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Supplementary material

Population structure in a wide-ranging coastal teleost (*Argyrosomus japonicus*, Sciaenidae) reflects marine biogeography across southern Australia

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Table S1. Locus, primer sequence and other information for microsatellite data

Locus	Primer sequence	Motif	Initial product size (bp)	Size range (bp)	Pool	Colour	Concentration (nM)
Arja14	F–GGTGGGGCCAGTGATCTTC R–TCAACACCTCCTATCATCACC	(GAT)^18	171	156–190	1	VIC	60
Arja18	F–GAGGTGGTCACAGTCCCTC R–ACCTTCTCCCTGCGAACTC	(AGC)^8	174	182–230	1	FAM	10
Arja19	F–CACGAGTGGAGTCTGGTGG R–TCGTTGCCGTCGTGATTTC	(GAT)^9	176	179–200	1	PET	10
Arja21	F–TCAACATCCCGAGTGAATGTG R–GACTGTCAATGAAATAAAGGGAGC	(AAT)^15	179	180–198	1	NED	10
Arja22	F–CGGTTGGTAAATGCTTGCAG R–AAGCTCACCTGAACCCCAC	(AGAT)^14	207	186–238	2	FAM	60
Arja26	F–CAGACACTAGATGGCAGTATTGG R–ACCTCCAGGAAGCAGTCATC	(AGAT)^18	218	179–238	2	NED	40
Arja28	F–AGCCTCCACAGTGAGCTTC R–TCACTGATATCTTGAATTCTTCGG	(AGAT)^22	223	185–253	2	PET	20
Arja33	F–GGGACTGTTCCCTGACCTTC R–AACATAGGACCTTGCCTGC	(ATCT)^17	243	240–296	1	VIC	10
Arja34	F–ATTACCCTGCCTGTCCAGC R–CTTGAAACAGCCGAAGGGG	(AGAGG)^12	246	240–270	1	NED	10
Arja37	F–TTTGTAAACAGCATCGTTTGTG R–AACATATCGGTGCATATCGTTC	(CTT)^13	254	253–265	2	VIC	
Arja39	F–GCCACTGTGCATGTGGAG R–AATTCAGTTCAACAGCCTTGG	(ATT)^9	257	265–275	1	FAM	10
Arja41	F–CCCTTTTAACGCGTGGGAC R–CTCAGGTAATTGTAGGTTGAGGC	(CTTT)^14	261	250–280	1	PET	20
UBA42	F–ACGACGTTGTAAAATGCCAGCAGACAGCATTATC R–CATTAAGTTCCCATTAGCTCGCAGGTCTTGAGATTG	(TGC)^21	–	171–217	2	VIC	40

Table S2. Pairwise F_{ST} values with exact G tests (significant pairwise comparisons of exact G test indicated by asterisk) (above diagonal) and pairwise geographic distance (km) (below diagonal)

Location codes are in Table 1. *, $P < 0.05$; **, $P < 0.001$

	CAR	PER	GAB	YAL	GSV	COO	BEA	GLE	SHO	SYD	HAW	CLA	SAF
CAR		0.018*	0.206**	0.212**	0.228**	0.235**	0.230**	0.237**	0.200**	0.210**	0.206**	0.191**	0.224**
PER	900	–	0.178**	0.180**	0.180**	0.191**	0.184**	0.187**	0.157**	0.167**	0.163**	0.150**	0.221**
GAB	2551	1633	–	0.009	0.062*	0.053**	0.051*	0.066*	0.048**	0.045*	0.0445**	0.047*	0.262**
YAL	2735	1818	185	–	0.065**	0.059**	0.058*	0.070**	0.051**	0.053*	0.050**	0.049**	0.267**
GSV	3578	2678	1025	840	–	0.002	–0.003	0.001	0.016**	0.032*	0.012*	0.013*	0.264**
COO	3586	2686	1035	850	190	–	–0.003	0.001	0.020**	0.034**	0.016**	0.016*	0.278**
BEA	3870	2952	1369	1134	474	284	–	–0.007	0.017*	0.031*	0.014*	0.013*	0.255**
GLE	3936	3018	1385	1200	540	350	66	–	0.026*	0.044*	0.026*	0.023*	0.269**
SHO	5109	4209	2558	2373	1713	1523	1239	1173	–	0.007*	0.002*	0.001*	0.240**
SYD	5319	4419	2768	2583	1936	1733	1449	1383	210	–	0.008*	0.007	0.242**
HAW	5339	4439	2788	2603	1943	1753	1469	1403	230	20	–	–0.001	0.248**
CLA	5718	4818	3167	2982	2322	2132	1848	1782	609	399	379	–	0.241**

