

The following supplement accompanies the article

# Comparative phylogeography of four Indo-Pacific moray eel species (Muraenidae) reveals comparable ocean-wide genetic connectivity despite five-fold differences in available adult habitat

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**Supplement.** Table S1. List of museum specimens and captured specimens used to determine the range and depth preferences (m) of all 4 species of moray eel. USNM: United States National Museum; CAS: California Academy of Sciences. Specimens including a ‘JSR’ in their Catalogue number (Cat #) were collected for the purposes of this study

<b><i>Gymnothorax flavimarginatus</i> n = 214</b>			<b><i>Gymnothorax undulatus</i> n = 166</b>			<b><i>E. nebulosa</i> n = 163</b>			<b><i>G. zebra</i> n = 77</b>		
Average Depth		22.2	Average Depth		24.3	Average Depth		1.8	Average Depth		1.9
Museum	Cat #	Depth	Museum	Cat #	Depth	Museum	Cat #	Depth	Museum	Cat #	Depth
CAS	37027	0.5		312626	0.5	USNM	287306	0	USNM	264163	0
CAS	37039	0.5		312641	0.5	USNM	264169	0	USNM	312168	0
USNM	312431	0.8		233905	0.5	USNM	285699	0	USNM	312166	0
USNM	312425	0.8		223390	0.8	USNM	312128	0	USNM	269840	0
USNM	312436	0.8		203732	0.8	USNM	312130	0	USNM	333975	0
USNM	269846	0.9	CAS	42025	1	USNM	312118	0	USNM	350136	0

CAS	37038	1		JSRGun019	1	USNM	312140	0.04	USNM	312171	0
CAS	37018	1		374455	1	USNM	312132	0.05	USNM	223393	0
USNM	374456	1		312628	1	CAS	46995	0.1	USNM	306603	0
USNM	361413	1		338846	1	CAS	68150	0.1	USNM	312169	0
USNM	307781	1		371455	1		JSREne053	0.1	USNM	312170	0
USNM	224063	1		223671	1	CAS	37329	0.2	USNM	312163	0
USNM	342132	1		312634	1	CAS	37330	0.2	USNM	287330	0
USNM	350139	1		312622	1	CAS	37332	0.2	USNM	223439	0
USNM	334261	1		312623	1	USNM	371004	0.25		JSRGze007	0.1
USNM	342130	1		312638	1	CAS	37328	0.3		JSRGze028	0.1
USNM	342131	1		287501	1	CAS	37341	0.3	USNM	223676	0.2
USNM	318012	1		342261	1.5	CAS	37338	0.4		JSRGze023	0.3
USNM	381536	1	CAS	27502	2	USNM	312134	0.4		JSRGze024	0.3
USNM	385369	1	CAS	27492	2	USNM	312133	0.4		JSRGze029	0.3
USNM	312434	1		JSRGun003	2	USNM	269839	0.45		JSRGze032	0.3
USNM	312428	1		JSRGun014	2	CAS	37327	0.5		JSRGze033	0.3
USNM	312424	1		JSRGun022	2	CAS	37333	0.5		JSRGze034	0.3
USNM	312442	1		312610	2	CAS	37339	0.5		JSRGze038	0.3
USNM	312443	1		312625	2	CAS	37340	0.5		JSRGze001	0.5
USNM	312455	1		312635	2		JSREne006	0.5		JSRGze002	0.5
USNM	312447	1		312636	2		JSREne007	0.5		JSRGze008	0.5
USNM	312457	1		312619	2		JSREne008	0.5		JSRGze010	0.5
USNM	312423	1		312620	2		JSREne009	0.5		JSRGze011	0.5
CAS	37029	1.5		312603	2		JSREne016	0.5		JSRGze012	0.5
CAS	37037	1.5		312618	2		JSREne017	0.5		JSRGze013	0.5
CAS	37040	1.5		287505	2		JSREne023	0.5		JSRGze014	0.5
CAS	37098	1.5	CAS	90422	2.5		JSREne024	0.5		JSRGze015	0.5
USNM	300504	1.5	CAS	42012	3		JSREne029	0.5		JSRGze016	0.5
CAS	37112	2	CAS	27498	3		JSREne030	0.5		JSRGze017	0.5
CAS	37028	2		JSRGun023	3		JSREne031	0.5		JSRGze021	0.5
CAS	37094	2		392412	3		JSREne032	0.5		JSRGze022	0.5

