



Indian Journal of Geo Marine Sciences
Vol. 52 (02), February 2023, pp. 65-78
DOI: 10.56042/ijms.v52i02.6928



Molecular phylogeny reconstruction and biogeographic pattern of Rays (Elasmobranchii: Myliobatiformes) from Indian coastal waters

Amit Kumar^{*,a,b} & S Prakash^{*,a,b}

^aCenter for Climate Change Studies, Sathyabama Institute of Science and Technology,
Rajiv Gandhi Salai, Chennai, Tamil Nadu – 600 119, India

^bSathyabama Marine Research Station, Sallimalai Street, Rameswaram, Tamil Nadu – 623 526, India

*[E-mails: amit.kumar.szn@gmail.com (AK); prakash.s1311@gmail.com (SP)]

Sr. No	Contents	Page No.
1	Table S1 — List of Myliobatiformes used in this study	ii
2	Table S2 — List of individuals used for TCS network	xiii
3	Table S3 — Pairwise genetic distance among Myliobatiformes	xvii

Supplementary Tables

Table S1 — List of Myliobatiformes used in this study

Accession number	Name	References
MT308592	<i>Aetobatus ocellatus</i> isolate RA1 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308593	<i>Rhinoptera jayakari</i> isolate RA3 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308594	<i>Neotrygon kuhlii</i> isolate RA4 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308595	<i>Aetobatus ocellatus</i> isolate RA5 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308596	<i>Pastinachus atrus</i> isolate RA6 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308597	<i>Maculabatis gerrardi</i> isolate RA8 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308598	<i>Maculabatis pastinacoides</i> isolate RA9 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308599	<i>Maculabatis gerrardi</i> isolate RA10 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308600	<i>Gymnura poecilura</i> isolate RA11 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308601	<i>Brevitrygon imbricata</i> isolate RA12 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308602	<i>Aetobatus ocellatus</i> isolate RA13 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308603	<i>Brevitrygon imbricata</i> isolate RA14 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308604	<i>Neotrygon kuhlii</i> isolate RA15 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308605	<i>Maculabatis gerrardi</i> isolate RA16 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308606	<i>Neotrygon kuhlii</i> isolate RA17 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308607	<i>Neotrygon kuhlii</i> isolate RA18 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308608	<i>Himantura tulul</i> isolate RA19 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MT308609	<i>Maculabatis gerrardi</i> isolate RA20 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	This study
MN897011	<i>Himantura tulul</i> isolate RA2 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	Kumar <i>et al.</i> , 2020
MN897012	<i>Himantura tulul</i> isolate RA7 cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	Kumar <i>et al.</i> , 2020
KU661963	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG1 cytochrome c oxidase subunit 1 "gene," partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661964	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG2 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661965	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG3 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661966	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG4 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661967	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG5 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KU661969	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG7 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661970	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG8 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661971	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG9 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU661972	<i>Gymnura poecilura</i> isolate CMFRIVIZAGG10 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU821573	<i>Gymnura cf. poecilura</i> Veraval 1 isolate Veraval1 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU821576	<i>Gymnura cf. poecilura</i> Veraval 2 isolate Veraval2 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU821574	<i>Gymnura cf. poecilura</i> Mumbai 1 isolate Mumbai1 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
KU821575	<i>Gymnura cf. poecilura</i> Mumbai 2 isolate Mumbai2 cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2018
MH329420	<i>Hemitrygon bennettii</i> cytochrome oxidase subunit I gene, partial cds; mitochondrial	Mukhta <i>et al.</i> , 2019
JX978320	<i>Gymnura poecilura</i> voucher CIFE:KAK-GC1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978321	<i>Gymnura poecilura</i> voucher CIFE:KAK-GC2 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978322	<i>Gymnura poecilura</i> voucher CIFE:KAK-GC3 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978323	<i>Gymnura poecilura</i> voucher CIFE:KAK-GC4 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978324	<i>Gymnura poecilura</i> voucher CIFE:KAK-GC5 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978325	<i>Himantura gerrardi</i> voucher CIFE:VIZ-HG2 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978329	<i>Neotrygon kuhlii</i> voucher CIFE:VIZ-DK1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978331	<i>Dasyatis lata</i> voucher CIFE:MUM-DL1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978332	<i>Dasyatis lata</i> voucher CIFE:MUM-DL2 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978333	<i>Himantura pastinacoides</i> voucher CIFE:KAK-HP1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978334	<i>Mobula japanica</i> voucher CIFE:KNK-MJ1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978339	<i>Aetobatus narinari</i> voucher CIFE:RMS-AN1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
JX978340	<i>Pastinachus sephen</i> voucher CIFE:MND-PS1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
KC175446	<i>Himantura gerrardi</i> cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
KC175452	<i>Mobula japanica</i> cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2014 & Pavan Kumar <i>et al.</i> , 2015
MG017604	<i>Neotrygon indica</i> voucher CIFEFGB-NKVS KP3 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2019
MG017603	<i>Neotrygon indica</i> voucher CIFEFGB-NKVS KP2 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2019
MG017602	<i>Neotrygon indica</i> voucher CIFEFGB-NKVS KP1 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2019

