

## Supplementary material

### Walking, swimming or hitching a ride? Phylogenetics and biogeography of the walking shark genus *Hemiscyllium*

Christine L. Dudgeon<sup>A,H</sup>, Shannon Corrigan<sup>B</sup>, Lei Yang<sup>B</sup>, Gerry R. Allen<sup>C</sup>, Mark V. Erdmann<sup>D,E</sup>, Fahmi<sup>A,F</sup>, Hagi Y. Sugeha<sup>F</sup>, William T. White<sup>G</sup> and Gavin J. P. Naylor<sup>B</sup>

<sup>A</sup>The University of Queensland, School of Biomedical Sciences, Saint Lucia, Qld, 4072 Australia.

<sup>B</sup>Florida Museum of Natural History, Dickinson Hall, 1659 Museum Road, University of Florida, Gainesville, FL 32611, USA.

<sup>C</sup>Department of Aquatic Zoology, Western Australian Museum, Locked Bag 49, Welshpool DC, Perth, WA 6986, Australia.

<sup>D</sup>Conservation International Indonesia Marine Program, Jalan Dr Muwardi 17, Renon, Denpasar 80235, Indonesia.

<sup>E</sup>California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118, USA.

<sup>F</sup>Research Centre for Oceanography, Indonesian Institute of Sciences (P2O LIPI), Jalan Pasir Putih 1, Ancol Timur, Jakarta 14430, Indonesia.

<sup>G</sup>CSIRO Australian National Fish Collection, National Research Collections Australia, GPO Box 1538, Hobart, Tas. 7000, Australia.

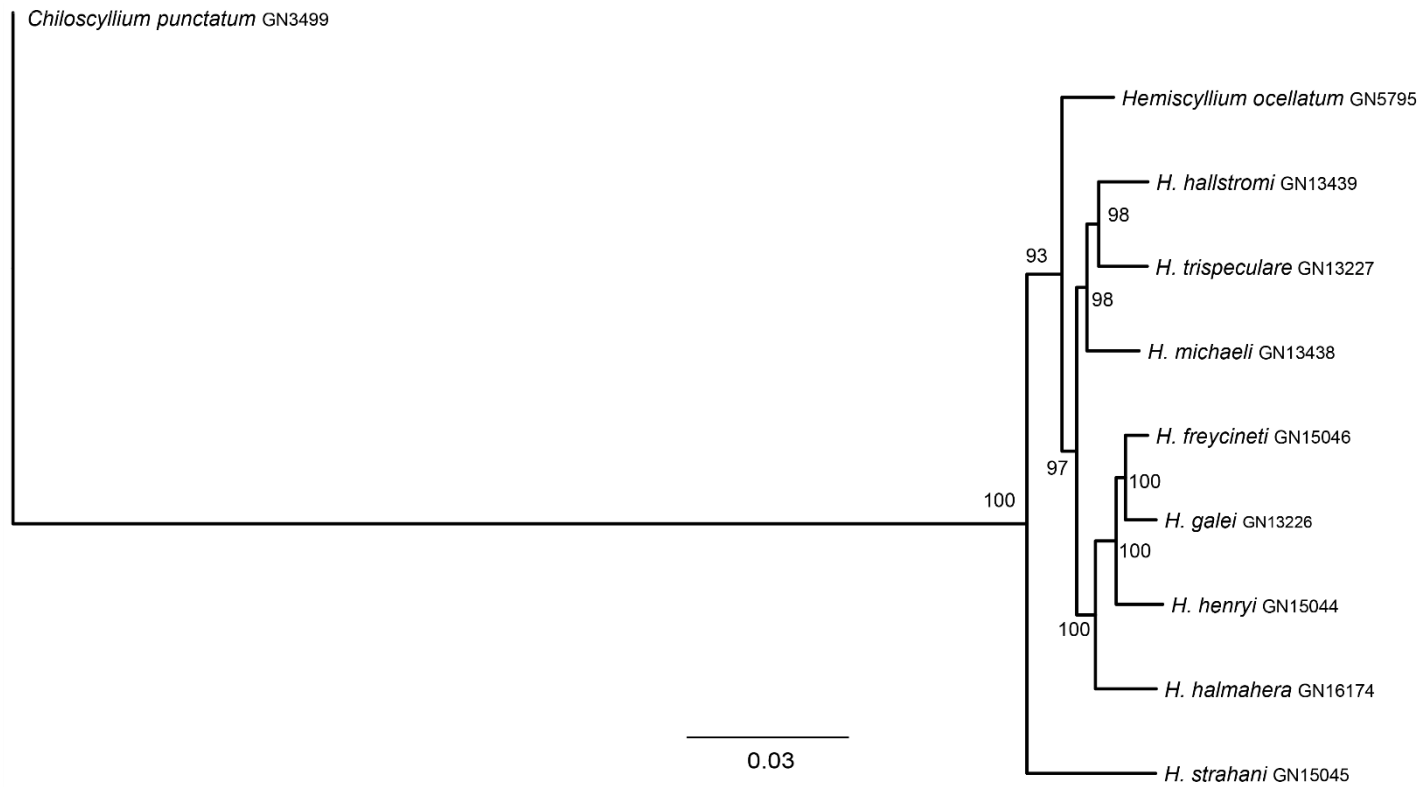
<sup>H</sup>Corresponding author. Email: [c.dudgeon@uq.edu.au](mailto:c.dudgeon@uq.edu.au)

