

Supplementary material

Contrasting population structures of three *Pristis* sawfishes with different patterns of habitat use

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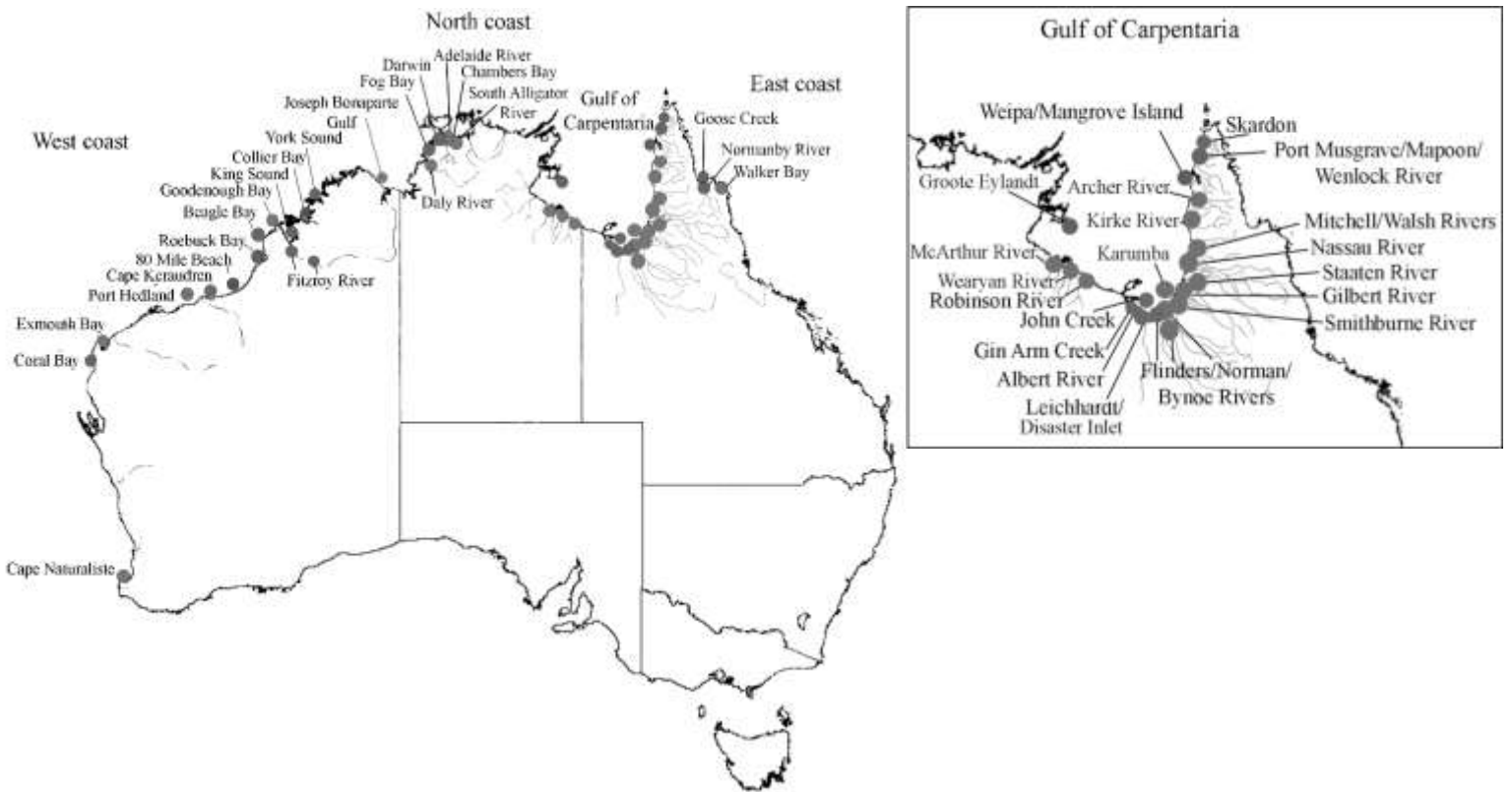


Fig. S1. Approximate sampling locations for *Pristis clavata*, *P. zijsron* and *P. pristis* across Australia. From Phillips *et al.* (2011).