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Accession number	References
MG017600	<i>Neotrygon indica</i> voucher CIFEFGB-NKGMF3 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Pavan Kumar <i>et al.</i> , 2019
MK548361	<i>Neotrygon indica</i> voucher EBRC/31(G38) cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Kundu <i>et al.</i> , 2019
MK548360	<i>Neotrygon indica</i> voucher EBRC/11(G21) cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Kundu <i>et al.</i> , 2019
MK548359	<i>Neotrygon indica</i> voucher EBRC/10(G20) cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Kundu <i>et al.</i> , 2019
MK548358	<i>Neotrygon indica</i> voucher EBRC/32(G34) cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Kundu <i>et al.</i> , 2019
MK548357	<i>Neotrygon indica</i> voucher EBRC/12(G22) cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Kundu <i>et al.</i> , 2019
KY489759	<i>Mobula japonica</i> cytochrome oxidase subunit I gene, partial cds; mitochondrial	Shirke <i>et al.</i> , 2017
JN982361	<i>Himantura pastinacoides</i> cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Sathyan <i>et al.</i> , 2012
HM467797	<i>Taeniura meyeri</i> voucher NBFGR:CHN 146 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
HM467799	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN 156 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
HM467801	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN M34 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899353	<i>Himantura leoparda</i> voucher NBFGR:CHN:HL49 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899354	<i>Himantura imbricata</i> voucher NBFGR:CHN:K52 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899355	<i>Himantura imbricata</i> voucher NBFGR:CHN:N33 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899356	<i>Himantura imbricata</i> voucher NBFGR:CHN:N47 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899357	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:N58 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899358	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:N80 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899359	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:N7 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899360	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:Q3 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899361	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:Q8 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899362	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:Q9 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899363	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:Q10 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899364	<i>Himantura gerrardi</i> voucher NBFGR:CHN:N45 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899366	<i>Pastinachus sephen</i> voucher NBFGR:CHN:BM19 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899367	<i>Pastinachus sephen</i> voucher NBFGR:CHN:BM44 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899368	<i>Pastinachus sephen</i> voucher NBFGR:CHN:BM22 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899369	<i>Pastinachus sephen</i> voucher NBFGR:CHN:BM37 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899370	<i>Pastinachus atrus</i> voucher NBFGR:CHN:R93 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF899372	<i>Pastinachus atrus</i> voucher NBFGR:CHN:R103 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899373	<i>Pastinachus atrus</i> voucher NBFGR:CHN:R104 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899374	<i>Pastinachus</i> sp. A KKB-2014 voucher NBFGR:CHN:R102 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899375	<i>Pastinachus</i> sp. A KKB-2014 voucher NBFGR:CHN:R101 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899465	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:A87 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899466	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:A84 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899467	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:A85 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899468	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:A86 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899469	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:R112 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899470	<i>Himantura</i> sp. A KKB-2014 voucher NBFGR:CHN:R111 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899471	<i>Himantura granulata</i> voucher NBFGR:CHN:R99 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899472	<i>Himantura granulata</i> voucher NBFGR:CHN:R98 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899473	<i>Himantura fai</i> voucher NBFGR:CHN:P35 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899474	<i>Himantura fai</i> voucher NBFGR:CHN:P14 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899475	<i>Himantura fai</i> voucher NBFGR:CHN:P34 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899476	<i>Himantura gerrardi</i> voucher NBFGR:CHN:HJ27 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899477	<i>Himantura gerrardi</i> voucher NBFGR:CHN:R20 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899478	<i>Himantura gerrardi</i> voucher NBFGR:CHN:R163 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899479	<i>Himantura gerrardi</i> voucher NBFGR:CHN:R26 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899480	<i>Himantura gerrardi</i> voucher NBFGR:CHN:R31 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899481	<i>Himantura gerrardi</i> voucher NBFGR:CHN:BM28 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899482	<i>Himantura gerrardi</i> voucher NBFGR:CHN:BM9 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899483	<i>Himantura gerrardi</i> voucher NBFGR:CHN:BM43 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899484	<i>Himantura gerrardi</i> voucher NBFGR:CHN:165 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899485	<i>Himantura gerrardi</i> voucher NBFGR:CHN:HU1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899486	<i>Himantura gerrardi</i> voucher NBFGR:CHN:132 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899487	<i>Himantura gerrardi</i> voucher NBFGR:CHN:KV11 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF899489	<i>Himantura</i> sp. C KKB-2014 voucher NBFGR:CHN:R44 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899490	<i>Himantura</i> sp. C KKB-2014 voucher NBFGR:CHN:R45 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899491	<i>Himantura</i> sp. C KKB-2014 voucher NBFGR:CHN:HP1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899492	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:HU42 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899493	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:R47 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899494	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:R46 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899495	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:R48 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899496	<i>Himantura uarnacoides</i> voucher NBFGR:CHN:KK19 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899500	<i>Himantura leoparda</i> voucher NBFGR:CHN:PK60 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899501	<i>Himantura leoparda</i> voucher NBFGR:CHN:PK61 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899502	<i>Himantura leoparda</i> voucher NBFGR:CHN:PK62 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899503	<i>Himantura undulata</i> voucher NBFGR:CHN:BM3 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899504	<i>Himantura undulata</i> voucher NBFGR:CHN:BM4 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899505	<i>Himantura undulata</i> voucher NBFGR:CHN:BM48 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899506	<i>Himantura undulata</i> voucher NBFGR:CHN:BM49 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899507	<i>Himantura uarnak</i> voucher NBFGR:CHN:K42 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899508	<i>Himantura uarnak</i> voucher NBFGR:CHN:K43 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899509	<i>Himantura uarnak</i> voucher NBFGR:CHN:204 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899510	<i>Himantura uarnak</i> voucher NBFGR:CHN:K44 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899511	<i>Himantura uarnak</i> voucher NBFGR:CHN:BM42 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899512	<i>Himantura imbricata</i> voucher NBFGR:CHN:A82 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899513	<i>Himantura imbricata</i> voucher NBFGR:CHN:BM36 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899514	<i>Himantura imbricata</i> voucher NBFGR:CHN:BM38 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899515	<i>Himantura imbricata</i> voucher NBFGR:CHN:A83 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899516	<i>Himantura imbricata</i> voucher NBFGR:CHN:A74 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899517	<i>Himantura imbricata</i> voucher NBFGR:CHN:D32 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899518	<i>Himantura imbricata</i> voucher NBFGR:CHN:KV8 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF899520	<i>Himantura imbricata</i> voucher NBFGR:CHN:197 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899521	<i>Himantura imbricata</i> voucher NBFGR:CHN:198 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899522	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:TK77 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899523	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:HB78 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899524	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:DS1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899525	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:DS2 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899527	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:K16 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899528	<i>Himantura</i> sp. B KKB-2014 voucher NBFGR:CHN:K18 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899609	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN:R24 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899610	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN:R25 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899611	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN:R165 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899612	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN:NK13 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899613	<i>Neotrygon kuhlii</i> voucher NBFGR:CHN:199 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899645	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN:AK38 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899646	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN:AK39 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899647	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN:KM34 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899648	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN:BJ35 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899649	<i>Plesiobatis daviesi</i> voucher NBFGR:CHN:M36 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899654	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN:PK15 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899655	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN:KK34 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899656	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN:57 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899657	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN:KK31 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899658	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN:KK28 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899825	<i>Taeniura meyeni</i> voucher NBFGR:CHN:D92 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899826	<i>Taeniura meyeni</i> voucher NBFGR:CHN:D93 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899827	<i>Taeniura meyeni</i> voucher NBFGR:CHN:TM146 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899828	<i>Taeniura meyeni</i> voucher NBFGR:CHN:BJ149 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF913237	<i>Himantura jenkinsii</i> voucher NBFGR:CHN:BT2 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF913238	<i>Himantura jenkinsii</i> voucher NBFGR:CHN:BT3 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KJ749656	<i>Dasyatis microps</i> isolate D94 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KJ749657	<i>Dasyatis microps</i> isolate J53 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KJ749658	<i>Dasyatis microps</i> isolate J54 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KJ749659	<i>Dasyatis microps</i> isolate D96 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KJ749660	<i>Dasyatis microps</i> isolate D102 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KT766193	<i>Urogymnus asperrimus</i> voucher NBFGR:CHN UA1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KT766194	<i>Urogymnus asperrimus</i> voucher NBFGR:CHN UA2 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899442	<i>Gymnura poecilura</i> voucher NBFGR:CHN:R168 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899443	<i>Gymnura poecilura</i> voucher NBFGR:CHN:R167 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899444	<i>Gymnura poecilura</i> voucher NBFGR:CHN:D1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899445	<i>Gymnura poecilura</i> voucher NBFGR:CHN:TK69 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899446	<i>Gymnura poecilura</i> voucher NBFGR:CHN:TK76 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899447	<i>Gymnura</i> sp. A KKB-2014 voucher NBFGR:CHN:P33 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899448	<i>Gymnura</i> sp. A KKB-2014 voucher NBFGR:CHN:P2 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899449	<i>Gymnura</i> sp. A KKB-2014 voucher NBFGR:CHN:P4 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899450	<i>Gymnura</i> sp. A KKB-2014 voucher NBFGR:CHN:P5 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899564	<i>Manta birostris</i> voucher NBFGR:CHN:D65 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899565	<i>Manta birostris</i> voucher NBFGR:CHN:BS11 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899566	<i>Manta birostris</i> voucher NBFGR:CHN:P42 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899567	<i>Manta birostris</i> voucher NBFGR:CHN:D66 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899568	<i>Manta birostris</i> voucher NBFGR:CHN:D67 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899569	<i>Manta birostris</i> voucher NBFGR:CHN:P43 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899570	<i>Mobula japonica</i> voucher NBFGR:CHN:KV19 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899571	<i>Mobula japonica</i> voucher NBFGR:CHN:MJ1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899572	<i>Mobula japonica</i> voucher NBFGR:CHN:MJ2 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF899574	<i>Mobula japanica</i> voucher NBFGR:CHN: MJ4 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899575	<i>Mobula japanica</i> voucher NBFGR:CHN: MJ5 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899576	<i>Mobula tarapacana</i> voucher NBFGR:CHN: P28 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899577	<i>Mobula tarapacana</i> voucher NBFGR:CHN: P29 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899578	<i>Mobula tarapacana</i> voucher NBFGR:CHN: P46 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899579	<i>Mobula tarapacana</i> voucher NBFGR:CHN: P47 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899580	<i>Mobula tarapacana</i> voucher NBFGR:CHN: P48 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899581	<i>Mobula kuhlii</i> voucher NBFGR:CHN: MK1 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899582	<i>Mobula kuhlii</i> voucher NBFGR:CHN: MK2 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899583	<i>Mobula kuhlii</i> voucher NBFGR:CHN: MK3 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899584	<i>Aetomylaeus vespertilio</i> voucher NBFGR:CHN: D99 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899585	<i>Aetomylaeus vespertilio</i> voucher NBFGR:CHN: D101 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899586	<i>Aetomylaeus vespertilio</i> voucher NBFGR:CHN: AV76 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899587	<i>Aetomylaeus maculatus</i> voucher NBFGR:CHN: A130 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899588	<i>Aetomylaeus maculatus</i> voucher NBFGR:CHN: A131 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899589	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: P17 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899590	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: P18 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899591	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: D100 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899592	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: D95 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899593	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: AO48 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899594	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: P49 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899595	<i>Aetobatus ocellatus</i> voucher NBFGR:CHN: J52 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899596	<i>Aetobatus</i> sp. A KKB-2014 voucher NBFGR:CHN: J60 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899597	<i>Aetobatus</i> sp. A KKB-2014 voucher NBFGR:CHN: J61 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899679	<i>Rhinoptera jayakari</i> voucher NBFGR:CHN: P39 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899680	<i>Rhinoptera jayakari</i> voucher NBFGR:CHN: J51 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
KF899681	<i>Rhinoptera jayakari</i> voucher NBFGR:CHN: J47 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KF899683	<i>Rhinoptera jayakari</i> voucher NBFGR:CHN:J49 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	Bineesh <i>et al.</i> , 2017
EU541309	<i>Himantura uarnak</i> isolate INAPKKD-SIFT-3 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
EU541310	<i>Dasyatis microps</i> isolate INAPKKD-SIFT-4 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
FJ384700	<i>Himantura uarnak</i> isolate IOBML125 cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
FJ384709	<i>Himantura imbricata</i> isolate IOBML140 cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HM239671	<i>Pteroplatytrygon violacea</i> voucher NBFGR:CHN B57 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
HQ589274	<i>Mobula japanica</i> voucher CF8 RAY10 cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589278	<i>Mobula kuhlii</i> voucher RAY14 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589279	<i>Mobula kuhlii</i> voucher RAY15 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589280	<i>Mobula japanica</i> voucher R8 RAY19 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589281	<i>Mobula japanica</i> voucher R1 RAY20 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589282	<i>Mobula tarapacana</i> voucher RAY1 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589283	<i>Mobula japanica</i> voucher R4 RAY2 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589284	<i>Mobula japanica</i> voucher R5 RAY3 cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589285	<i>Mobula japanica</i> voucher R9 RAY6 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589286	<i>Mobula japanica</i> voucher R13 RAY9 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589288	<i>Mobula tarapacana</i> voucher RAY 21 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589289	<i>Mobula japanica</i> voucher R10 RAY7 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
HQ589290	<i>Mobula japanica</i> voucher R7 RAY4 CUSAT SIF cytochrome oxidase subunit I-like (COI) gene, partial sequence; mitochondrial	NCBI Genbank
KU936204	<i>Pastinachus sephen</i> isolate DFD51 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KC508509	<i>Urogymnus asperrimus</i> isolate CASMBAUTRL16 cytochrome oxidase subunit 1 (COI) gene, partial cds; mitochondrial	NCBI Genbank
KC508510	<i>Pastinachus sephen</i> isolate CASMBAUTRL17 cytochrome oxidase subunit 1 (COI) gene, partial cds; mitochondrial	NCBI Genbank
KC508511	<i>Himantura bleekeri</i> isolate CASMBAUTRL18 cytochrome oxidase subunit 1 (COI) gene, partial cds; mitochondrial	NCBI Genbank
KJ093277	<i>Mobula japanica</i> voucher CIFEFGB-MB-001 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KJ093278	<i>Mobula japanica</i> voucher CIFE-FGB-MA-02 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KJ475198	<i>Mobula japanica</i> voucher CMFRI-DFD-MJ-01 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KJ475200	<i>Himantura gerrardi</i> voucher CMFRI-DFD-HG-03 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KT794001	<i>Neotrygon kuhlii</i> cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KX063640	<i>Aetobatus ocellatus</i> isolate DFD 123 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KX063641	<i>Mobula thurstoni</i> isolate DFD 159 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KY574494	<i>Rhinoptera jayakari</i> cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MF495712	<i>Himantura walga</i> clone GBasu-CU-COI-Hw-Hap-01 cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank
MF495713	<i>Himantura walga</i> clone GBasu-CU-COI-Hw-Hap-02 cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank
MF495714	<i>Gymnura poecilura</i> clone GBasu-CU-COI-Gp-Hap-01 cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank
MF495715	<i>Gymnura poecilura</i> clone GBasu-CU-COI-Gp-Hap-02 cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank
MF495716	<i>Himantura uarnacoides</i> clone GBasu-CU-COI-Hu-Hap-01 cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank
MK331965	<i>Himantura imbricata</i> voucher ZSI/SRC F-33 cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK331966	<i>Himantura imbricata</i> voucher ZSI/SRC F-33A cytochrome c oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422126	<i>Himantura gerrardi</i> isolate R1M cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422127	<i>Himantura gerrardi</i> isolate R2M cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422128	<i>Himantura gerrardi</i> isolate CR02J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422129	<i>Himantura gerrardi</i> isolate CR07J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422130	<i>Himantura leoparda</i> isolate CR03J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422131	<i>Neotrygon</i> sp. CR05J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422132	<i>Neotrygon</i> sp. CR06J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422133	<i>Plesiobatis daviesi</i> isolate C14S cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422134	<i>Rhinoptera</i> sp. CR04J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422135	<i>Aetobatus ocellatus</i> isolate CR08J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422136	<i>Aetobatus ocellatus</i> isolate B62N cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422137	<i>Aetobatus ocellatus</i> isolate B63N cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422138	<i>Aetoplatea zonura</i> isolate PB82 cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422144	<i>Pateobatis jenkinsii</i> isolate H02J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422146	<i>Pastinachus ater</i> isolate RR01J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
MK422147	<i>Taeniura meyeri</i> isolate TM01J cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial	NCBI Genbank
KR003775	<i>Aetobatus narinari</i> cytochrome oxidase subunit I gene, partial cds; mitochondrial	NCBI Genbank

(contd.)