USNM	357275	2		273371	3		JSREne033	0.5		JSRGze027	0.5
USNM	238863	2		312637	3		JSREne034	0.5		JSRGze039	0.5
USNM	332362	2		312604	3		JSREne035	0.5		JSRGze004	1
USNM	224064	2		312615	3		JSREne036	0.5		JSRGze040	1
USNM	362144	2		312616	3		JSREne039	0.5	USNM	300456	1
USNM	312426	2		312608	3		JSREne040	0.5	USNM	338659	1
USNM	312450	2		312617	3		JSREne041	0.5	CAS	37269	1.1
USNM	312441	2		312624	3		JSREne054	0.5	CAS	37265	1.2
USNM	312452	2		392011	3		JSREne055	0.5	CAS	37266	1.2
USNM	312453	2	CAS	27493	3.5		JSREne056	0.5		JSRGze037	1.4
USNM	312427	2	CAS	27496	4		JSREne057	0.5	CAS	37272	1.5
USNM	312454	2	CAS	42013	4	USNM	312121	0.5		JSRGze005	1.5
CAS	37026	2.5	CAS	90413	4	USNM	361503	0.5		JSRGze009	1.5
CAS	42041	2.5	CAS	42014	4	USNM	371467	0.5		JSRGze025	1.5
CAS	42043	3		312627	4	USNM	370458	0.5		JSRGze026	1.5
CAS	42042	3		223670	4	USNM	370835	0.5	CAS	33027	2
CAS	37104	3	CAS	27490	5	USNM	259888	0.5	CAS	37257	2
USNM	267375	3	CAS	42016	5	USNM	257144	0.5		JSRGze006	2
USNM	339026	3	CAS	42015	5	USNM	334789	0.5		JSRGze018	2
USNM	343371	3		JSRGun012	5	USNM	359276	0.5		JSRGze035	2
USNM	307784	3	CAS	51025	6	USNM	338027	0.5	CAS	37264	2.1
USNM	307785	3	CAS	42028	6	USNM	342098	0.5	CAS	37263	2.4
USNM	312449	3	CAS	42017	6	USNM	342099	0.5		JSRGze030	2.5
USNM	312448	3	CAS	42018	6	USNM	334790	0.5	CAS	37261	3
USNM	312451	3	CAS	42023	6	USNM	350144	0.5	CAS	37258	3
CAS	37051	3.5		JSRGun024	6	USNM	312131	0.5		JSRGze003	3
CAS	37101	3.5	CAS	27499	6.5	USNM	312136	0.5		JSRGze019	3
CAS	37049	4	SU	50038	7	USNM	312119	0.5		JSRGze036	3
CAS	37042	4	CAS	27500	7	USNM	285702	0.5	USNM	342104	4
CAS	37021	4		JSRGun001	7	CAS	13799	0.6		JSRGze031	5
CAS	90416	4		JSRGun009	7	CAS	37349	0.6	USNM	332353	5