Table S1. Number of individuals of each of *Pristis clavata*, *P. zijsron*, and *P. pristis* collected from each locality

The sites were located in the following four geographic regions: the western coast (WC), northern coast (west of the Gulf of Carpentaria, NC), the Gulf of Carpentaria (GoC) and eastern coast (EC)

Sampling location	<i>P. zijsron</i>	<i>P. clavata</i>	<i>P. pristis</i>
WC Cape Naturaliste	–	–	1
Coral Bay	2	–	–
Exmouth Bay	1	–	–
Port Hedland area	1	–	–
Cape Keraudren	13	2	–
80 Mile Beach	6	6	–
Roebuck Bay	1	–	–
Goodenough Bay	–	2	–
King Sound	–	11	2
Fitzroy River	–	6	33
Collier Bay	–	5	–
York Sound	–	2	–
NC Fog Bay	–	–	–
Daly River	–	–	3
Darwin area	–	8	–
Adelaide River	–	–	3
Chambers Bay	–	–	1
South Alligator River	–	2	1
GoC Groote Eylandt	3	–	–
McArthur River	–	–	4
Wearyan River	–	–	–
Robinson River	–	–	–
Western gulf	–	–	–
Gin Arm Creek	–	–	1
John Creek foreshore	–	2	–
Albert River	1	1	–
Leichhardt River	–	1	8
Disaster Inlet	–	–	1
Flinders/Bynoe/Norman Rivers	–	1	10
Karumba area	3	–	–
Smithburne River	–	1	3
Gilbert River	–	–	9
Staaten River	–	2	–
Nassau River	–	–	5
Mitchell River–Walsh River	–	2	14
Kirke River	–	–	3
Archer River	–	–	7
Weipa	4	5	1
Mangrove Island	–	2	–
Port Musgrave	1	2	1
Mapoon	2	–	–
Wenlock River	1	–	–
Skardon	1	–	–
Gulf of Carpentaria	2	6	1
EC Goose Creek	3	–	–
Normanby River	–	–	–
Walker Bay	–	–	–
East coast	3	–	–

Table S2. Summary statistics for eight microsatellite loci in *Pristis clavata* from the western coast (WC), northern coast (NC) and the Gulf of Carpentaria (GoC) in Australia

N, number of individuals; *A*, number of alleles; *k*, total number of alleles; *H_E*, expected heterozygosity; *H_O*, observed heterozygosity; *P*, outcome of tests for Hardy–Weinberg equilibrium; no values were statistically significant after a Bonferroni correction: $P < 0.002$

Region	Parameter	<i>Ppe4</i>	<i>Ppe5</i>	<i>Ppe69</i>	<i>Ppe122</i>	<i>Ppe152</i>	<i>Ppe165</i>	<i>Ppe179</i>	<i>Ppe186</i>
WC	<i>N</i>	34	34	34	34	29	26	31	31
	<i>A</i>	14	19	10	9	16	16	13	11
	<i>H_E</i>	0.915	0.925	0.795	0.793	0.928	0.933	0.879	0.880
	<i>H_O</i>	1.000	0.912	0.853	0.824	0.897	1.000	0.871	0.871
	<i>P</i>	0.983	0.873	0.658	0.423	0.112	0.439	0.504	0.969
NC	<i>N</i>	10	9	10	10	2	2	9	4
	<i>A</i>	10	10	5	7	3	4	7	6
	<i>H_E</i>	0.911	0.922	0.442	0.884	0.833	1.000	0.817	0.929
	<i>H_O</i>	0.600	1.000	0.400	1.000	1.000	1.000	0.556	0.750
GoC	<i>N</i>	22	23	23	25	18	18	21	23
	<i>A</i>	11	16	5	8	12	10	10	14
	<i>H_E</i>	0.910	0.935	0.566	0.834	0.910	0.887	0.856	0.879
	<i>H_O</i>	1.000	0.957	0.696	0.720	0.889	0.667	0.783	0.739
	<i>P</i>	0.417	0.005	0.699	0.106	0.144	0.003	0.057	0.019
Overall	<i>k</i>	16	23	12	9	17	16	15	16
	<i>H_E</i>	0.912	0.927	0.601	0.837	0.890	0.940	0.855	0.896
	<i>H_O</i>	0.867	0.956	0.650	0.848	0.929	0.889	0.851	0.787