Table S1 — List of Myliobatiformes used in this study (*contd.*)

Accession number	Name	References
KU298467	<i>Himantura gerrardi</i> voucher AQBFUK/FI/280 cytochrome oxidase subunit 1 (CO1) gene	NCBI Genbank
MT237638	<i>Brevitrygon imbricata</i> isolate BiCO1-a cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237639	<i>Brevitrygon imbricata</i> isolate BiCO1-b cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237640	<i>Brevitrygon imbricata</i> isolate BiCO1-c cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237641	<i>Brevitrygon imbricata</i> isolate BiCO1-d cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237642	<i>Brevitrygon imbricata</i> isolate BiCO1-e cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237643	<i>Brevitrygon imbricata</i> isolate BiCO1-f cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237644	<i>Brevitrygon imbricata</i> isolate BiCO1-g cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237645	<i>Hemitrygon bennettii</i> isolate HbCO1-a cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237646	<i>Hemitrygon bennettii</i> isolate HbCO1-b cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237648	<i>Maculabatis</i> sp. AJ-2020 isolate MaCO1-a cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237649	<i>Maculabatis</i> sp. AJ-2020 isolate MaCO1-b cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237650	<i>Maculabatis</i> sp. AJ-2020 isolate MaCO1-c cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial	NCBI Genbank
MT237651	<i>Pastinachus gracilicaudus</i> isolate PgCO1 cytochrome c oxidase subunit I (COX1)	NCBI Genbank
MT237652	<i>Urogymnus polylepis</i> isolate UpCO1 cytochrome c oxidase subunit I (COX1) gene,	NCBI Genbank
KJ825839	<i>Aetobatus flagellum</i> isolate GP0135 cytochrome oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KJ825838	<i>Dasyatis lata</i> isolate GP0134 cytochrome oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KY400572	<i>Aetobatus flagellum</i> isolate DFD 220 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KY400571	<i>Aetobatus flagellum</i> isolate DFD 221 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KY400576	<i>Himantura imbricata</i> isolate DFD 224 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KY400577	<i>Himantura imbricata</i> isolate DFD 225 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KU936205	<i>Rhinoptera javanica</i> isolate DFD141 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KU936203	<i>Neotrygon kuhlii</i> isolate DFD81 cytochrome c oxidase subunit 1 (co 1) gene, partial cds; mitochondrial	NCBI Genbank
KU936202	<i>Manta birostris</i> isolate DFD143 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KU936201	<i>Himantura gerrardi</i> isolate DFD258 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KU936200	<i>Gymnura poecilura</i> isolate DFD68 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank
KU936199	<i>Dasyatis microps</i> isolate DFD80 cytochrome c oxidase subunit 1 (CO1) gene, partial cds; mitochondrial	NCBI Genbank

Table S2 — List of individuals used for TCS network

Location	GenBank Accession no.	References
<i>Gymnura poecilura</i>		
India:Mumbai	>KU821574.1	Mukhta <i>et al.</i> , 2019
India:Mumbai	>KU821575.1	Mukhta <i>et al.</i> , 2019
India: Gujrat	>KU821573.1	Mukhta <i>et al.</i> , 2019
India: Gujrat	>KU821576.1	Mukhta <i>et al.</i> , 2019
India: Kolkata	>MF495714.1	
India: Kolkata	>MF495710.1	
India: Kolkata	>MF495715.1	
India:vizag	>KU661963.1	Mukhta <i>et al.</i> , 2019
India:Vizag	>KU661972.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661964.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661965.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661966.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661967.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661968.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661969.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661970.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KU661971.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887542.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887543.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887544.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887545.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887546.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887547.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887548.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887549.1	Mukhta <i>et al.</i> , 2019
India:vizag	>KT887550.1	Mukhta <i>et al.</i> , 2019
India	>KU936200.1	Direct submission
India	>JX978320.1	Pavan Kumar <i>et al.</i> , 2014
India	>JX978321.1	Pavan Kumar <i>et al.</i> , 2014
India	>JX978322.1	Pavan Kumar <i>et al.</i> , 2014
India	>JX978323.1	Pavan Kumar <i>et al.</i> , 2014
India	>JX978324.1	Pavan Kumar <i>et al.</i> , 2014
India:kollam	>KF899444.1	Bineesh <i>et al.</i> ,
India:kollam	>KF899443.1	Bineesh <i>et al.</i> ,
India:kollam	>KF899442.1	Bineesh <i>et al.</i> ,
India:kollam	>KF899445.1	Bineesh <i>et al.</i> ,
India:kollam	>KF899446.1	Bineesh <i>et al.</i> ,
India:Mumbai	>KF899448.1	Bineesh <i>et al.</i> ,
India:Mumbai	>KF899447.1	Bineesh <i>et al.</i> ,
India:Mumbai	>KF899449.1	Bineesh <i>et al.</i> ,
India:Mumbai	>KF899450.1	Bineesh <i>et al.</i> ,
India:Tamilnadu	>RA11	
Bangladesh	>MN458407.1	
Malaysia: Kuantan	>MG774921.1	
Malaysia: Kuantan	>MG774920.1	
Malaysia: Kuantan	>MG774912.1	
Malaysia: Kuantan	>MG774911.1	

(contd.)

Table S2 — List of individuals used for TCS network (*contd.*)

Location	GenBank Accession no.	References
Malaysia: Kota Kinabalu"	>MG774908.1	
Malaysia: Dungun"	>MG774901.1	
Malaysia: Dungun"	>MG774900.1	
Bangladesh	>MH842007.1	
Bangladesh	>MH841989.1	
Bangladesh	>MH429308.1	
Bangladesh	>MH429307.1	
Saudia Arabia	>KU499714.1	
Saudia Arabia	>KU499632.1	
Bangladesh: Ganges Fan, Cox's Bazar, Chittagong	>MH230947.1	
Malaysia	>MG792090.1	
Malaysia	>MG792089.1	
Malaysia	>MG792087.1	
Malaysia	>MG792086.1	
Malaysia	>MG792085.1	
Malaysia	>MG792081.1	
Malaysia	>MG792073.1	
Malaysia	>MG792072.1	
Malaysia	>MG792071.1	
Bangladesh	>MG931938.1	
Indonesia: Jakarta Raya	>EU398804.1	Ward <i>et al.</i> , 2016
Qatar	>HQ955942.1	iBOL
Qatar	>GU673398.1	iBOL
Qatar	>GU673403.1	iBOL
<i>Himantura tutul</i>		
Zangibar	>JX263335.1	Arlyza <i>et al.</i> , 2013
Southercoast of java off Jogjakarta	>JX263334.1	Arlyza <i>et al.</i> , 2013
Bali sea	>JX263333.1	Arlyza <i>et al.</i> , 2013
Sunda strait	>JX263332.1	Arlyza <i>et al.</i> , 2013
Sunda strait	>JX263331.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263330.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263329.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263328.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263327.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263326.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263325.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263324.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263323.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263322.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263321.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263320.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263319.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263318.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263317.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263316.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263315.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263314.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263313.1	Arlyza <i>et al.</i> , 2013

(contd.)

Table S2 — List of individuals used for TCS network (*contd.*)

Location	GenBank Accession no.	References
Batang, Java Sea	>JX263311.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263310.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263309.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263308.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263307.1	Arlyza <i>et al.</i> , 2013
Batang, Java Sea	>JX263306.1	Arlyza <i>et al.</i> , 2013
India:Kochi	>KF899509.1	
India:Kochi	>KF899511.1	
India:Kochi	>KF899507.1	
India:Kochi	>KF899508.1	
India:Kochi	>KF899510.1	
India:Tamil Nadu	>KC508509.1	
India:Tamil Nadu	>RA2	
India:Tamil Nadu	>RA7	
India:Tamil Nadu	>RA19	
India:Mumbai	>KR003775.1	
India:Mumbai	>KF899353.1	
Malaysia: Kuantan	>MG774922.1	
Malaysia: Kuantan	>MG774915.1	
Malaysia: Kuantan	>MG774913.1	
"Malaysia: Dungun	>MG774903.1	
"Malaysia: Dungun	>MG774902.1	
Malaysia	>MG792125.1	
Malaysia	>MG792124.1	
Malaysia	>MG792113.1	
Malaysia	>MG792112.1	
Malaysia	>MG792101.1	
Malaysia	>MG792078.1	
Malaysia: Sandakan	>KM072998.1	Lim <i>et al.</i> , 2016
Malaysia: Sandakan	>KM072997.1	Lim <i>et al.</i> , 2016
Malaysia: Sandakan	>KM072996.1	Lim <i>et al.</i> , 2016
<i>Brevitrygon imbricata</i>		
India:Orrisa	>MT237644	
India:Orrisa	>MT237638	
India:Orrisa	>MT237639	
India:Orrisa	>MT237640	
India:Orrisa	>MT237641	
India:Orrisa	>MT237642	
India:Orrisa	>MT237643	
India: Tamil nadu	>RA14	
India	>KY400576	
India	>KY400577	
India: Tamil Nadu	>FJ384709	
India:Kochi	>KF899519	Binesh <i>et al.</i> ,
India:Kochi	>KF899520	Binesh <i>et al.</i> ,
India:Kochi	>KF899521	Binesh <i>et al.</i> ,
India:Kochi	>KF899516	Binesh <i>et al.</i> ,
India:Kochi	>KF899512	Binesh <i>et al.</i> ,

(contd.)

Table S2 — List of individuals used for TCS network (*contd.*)

Location	GenBank Accession no.	References
India:Kochi	>KF899513	Binesh <i>et al.</i> ,
India:Kochi	>KF899514	Binesh <i>et al.</i> ,
India:Kochi	>KF899517	Binesh <i>et al.</i> ,
India:Kochi	>KF899354	Binesh <i>et al.</i> ,
India:Kochi	>KF899518	Binesh <i>et al.</i> ,
India:Kochi	>KF899355	Binesh <i>et al.</i> ,
India:Kochi	>KF899356	Binesh <i>et al.</i> ,
India	>MK331965	
India	>MK331966	
India:Kochi	>KF899524	Binesh <i>et al.</i> ,
India:Kochi	>KF899525	Binesh <i>et al.</i> ,
India:Kochi	>KF899523	Binesh <i>et al.</i> ,
India:Kochi	>KF899527	Binesh <i>et al.</i> ,
India:Kochi	>KF899528	Binesh <i>et al.</i> ,
India:Kochi	>KF899363	Binesh <i>et al.</i> ,
India:Kochi	>KF899360	Binesh <i>et al.</i> ,
India:Kochi	>KF899361	Binesh <i>et al.</i> ,
India:Kochi	>KF899362	Binesh <i>et al.</i> ,
India:Kochi	>KF899522	Binesh <i>et al.</i> ,
India: Tamil nadu	>RA12	
Arabian Gulf:Saudi Arabia	KU317893	
Arabian Gulf:Saudi Arabia	KU317892	
Bangladesh	MF611582	21.7707 N 89.5553 E"
India: Tamil Nadu	KR003772	
Kuwait: Persian gulf	KF604917	29.0667 N 48.1333 E"
Kuwait: Persian gulf	KF604909	29.0667 N 48.1333 E"
<i>Maculabatisgerrardi</i>		
India: Andhra pradesh	>KC175446	
India	>MK422128	
India	>MK422129	
India	>MK422126	
India	>MK422127	
India	>KU936201	
India: Kerala	>KU298467	
India: Andhra pradesh	>JX978325	
India: Kerala	>KJ475200	
India: Kochi	>KF899486	
India: Kochi	>KF899484	
India: Kochi	>KF899481	
India: Kochi	>KF899483	
India: Kochi	>KF899482	
India: Kochi	>KF899476	
India: Kochi	>KF899485	
India: Kochi	>KF899487	
India: Kochi	>KF899364	
India: Kochi	>KF899478	
India: Kochi	>KF899477	
India: Kochi	>KF899479	

(contd.)

