

1 **Electronic Supplementary Material:** Evans et al. Patterns of species range evolution in Indo-Pacific reef assemblages reveal the Coral Triangle
 2 as a net source of transoceanic diversity
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4 **Table S1.** Sources of data used in analyses. Full references are provided below.
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Class	Species	Common name	Total locations	Total sequences	Mean sequences per location	Data type	Reference	Genbank Accessions
Actinopterygii	<i>Acanthurus triostegus</i>	convict tang	11	173	15.7	Control Region	1	KJ779749- KJ779871
Actinopterygii	<i>Amphiprion perideraion</i>	pink anemonefish	12	182	15.2	Control Region	2	JX513647- JX513875; DQ343940
Actinopterygii	<i>Apogon doederleini</i>	Doederlein's cardinalfish	3	54	18.0	Control Region	3	JF717921- JF717974
Actinopterygii	<i>Chaetodon auriga</i>	threadfin butterflyfish	9	239	26.6	Cytochrome b	4	KM488667- KM488795
Actinopterygii	<i>Chaetodon citrinellus</i>	speckled butterflyfish	3	77	25.7	Control Region	5	JX231274- JX231350
Actinopterygii	<i>Chaetodon lunulatus</i>	oval butterflyfish	3	79	26.3	Control Region	5	JX231351- JX231429
Actinopterygii	<i>Chaetodon trifascialis</i>	chevron butterflyfish	3	79	26.3	Control Region	5	JX231430- JX231508
Actinopterygii	<i>Chaetodon vagabundus</i>	vagabond butterflyfish	3	75	25.0	Control Region	5	JX231509- JX231583
Actinopterygii	<i>Chlorurus sordidus</i>	daisy parrotfish	8	175	21.9	Control Region	6	AY392560- AY392744
Actinopterygii	<i>Chromis atripectoralis</i>	black-axil chromis	3	105	35.0	Control Region	5	JX231169- JX231273
Actinopterygii	<i>Chromis viridis</i>	green chromis	3	90	30.0	Control Region	5	JX231584- JX231673
Actinopterygii	<i>Dascyllus trimaculatus</i>	threespot dascyllus	9	145	16.1	Control Region	1	KJ779398- KJ779534; JF18156- JF18183
Actinopterygii	<i>Epinephelus fasciatus</i>	blacktip grouper	23	566	24.6	Cyt b to Control Region	7	AB705627- AB706168; AB82990- AB82993
Actinopterygii	<i>Gobiodon quinquestrigatus</i>	five-lined coral goby	3	79	26.3	Control Region	5	JX231674- JX231752
Actinopterygii	<i>Halichoeres hortulanus</i>	checkerboard wrasse	8	137	17.1	Control Region	1	KJ779535- KJ779681
Actinopterygii	<i>Hippocampus barbouri</i>	Barbour's seahorse	5	96	19.2	Cytochrome b	8	AY495716- AY495738
Actinopterygii	<i>Hippocampus kuda</i>	common seahorse	10	243	24.3	Cytochrome b	8	AY422091- AY422115; AY422126- AY422166
Actinopterygii	<i>Hippocampus spinosissimus</i>	hedgehog seahorse	8	170	21.3	Cytochrome b	8	AY495739- AY495825
Actinopterygii	<i>Hippocampus trimaculatus</i>	flat-faced seahorse	8	83	10.4	Cytochrome b	8	AF192699- AF192703; AY322434- AY322476
Actinopterygii	<i>Labroides dimidiatus</i>	bluestreak cleaner wrasse	9	116	12.9	Control Region	9	KC151127- KC151184; KC151189- KC151207; KC151212- KC151250
Actinopterygii	<i>Myripristis berndti</i>	blotcheye soldierfish	16	278	17.4	Cytochrome b	10	DQ868393- DQ868429