**Table S1. Collection details for *Hemiscyllium* samples**

Species	Sample code	Locality	Latitude	Longitude	Collection date	Collector	Specimen details
<i>Hemiscyllium henryi</i>	H01	Selat Iris, Kaimana, Indonesia	3.909°S	134.161°E	24-Apr-2006	M. Erdmann and G. Allen	Holotype NCIP 6323
<i>Hemiscyllium henryi</i>	H12/GN15044	Triton Bay, Kaimana, Indonesia	3.834°S	134.097°E	1-Jan-2007	M. Erdmann and G. Allen	Paratype USNM 390771
<i>Hemiscyllium henryi</i>	H13	Triton Bay, Kaimana, Indonesia	3.834°S	134.097°E	1-Jan-2007	M. Erdmann and G. Allen	Paratype WAM P.32889–001
<i>Hemiscyllium henryi</i>	H14	Triton Bay, Kaimana, Indonesia	3.834°S	134.097°E	1-Jan-2007	M. Erdmann and G. Allen	
<i>Hemiscyllium ocellatum</i>	H02	Heron Island, Australia	23.450°S	151.917°E	2004	C. Chapman	
<i>Hemiscyllium ocellatum</i>	H03	Heron Island, Australia	23.450°S	151.917°E	2004	C. Chapman	
<i>Hemiscyllium ocellatum</i>	H04	Heron Island, Australia	23.450°S	151.917°E	2004	C. Chapman	
<i>Hemiscyllium ocellatum</i>	H05	Heron Island, Australia	23.450°S	151.917°E	2004	C. Chapman	
<i>Hemiscyllium ocellatum</i>	H07	Heron Island, Australia	23.450°S	151.917°E	2004	C. Chapman	
<i>Hemiscyllium ocellatum</i>	H20	Lizard Island, Australia	14.685°S	145.453°E	1-Sep-2013	CSIRO	GT3152
<i>Hemiscyllium ocellatum</i>	GN5795	Cairns, Australia	16.867°S	146.000°E		J. Caira	
<i>Hemiscyllium freycineti</i>	H08	Kri Island, Raja Ampat, Indonesia	0.556°S	130.678°E	8-Sep-2006	M. Erdmann	
<i>Hemiscyllium freycineti</i>	H09/GN15046	Kri Island, Raja Ampat, Indonesia	0.556°S	130.678°E	8-Sep-2006	M. Erdmann	
<i>Hemiscyllium freycineti</i>	H10	Kri Island, Raja Ampat, Indonesia	0.556°S	130.678°E	8-Sep-2006	M. Erdmann	
<i>Hemiscyllium freycineti</i>	H11	Kri Island, Raja Ampat, Indonesia	0.556°S	130.678°E	8-Sep-2006	M. Erdmann	
<i>Hemiscyllium freycineti</i>	H27	Kri Island, Raja Ampat, Indonesia	0.556°S	130.678°E	20-Aug-2013	M. Erdmann	
<i>Hemiscyllium freycineti</i>	H53	Aljui Bay, Raja Ampat, Indonesia	0.189°S	130.254°E	5-Feb-2015	M. Erdmann and G. Allen	
<i>Hemiscyllium galei</i>	H15	Rumberpon Island, Cendrawasih Bay, Indonesia	1.880°S	134.209°E	19-Feb-2007	M. Erdmann	Holotype NCIP 6324
<i>Hemiscyllium galei</i>	H16	Rumberpon Island, Cendrawasih Bay, Indonesia	1.880°S	134.209°E	19-Feb-2007	M. Erdmann	Paratype WAM P.32888–001