Table S2 — List of individuals used for TCS network (*contd.*)

Location	GenBank Accession no.	References
India: Andhra pradesh	>EU541309	
India: Tamil Nadu	>KC508511	
India: Andhra pradesh	>EU541310	
India: Tamil Nadu	>RA8	
India: Tamil Nadu	>RA10	
India: Tamil Nadu	>RA16	
India: Tamil Nadu	>RA20	
Singapore	MH243130	Wainwright <i>et al.</i> , 2018
Singapore	MH243129	Wainwright <i>et al.</i> , 2018
China	KP091437	Chen <i>et al.</i> , 2014
Indonesia	EU398844	Ward <i>et al.</i> , 2008
Indonesia	EU398843	Ward <i>et al.</i> , 2008
Indonesia	EU398842	Ward <i>et al.</i> , 2008
Indonesia	EU398841	Ward <i>et al.</i> , 2008
Indonesia	EU398840	Ward <i>et al.</i> , 2008
Bangladesh	MH230945	21.2381 N 91.7566 E"
Mynamar	MH235645	14.1058 N 98.0989 E"
Malaysia	KX219587	
Malaysia	KX219583	
Taiwan	JX263424	Arylza <i>et al.</i> ,
Taiwan	JX263423	
South Africa: KwaZulu-Natal, Cape Videl	JF493650	28.13 S 32.56 E"
South Africa: KwaZulu-Natal, Cape Videl	JF493649	28.13 S 32.56 E"
South Africa: KwaZulu-Natal, Cape Videl	JF493648	28.13 S 32.56 E"
Malaysia	DQ108177	Ward <i>et al.</i> , 2005
Malaysia	DQ108164	Ward <i>et al.</i> , 2006
Malaysia	KM073003	Lim <i>et al.</i> , 2016
Malaysia	KM073002	Lim <i>et al.</i> , 2016

Table S3 — Pairwise genetic distance among Myliobatiformes

Within species			Between Species			
	Dist.	%age			Dist.	%age
<i>Aetobatus flagellum</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Aetobatus oceallatus</i>	0.164	16.40
<i>Aetobatus oceallatus</i>	0.00699406	0.70	<i>Aetobatus flagellum</i>	<i>Pastinachus ater</i>	0.208	20.80
<i>Aetobatus sp.</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Rhinoptera jayakari</i>	0.211	21.07
<i>Aetomylaeus vespertilio</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Pastinachus sephen</i>	0.212	21.17
<i>Aetomylaeus maculatus</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Pastinachus gracilicadus</i>	0.212	21.19
<i>Brevitrygon imbricata</i>	0.05513029	5.51	<i>Aetobatus flagellum</i>	<i>Himantura undulata</i>	0.213	21.33
<i>Brevitrygon walga</i>	0.0036191	0.36	<i>Aetobatus flagellum</i>	<i>Pteroplatrygon violacea</i>	0.219	21.87
<i>Gymnura poecilura</i>	0.06866943	6.87	<i>Aetobatus flagellum</i>	<i>Megatrygon microps</i>	0.222	22.15
<i>Gymnura zonura</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Maculabatis sp.</i>	0.224	22.36
<i>Hemitrygon bennetti</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Urogymnus granulatus</i>	0.224	22.39
<i>Himantura leoparda</i>	0.01387167	1.39	<i>Aetobatus flagellum</i>	<i>Aetomylaeus maculatus</i>	0.226	22.59
<i>Himantura tutul</i>	0.00151445	0.15	<i>Aetobatus flagellum</i>	<i>Neotrygon kuhlii</i>	0.226	22.65
<i>Himantura undulata</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Gymnura zonura</i>	0.227	22.65
<i>Maculabatis sp.</i>	0.00070292	0.07	<i>Aetobatus flagellum</i>	<i>Pateobatis jenkinsii</i>	0.228	22.85
<i>Maculabatis gerrardi</i>	0.00776848	0.78	<i>Aetobatus flagellum</i>	<i>Himantura leoparda</i>	0.229	22.92

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species			Between Species			
	Dist.	%age			Dist.	%age
<i>Megatrygon microps</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Urogymnus asperrimus</i>	0.232	23.20
<i>Mobula birostris</i>	0.00137839	0.14	<i>Aetobatus flagellum</i>	<i>Maculabatis gerrardi</i>	0.232	23.21
<i>Mobula kuhlii</i>	0.00767384	0.77	<i>Aetobatus flagellum</i>	<i>Maculabatis uarnacoides</i>	0.235	23.53
<i>Mobula mobular</i>	0.04360387	4.36	<i>Aetobatus flagellum</i>	<i>Hemitrygon bennetti</i>	0.235	23.54
<i>Mobula tarapacana</i>	0.04120706	4.12	<i>Aetobatus flagellum</i>	<i>Maculabatis patinacoides</i>	0.238	23.83
<i>Mobula thurstoni</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Mobula kuhlii</i>	0.239	23.91
<i>Neotrygon kuhlii</i>	0.01032421	1.03	<i>Aetobatus flagellum</i>	<i>Plesiobatis daviesi</i>	0.246	24.64
<i>Pastinachus ater</i>	0.00149481	0.15	<i>Aetobatus flagellum</i>	<i>Pateobatis fai</i>	0.248	24.77
<i>Pastinachus gracilicadus</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Taeniurops meyeri</i>	0.252	25.20
<i>Pastinachus sephen</i>	0	0.00	<i>Aetobatus flagellum</i>	<i>Gymnura poecilura</i>	0.254	25.39
<i>Pateobatis fai</i>	0.00190296	0.19	<i>Aetobatus flagellum</i>	<i>Mobula tarapacana</i>	0.262	26.18
<i>Pateobatis jenkinsii</i>	0.01717013	1.72	<i>Aetobatus flagellum</i>	<i>Brevitrygon imbricata</i>	0.262	26.24
<i>Plesiobatis daviesi</i>	0.00259556	0.26	<i>Aetobatus flagellum</i>	<i>Brevitrygon walga</i>	0.265	26.46
<i>Pteroplatrygon violacea</i>	0.00096444	0.10	<i>Aetobatus flagellum</i>	<i>Mobula mobular</i>	0.267	26.72
<i>Rhinoptera jayakari</i>	0.00780125	0.78	<i>Aetobatus flagellum</i>	<i>Urogymnus polylepis</i>	0.269	26.93
<i>Taeniurops meyeri</i>	0.00310939	0.31	<i>Aetobatus flagellum</i>	<i>Aetomylaeus vespertilio</i>	0.277	27.73
<i>Urogymnus asperrimus</i>	0	0.00	<i>Aetobatus oceallatus</i>	<i>Gymnura zonura</i>	0.213	21.27
<i>Urogymnus granulatus</i>	0	0.00	<i>Aetobatus oceallatus</i>	<i>Pateobatis fai</i>	0.217	21.71
<i>Urogymnus polylepis</i>	0	0.00	<i>Aetobatus oceallatus</i>	<i>Megatrygon microps</i>	0.217	21.75
			<i>Aetobatus oceallatus</i>	<i>Neotrygon kuhlii</i>	0.227	22.73
			<i>Aetobatus oceallatus</i>	<i>Urogymnus asperrimus</i>	0.228	22.79
			<i>Aetobatus oceallatus</i>	<i>Urogymnus granulatus</i>	0.229	22.85
			<i>Aetobatus oceallatus</i>	<i>Pteroplatrygon violacea</i>	0.231	23.09
			<i>Aetobatus oceallatus</i>	<i>Maculabatis gerrardi</i>	0.233	23.30
			<i>Aetobatus oceallatus</i>	<i>Rhinoptera jayakari</i>	0.234	23.39
			<i>Aetobatus oceallatus</i>	<i>Brevitrygon walga</i>	0.234	23.43
			<i>Aetobatus oceallatus</i>	<i>Gymnura poecilura</i>	0.235	23.46
			<i>Aetobatus oceallatus</i>	<i>Brevitrygon imbricata</i>	0.235	23.50
			<i>Aetobatus oceallatus</i>	<i>Himantura undulata</i>	0.236	23.57
			<i>Aetobatus oceallatus</i>	<i>Aetomylaeus maculatus</i>	0.238	23.81
			<i>Aetobatus oceallatus</i>	<i>Pastinachus ater</i>	0.239	23.89
			<i>Aetobatus oceallatus</i>	<i>Maculabatis patinacoides</i>	0.241	24.06
			<i>Aetobatus oceallatus</i>	<i>Maculabatis sp.</i>	0.241	24.09
			<i>Aetobatus oceallatus</i>	<i>Pastinachus gracilicadus</i>	0.242	24.20
			<i>Aetobatus oceallatus</i>	<i>Pateobatis jenkinsii</i>	0.244	24.36
			<i>Aetobatus oceallatus</i>	<i>Mobula birostris</i>	0.244	24.42
			<i>Aetobatus oceallatus</i>	<i>Himantura tutul</i>	0.246	24.57
			<i>Aetobatus oceallatus</i>	<i>Himantura leoparda</i>	0.247	24.71
			<i>Aetobatus oceallatus</i>	<i>Taeniurops meyeri</i>	0.249	24.86
			<i>Aetobatus oceallatus</i>	<i>Pastinachus sephen</i>	0.252	25.21
			<i>Aetobatus oceallatus</i>	<i>Maculabatis uarnacoides</i>	0.256	25.57
			<i>Aetobatus oceallatus</i>	<i>Plesiobatis daviesi</i>	0.259	25.90
			<i>Aetobatus oceallatus</i>	<i>Mobula kuhlii</i>	0.261	26.11
			<i>Aetobatus oceallatus</i>	<i>Urogymnus polylepis</i>	0.262	26.20
			<i>Aetobatus oceallatus</i>	<i>Mobula tarapacana</i>	0.264	26.36
			<i>Aetobatus oceallatus</i>	<i>Hemitrygon bennetti</i>	0.264	26.37
			<i>Aetobatus oceallatus</i>	<i>Mobula mobular</i>	0.265	26.50

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Aetomylaeus vespertilio</i>	<i>Megatrygon microps</i>	0.201	20.14
	<i>Aetomylaeus vespertilio</i>	<i>Pastinachus ater</i>	0.209	20.93
	<i>Aetomylaeus vespertilio</i>	<i>Rhinoptera jayakari</i>	0.211	21.13
	<i>Aetomylaeus vespertilio</i>	<i>Mobula birostris</i>	0.216	21.55
	<i>Aetomylaeus vespertilio</i>	<i>Mobula tarapacana</i>	0.225	22.45
	<i>Aetomylaeus vespertilio</i>	<i>Hemistrygon bennetti</i>	0.225	22.48
	<i>Aetomylaeus vespertilio</i>	<i>Urogymnus polylepis</i>	0.225	22.54
	<i>Aetomylaeus vespertilio</i>	<i>Pastinachus sephen</i>	0.226	22.58
	<i>Aetomylaeus vespertilio</i>	<i>Plesiobatis daviesi</i>	0.227	22.75
	<i>Aetomylaeus vespertilio</i>	<i>Brevitrygon walga</i>	0.228	22.79
	<i>Aetomylaeus vespertilio</i>	<i>Brevitrygon imbricata</i>	0.23	22.97
	<i>Aetomylaeus vespertilio</i>	<i>Urogymnus granulatus</i>	0.234	23.35
	<i>Aetomylaeus vespertilio</i>	<i>Mobula kuhlii</i>	0.234	23.40
	<i>Aetomylaeus vespertilio</i>	<i>Pateobatis fai</i>	0.236	23.59
	<i>Aetomylaeus vespertilio</i>	<i>Himantura undulata</i>	0.237	23.70
	<i>Aetomylaeus vespertilio</i>	<i>Maculabtis patinacoides</i>	0.239	23.89
	<i>Aetomylaeus vespertilio</i>	<i>Neotrygon kuhlii</i>	0.239	23.91
	<i>Aetomylaeus vespertilio</i>	<i>Urogymnus asperrimus</i>	0.239	23.94
	<i>Aetomylaeus vespertilio</i>	<i>Maculabatis uarnacoides</i>	0.241	24.09
	<i>Aetomylaeus vespertilio</i>	<i>Maculabtis gerrardi</i>	0.243	24.33
	<i>Aetomylaeus vespertilio</i>	<i>Himantura tutul</i>	0.245	24.54
	<i>Aetomylaeus vespertilio</i>	<i>Pteroplatrygon violacea</i>	0.246	24.60
	<i>Aetomylaeus vespertilio</i>	<i>Gymnura zonura</i>	0.246	24.62
	<i>Aetomylaeus vespertilio</i>	<i>Aetomyleus maculatus</i>	0.247	24.70
	<i>Aetomylaeus vespertilio</i>	<i>Gymnura poecilura</i>	0.247	24.72
	<i>Aetomylaeus vespertilio</i>	<i>Himantura leoparda</i>	0.256	25.62
	<i>Aetomylaeus vespertilio</i>	<i>Pateobatis jenkinsii</i>	0.258	25.76
	<i>Aetomylaeus vespertilio</i>	<i>Taeniurops meyeri</i>	0.264	26.36
	<i>Aetomylaeus vespertilio</i>	<i>Mobula mobular</i>	0.267	26.68
	<i>Aetomylaeus vespertilio</i>	<i>Maculabatis sp.</i>	0.281	28.11
	<i>Aetomyleus maculatus</i>	<i>Pastinachus sephen</i>	0.197	19.73
	<i>Aetomyleus maculatus</i>	<i>Megatrygon microps</i>	0.202	20.19
	<i>Aetomyleus maculatus</i>	<i>Pastinachus ater</i>	0.207	20.67
	<i>Aetomyleus maculatus</i>	<i>Pastinachus gracilicadus</i>	0.21	20.99
	<i>Aetomyleus maculatus</i>	<i>Mobula birostris</i>	0.216	21.57
	<i>Aetomyleus maculatus</i>	<i>Pteroplatrygon violacea</i>	0.218	21.77
	<i>Aetomyleus maculatus</i>	<i>Rhinoptera jayakari</i>	0.225	22.53
	<i>Aetomyleus maculatus</i>	<i>Gymnura poecilura</i>	0.226	22.61
	<i>Aetomyleus maculatus</i>	<i>Taeniurops meyeri</i>	0.229	22.91
	<i>Aetomyleus maculatus</i>	<i>Maculabtis gerrardi</i>	0.233	23.30
	<i>Aetomyleus maculatus</i>	<i>Mobula kuhlii</i>	0.233	23.30
	<i>Aetomyleus maculatus</i>	<i>Maculabatis sp.</i>	0.233	23.33
	<i>Aetomyleus maculatus</i>	<i>Hemistrygon bennetti</i>	0.235	23.46
	<i>Aetomyleus maculatus</i>	<i>Neotrygon kuhlii</i>	0.235	23.51
	<i>Aetomyleus maculatus</i>	<i>Himantura undulata</i>	0.238	23.76
	<i>Aetomyleus maculatus</i>	<i>Maculabatis uarnacoides</i>	0.24	23.96
	<i>Aetomyleus maculatus</i>	<i>Urogymnus asperrimus</i>	0.24	24.03