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8 **Table S1.** continued

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Class	Species	Common name	Total locations	Total sequences	Mean sequences per location	Data type	Reference	Genbank Accessions
Actinopterygii	<i>Naso brevirostris</i>	spotted unicornfish	7	102	14.6	Control Region	11	FJ216727- FJ216828
Actinopterygii	<i>Naso hexacanthus</i>	sleek unicornfish	7	86	12.3	Control Region	12	KC212823- KC213057
Actinopterygii	<i>Naso unicornis</i>	bluespine unicornfish	5	97	19.4	Control Region	11	FJ216829- FJ216925
Actinopterygii	<i>Naso vlamingii</i>	bignose unicornfish	8	113	14.1	Control Region	13	DQ767974- DQ768086
Actinopterygii	<i>Paracirrhites arcatus</i>	arc-eye hawkfish	3	77	25.7	Control Region	5	JX231753- JX231829
Actinopterygii	<i>Paracirrhites forsteri</i>	black-sided hawkfish	3	80	26.7	Control Region	5	JX231830- JX231909
Actinopterygii	<i>Plectropomus leopardus</i>	leopard coral grouper	4	94	23.5	Control Region	14	DQ643415- DQ643465; DQ643476- DQ643519
Actinopterygii	<i>Plectropomus maculatus</i>	spotted coral grouper	7	94	13.4	Control Region	14	DQ643520- DQ643584; DQ643594- DQ643600; DQ643602- DQ643622
Actinopterygii	<i>Pseudochromis fuscus</i>	dusky dottyback	4	93	23.3	Control Region	15	AY553417- AY553511
Actinopterygii	<i>Scarus psittacus</i>	common parrotfish	8	145	18.1	Control Region	16.	EU926978- EU927144
Actinopterygii	<i>Siganus argenteus</i>	streamlined spinefoot	3	71	23.7	Cytochrome b	17.	DQ898028- DQ898036
Actinopterygii	<i>Thalassoma hardwicki</i>	sixbar wrasse	8	104	13.0	Control Region	18.	AY185923- AY186029
Actinopterygii	<i>Zebrasoma scopas</i>	twotone tang	3	79	26.3	Control Region	5	JX231910- JX231988
Actinopterygii	<i>Zebrasoma veliferum</i>	sailfin tang	3	73	24.3	Control Region	5	JX231989- JX232061
Asteroidea	<i>Acanthaster planci</i>	crown-of-thorns starfish	12	90	7.5	COI	19	FM174472- FM174513; FM174522- FM174536; FM174561- FM174573; FM202070- FM202075
Bivalvia	<i>Pinctada maxima</i>	south sea pearl	7	256	36.6	COI	20.	JQ990784- JQ990830
Echinoidea	<i>Tripneustes gratilla</i>	collector urchin	7	65	9.3	COI	21	AY205373- AY205560
Gastropoda	<i>Conus ebraeus</i>	black-and-white cone	6	80	13.3	COI	22	EF547559- EF547649
Gastropoda	<i>Conus miliaris</i>	thousand-spot cone	4	126	31.5	COI	23	AY588203; FJ392914- FJ393023; FJ411486- FJ411516
Holothuroidea	<i>Holothuria whitmaei</i>	teated sea cucumber	15	352	23.5	COI	24	AY176775- AY177134
Malacostraca	<i>Panulirus homarus</i>	scalloped spiny lobster	4	202	50.5	D-loop	Unpublished	KM186313- KM186505; KM186511- KM186519
Malacostraca	<i>Panulirus penicillatus</i>	red spiny lobster	9	435	48.3	Control Region	25	AB689204- AB689672
Malacostraca	<i>Penaeus monodon</i>	giant tiger prawn	9	311	34.6	Control Region	26	EU426576- EU426831
Reptilia	<i>Aipysurus laevis</i>	olive sea snake	8	188	23.5	ND4	27	EF506638- EF506675

