

Supplementary material

**Spatiotemporal distributions of two sympatric sawsharks
(*Pristiophorus cirratus* and *P. nudipinnis*) in south-eastern Australian waters**

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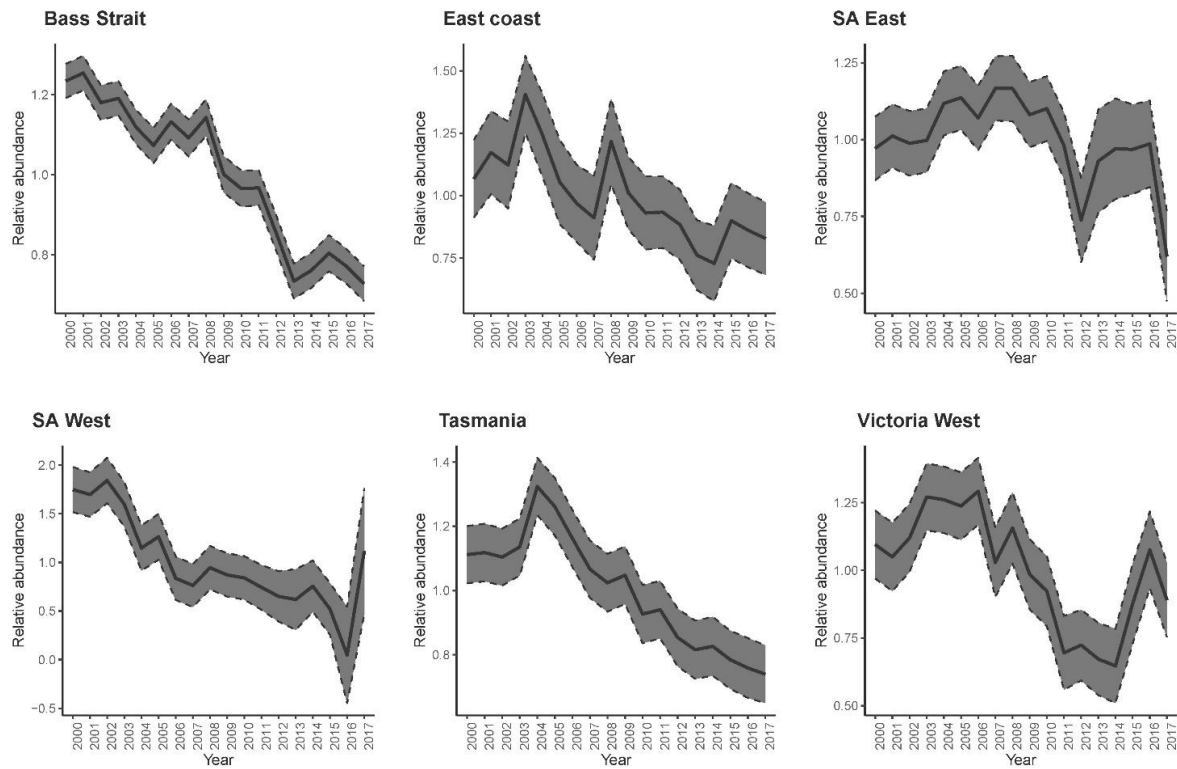


Fig. S1. Relative abundance of sawsharks (undifferentiated species) from Commonwealth gill-net fisheries in different zones from 2000 to 2017 (only non-zero values included for analysis).