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Aetomyleus maculatus</i>	<i>Gymnura zonura</i>	0.244	24.42
	<i>Aetomyleus maculatus</i>	<i>Pateobatis fai</i>	0.247	24.68
	<i>Aetomyleus maculatus</i>	<i>Urogymnus granulatus</i>	0.247	24.69
	<i>Aetomyleus maculatus</i>	<i>Mobula mobular</i>	0.249	24.93
	<i>Aetomyleus maculatus</i>	<i>Himantura leoparda</i>	0.25	24.96
	<i>Aetomyleus maculatus</i>	<i>Mobula tarapacana</i>	0.254	25.38
	<i>Aetomyleus maculatus</i>	<i>Plesiobatis daviesi</i>	0.254	25.41
	<i>Aetomyleus maculatus</i>	<i>Brevitrygon imbricata</i>	0.255	25.49
	<i>Aetomyleus maculatus</i>	<i>Brevitrygonwalga</i>	0.257	25.69
	<i>Aetomyleus maculatus</i>	<i>Pateobatis jenkinsii</i>	0.264	26.36
	<i>Aetomyleus maculatus</i>	<i>Himantura tutul</i>	0.271	27.10
	<i>Brevitrygon imbricata</i>	<i>Brevitrygonwalga</i>	0.065	6.50
	<i>Brevitrygon imbricata</i>	<i>Pateobatis jenkinsii</i>	0.157	15.67
	<i>Brevitrygon imbricata</i>	<i>Himantura undulata</i>	0.173	17.26
	<i>Brevitrygon imbricata</i>	<i>Maculabatis uarnacoides</i>	0.175	17.53
	<i>Brevitrygon imbricata</i>	<i>Himantura tutul</i>	0.176	17.65
	<i>Brevitrygon imbricata</i>	<i>Maculabatis gerrardi</i>	0.177	17.66
	<i>Brevitrygon imbricata</i>	<i>Maculabatis patinacoides</i>	0.182	18.23
	<i>Brevitrygon imbricata</i>	<i>Urogymnus polylepis</i>	0.184	18.39
	<i>Brevitrygon imbricata</i>	<i>Himantura leoparda</i>	0.189	18.89
	<i>Brevitrygon imbricata</i>	<i>Urogymnus asperrimus</i>	0.193	19.31
	<i>Brevitrygon imbricata</i>	<i>Urogymnus granulatus</i>	0.196	19.60
	<i>Brevitrygon imbricata</i>	<i>Pateobatis fai</i>	0.197	19.70
	<i>Brevitrygon imbricata</i>	<i>Neotrygon kuhlii</i>	0.2	20.02
	<i>Brevitrygon imbricata</i>	<i>Maculabatis sp.</i>	0.202	20.19
	<i>Brevitrygon imbricata</i>	<i>Rhinoptera jayakari</i>	0.208	20.77
	<i>Brevitrygon imbricata</i>	<i>Pteroplatrygon violacea</i>	0.213	21.26
	<i>Brevitrygon imbricata</i>	<i>Hemitrygon bennetti</i>	0.213	21.27
	<i>Brevitrygon imbricata</i>	<i>Megatrygon microps</i>	0.216	21.61
	<i>Brevitrygon imbricata</i>	<i>Pastinachus sephen</i>	0.22	22.04
	<i>Brevitrygon imbricata</i>	<i>Mobula birostris</i>	0.221	22.05
	<i>Brevitrygon imbricata</i>	<i>Taeniurops meyeri</i>	0.221	22.14
	<i>Brevitrygon imbricata</i>	<i>Pastinachus gracilicadus</i>	0.229	22.87
	<i>Brevitrygon imbricata</i>	<i>Pastinachus ater</i>	0.229	22.94
	<i>Brevitrygon imbricata</i>	<i>Mobula tarapacana</i>	0.231	23.13
	<i>Brevitrygon imbricata</i>	<i>Gymnura zonura</i>	0.233	23.28
	<i>Brevitrygon imbricata</i>	<i>Gymnura poecilura</i>	0.233	23.32
	<i>Brevitrygon imbricata</i>	<i>Mobula mobular</i>	0.248	24.80
	<i>Brevitrygon imbricata</i>	<i>Mobula kuhlii</i>	0.249	24.88
	<i>Brevitrygon imbricata</i>	<i>Plesiobatis daviesi</i>	0.264	26.42
	<i>Brevitrygonwalga</i>	<i>Pateobatis jenkinsii</i>	0.156	15.64
	<i>Brevitrygonwalga</i>	<i>Himantura undulata</i>	0.168	16.80
	<i>Brevitrygonwalga</i>	<i>Maculabatis gerrardi</i>	0.17	17.03
	<i>Brevitrygonwalga</i>	<i>Himantura tutul</i>	0.172	17.15
	<i>Brevitrygonwalga</i>	<i>Maculabatis uarnacoides</i>	0.183	18.26
	<i>Brevitrygonwalga</i>	<i>Pateobatis fai</i>	0.186	18.59
	<i>Brevitrygonwalga</i>	<i>Urogymnus polylepis</i>	0.188	18.83

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species					
	Dist.	%age	Dist.	%age		
			<i>Brevitrygon walga</i>	<i>Himantura leoparda</i>	0.195	19.52
			<i>Brevitrygon walga</i>	<i>Pteroplatrygon violacea</i>	0.207	20.68
			<i>Brevitrygon walga</i>	<i>Urogymnus granulatus</i>	0.208	20.75
			<i>Brevitrygon walga</i>	<i>Neotrygon kuhlii</i>	0.209	20.95
			<i>Brevitrygon walga</i>	<i>Maculabatis sp.</i>	0.215	21.46
			<i>Brevitrygon walga</i>	<i>Megatrygon microps</i>	0.215	21.48
			<i>Brevitrygon walga</i>	<i>Hemitrygon bennetti</i>	0.219	21.90
			<i>Brevitrygon walga</i>	<i>Pastinachus sephen</i>	0.219	21.92
			<i>Brevitrygon walga</i>	<i>Taeniurops meyeri</i>	0.223	22.31
			<i>Brevitrygon walga</i>	<i>Pastinachus ater</i>	0.223	22.33
			<i>Brevitrygon walga</i>	<i>Pastinachus gracilicadus</i>	0.228	22.82
			<i>Brevitrygon walga</i>	<i>Rhinoptera jayakari</i>	0.232	23.24
			<i>Brevitrygon walga</i>	<i>Gymnura poecuilura</i>	0.235	23.54
			<i>Brevitrygon walga</i>	<i>Gymnura zonura</i>	0.237	23.66
			<i>Brevitrygon walga</i>	<i>Mobula birostris</i>	0.239	23.86
			<i>Brevitrygon walga</i>	<i>Mobula tarapacana</i>	0.254	25.36
			<i>Brevitrygon walga</i>	<i>Mobula kuhlii</i>	0.258	25.78
			<i>Brevitrygon walga</i>	<i>Mobula mobular</i>	0.263	26.32
			<i>Brevitrygon walga</i>	<i>Plesiobatis daviesi</i>	0.267	26.67
			<i>Gymnura poecuilura</i>	<i>Gymnura zonura</i>	0.14	14.00
			<i>Gymnura poecuilura</i>	<i>Maculabatis gerrardi</i>	0.207	20.71
			<i>Gymnura poecuilura</i>	<i>Megatrygon microps</i>	0.214	21.40
			<i>Gymnura poecuilura</i>	<i>Pateobatis fai</i>	0.215	21.51
			<i>Gymnura poecuilura</i>	<i>Pateobatis jenkinsii</i>	0.225	22.48
			<i>Gymnura poecuilura</i>	<i>Taeniurops meyeri</i>	0.227	22.71
			<i>Gymnura poecuilura</i>	<i>Mobula birostris</i>	0.228	22.76
			<i>Gymnura poecuilura</i>	<i>Pastinachus ater</i>	0.229	22.86
			<i>Gymnura poecuilura</i>	<i>Maculabatis uarnacoides</i>	0.229	22.90
			<i>Gymnura poecuilura</i>	<i>Pteroplatrygon violacea</i>	0.233	23.28
			<i>Gymnura poecuilura</i>	<i>Pastinachus sephen</i>	0.233	23.29
			<i>Gymnura poecuilura</i>	<i>Neotrygon kuhlii</i>	0.233	23.31
			<i>Gymnura poecuilura</i>	<i>Plesiobatis daviesi</i>	0.237	23.67
			<i>Gymnura poecuilura</i>	<i>Mobula kuhlii</i>	0.237	23.67
			<i>Gymnura poecuilura</i>	<i>Urogymnus granulatus</i>	0.237	23.71
			<i>Gymnura poecuilura</i>	<i>Himantura leoparda</i>	0.24	23.96
			<i>Gymnura poecuilura</i>	<i>Pastinachus gracilicadus</i>	0.243	24.26
			<i>Gymnura poecuilura</i>	<i>Himantura undulata</i>	0.246	24.57
			<i>Gymnura poecuilura</i>	<i>Urogymnus polylepis</i>	0.246	24.62
			<i>Gymnura poecuilura</i>	<i>Maculabatis patinacoides</i>	0.247	24.66
			<i>Gymnura poecuilura</i>	<i>Rhinoptera jayakari</i>	0.249	24.85
			<i>Gymnura poecuilura</i>	<i>Himanturautul</i>	0.25	25.00
			<i>Gymnura poecuilura</i>	<i>Maculabatis sp.</i>	0.252	25.22
			<i>Gymnura poecuilura</i>	<i>Mobula mobular</i>	0.257	25.66
			<i>Gymnura poecuilura</i>	<i>Urogymnus asperrimus</i>	0.257	25.71
			<i>Gymnura poecuilura</i>	<i>Mobula tarapacana</i>	0.257	25.74
			<i>Gymnura poecuilura</i>	<i>Hemitrygon bennetti</i>	0.26	25.99
			<i>Gymnura zonura</i>	<i>Taeniurops meyeri</i>	0.204	20.39