CAS	37093	4		CAS	27501	8		CAS	63233	0.6		USNM	318328	5
CAS	37099	4		CAS	42026	8		USNM	223677	0.6		CAS	37268	6.1
	JSRGfl003	4			JSRGun010	8		USNM	312138	0.65		CAS	37259	6.1
USNM	343372	4			312606	8		CAS	33444	0.7		CAS	37271	6.1
USNM	347027	4		CAS	42011	9		CAS	37347	0.9		CAS	37267	7.6
USNM	312422	4			JSRGun015	9		CAS	37360	0.9			JSRGze020	8
USNM	312430	4			JSRGun020	9		CAS	63225	0.9		USNM	380160	9
CAS	37036	5			JSRGun021	9			JSREne001	1		CAS	37260	10.6
CAS	37041	5			312609	9			JSREne015	1		USNM	312165	15
USNM	315562	5		CAS	90427	10			JSREne020	1				
USNM	312429	5		CAS	42024	10			JSREne025	1				
CAS	37030	6		CAS	42029	10			JSREne038	1				
CAS	37016	6		CAS	42030	10		USNM	312123	1				
CAS	37017	6		CAS	27497	10		USNM	362156	1				
CAS	37043	6		CAS	90412	10		USNM	318008	1				
CAS	37044	6		CAS	42020	10		USNM	312129	1				
CAS	37045	6		CAS	42021	10		USNM	312120	1				
CAS	37092	6			JSRGun002	10		USNM	312125	1				
CAS	37100	6			JSRGun005	10		USNM	342096	1.1				
CAS	37102	6			JSRGun006	11		CAS	37354	1.1				
USNM	312555	6			JSRGun007	11		CAS	37357	1.1				
USNM	315561	6			JSRGun011	11		CAS	37356	1.2				
CAS	37110	7			312607	11		CAS	37335	1.2				
CAS	37089	7		CAS	42019	12		CAS	37348	1.2				
CAS	42040	7		CAS	27491	12		CAS	37344	1.2				
CAS	37107	7			JSRGun004	12		USNM	300518	1.25				
CAS	37105	7			JSRGun008	12		CAS	37326	1.5				
CAS	90425	7			JSRGun018	12		CAS	37343	1.5				
USNM	344001	7			318302	12		USNM	342097	1.5				
CAS	37014	8			313223	12		USNM	267372	1.5				
CAS	37111	8			JSRGun016	13		USNM	343386	1.5				

CAS	37097	8			JSRGun017	13		USNM	135179	1.5			
USNM	307782	8		CAS	90418	15		USNM	312139	1.5			
USNM	209544	8			JSRGun013	15		USNM	337987	1.5			
USNM	347734	8			312605	15		CAS	37331	1.8			
CAS	42045	8.2			214573	15		CAS	37359	1.8			
CAS	37047	9		CAS	42031	18		CAS	37342	1.9			
CAS	201871	10			262775	18		CAS	34520	2			
CAS	37020	10		CAS	27495	19			JSREne002	2			
CAS	37022	10		CAS	42027	20			JSREne003	2			
CAS	37108	10		CAS	27489	30			JSREne010	2			
CAS	57631	10			JSRGun069	30			JSREne011	2			
CAS	86654	10			JSRGun063	31			JSREne012	2			
USNM	383458	10			JSRGun039	33			JSREne013	2			
SU	20649	10.5			JSRGun067	34			JSREne014	2			
CAS	220054	12			JSRGun065	35			JSREne018	2			
CAS	37090	12			JSRGun056	37			JSREne021	2			
CAS	37091	12			JSRGun037	43			JSREne022	2			
	JSRGfl006	12			JSRGun057	43			JSREne026	2			
CAS	37109	13			JSRGun034	45			JSREne045	2			
CAS	37050	15			JSRGun040	47			JSREne046	2			
CAS	37034	15			JSRGun045	47			JSREne049	2			
CAS	37025	15			JSRGun046	47			JSREne050	2			
CAS	37015	15			JSRGun047	47			JSREne051	2			
	JSRGfl005	15			JSRGun050	48			JSREne052	2			
USNM	345799	15			JSRGun055	48			JSREne058	2			
USNM	377913	15			JSRGun072	48		USNM	343387	2			
CAS	37046	18			JSRGun073	48		CAS	37362	2.1			
CAS	37024	18			JSRGun074	48		CAS	37336	2.4			
	JSRGfl002	18			JSRGun075	48		USNM	285703	2.5			
CAS	37048	20		CAS	90417	50		USNM	387469	2.75			
CAS	37023	20			JSRGun035	51		CAS	37337	3			

