

Green Turtle mtDNA Long Sequences (~800 bp)

Green turtle (*Chelonia mydas*) mitochondrial DNA control region sequences: Atlantic and Mediterranean

The ACCSTR collaborates with **Brian Shamblin** (University of Georgia; email: brian.shamblin@gmail.com) to maintain this website.

New mtDNA D-Loop primers have been developed for marine turtles that yield sequences of ~800bp (Abreu-Grobois et al. 2006. 26th Annual Symposium on Sea Turtle Biology and Conservation, Crete, Greece.). The sequences are available below. The protocol for naming these longer sequences follows:

1. All longer (~800bp) sequence names will be based on the original ~400 bp foundation sequence as currently presented on the ACCSTR website [<http://accstr.ufl.edu/accstr-resources/cmmtdna.pdf>]. New ~400 bp sequences will continue to be named in the order that they are reported.
2. The most common variant or the first variant of the longer sequence for a ~400 bp foundation sequence will be given the suffix “.1” following the foundation sequence name. For example, the most common long sequence for the foundation sequence CM-A1 will be given the designation CM-A1.1. Additional long-sequence variants for the foundation sequence will be designated with the suffix “.2”, “.3”, etc. yielding, for example, sequence designations CM-A1.2 and CM-A1.3.
3. If we have only one longer sequence for a ~400 bp foundation sequence, that sequence will be given the suffix “.1”.

To facilitate haplotype designations and to avoid confusion among ocean basins, we are using the nomenclature of CM-A# (prefix A before the number is used to designate that it is from the Atlantic basin; P will be used for the Pacific).

If you have a new sequence, please email the new sequence to [ACCSTR](mailto:accstr@ufl.edu) (accstr@ufl.edu), and we will confirm the status of the sequence and assign a

sequence designation number. **It is the responsibility of the author of the new sequence to submit the sequence to GenBank (<http://ncbi.nlm.nih.gov>).** The data in GenBank are simultaneously made available to EMBL in Europe and the DNA Data Bank of Japan.

Click [HERE](#) to access the current green turtle long mtDNA sequences. You may copy and paste any of the sequence batches from this page into a text editor and then import them into your sequence program.

The table below presents the metadata for the named haplotypes for Atlantic green turtle.

Updated 20 November 2022

Haplotype	Genbank	Reference or Contact Information
CM-A1.1	JF308465	Shamblin <i>et al.</i> 2015. Conservation Genetics 16:673-685
CM-A1.2	JF308466	Shamblin <i>et al.</i> 2015. Conservation Genetics 16:673-685
CM-A1.3	KT581616	Gorham <i>et al.</i> 2016. Florida Scientist 79:14-27
CM-A1.4	KT581617	Gorham <i>et al.</i> 2016. Florida Scientist 79:14-27
CM-A1.5		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A1.6	MT468239	Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A2.1	JX306006	Shamblin <i>et al.</i> 2015 Conservation Genetics 16:673-685
CM-A2.2		Erin LaCasella and Peter Dutton (erin.lacasella@noaa.gov)
CM-A3.1	JN632497	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A3.2	HM365068	Julia Azanza (A deletion in the original sequence is corrected here.)
CM-A3.3		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A3.4	OM743492	Naro-Maciel <i>et al.</i> 2017. Ecography 40:586-597
CM-A3.5		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A3.6		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A3.7		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A3.8		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
		Patrício <i>et al.</i> 2017. Latin American Journal of Aquatic Research 45:506-520.
CM-A3.9		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A5.1	JN632498	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A5.2	JN632499	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A5.3	JF308470	Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A5.4		Original sequence contained an error. It will not be reassigned.
CM-A6.1	JQ366073	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A8.1	JF308472	Shamblin <i>et al.</i> 2015. Conservation Genetics 16:673-685.
CM-A8.2	JF308473	Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A8.3	JF308474	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.