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Gymnura zonura</i>	<i>Plesiobatis daviesi</i>	0.213	21.33
	<i>Gymnura zonura</i>	<i>Urogymnus granulatus</i>	0.221	22.12
	<i>Gymnura zonura</i>	<i>Maculabatis gerrardi</i>	0.221	22.12
	<i>Gymnura zonura</i>	<i>Rhinoptera jayakari</i>	0.225	22.52
	<i>Gymnura zonura</i>	<i>Pastinachus gracilicadus</i>	0.226	22.59
	<i>Gymnura zonura</i>	<i>Maculabatis sp.</i>	0.227	22.66
	<i>Gymnura zonura</i>	<i>Pastinachus ater</i>	0.228	22.82
	<i>Gymnura zonura</i>	<i>Maculabatis uarnacoides</i>	0.228	22.84
	<i>Gymnura zonura</i>	<i>Maculabatis patinacoides</i>	0.229	22.87
	<i>Gymnura zonura</i>	<i>Pateobatis fai</i>	0.234	23.39
	<i>Gymnura zonura</i>	<i>Hemistrygon bennetti</i>	0.235	23.46
	<i>Gymnura zonura</i>	<i>Himantura leoparda</i>	0.235	23.47
	<i>Gymnura zonura</i>	<i>Pateobatis jenkinsii</i>	0.238	23.81
	<i>Gymnura zonura</i>	<i>Mobula kuhlii</i>	0.238	23.84
	<i>Gymnura zonura</i>	<i>Neotrygon kuhlii</i>	0.239	23.86
	<i>Gymnura zonura</i>	<i>Mobula birostris</i>	0.239	23.94
	<i>Gymnura zonura</i>	<i>Pastinachus sephen</i>	0.242	24.17
	<i>Gymnura zonura</i>	<i>Mobula tarapacana</i>	0.245	24.48
	<i>Gymnura zonura</i>	<i>Urogymnus asperrimus</i>	0.247	24.72
	<i>Gymnura zonura</i>	<i>Himantura undulata</i>	0.252	25.17
	<i>Gymnura zonura</i>	<i>Himantura tutul</i>	0.255	25.46
	<i>Gymnura zonura</i>	<i>Urogymnus polylepis</i>	0.256	25.59
	<i>Gymnura zonura</i>	<i>Mobula mobular</i>	0.285	28.50
	<i>Hemistrygon bennetti</i>	<i>Pteroplatrygon violacea</i>	0.099	9.94
	<i>Hemistrygon bennetti</i>	<i>Taeniurops meyeri</i>	0.13	12.97
	<i>Hemistrygon bennetti</i>	<i>Pastinachus gracilicadus</i>	0.173	17.27
	<i>Hemistrygon bennetti</i>	<i>Megatrygon microps</i>	0.173	17.29
	<i>Hemistrygon bennetti</i>	<i>Pastinachus ater</i>	0.189	18.90
	<i>Hemistrygon bennetti</i>	<i>Pastinachus sephen</i>	0.191	19.08
	<i>Hemistrygon bennetti</i>	<i>Neotrygon kuhlii</i>	0.197	19.67
	<i>Hemistrygon bennetti</i>	<i>Himantura undulata</i>	0.206	20.57
	<i>Hemistrygon bennetti</i>	<i>Mobula kuhlii</i>	0.207	20.69
	<i>Hemistrygon bennetti</i>	<i>Mobula birostris</i>	0.21	20.97
	<i>Hemistrygon bennetti</i>	<i>Urogymnus polylepis</i>	0.211	21.08
	<i>Hemistrygon bennetti</i>	<i>Maculabatis gerrardi</i>	0.211	21.12
	<i>Hemistrygon bennetti</i>	<i>Mobula tarapacana</i>	0.212	21.21
	<i>Hemistrygon bennetti</i>	<i>Urogymnus asperrimus</i>	0.214	21.42
	<i>Hemistrygon bennetti</i>	<i>Himantura leoparda</i>	0.216	21.64
	<i>Hemistrygon bennetti</i>	<i>Urogymnus granulatus</i>	0.219	21.92
	<i>Hemistrygon bennetti</i>	<i>Pateobatis fai</i>	0.222	22.21
	<i>Hemistrygon bennetti</i>	<i>Maculabatis uarnacoides</i>	0.226	22.57
	<i>Hemistrygon bennetti</i>	<i>Rhinoptera jayakari</i>	0.231	23.13
	<i>Hemistrygon bennetti</i>	<i>Mobula mobular</i>	0.233	23.29
	<i>Hemistrygon bennetti</i>	<i>Pateobatis jenkinsii</i>	0.236	23.61
	<i>Hemistrygon bennetti</i>	<i>Plesiobatis daviesi</i>	0.239	23.89
	<i>Hemistrygon bennetti</i>	<i>Maculabatis sp.</i>	0.241	24.05
	<i>Hemistrygon bennetti</i>	<i>Maculabatis patinacoides</i>	0.244	24.41

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Himantura leoparda</i>	<i>Himantura tutul</i>	0.106	10.60
	<i>Himantura leoparda</i>	<i>Maculabtis gerrardi</i>	0.122	12.16
	<i>Himantura leoparda</i>	<i>Pateobatis jenkinsii</i>	0.131	13.09
	<i>Himantura leoparda</i>	<i>Maculabatis uarnacoides</i>	0.14	13.98
	<i>Himantura leoparda</i>	<i>Urogymnus asperrimus</i>	0.141	14.08
	<i>Himantura leoparda</i>	<i>Maculabtis patinacoides</i>	0.15	15.05
	<i>Himantura leoparda</i>	<i>Maculabatis sp.</i>	0.156	15.57
	<i>Himantura leoparda</i>	<i>Pateobatis fai</i>	0.157	15.73
	<i>Himantura leoparda</i>	<i>Urogymnus granulatus</i>	0.169	16.87
	<i>Himantura leoparda</i>	<i>Urogymnus polylepis</i>	0.175	17.50
	<i>Himantura leoparda</i>	<i>Megatrygon microps</i>	0.178	17.77
	<i>Himantura leoparda</i>	<i>Pastinachus ater</i>	0.185	18.48
	<i>Himantura leoparda</i>	<i>Pastinachus gracilicadus</i>	0.191	19.11
	<i>Himantura leoparda</i>	<i>Neotrygon kuhlii</i>	0.205	20.53
	<i>Himantura leoparda</i>	<i>Pastinachus sephen</i>	0.211	21.08
	<i>Himantura leoparda</i>	<i>Pteroplatrygon violacea</i>	0.212	21.25
	<i>Himantura leoparda</i>	<i>Rhinoptera jayakari</i>	0.214	21.40
	<i>Himantura leoparda</i>	<i>Taeniurops meyeri</i>	0.215	21.52
	<i>Himantura leoparda</i>	<i>Mobula kuhlii</i>	0.222	22.21
	<i>Himantura leoparda</i>	<i>Mobula birostris</i>	0.226	22.62
	<i>Himantura leoparda</i>	<i>Mobula mobular</i>	0.23	23.04
	<i>Himantura leoparda</i>	<i>Mobula tarapacana</i>	0.233	23.30
	<i>Himantura leoparda</i>	<i>Plesiobatis daviesi</i>	0.252	25.17
	<i>Himantura tutul</i>	<i>Himantura undulata</i>	0.108	10.75
	<i>Himantura tutul</i>	<i>Pateobatis jenkinsii</i>	0.137	13.69
	<i>Himantura tutul</i>	<i>Maculabatis uarnacoides</i>	0.146	14.59
	<i>Himantura tutul</i>	<i>Maculabtis gerrardi</i>	0.148	14.82
	<i>Himantura tutul</i>	<i>Urogymnus asperrimus</i>	0.16	16.03
	<i>Himantura tutul</i>	<i>Maculabtis patinacoides</i>	0.167	16.67
	<i>Himantura tutul</i>	<i>Pateobatis fai</i>	0.181	18.10
	<i>Himantura tutul</i>	<i>Maculabatis sp.</i>	0.183	18.30
	<i>Himantura tutul</i>	<i>Urogymnus polylepis</i>	0.188	18.76
	<i>Himantura tutul</i>	<i>Pastinachus ater</i>	0.193	19.30
	<i>Himantura tutul</i>	<i>Urogymnus granulatus</i>	0.196	19.65
	<i>Himantura tutul</i>	<i>Pastinachus gracilicadus</i>	0.205	20.48
	<i>Himantura tutul</i>	<i>Megatrygon microps</i>	0.208	20.81
	<i>Himantura tutul</i>	<i>Neotrygon kuhlii</i>	0.21	20.99
	<i>Himantura tutul</i>	<i>Pteroplatrygon violacea</i>	0.225	22.52
	<i>Himantura tutul</i>	<i>Pastinachus sephen</i>	0.226	22.59
	<i>Himantura tutul</i>	<i>Rhinoptera jayakari</i>	0.23	22.99
	<i>Himantura tutul</i>	<i>Taeniurops meyeri</i>	0.234	23.38
	<i>Himantura tutul</i>	<i>Mobula birostris</i>	0.235	23.50
	<i>Himantura tutul</i>	<i>Mobula kuhlii</i>	0.246	24.59
	<i>Himantura tutul</i>	<i>Plesiobatis daviesi</i>	0.254	25.44
	<i>Himantura tutul</i>	<i>Mobula tarapacana</i>	0.257	25.73
	<i>Himantura tutul</i>	<i>Mobula mobular</i>	0.267	26.71
	<i>Himantura undulata</i>	<i>Maculabatis uarnacoides</i>	0.125	12.47