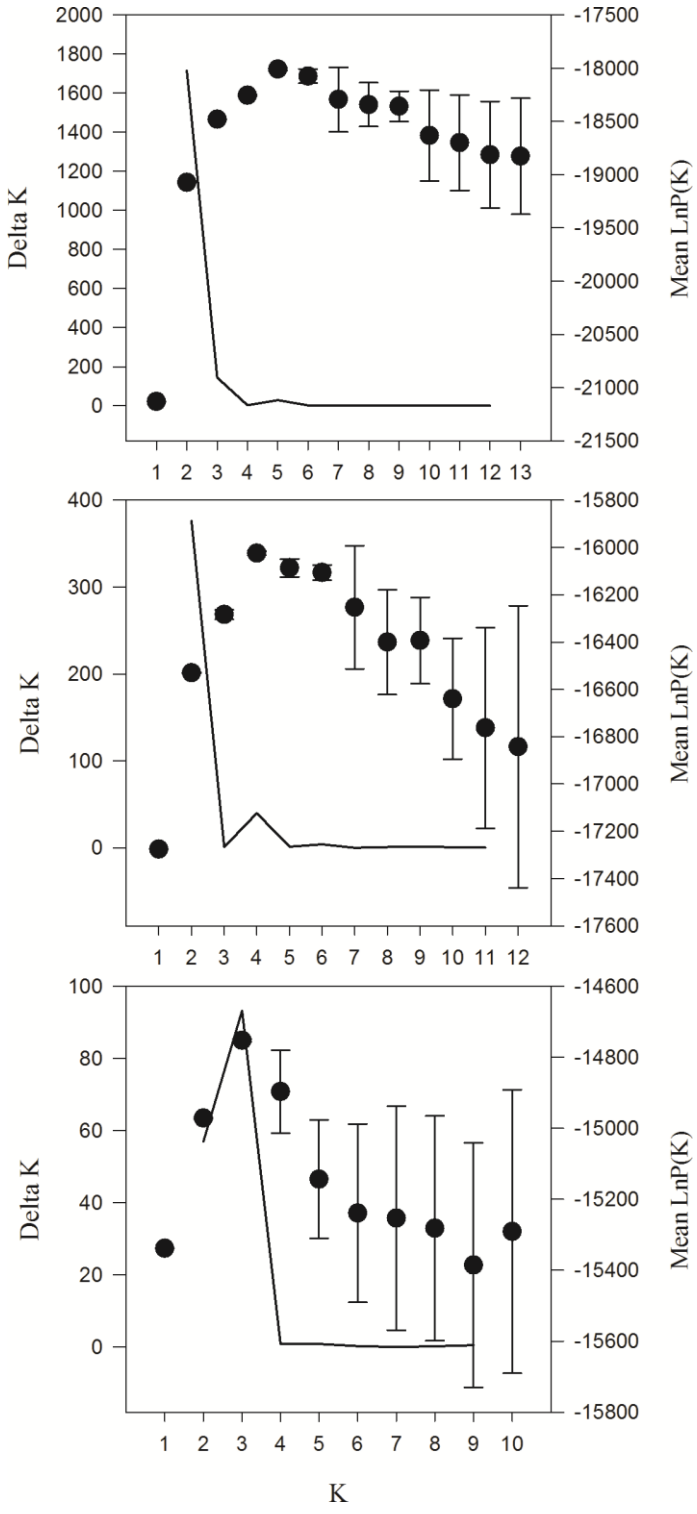

Fig. S1. ΔK (line-plot) and mean ln probability (P) (scatterplot) from the STRUCTURE runs of the: upper graph) 13 sample sets, middle graph) 12 Australian sample sets (i.e. all except for the previously most divergent (SAF) and lower graph) the 10 central to eastern Australian sample sets (i.e. all except for the previously most divergent (CAR and PER)).