

Loggerhead mtDNA Long Sequences (~800 bp)

Loggerhead (*Caretta caretta*) 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 380 bp foundation sequence as currently presented on the ACCSTR website [<http://accstr.ufl.edu/accstr-resources/ccmtdna.pdf>]. New 380 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 380 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 CC-A1 will be given the designation CC-A1.1. Additional long-sequence variants for the foundation sequence will be designated with the suffix “.2”, “.3”, etc. yielding, for example, sequence designations CC-A1.2 and CC-A1.3.
3. If we have only one longer sequence for a 380 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 CC-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 loggerhead 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 loggerhead sea turtles.

Updated 20 November 2022

Haplotype	Genbank	Reference or Contact Information
CC-A1.1	EU179436	Monzón-Argüello <i>et al.</i> 2010. Conservation Genetics 11:1871-1884
CC-A1.2	EU179437	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A1.3	EU179438	Monzón-Argüello <i>et al.</i> 2010. Conservation Genetics 11:1871-1884
CC-A1.4	EU179439	Monzón-Argüello <i>et al.</i> 2010. Conservation Genetics 11:1871-1884
CC-A1.5	EU483081	Monzón-Argüello <i>et al.</i> 2010. Conservation Genetics 11:1871-1884
CC-A1.6	FM244620	Garofalo <i>et al.</i> 2013. Aquatic Conservation 6:868-884
CC-A1.7	KC310493	Shamblin <i>et al.</i> 2014. PLOS One e85956
CC-A1.8	KC310494	Shamblin <i>et al.</i> 2014. PLOS One e85956
CC-A1.9	KF021625	Stiebens <i>et al.</i> 2013. Proceedings of the Royal Society B, Biological Sciences 280:20130305
CC-A2.1	EU179445	Monzón-Argüello <i>et al.</i> 2010. Conservation Genetics 11:1871-1884
CC-A2.2	EU179446	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A2.3	EU179447	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A2.4	EU179448	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A2.5	EU179449	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A2.6	EU179451	P. Dutton: Peter.Dutton@noaa.gov
CC-A2.7		Original author(s) have withdrawn this haplotype sequence because of an error in the sequence submitted to ACCSTR. This haplotype designation has been removed from the database and will not be assigned to other sequences to avoid confusion.
CC-A2.8	FM200217	Clusa <i>et al.</i> 2013. Journal of Experimental Marine Biology and Ecology 439:15-24; Garofalo <i>et al.</i> 2013. Aquatic Conservation 6:868-884
CC-A2.9	GQ344479	Saied <i>et al.</i> 2012. Marine Ecology Progress Series 450:207-218; Garofalo <i>et al.</i> 2013. Aquatic Conservation 6:868-884
CC-A2.10		LaCasella <i>et al.</i> 2013 Marine Ecology Progress Series 22:73-84
CC-A2.11	JQ340911	Shamblin <i>et al.</i> 2012. Marine Ecology Progress Series 469:145-160
CC-A2.12		Andrea Splendiani

CC-A2.13		Amy Frey and Peter Dutton Peter.dutton@noaa.gov
CC-A2.14		Can Yilmaz, ylmzcn@yahoo.com
CC-A2.15		Erin LaCasella and Peter Dutton (erin.lacasella@noaa.gov)
CC-A3.1	EU179455	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A3.2	HM179461	Yilmaz et al. 2011. Biochemical Systematics and Ecology 39:266-276
CC-A3.3		Erin LaCasella and Peter Dutton (erin.lacasella@noaa.gov)
CC-A4.1	KF840723	Shamblin <i>et al.</i> 2014. PLOS One e85956
CC-A4.2	KF840725	Shamblin <i>et al.</i> 2014. PLOS One e85956
CC-A4.3	KF840724	Shamblin <i>et al.</i> 2014. PLOS One e85956
CC-A4.4	MZ466567	Sibelle Vilaça and Sarah Vargas
CC-A5.1	EU179459	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A6.1	JQ350705	Yilmaz et al. 2012 Acta Herpetologica. 7:155-162
CC-A7.1	EU179460	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A7.2	EU179461	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A8.1	EU179462	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A9.1	EU179463	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A10.1	EU179440	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A10.2		Original author(s) have withdrawn this haplotype sequence because of an error in the sequence submitted to ACCSTR. This haplotype designation has been removed from the database and will not be assigned to other sequences to avoid confusion.
CC-A10.3		Original author(s) have withdrawn this haplotype sequence because of an error in the sequence submitted to ACCSTR. This haplotype designation has been removed from the database and will not be assigned to other sequences to avoid confusion.
CC-A10.4	JQ350706	Yilmaz et al. 2012 Acta Herpetologica. 7:155-162
CC-A11.1	EU179441	P.Dutton: Peter.Dutton@noaa.gov
		Alan Bolten abolten@ufl.edu
CC-A11.2	FJ817091	Monzón-Argüello et al. 2010. Conservation Genetics 11:1871-1884
CC-A11.3	JF922016	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A11.4		LaCasella, Frey, & Dutton: peter.dutton@noaa.gov
CC-A11.5	JQ082299	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A11.6	KF770994	Shamblin et al. 2014. PLOS One e85956
CC-A11.7	KT005406	Jérôme Bourjea Jerome.Bourjea@ifremer.fr
CC-A12.1	JF922017	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A13.1	EU179442	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A14.1	EU179443	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A15.1	EU179444	LaCasella et al. 2013 Marine Ecology Progress Series 22:73-84
CC-A17.1	EU483082	Monzón-Argüello et al. 2010. Conservation Genetics 11:1871-1884