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Himantura undulata</i>	<i>Maculabtis patinacoides</i>	0.15	14.99
	<i>Himantura undulata</i>	<i>Urogymnus polylepis</i>	0.156	15.57
	<i>Himantura undulata</i>	<i>Maculabatis sp.</i>	0.159	15.91
	<i>Himantura undulata</i>	<i>Pateobatis fai</i>	0.163	16.31
	<i>Himantura undulata</i>	<i>Urogymnus granulatus</i>	0.164	16.40
	<i>Himantura undulata</i>	<i>Urogymnus asperrimus</i>	0.166	16.62
	<i>Himantura undulata</i>	<i>Megatrygon microps</i>	0.177	17.65
	<i>Himantura undulata</i>	<i>Pastinachus ater</i>	0.188	18.82
	<i>Himantura undulata</i>	<i>Pastinachus gracilicadus</i>	0.193	19.31
	<i>Himantura undulata</i>	<i>Rhinoptera jayakari</i>	0.198	19.81
	<i>Himantura undulata</i>	<i>Pteroplatrygon violacea</i>	0.199	19.87
	<i>Himantura undulata</i>	<i>Pastinachus sephen</i>	0.206	20.59
	<i>Himantura undulata</i>	<i>Taeniurops meyeri</i>	0.211	21.07
	<i>Himantura undulata</i>	<i>Mobula kuhlii</i>	0.212	21.18
	<i>Himantura undulata</i>	<i>Neotrygon kuhlii</i>	0.219	21.89
	<i>Himantura undulata</i>	<i>Mobula tarapacana</i>	0.22	22.02
	<i>Himantura undulata</i>	<i>Mobula birostris</i>	0.223	22.30
	<i>Himantura undulata</i>	<i>Mobula mobular</i>	0.241	24.08
	<i>Himantura undulata</i>	<i>Plesiobatis daviesi</i>	0.246	24.64
	<i>Maculabatis sp.</i>	<i>Maculabtis patinacoides</i>	0.101	10.09
	<i>Maculabatis sp.</i>	<i>Maculabtis gerrardi</i>	0.127	12.72
	<i>Maculabatis sp.</i>	<i>Pateobatis jenkinsii</i>	0.129	12.91
	<i>Maculabatis sp.</i>	<i>Maculabatis uarnacoides</i>	0.148	14.82
	<i>Maculabatis sp.</i>	<i>Pateobatis fai</i>	0.16	16.05
	<i>Maculabatis sp.</i>	<i>Urogymnus asperrimus</i>	0.177	17.72
	<i>Maculabatis sp.</i>	<i>Urogymnus granulatus</i>	0.189	18.90
	<i>Maculabatis sp.</i>	<i>Urogymnus polylepis</i>	0.196	19.60
	<i>Maculabatis sp.</i>	<i>Pastinachus ater</i>	0.199	19.89
	<i>Maculabatis sp.</i>	<i>Plesiobatis daviesi</i>	0.206	20.64
	<i>Maculabatis sp.</i>	<i>Megatrygon microps</i>	0.208	20.76
	<i>Maculabatis sp.</i>	<i>Pastinachus gracilicadus</i>	0.217	21.65
	<i>Maculabatis sp.</i>	<i>Pastinachus sephen</i>	0.217	21.74
	<i>Maculabatis sp.</i>	<i>Neotrygon kuhlii</i>	0.218	21.80
	<i>Maculabatis sp.</i>	<i>Rhinoptera jayakari</i>	0.22	21.97
	<i>Maculabatis sp.</i>	<i>Pteroplatrygon violacea</i>	0.235	23.51
	<i>Maculabatis sp.</i>	<i>Mobula birostris</i>	0.24	24.00
	<i>Maculabatis sp.</i>	<i>Taeniurops meyeri</i>	0.245	24.53
	<i>Maculabatis sp.</i>	<i>Mobula kuhlii</i>	0.254	25.40
	<i>Maculabatis sp.</i>	<i>Mobula mobular</i>	0.255	25.51
	<i>Maculabatis sp.</i>	<i>Mobula tarapacana</i>	0.257	25.66
	<i>Maculabtis gerrardi</i>	<i>Maculabtis patinacoides</i>	0.111	11.13
	<i>Maculabtis gerrardi</i>	<i>Maculabatis uarnacoides</i>	0.128	12.79
	<i>Maculabtis gerrardi</i>	<i>Pateobatis jenkinsii</i>	0.129	12.87
	<i>Maculabtis gerrardi</i>	<i>Pateobatis fai</i>	0.156	15.62
	<i>Maculabtis gerrardi</i>	<i>Urogymnus asperrimus</i>	0.168	16.83
	<i>Maculabtis gerrardi</i>	<i>Urogymnus granulatus</i>	0.171	17.11
	<i>Maculabtis gerrardi</i>	<i>Urogymnus polylepis</i>	0.175	17.52

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species					
	Dist.	%age	Dist.	%age		
			<i>Maculabtis gerrardi</i>	<i>Neotrygon kuhlii</i>	0.2	20.04
			<i>Maculabtis gerrardi</i>	<i>Megatrygon microps</i>	0.203	20.35
			<i>Maculabtis gerrardi</i>	<i>Pteroplatrygon violacea</i>	0.208	20.80
			<i>Maculabtis gerrardi</i>	<i>Rhinoptera jayakari</i>	0.208	20.84
			<i>Maculabtis gerrardi</i>	<i>Taeniuroops meyeri</i>	0.209	20.94
			<i>Maculabtis gerrardi</i>	<i>Pastinachus sephen</i>	0.209	20.95
			<i>Maculabtis gerrardi</i>	<i>Mobula birostris</i>	0.231	23.11
			<i>Maculabtis gerrardi</i>	<i>Plesiobatis daviesi</i>	0.237	23.72
			<i>Maculabtis gerrardi</i>	<i>Mobula kuhlii</i>	0.238	23.80
			<i>Maculabtis gerrardi</i>	<i>Mobula tarapacana</i>	0.246	24.62
			<i>Maculabtis gerrardi</i>	<i>Mobula mobular</i>	0.246	24.63
			<i>Maculabtis patinacoides</i>	<i>Maculatbatis uarnacoides</i>	0.125	12.47
			<i>Maculabtis patinacoides</i>	<i>Pateobatis jenkinsii</i>	0.156	15.61
			<i>Maculabtis patinacoides</i>	<i>Pateobatis fai</i>	0.179	17.88
			<i>Maculabtis patinacoides</i>	<i>Urogymnus asperrimus</i>	0.187	18.74
			<i>Maculabtis patinacoides</i>	<i>Rhinoptera jayakari</i>	0.188	18.81
			<i>Maculabtis patinacoides</i>	<i>Urogymnus granulatus</i>	0.2	20.04
			<i>Maculabtis patinacoides</i>	<i>Megatrygon microps</i>	0.205	20.50
			<i>Maculabtis patinacoides</i>	<i>Pastinachus ater</i>	0.205	20.52
			<i>Maculabtis patinacoides</i>	<i>Urogymnus polylepis</i>	0.213	21.29
			<i>Maculabtis patinacoides</i>	<i>Pastinachus gracilicadus</i>	0.22	22.01
			<i>Maculabtis patinacoides</i>	<i>Neotrygon kuhlii</i>	0.22	22.02
			<i>Maculabtis patinacoides</i>	<i>Pastinachus sephen</i>	0.233	23.28
			<i>Maculabtis patinacoides</i>	<i>Plesiobatis daviesi</i>	0.233	23.30
			<i>Maculabtis patinacoides</i>	<i>Pteroplatrygon violacea</i>	0.234	23.42
			<i>Maculabtis patinacoides</i>	<i>Mobula birostris</i>	0.236	23.56
			<i>Maculabtis patinacoides</i>	<i>Mobula tarapacana</i>	0.248	24.82
			<i>Maculabtis patinacoides</i>	<i>Mobula kuhlii</i>	0.252	25.23
			<i>Maculabtis patinacoides</i>	<i>Taeniuroops meyeri</i>	0.256	25.56
			<i>Maculabtis patinacoides</i>	<i>Mobula mobular</i>	0.258	25.77
			<i>Maculatbatis uarnacoides</i>	<i>Pateobatis jenkinsii</i>	0.13	13.05
			<i>Maculatbatis uarnacoides</i>	<i>Urogymnus asperrimus</i>	0.168	16.78
			<i>Maculatbatis uarnacoides</i>	<i>Pateobatis fai</i>	0.173	17.35
			<i>Maculatbatis uarnacoides</i>	<i>Urogymnus polylepis</i>	0.178	17.75
			<i>Maculatbatis uarnacoides</i>	<i>Urogymnus granulatus</i>	0.179	17.94
			<i>Maculatbatis uarnacoides</i>	<i>Rhinoptera jayakari</i>	0.191	19.10
			<i>Maculatbatis uarnacoides</i>	<i>Megatrygon microps</i>	0.194	19.35
			<i>Maculatbatis uarnacoides</i>	<i>Pastinachus ater</i>	0.197	19.69
			<i>Maculatbatis uarnacoides</i>	<i>Pastinachus gracilicadus</i>	0.204	20.42
			<i>Maculatbatis uarnacoides</i>	<i>Mobula kuhlii</i>	0.205	20.55
			<i>Maculatbatis uarnacoides</i>	<i>Pastinachus sephen</i>	0.206	20.56
			<i>Maculatbatis uarnacoides</i>	<i>Neotrygon kuhlii</i>	0.216	21.62
			<i>Maculatbatis uarnacoides</i>	<i>Mobula tarapacana</i>	0.22	22.00
			<i>Maculatbatis uarnacoides</i>	<i>Pteroplatrygon violacea</i>	0.22	22.04
			<i>Maculatbatis uarnacoides</i>	<i>Mobula birostris</i>	0.223	22.31
			<i>Maculatbatis uarnacoides</i>	<i>Taeniuroops meyeri</i>	0.233	23.26
			<i>Maculatbatis uarnacoides</i>	<i>Plesiobatis daviesi</i>	0.247	24.70

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Megatrygon microps</i>	<i>Pastinachus gracilicadus</i>	0.164	16.37
	<i>Megatrygon microps</i>	<i>Pastinachus ater</i>	0.169	16.92
	<i>Megatrygon microps</i>	<i>Rhinoptera jayakari</i>	0.173	17.34
	<i>Megatrygon microps</i>	<i>Pastinachus sephen</i>	0.178	17.81
	<i>Megatrygon microps</i>	<i>Pteroplatrygon violacea</i>	0.178	17.83
	<i>Megatrygon microps</i>	<i>Mobula kuhlii</i>	0.182	18.17
	<i>Megatrygon microps</i>	<i>Mobula tarapacana</i>	0.187	18.74
	<i>Megatrygon microps</i>	<i>Mobula mobular</i>	0.189	18.91
	<i>Megatrygon microps</i>	<i>Plesiobatis daviesi</i>	0.191	19.15
	<i>Megatrygon microps</i>	<i>Neotrygon kuhlii</i>	0.197	19.70
	<i>Megatrygon microps</i>	<i>Taeniurops meyeri</i>	0.199	19.91
	<i>Megatrygon microps</i>	<i>Pateobatis fai</i>	0.202	20.16
	<i>Megatrygon microps</i>	<i>Urogymnus granulatus</i>	0.214	21.37
	<i>Megatrygon microps</i>	<i>Pateobatis jenkinsii</i>	0.22	22.04
	<i>Megatrygon microps</i>	<i>Urogymnus asperrimus</i>	0.224	22.39
	<i>Megatrygon microps</i>	<i>Urogymnus polylepis</i>	0.229	22.89
	<i>Mobula birostris</i>	<i>Mobula tarapacana</i>	0.123	12.26
	<i>Mobula birostris</i>	<i>Mobula kuhlii</i>	0.125	12.48
	<i>Mobula birostris</i>	<i>Mobula mobular</i>	0.135	13.50
	<i>Mobula birostris</i>	<i>Rhinoptera jayakari</i>	0.142	14.20
	<i>Mobula birostris</i>	<i>Neotrygon kuhlii</i>	0.179	17.92
	<i>Mobula birostris</i>	<i>Pastinachus gracilicadus</i>	0.201	20.08
	<i>Mobula birostris</i>	<i>Urogymnus polylepis</i>	0.201	20.08
	<i>Mobula birostris</i>	<i>Plesiobatis daviesi</i>	0.204	20.40
	<i>Mobula birostris</i>	<i>Pastinachus ater</i>	0.206	20.59
	<i>Mobula birostris</i>	<i>Urogymnus granulatus</i>	0.207	20.74
	<i>Mobula birostris</i>	<i>Taeniurops meyeri</i>	0.212	21.24
	<i>Mobula birostris</i>	<i>Pateobatis fai</i>	0.214	21.36
	<i>Mobula birostris</i>	<i>Pateobatis jenkinsii</i>	0.215	21.49
	<i>Mobula birostris</i>	<i>Pteroplatrygon violacea</i>	0.216	21.64
	<i>Mobula birostris</i>	<i>Pastinachus sephen</i>	0.219	21.88
	<i>Mobula birostris</i>	<i>Urogymnus asperrimus</i>	0.242	24.18
	<i>Mobula kuhlii</i>	<i>Mobula mobular</i>	0.14	13.96
	<i>Mobula kuhlii</i>	<i>Mobula tarapacana</i>	0.141	14.14
	<i>Mobula kuhlii</i>	<i>Rhinoptera jayakari</i>	0.152	15.21
	<i>Mobula kuhlii</i>	<i>Neotrygon kuhlii</i>	0.196	19.58
	<i>Mobula kuhlii</i>	<i>Pateobatis jenkinsii</i>	0.201	20.11
	<i>Mobula kuhlii</i>	<i>Urogymnus granulatus</i>	0.202	20.20
	<i>Mobula kuhlii</i>	<i>Pastinachus gracilicadus</i>	0.204	20.37
	<i>Mobula kuhlii</i>	<i>Taeniurops meyeri</i>	0.208	20.80
	<i>Mobula kuhlii</i>	<i>Urogymnus polylepis</i>	0.208	20.83
	<i>Mobula kuhlii</i>	<i>Pastinachus ater</i>	0.212	21.23
	<i>Mobula kuhlii</i>	<i>Pteroplatrygon violacea</i>	0.216	21.62
	<i>Mobula kuhlii</i>	<i>Pastinachus sephen</i>	0.225	22.45
	<i>Mobula kuhlii</i>	<i>Plesiobatis daviesi</i>	0.232	23.20
	<i>Mobula kuhlii</i>	<i>Pateobatis fai</i>	0.242	24.22
	<i>Mobula kuhlii</i>	<i>Urogymnus asperrimus</i>	0.243	24.29