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11 **Table S2.** Relative timing and locations of earliest and latest population establishment within the data for 45 species, and slope of the
 12 relationship between standardised time of establishment and standardised distance to centre of the Coral Triangle.
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Species	Location of earliest establishment	Time of earliest establishment (scaled by mutation rate)	Distance from Coral Triangle centre (km)	Location of latest establishment	Time of latest establishment (scaled by mutation rate)	Distance from Coral Triangle centre (km)	Regression slope (relative time of establishment vs relative distance to centre of Coral Triangle)
<i>Acanthurus triostega</i>	Tuvalu	0.005	4921	Kavieng	0.000	1720	0.318
<i>Amphiprion peridaraion</i>	Biak	0.038	94	Kendari	0.019	1451	-0.391
<i>Apogon doederleini</i>	Lizard Island	0.016	1826	Ningaloo	0.009	3213	-0.998
<i>Chaetodon auriga</i>	Madagascar	0.002	10117	French Polynesia	0.001	8352	0.015
<i>Chaetodon citrinellus</i>	Great Barrier Reef	0.024	1827	French Polynesia	0.003	8352	-0.957
<i>Chaetodon lunulatus</i>	Great Barrier Reef	0.005	1827	French Polynesia	0.002	8352	-0.980
<i>Chaetodon trifasciatus</i>	Great Barrier Reef	0.009	1827	French Polynesia	0.007	8352	-0.998
<i>Chaetodon vagabundus</i>	New Caledonia	0.007	4074	French Polynesia	0.005	8352	-0.906
<i>Chlorurus sordidus</i>	Lizard Island	0.024	1826	Seychelles	0.014	8878	-0.274
<i>Chromis atripectoralis</i>	New Caledonia	0.022	4074	French Polynesia	0.002	8352	-0.788
<i>Chromis viridus</i>	New Caledonia	0.021	4074	French Polynesia	0.003	8352	-0.756
<i>Dasyllus trimaculatus</i>	Chagos	0.021	7049	Solomon	0.007	2556	0.190
<i>Epinephelus fasciatus</i>	Taiwan (south)	0.003	3048	Kozu	0.001	3981	-0.562
<i>Gobidon quinquestrigatus</i>	Great Barrier Reef	0.009	1827	New Caledonia	0.008	4074	0.177
<i>Halichoeres hortulanus</i>	Kavieng	0.018	1720	Chagos	0.005	7049	-0.109
<i>Hippocampus barbouri</i>	Java	0.002	2998	Bali	0.001	2380	0.759
<i>Hippocampus kuda</i>	Bali	0.003	2429	Thailand	0.000	4120	-0.263
<i>Hippocampus spinosissimus</i>	Cambodia	0.007	3771	Vietnam	0.002	3269	-0.216
<i>Hippocampus trimaculatus</i>	Cambodia	0.004	3769	Lombok	0.002	2247	0.577
<i>Labroides dimidiatus</i>	Maldives	0.024	6889	PNG	0.007	1480	0.526
<i>Myripristis berndti</i>	Seychelles	0.004	8878	Clipperton	0.000	12836	-0.367
<i>Naso brevirostris</i>	Seychelles	0.063	8877	Cocos	0.022	4407	-0.167
<i>Naso hexacanthus</i>	Seychelles	0.109	8877	Marquesas	0.061	9471	-0.415
<i>Naso unicornis</i>	Western	0.069	2759	Seychelles	0.055	8877	-0.666

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Table S2. continued.

Species	Location of earliest establishment	Time of earliest establishment (scaled by mutation rate)	Distance from Coral Triangle centre (km)	Location of latest establishment	Time of latest establishment (scaled by mutation rate)	Distance from Coral Triangle centre (km)	Regression slope (relative time of establishment vs relative distance to centre of Coral Triangle)
<i>Naso vlamingii</i>	Christmas Island	0.129	3422	French P	0.074	8352	-0.180
<i>Paracirrhites arcatus</i>	French Polynesia	0.022	8352	Great Barrier Reef	0.015	1827	0.933
<i>Paracirrhites forsteri</i>	Great Barrier Reef	0.026	1827	New Caledonia	0.010	4074	-0.719
<i>Plectropomus leopardus</i>	Capricorn	0.012	3018	Abrolhos	0.003	3759	-0.104
<i>Plectropomus maculatus</i>	Hervey	0.020	3198	Torres	0.004	1248	0.749
<i>Pseudochromis fuscus</i>	Kimbe	0.017	1712	Loloata	0.004	1583	-0.320
<i>Scarus psittacus</i>	Cocos Island	0.007	4408	Marquesas	0.003	9462	-0.506
<i>Siganus argentus</i>	New Caledonia	0.003	4070	Truk	0.001	2080	0.841
<i>Thalassoma hardwicki</i>	Zambales	0.017	1835	Marou	0.011	2965	-0.398
<i>Zebrasoma scopas</i>	French Polynesia	0.061	8352	New Caledonia	0.040	4074	0.926
<i>Zebrasoma veliferum</i>	Great Barrier Reef	0.038	1827	French Polynesia	0.027	8352	-0.972
<i>Acanthaster planci</i>	Moorea	0.007	8355	Enderby	0.001	6156	0.429
<i>Pinctada maxima</i>	Solomon	0.003	2721	Torres	0.000	1284	0.391
<i>Tripneustes gratilla</i>	Philippines	0.004	2533	Easter Island	0.002	12418	-0.512
<i>Conus ebraeus</i>	Philippines	0.002	1724	Hawaii	0.001	7897	-0.636
<i>Conus miliaris</i>	Philippines	0.010	1724	Easter Island	0.005	12418	-0.855
<i>Holothuria whitmaei</i>	Kenn	0.005	3103	Coral	0.002	3335	0.079
<i>Panulirus homanus</i>	Vietnam	0.040	3269	Oman	0.015	8499	-0.672
<i>Panulirus penicillatus</i>	Okinawajima	0.039	3221	Isabela	0.025	14859	-0.880
<i>Penaeus monodon</i>	North Australia	0.021	1706	East Thailand	0.008	3979	0.020
<i>Aipysurus laevis</i>	Hibernia	0.001	1757	Ashmore	0.000	1794	-0.056

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18 **References in Supporting Information**

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