CAS	37115	20		JSRGun044	52		JSREne004	3				
	JSRGfl008	20		JSRGun029	53		JSREne005	3				
	JSRGfl010	20		JSRGun068	53		JSREne027	3				
	JSRGfl012	20		JSRGun078	53		JSREne028	3				
	JSRGfl014	20		JSRGun079	53		JSREne047	3				
	JSRGfl019	20		JSRGun028	55		JSREne048	3				
USNM	343373	20		JSRGun077	56	USNM	210919	3				
	JSRGfl009	21		JSRGun041	57	CAS	37358	3.2				
	JSRGfl017	22		JSRGun025	58	CAS	37346	3.2				
	JSRGfl025	22		JSRGun058	58	CAS	35149	3.2				
CAS	42044	23		JSRGun071	58	CAS	37324	3.2				
	JSRGfl011	23		JSRGun051	59	USNM	343995	3.5				
CAS	210802	24		JSRGun070	59	USNM	135178	3.5				
	JSRGfl007	24	CAS	42022	60	USNM	374362	3.5				
	JSRGfl027	24		JSRGun048	60	USNM	135191	3.5				
CAS	37031	25		JSRGun066	60	CAS	37334	3.7				
CAS	37052	25		JSRGun064	62	CAS	37361	3.7				
CAS	30261	25		JSRGun033	63	SU	14759	3.7				
CAS	37113	25		JSRGun036	63		JSREne019	4				
	JSRGfl001	25		JSRGun049	64	USNM	135213	4				
	JSRGfl013	25		JSRGun026	65	USNM	135182	4				
	JSRGfl016	25		JSRGun031	66		JSREne042	5				
	JSRGfl004	26		JSRGun032	66	USNM	135184	5				
	JSRGfl015	26		JSRGun030	67	CAS	37355	6.1				
	JSRGfl021	26		JSRGun076	67	CAS	37345	6.1				
	JSRGfl026	26		JSRGun052	73	USNM	345794	7.5				
	JSRGfl028	26		JSRGun059	73		JSREne043	8				
	JSRGfl018	27		JSRGun060	73		JSREne044	8				
	JSRGfl020	27		JSRGun061	73	USNM	318327	8.5				
	JSRGfl024	28		JSRGun062	73		JSREne037	9				
	JSRGfl022	29		JSRGun043	74	USNM	318326	10				

	JSRGfl023	29			JSRGun027	77		CAS	37325	15			
CAS	37032	30			JSRGun053	78		CAS	37350	15			
USNM	332406	30			JSRGun042	80							
CAS	37096	35			JSRGun054	120							
USNM	386006	35			JSRGun038	150							
	JSRGfl058	49											
CAS	37035	50											
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	JSRGfl052	50											
	JSRGfl053	53											
	JSRGfl039	54											
	JSRGfl048	54											
	JSRGfl050	54											
	JSRGfl064	54											
	JSRGfl069	55											
	JSRGfl061	56											
	JSRGfl063	56											
	JSRGfl065	56											
	JSRGfl030	57											
	JSRGfl059	57											
	JSRGfl068	57											
	JSRGfl070	58											
	JSRGfl047	60											
	JSRGfl054	60											
	JSRGfl055	60											
	JSRGfl056	60											
	JSRGfl037	61											
	JSRGfl031	62											
	JSRGfl032	62											
	JSRGfl057	62											
	JSRGfl034	63											

JSRGfl042	63												
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JSRGfl029	67												
JSRGfl062	67												
JSRGfl067	67												
JSRGfl046	68												
JSRGfl066	68												
JSRGfl035	69												
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JSRGfl072	69												
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JSRGfl074	69												
JSRGfl033	70												
JSRGfl044	70												
JSRGfl040	120												
JSRGfl041	150												
JSRGfl071	150												