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species		Dist.	%age
	Dist.	%age		
	<i>Mobula mobular</i>	<i>Neotrygon kuhlii</i>	0.208	20.85
	<i>Mobula mobular</i>	<i>Urogymnus polylepis</i>	0.218	21.81
	<i>Mobula mobular</i>	<i>Urogymnus granulatus</i>	0.219	21.88
	<i>Mobula mobular</i>	<i>Pteroplatrygon violacea</i>	0.225	22.49
	<i>Mobula mobular</i>	<i>Plesiobatis daviesi</i>	0.228	22.79
	<i>Mobula mobular</i>	<i>Pastinachus gracilicadus</i>	0.232	23.21
	<i>Mobula mobular</i>	<i>Pateobatis fai</i>	0.235	23.50
	<i>Mobula mobular</i>	<i>Pastinachus sephen</i>	0.238	23.84
	<i>Mobula mobular</i>	<i>Taeniurops meyeri</i>	0.243	24.26
	<i>Mobula mobular</i>	<i>Pastinachus ater</i>	0.243	24.32
	<i>Mobula mobular</i>	<i>Pateobatis jenkinsii</i>	0.247	24.74
	<i>Mobula mobular</i>	<i>Urogymnus asperrimus</i>	0.256	25.61
	<i>Mobula tarapacana</i>	<i>Rhinoptera jayakari</i>	0.155	15.50
	<i>Mobula tarapacana</i>	<i>Neotrygon kuhlii</i>	0.203	20.27
	<i>Mobula tarapacana</i>	<i>Urogymnus granulatus</i>	0.21	20.99
	<i>Mobula tarapacana</i>	<i>Pteroplatrygon violacea</i>	0.212	21.22
	<i>Mobula tarapacana</i>	<i>Urogymnus polylepis</i>	0.214	21.39
	<i>Mobula tarapacana</i>	<i>Pastinachus ater</i>	0.215	21.52
	<i>Mobula tarapacana</i>	<i>Pastinachus gracilicadus</i>	0.22	21.98
	<i>Mobula tarapacana</i>	<i>Pastinachus sephen</i>	0.227	22.70
	<i>Mobula tarapacana</i>	<i>Taeniurops meyeri</i>	0.23	22.98
	<i>Mobula tarapacana</i>	<i>Plesiobatis daviesi</i>	0.234	23.44
	<i>Mobula tarapacana</i>	<i>Pateobatis fai</i>	0.237	23.70
	<i>Mobula tarapacana</i>	<i>Urogymnus asperrimus</i>	0.237	23.72
	<i>Mobula tarapacana</i>	<i>Pateobatis jenkinsii</i>	0.247	24.71
	<i>Neotrygon kuhlii</i>	<i>Pastinachus gracilicadus</i>	0.186	18.62
	<i>Neotrygon kuhlii</i>	<i>Pastinachus sephen</i>	0.188	18.79
	<i>Neotrygon kuhlii</i>	<i>Taeniurops meyeri</i>	0.196	19.62
	<i>Neotrygon kuhlii</i>	<i>Rhinoptera jayakari</i>	0.197	19.71
	<i>Neotrygon kuhlii</i>	<i>Pateobatis jenkinsii</i>	0.201	20.10
	<i>Neotrygon kuhlii</i>	<i>Urogymnus polylepis</i>	0.207	20.67
	<i>Neotrygon kuhlii</i>	<i>Pteroplatrygon violacea</i>	0.207	20.73
	<i>Neotrygon kuhlii</i>	<i>Pateobatis fai</i>	0.211	21.14
	<i>Neotrygon kuhlii</i>	<i>Pastinachus ater</i>	0.213	21.25
	<i>Neotrygon kuhlii</i>	<i>Urogymnus asperrimus</i>	0.227	22.70
	<i>Neotrygon kuhlii</i>	<i>Plesiobatis daviesi</i>	0.23	22.95
	<i>Neotrygon kuhlii</i>	<i>Urogymnus granulatus</i>	0.24	24.02
	<i>Pastinachus ater</i>	<i>Pastinachus gracilicadus</i>	0.059	5.88
	<i>Pastinachus ater</i>	<i>Pastinachus sephen</i>	0.071	7.15
	<i>Pastinachus ater</i>	<i>Pateobatis jenkinsii</i>	0.188	18.84
	<i>Pastinachus ater</i>	<i>Pateobatis fai</i>	0.194	19.35
	<i>Pastinachus ater</i>	<i>Pteroplatrygon violacea</i>	0.194	19.44
	<i>Pastinachus ater</i>	<i>Urogymnus asperrimus</i>	0.195	19.51
	<i>Pastinachus ater</i>	<i>Urogymnus granulatus</i>	0.198	19.78
	<i>Pastinachus ater</i>	<i>Urogymnus polylepis</i>	0.198	19.81
	<i>Pastinachus ater</i>	<i>Rhinoptera jayakari</i>	0.199	19.87
	<i>Pastinachus ater</i>	<i>Taeniurops meyeri</i>	0.227	22.75

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (contd.)

Within species	Between Species					
	Dist.	%age	Dist.	%age		
			<i>Pastinachus gracilicadus</i>	<i>Rhinoptera jayakari</i>	0.183	18.32
			<i>Pastinachus gracilicadus</i>	<i>Pteroplatrygon violacea</i>	0.189	18.94
			<i>Pastinachus gracilicadus</i>	<i>Urogymnus polylepis</i>	0.191	19.10
			<i>Pastinachus gracilicadus</i>	<i>Urogymnus granulatus</i>	0.197	19.65
			<i>Pastinachus gracilicadus</i>	<i>Pateobatis fai</i>	0.199	19.85
			<i>Pastinachus gracilicadus</i>	<i>Urogymnus asperrimus</i>	0.199	19.88
			<i>Pastinachus gracilicadus</i>	<i>Pateobatis jenkinsii</i>	0.21	21.04
			<i>Pastinachus gracilicadus</i>	<i>Plesiobatis daviesi</i>	0.223	22.33
			<i>Pastinachus gracilicadus</i>	<i>Taeniuroops meyeri</i>	0.224	22.42
			<i>Pastinachus sephen</i>	<i>Pteroplatrygon violacea</i>	0.187	18.69
			<i>Pastinachus sephen</i>	<i>Pateobatis fai</i>	0.191	19.11
			<i>Pastinachus sephen</i>	<i>Rhinoptera jayakari</i>	0.201	20.08
			<i>Pastinachus sephen</i>	<i>Urogymnus asperrimus</i>	0.207	20.67
			<i>Pastinachus sephen</i>	<i>Urogymnus polylepis</i>	0.214	21.42
			<i>Pastinachus sephen</i>	<i>Pateobatis jenkinsii</i>	0.218	21.76
			<i>Pastinachus sephen</i>	<i>Plesiobatis daviesi</i>	0.22	22.03
			<i>Pastinachus sephen</i>	<i>Urogymnus granulatus</i>	0.225	22.54
			<i>Pastinachus sephen</i>	<i>Taeniuroops meyeri</i>	0.228	22.78
			<i>Pateobatis fai</i>	<i>Pateobatis jenkinsii</i>	0.165	16.46
			<i>Pateobatis fai</i>	<i>Urogymnus asperrimus</i>	0.189	18.94
			<i>Pateobatis fai</i>	<i>Urogymnus polylepis</i>	0.19	19.03
			<i>Pateobatis fai</i>	<i>Urogymnus granulatus</i>	0.198	19.76
			<i>Pateobatis fai</i>	<i>Taeniuroops meyeri</i>	0.214	21.36
			<i>Pateobatis fai</i>	<i>Pteroplatrygon violacea</i>	0.217	21.73
			<i>Pateobatis fai</i>	<i>Rhinoptera jayakari</i>	0.222	22.16
			<i>Pateobatis fai</i>	<i>Plesiobatis daviesi</i>	0.252	25.16
			<i>Pateobatis jenkinsii</i>	<i>Urogymnus asperrimus</i>	0.149	14.86
			<i>Pateobatis jenkinsii</i>	<i>Urogymnus granulatus</i>	0.16	16.04
			<i>Pateobatis jenkinsii</i>	<i>Urogymnus polylepis</i>	0.164	16.42
			<i>Pateobatis jenkinsii</i>	<i>Pteroplatrygon violacea</i>	0.223	22.35
			<i>Pateobatis jenkinsii</i>	<i>Rhinoptera jayakari</i>	0.224	22.38
			<i>Pateobatis jenkinsii</i>	<i>Plesiobatis daviesi</i>	0.234	23.36
			<i>Pateobatis jenkinsii</i>	<i>Taeniuroops meyeri</i>	0.234	23.43
			<i>Plesiobatis daviesi</i>	<i>Rhinoptera jayakari</i>	0.203	20.31
			<i>Plesiobatis daviesi</i>	<i>Pteroplatrygon violacea</i>	0.205	20.54
			<i>Plesiobatis daviesi</i>	<i>Taeniuroops meyeri</i>	0.213	21.28
			<i>Plesiobatis daviesi</i>	<i>Urogymnus polylepis</i>	0.215	21.55
			<i>Plesiobatis daviesi</i>	<i>Urogymnus asperrimus</i>	0.234	23.44
			<i>Plesiobatis daviesi</i>	<i>Urogymnus granulatus</i>	0.253	25.25
			<i>Pteroplatrygon violacea</i>	<i>Taeniuroops meyeri</i>	0.121	12.10
			<i>Pteroplatrygon violacea</i>	<i>Urogymnus polylepis</i>	0.211	21.14
			<i>Pteroplatrygon violacea</i>	<i>Rhinoptera jayakari</i>	0.216	21.59
			<i>Pteroplatrygon violacea</i>	<i>Urogymnus granulatus</i>	0.224	22.39
			<i>Pteroplatrygon violacea</i>	<i>Urogymnus asperrimus</i>	0.236	23.61
			<i>Rhinoptera jayakari</i>	<i>Urogymnus granulatus</i>	0.219	21.94
			<i>Rhinoptera jayakari</i>	<i>Urogymnus polylepis</i>	0.22	22.03
			<i>Rhinoptera jayakari</i>	<i>Taeniuroops meyeri</i>	0.222	22.17

(contd.)

Table S3 — Pairwise genetic distance among Myliobatiformes (*contd.*)

Within species	Between Species					
	Dist.	%age	Dist.	%age		
			<i>Taeniuroops meyeri</i>	<i>Urogymnus granulatus</i>	0.222	22.17
			<i>Taeniuroops meyeri</i>	<i>Urogymnus asperrimus</i>	0.227	22.67
			<i>Urogymnus asperrimus</i>	<i>Urogymnus polylepis</i>	0.146	14.60
			<i>Urogymnus asperrimus</i>	<i>Urogymnus granulatus</i>	0.149	14.90
			<i>Urogymnus granulatus</i>	<i>Urogymnus polylepis</i>	0.136	13.59