CM-A8.4		Ximena Velez-Zuazo, unpublished (xvelezuazo@gmail.com)
CM-A8.5		Joana Hancock (joana.hancock@gmail.com)
CM-A9.1	JF308475	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A10.1	JF308476	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A11.1	KT232136	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A12.1	JF308482	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A13.1	JX306007	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A13.2		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A14.1	KR011755	Angela Mastragiacomo, unpublished (mastragiacomo.angela.cws@gmail.com)
CM-A15.1	KX247562	Shamblin <i>et al.</i> 2017. Journal of Experimental Marine Biology and Ecology 488:111-120
CM-A16.1	JN632500	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A16.2	KT441100	Naro-Maciel <i>et al.</i> 2017. Ecography 40:586-597.
CM-A16.3	MF315095	Patricio <i>et al.</i> 2017. Latin American Journal of Aquatic Research 45:506-520.
CM-A17.1	JQ420802	Shamblin <i>et al.</i> 2015. Conservation Genetics 16:673-685.
CM-A18.1	KT581618	Alberto Abreu-Grobois, unpublished (alberto.abreu@ola.icmyl.unam.mx)
CM-A18.2	JX306008	Shamblin <i>et al.</i> 2015 Conservation Genetics 16:673-685
CM-A18.3	MF315096	Patricio <i>et al.</i> 2017. Latin American Journal of Aquatic Research 45:506-520.
CM-A20.1	JN632501	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A21.1	JN632502	Shamblin <i>et al.</i> 2012. Molecular Ecology 21:2330-2340.
CM-A22.1	KT581619	Gorham <i>et al.</i> 2016. Florida Scientist 79:14-27.
CM-A23.1	JF308478	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A24.1	JF308479	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A25.1	JF308483	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A26.1	MH025955	Alberto Abreu-Grobois, unpublished (alberto.abreu@ola.icmyl.unam.mx)
		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A27.1	MH025956	Shamblin <i>et al.</i> 2017. Journal of Experimental Marine Biology and Ecology 488:111-120
CM-A27.2		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A28.1	JX306009	Shamblin <i>et al.</i> 2015. Conservation Genetics 16:673-685.
CM-A29.1		Shamblin unpublished
CM-A30.1	KT441098	Naro-Maciel <i>et al.</i> 2017. Ecography 40:586-597.
CM-A32.1	JF308480	Shamblin <i>et al.</i> 2015. Chelonian Conservation and Biology 14:167-172.
CM-A34.1	OM743493	Barbanti <i>et al.</i> 2019. Molecular Ecology 28:1637-1651

CM-A35.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A36.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A37.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A38.1		Joana Hancock (joana.hancock@gmail.com)
CM-A39.1		Sophia Coveney (sc1121@exeter.ac.uk)/Ana Rita Patricio (R.Patricio@exeter.ac.uk)
CM-A40.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A42.1	JF308481	Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A43.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A44.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A45.1		Sophia Coveney (sc1121@exeter.ac.uk)/Ana Rita Patricio (R.Patricio@exeter.ac.uk)
CM-A46.1		Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A47.1	MH025957	Alberto Abreu-Grobois, unpublished (alberto.abreu@ola.icmvl.unam.mx)
		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A48.1	HM365081	Alberto Abreu-Grobois, unpublished (alberto.abreu@ola.icmvl.unam.mx)
CM-A48.2	HM365080	Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A48.3	KX247563	Naro-Maciel <i>et al.</i> 2016. <i>Ecography</i> 39:1-12
CM-A50.1	KC792575	Jordão <i>et al.</i> 2017. <i>Mitochondrial DNA A</i> 28:197-207
CM-A52.1		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A53.1	JX306010	Shamblin <i>et al.</i> 2015. <i>Conservation Genetics</i> 16:673-685.
CM-A56.1		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A57.1		Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A58.1		Alberto Abreu-Grobois, unpublished (alberto.abreu@ola.icmvl.unam.mx)
		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A60.1	KR011754	Angela Mastragiacomo, unpublished (mastrogiacomo.angela.cws@gmail.com)
CM-A61.1		Bagda <i>et al.</i> 2012. <i>Biochemical Systematics and Ecology</i> 43:192-199
CM-A62.1		Bagda <i>et al.</i> 2012. <i>Biochemical Systematics and Ecology</i> 43:192-199
CM-A63.1		Bagda <i>et al.</i> 2012. <i>Biochemical Systematics and Ecology</i> 43:192-199
CM-A64.1		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A65.1		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A66.1	JF308464	Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A67.1	HM365069	Julia Azanza Ricardo, unpublished (jzricardo@instec.cu)
CM-A68.1	KT441099	Naro-Maciel <i>et al.</i> 2016. <i>Ecography</i> 39:1-12
CM-A69.1	KC792574	Jordão <i>et al.</i> 2017. <i>Mitochondrial DNA A</i> 28:197-207

CM-A70.1		Juliana Jordão, unpublished (juju.jordao@gmail.com)
CM-A71.1		Brian Shamblin, unpublished (brian.shamblin@gmail.com)
CM-A72.1		Formia and Natali, unpublished (aformia@wcs.org)
CM-A73.1		Eugenia Naro-Maciel, unpublished (enaromaciel@gmail.com)
CM-A74.1	KX011180	Jérôme Bourjea, unpublished (jerome.bourjea@ifremer.fr)
CM-A75.1		Angela Formia (aformia@wcs.org)/ Chiara Natali (chiara.natali@unifi.it)
CM-A77.1	MH025958	Shamblin <i>et al.</i> 2018. Marine Ecology Progress Series 601:215-226
CM-A78.1	MH177873	Barbanti <i>et al.</i> 2019. Molecular Ecology 28:1637-1651
CM-A80.1	OM743494	Carlos Carreras (ccarrerashuergo@gmail.com)
CM-A81.1	ON791800	Angela Mastrogiacomo (mastrogiacomo.angela.cws@gmail.com)

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