36.4	Liver	650.9
(Rodriguez et al., 2020)	2020	<i>Chelonia mydas</i>	47	Brazil	South Atlantic	36.4	Muscle	113.3
(Rodriguez et al., 2020)	2020	<i>Chelonia mydas</i>	47	Brazil	South Atlantic	36.4	Scutes	365.4

NI = No Information.

Table S3. Review data for leatherback sea turtle (*Dermochelys coriacea*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
(Davenport, 1990)	1990	<i>Dermochelys coriacea</i>	1	United Kingdom	North Atlantic	253	Liver	390
(Davenport, 1990)	1990	<i>Dermochelys coriacea</i>	1	United Kingdom	North Atlantic	253	Muscle	120
(Perrault et al., 2012)	2012	<i>Dermochelys coriacea</i>	17	United States	North Atlantic	83.5	Liver	309
(Perrault et al., 2012)	2012	<i>Dermochelys coriacea</i>	8	United States	North Atlantic	83.5	Liver	610
(Perrault et al., 2012)	2012	<i>Dermochelys coriacea</i>	3	United States	North Atlantic	83.5	Liver	38
(Perrault et al., 2012)	2012	<i>Dermochelys coriacea</i>	6	United States	North Atlantic	83.5	Liver	205

Table S4. Review data for hawksbill sea turtle (*Eretmochelys imbricata*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
(Gordon et al., 1998)	1998	<i>Eretmochelys imbricata</i>	2	Australia	South Pacific	NI	Kidney	34 – 38**
(Gordon et al., 1998)	1998	<i>Eretmochelys imbricata</i>	2	Australia	South Pacific	NI	Liver	36 – 48**
(Anan et al., 2001)	2001	<i>Eretmochelys imbricata</i>	22	Japan	North Pacific	49.1	Kidney	1300
(Anan et al., 2001)	2001	<i>Eretmochelys imbricata</i>	22	Japan	North Pacific	49.1	Liver	870
(Anan et al., 2001)	2001	<i>Eretmochelys imbricata</i>	22	Japan	North Pacific	49.1	Muscle	40
(Macedo et al., 2015)	2015	<i>Eretmochelys imbricata</i>	16	Brazil	South Atlantic	33.6	Kidney	570
(Macedo et al., 2015)	2015	<i>Eretmochelys imbricata</i>	16	Brazil	South Atlantic	33.6	Liver	1360

NI = No Information. **Studies reporting only range.

Table S5. Review data for Kemp’s ridley sea turtle (*Lepidochelys kempii*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
(Innis et al., 2008)	2008	<i>Lepidochelys kempii</i>	31	United States	North Atlantic	20.4	Liver	67
(Innis et al., 2008)	2008	<i>Lepidochelys kempii</i>	31	United States	North Atlantic	20.4	Scutes	389
(Presti et al., 1999)	1999	<i>Lepidochelys kempii</i>	76	United States	North Pacific	70.8	Scutes	920

Table S6. Review data for olive ridley Sea turtle (*Lepidochelys olivacea*) including, reference, publication year, species, sample size (n), country, study area, curved carapace length (CCL) (mean), tissue, and Hg concentration (mean).

Reference	Year	Sp	n	Country	Study area	CCL (cm)	Tissue	Hg (ng g ⁻¹)
(Kampalath et al., 2006)	2006	<i>Lepidochelys olivacea</i>	9	Mexico	North Pacific	59.2	Kidney	143
(Kampalath et al., 2006)	2006	<i>Lepidochelys olivacea</i>	9	Mexico	North Pacific	59.2	Liver	213
(Kampalath et al., 2006)	2006	<i>Lepidochelys olivacea</i>	9	Mexico	North Pacific	59.2	Muscle	50

Table S7. Studies reporting Hg concentrations in liver, kidney, muscle, and scutes. These studies were not used in the comparative analysis of regions. Hg concentrations are reported in ng g⁻¹.

Reference	Year	Sp*	Study area	Ocean	CCL (cm)	Liver	Kidney	Muscle	Scutes
(Davenport, 1990)	1990	Dc	NA	North Atlantic	253	390	-	120	-
(Presti et al., 1999)	1999	Lk	NP	North Pacific	70.8	-	-	-	920
(Anan et al., 2001)	2001	Ei	NP	North Pacific	49.1	870	1300	40	-
(Kampalath et al., 2006)	2006	Lo	NP	North Pacific	59.2	213	143	50	-
(Innis et al., 2008)	2008	Lk	NA	North Atlantic	20.4	67	-	-	389
(Macedo et al., 2015)	2015	Ei	SA	South Atlantic	33.6	1360	570	-	-

**Dermochelys coriacea* (Dc), *Lepidochelys kempii* (Lk), *Eretmochelys imbricata* (Ei), *Lepidochelys olivacea* (Lo).

Table S8. Studies reporting Hg concentrations in sea turtles, using samples such as eggs, fat, blood, intestine, yolked follicles, salt gland, salt gland secretion, and embryos. This table includes reference, species (sp), area, study area and sample.