CC-A17.2	EU483083	Monzón-Argüello et al. 2010. Conservation Genetics 11:1871-1884
CC-A19.1		Amy Frey and Peter Dutton Peter.dutton@noaa.gov
CC-A20.1	EU179452	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A21.1	EU179453	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A24.1	KF840726	Shamblin et al. 2014. PLOS One e85956
CC-A25.1		Juan Manuel Cardozo juancebal@gmail.com
CC-A26.1	HQ728521	Saied et al. 2012. Marine Ecology Progress Series 450:207-218.
CC-A27.1	EU179454	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A28.1	FM955539	Garofalo et al. 2013. Aquatic Conservation 6:868-884
CC-A29.1	JF837821	Clusa <i>et al.</i> 2013. Journal of Experimental Marine Biology and Ecology 439:15-24
CC-A31.1	AM949678.	L. Garofalo: luisa.garofalo@uniroma2.it
CC-A32.1	JF837822	Clusa <i>et al.</i> 2013. Journal of Experimental Marine Biology and Ecology 439:15-24
CC-A36.1	EU179456	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A36.2	JF922018	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A37.1	MT833384	Erin LaCasella and Peter Dutton (erin.lacasella@noaa.gov)
CC-A41.1	EU179458	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A42.1	JF922019	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A43.1	HQ908657	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A44.1	EU179450	P. Dutton: Peter.Dutton@noaa.gov
CC-A46.1		Alan Bolten abolten@ufl.edu
CC-A47.1	EU483084	Monzón-Argüello et al. 2010. Conservation Genetics 11:1871-1884
CC-A49.1		LaCasella <i>et al.</i> 2013 Marine Ecology Progress Series 22:73-84
CC-A50.1	JF837823	Clusa <i>et al.</i> 2013. Journal of Experimental Marine Biology and Ecology 439:15-24
CC-A51.1	HQ908658	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A52.1	HM366724	Yilmaz et al. 2011. Biochemical Systematics and Ecology 39:266-276.
CC-A53.1	HM179462	Yilmaz et al. 2011. Biochemical Systematics and Ecology 39:266-276.
CC-A55.1	KJ806205	Garofalo <i>et al.</i> 2013. Aquatic Conservation 23:868-884
CC-A59.1	JF922014	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A60.1	JF922015	Shamblin et al. 2012. Marine Ecology Progress Series 469:145-160
CC-A61.1		LaCasella, Frey, & Dutton: peter.dutton@noaa.gov
CC-A61.2		Yakup Kaska: yakupkaska@gmail.com
CC-A62.1		LaCasella, Frey, & Dutton: peter.dutton@noaa.gov

CC-A63.1	JF957336	Monzón-Argüello <i>et al.</i> 2012. Journal of the Royal Society Interface 9: 1725-1732
CC-A64.1	JF957337	Monzón-Argüello <i>et al.</i> 2012. Journal of the Royal Society Interface 9: 1725-1732
CC-A65.1	JF837824	Clusa <i>et al.</i> 2013. Journal of Experimental Marine Biology and Ecology 439:15-24
CC-A66.1	KJ806206	Physiological and Biochemical Zoology 89: 473-486
CC-A67.1	KT855091	L.V. Hurtado Gomez: lei_honey4@hotmail.com
CC-A68.1	JN039304	Saied <i>et al.</i> 2012. Marine Ecology Progress Series 450:207-218.
CC-A69.1	KF021626	Stiebens <i>et al.</i> 2013. Proceedings of the Royal Society B, Biological Sciences 280:20130305
CC-A71.1	KX929314	Splendiani <i>et al.</i> 2017. The European Zoological Journal 84:566-574
CC-A72.1	KT005407	Jérôme Bourjea (Jerome.Bourjea@ifremer.fr)
CC-A73.1	MF182628	Tolve <i>et al.</i> 2018 Marine Biology 165:68.
CC-A74.1	MT833383	Erin LaCasella and Peter Dutton (erin.lacasella@noaa.gov)
CC-A76.1		Rita Castilho (rcastil@ualg.pt)

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