Species	Sample code	Locality	Latitude	Longitude	Collection date	Collector	Specimen details
<i>Hemiscyllium galei</i>	H40	Kwatisore, Cendrawasih Bay, Indonesia	3.249°S	134.959°E	13-Jul-2013	M. Erdmann	
<i>Hemiscyllium galei</i>	H41	Kwatisore, Cendrawasih Bay, Indonesia	3.249°S	134.959°E	13-Jul-2013	M. Erdmann	
<i>Hemiscyllium galei</i>	H42	Kwatisore, Cendrawasih Bay, Indonesia	3.249°S	134.959°E	13-Jul-2013	M. Erdmann	
<i>Hemiscyllium galei</i>	H43	Kwatisore, Cendrawasih Bay, Indonesia	3.249°S	134.959°E	13-Jul-2013	M. Erdmann	
<i>Hemiscyllium galei</i>	H44	North Yapen, Cendrawasih Bay, Indonesia	1.630°S	135.793°E	17-Jul-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium galei</i>	GN13226	Rumberpon Island, Cendrawasih Bay, Indonesia	3°53.76°S	134°06.64°E	7-Nov-2008	M. Erdmann	
<i>Hemiscyllium michaeli</i>	H17/GN13438	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	2003	M. Erdmann and G. Allen	
<i>Hemiscyllium michaeli</i>	H35	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	13-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium michaeli</i>	H36	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	13-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium michaeli</i>	H37	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	13-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium michaeli</i>	H38	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	13-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium michaeli</i>	H39	Nuakata, Milne Bay, PNG	10.311°S	150.975°E	13-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium halmahera</i>	HT01	Ternate, Halmahera, Indonesia	0.849°S	127.312°E	1-May-2012	M. Erdmann	Holotype MZB 21248
<i>Hemiscyllium halmahera</i>	HT02	Ternate, Halmahera, Indonesia	0.849°S	127.312°E	1-May-2012	M. Erdmann	Paratype WAM P. 33784–001
<i>Hemiscyllium halmahera</i>	H45	Weda Bay, Halmahera, Indonesia	0.466°S	127.946°E	20-Jul-2013	M. Erdmann	
<i>Hemiscyllium halmahera</i>	H46/GN16174	Weda Bay, Halmahera, Indonesia	0.466°S	127.946°E	20-Jul-2013	M. Erdmann	
<i>Hemiscyllium trispeculare</i>	HTri01	Taberfane, Aru Islands, Indonesia	6.185°S	134.143°E	28-Jan-2013	M. Erdmann and G. Allen	NCIP 6541
<i>Hemiscyllium trispeculare</i>	HTri02	Taberfane, Aru Islands, Indonesia	6.185°S	134.143°E	28-Jan-2013	M. Erdmann and G. Allen	NCIP 6542
<i>Hemiscyllium trispeculare</i>	GN13227	Taberfane, Aru Islands, Indonesia	6.185°S	134.143°E	28-Jan-2013	M. Erdmann	

Species	Sample code	Locality	Latitude	Longitude	Collection date	Collector	Specimen details
<i>Hemiscyllium trispeculare</i>	H48	Channel Island, Darwin, Australia	12.556°S	130.873°E	7-Oct-2013	D. Wedd and N. Hill	
<i>Hemiscyllium trispeculare</i>	H49	Channel Island, Darwin, Australia	12.554°S	130.876°E	5-Oct-2013	M. Hammer	A 02716, voucher TBA
<i>Hemiscyllium trispeculare</i>	H50	K/09 Adele Island, Kimberley, Australia	15.517°S	123.150°E	1-Jan-2009	S. Morrison	P33274–004
<i>Hemiscyllium trispeculare</i>	H51	K/10 Cassini Island, Kimberley, Australia	13.950°S	125.633°E	1-Jan-2010	S. Morrison	P33416–002
<i>Hemiscyllium strahani</i>	H21/GN015045	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	
<i>Hemiscyllium strahani</i>	H22	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	NCIP 6547
<i>Hemiscyllium strahani</i>	H23	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	
<i>Hemiscyllium strahani</i>	H24	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	
<i>Hemiscyllium strahani</i>	H25	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	
<i>Hemiscyllium strahani</i>	H26	Depapre Bay, Jayapura, Indonesia	2.416°S	140.362°E	17-Aug-2013	M. Erdmann	
<i>Hemiscyllium hallstromi</i>	H28/GN13439	Lion Island, Bootless Bay, PNG	9.533°S	147.291°E	7-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H29	Lion Island, Bootless Bay, PNG	9.533°S	147.291°E	7-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H30	Lion Island, Bootless Bay, PNG	9.533°S	147.291°E	7-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H31	Loloata Island, Bootless Bay, PNG	9.581°S	147.278°E	8-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H32	Loloata Island, Bootless Bay, PNG	9.581°S	147.278°E	8-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H33	Loloata Island, Bootless Bay, PNG	9.581°S	147.278°E	8-Jun-2013	M. Erdmann and G. Allen	
<i>Hemiscyllium hallstromi</i>	H34	Loloata Island, Bootless Bay, PNG	9.581°S	147.278°E	8-Jun-2013	M. Erdmann and G. Allen	



**Fig. S1.** Phylogenetic tree showing the relationships among *Hemiscyllium* species, relative to the outgroup *Chiloscylidium punctatum*. The tree was derived from a Maximum Likelihood (ML) analysis of an alignment of the protein coding components of the mitochondrial genomes (11 430 sites). Numbers on the nodes represent the ML bootstrap values.