Reference	Sp*	Area	Study area	Sample
(Stonebuner et al., 1980)	Cc	NA	North Atlantic	Eggs
(Davenport and Wrench, 1990)	Dc	NA	North Atlantic	Fat
(Alam and Brim, 2000)	Cc	NA	North Atlantic	Eggs
(Kaska et al., 2001)	Cc	MED	Mediterranean	Eggs
(Lam et al., 2004)	Cm	NP	North Pacific	Fat
(Storelli et al., 2005)	Cc	MED	Mediterranean	Fat
(Day et al., 2005)	Cc	NA	North Atlantic	Blood
(Lam et al., 2006)	Cm	NP	North Pacific	Eggs
(Day et al., 2007)	Cc	NA	North Atlantic	Blood
(Guirlet et al., 2008)	Dc	NA	North Atlantic	Blood
(Guirlet et al., 2008)	Dc	NA	North Atlantic	Eggs
(Deem et al., 2009)	Cc	NA	North Atlantic	Blood
(Jerez et al., 2010)	Cc	MED	Mediterranean	Blood
(Van de Merwe et al., 2010)	Cm	SP	South Pacific	Blood
(Perrault et al., 2011)	Dc	NA	North Atlantic	Blood
(Komoroske et al., 2011)	Cm	NP	North Pacific	Blood
(Harris et al., 2011)	Dc	NP	North Pacific	Blood
(Páez-Osuna et al., 2011)	Lo	NP	North Pacific	Blood
(Páez-Osuna et al., 2011)	Lo	NP	North Pacific	Eggs
(Ikonopoulou et al., 2011)	Nd	SP	South Pacific	Blood
(Ikonopoulou et al., 2011)	Nd	SP	South Pacific	Eggs
(Perrault, 2012)	Dc	NA	North Atlantic	Blood
(Perrault, 2012)	Dc	NA	North Atlantic	Intestine
(Perrault, 2012)	Dc	NA	North Atlantic	Yolked follicles

(Perrault, 2012)	Dc	NA	North Atlantic	Salt gland
(Suzuki et al., 2012)	Ei	NP	North Pacific	Blood
(Camacho et al., 2013)	Cc	NA	North Atlantic	Blood
(Perrault et al., 2013)	Dc	NA	North Atlantic	Blood
(Ehsanpour et al., 2014)	Ei	IO (RS)	Indian Ocean (Red Sea)	Blood
(Ehsanpour et al., 2014)	Ei	IO (RS)	Indian Ocean (Red Sea)	Eggs
(Camacho et al., 2014)	Cm	NA	North Atlantic	Blood
(Camacho et al., 2014)	Ei	NA	North Atlantic	Blood
(McFadden et al., 2014)	Cm	NP	North Pacific	Blood
(Bucchia et al., 2015)	Cc	MED	Mediterranean	Blood
(Bucchia et al., 2015)	Cc	NA	North Atlantic	Blood
(Villa et al., 2015)	Cm	NP	North Pacific	Blood
(De Macêdo et al., 2015)	Cm	SA	South Atlantic	Bones
(De Macêdo et al., 2015)	Ei	SA	South Atlantic	Bones
(Ross et al., 2016)	Cm	NP	North Pacific	Eggs
(Ross et al., 2016)	Lo	NP	North Pacific	Eggs
(Yipel et al., 2017)	Cc	MED	Mediterranean	Blood
(Yipel et al., 2017)	Cm	MED	Mediterranean	Blood
(Novillo et al., 2017)	Cc	MED	Mediterranean	Fat
(Perrault et al., 2017)	Cc	NA	North Atlantic	Blood
(Du Preez et al., 2018)	Cc	IO	Indian Ocean	Eggs
(Du Preez et al., 2018)	Dc	IO	Indian Ocean	Eggs
(Perrault et al., 2019)	Dc	NA	North Atlantic	Blood
(Perrault et al., 2019)	Dc	NA	North Atlantic	Salt gland secretion
(Martin del Campo et al., 2019)	Lo	NP	North Pacific	Embryos
(Guzman et al., 2020)	Dc	NA	North Atlantic	Eggs

**Caretta caretta* (Cc), *Chelonia mydas* (Cm), *Dermochelys coriacea* (Dc), *Lepidochelys kempii* (Lk), *Eretmochelys imbricata* (Ei), *Lepidochelys olivacea* (Lo), *Natator depressus* (Nd).