Table S3. Summary statistics for eight microsatellite loci in *Pristis zijsron* from the western coast (WC), the Gulf of Carpentaria (GoC) and the eastern coast (EC) of Australia

N , number of individuals; A , number of alleles; k , total number of alleles; H_E , expected heterozygosity; H_O , observed heterozygosity; P , outcome of tests for Hardy–Weinberg equilibrium; no values were statistically significant after a Bonferroni correction: $P < 0.002$

Region	Parameter	<i>Ppe4</i>	<i>Ppe88</i>	<i>Ppe152</i>	<i>Ppe165</i>	<i>Ppe172</i>	<i>Ppe179</i>	<i>Ppe180</i>	<i>Ppe186</i>
WC	N	23	23	23	24	23	24	24	23
	A	13	22	4	17	10	12	12	7
	H_E	0.870	0.962	0.274	0.930	0.879	0.902	0.865	0.752
	H_O	0.783	1.000	0.304	1.000	0.826	0.958	0.917	0.870
	P	0.371	0.812	1.000	0.344	0.581	0.599	0.151	0.216
GoC	N	14	15	18	15	15	15	16	16
	A	8	17	4	13	12	10	12	9
	H_E	0.831	0.949	0.303	0.924	0.885	0.892	0.879	0.853
	H_O	0.929	0.933	0.333	0.867	0.867	1.000	0.813	0.875
	P	0.903	0.341	1.000	0.126	0.535	0.510	0.225	0.629
EC	N	6	6	5	6	6	6	5	5
	A	6	7	2	7	6	5	4	2
	H_E	0.848	0.879	0.467	0.894	0.818	0.848	0.778	0.556
	H_O	1.000	1.000	0.600	0.833	0.833	0.833	0.800	1.000
Overall	k	14	29	6	19	16	13	18	10
	H_E	0.850	0.930	0.348	0.916	0.861	0.881	0.841	0.720
	H_O	0.904	0.978	0.412	0.900	0.842	0.930	0.843	0.915

Table S4. Summary statistics for seven microsatellite loci in *Pristis pristis* from the western coast (WC), northern coast (NC) and the Gulf of Carpentaria (GoC) in Australia

N, number of individuals; *A*, number of alleles; *k*, total number of alleles; H_E , expected heterozygosity; H_O , observed heterozygosity; *P*, outcome of tests for Hardy–Weinberg equilibrium; statistically significant values after a Bonferroni correction: *, $P < 0.002$

Region	Parameter	<i>Ppe4</i>	<i>Ppe5</i>	<i>Ppe122</i>	<i>Ppe167</i>	<i>Ppe172</i>	<i>Ppe180</i>	<i>Ppe186</i>
WC	<i>N</i>	35	33	36	27	29	29	32
	<i>A</i>	12	23	7	20	18	13	17
	H_E	0.890	0.952	0.677	0.935	0.940	0.767	0.938
	H_O	0.914	0.879	0.556	0.926	0.897	0.655	0.906
	<i>P</i>	0.219	0.152	0.156	0.021	0.055	0.116	0.308
NC	<i>N</i>	8	8	7	5	6	3	7
	<i>A</i>	8	11	5	6	7	4	9
	H_E	0.758	0.950	0.824	0.889	0.879	0.867	0.934
	H_O	0.750	1.000	0.857	0.800	0.833	0.667	0.857
	<i>P</i>	0.702	0.440	0.412	0.619	0.760	0.467	0.509
GoC	<i>N</i>	67	65	68	61	66	63	63
	<i>A</i>	13	31	7	23	21	18	19
	H_E	0.864	0.957	0.706	0.945	0.926	0.842	0.918
	H_O	0.836	0.969	0.765	0.951	0.908	0.794	0.905
	<i>P</i>	0.581	0.298	0.272	0.001*	0.062	0.032	0.108
Overall	<i>k</i>	14	33	7	27	21	20	24
	H_E	0.837	0.953	0.736	0.923	0.915	0.825	0.930
	H_O	0.833	0.949	0.726	0.892	0.879	0.705	0.889

References

- Phillips, N. M., Chaplin, J. A., Morgan, D. L., and Peverell, S. C. (2011). Population genetic structure and genetic diversity of three critically endangered *Pristis* sawfishes in Australian Waters. *Marine Biology* **158**, 903–915. doi:10.1007/s00227-010-1617-z