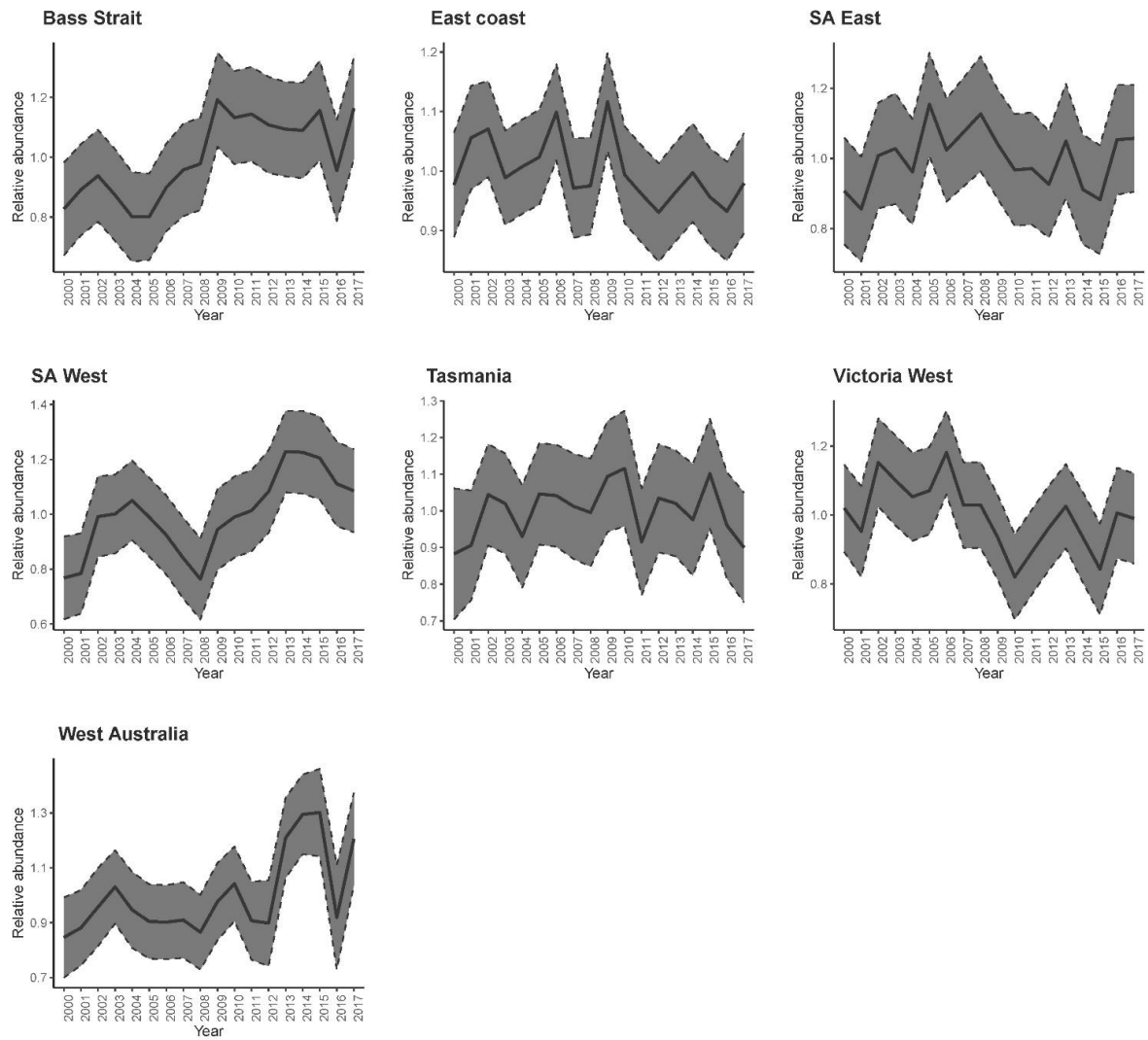


Fig. S2. Relative abundance of sawsharks (undifferentiated species) from Commonwealth trawl fisheries in different zones from 2000 to 2017 (only non-zero values included for analysis).

Table S1. Goodness of fit (Akaike’s information criterion, AIC, and R^2) of models tested for each fishery to produce standardised catch rates

Values in bold are the highest for that fishery. Final model selection was based on AIC value, except gill-netting which was chosen with the lowest AIC that included location as a factor

Model	Marginal R^2	Conditional R^2	AIC
AFMA trawl			
ln(CPUE) ~Month	0.030		136839
ln(CPUE) ~Month + Year	0.037		136498
ln(CPUE) ~Month + Year + (Boat ID nested in Location)	0.021	0.405	117684
ln(CPUE) ~Month + Year + Fishing zone + (Boat ID nested in Grid location)	0.089	0.363	117339
ln(CPUE) ~Month + Year × Fishing zone + (Boat ID nested in Grid location)	0.106	0.382	116382
ln(CPUE) ~Month + Year × Fishing zone + Grid location + (Boat ID nested in Grid location)	0.210	0.361	116734
ln(CPUE) ~Month + Year × Fishing zone + Grid location + Depth (Boat ID nested in Grid location)	0.212	0.360	116713
ln(CPUE) ~Month + Year × Fishing zone + Grid location × Depth (Boat ID nested in Grid location)	0.224	0.367	117887
AFMA gill-net			
ln(CPUE) ~Month	0.02		247310
ln(CPUE) ~Month + Year	0.048		244623
ln(CPUE) ~Month + Year + Fishing zone	0.201		228692
ln(CPUE) ~Month + Year × Fishing zone	0.213		227408
ln(CPUE) ~Month + Year × Fishing zone + (Boat ID nested in Grid location)	0.131	0.374	210885
ln(CPUE) ~Month + Year × Fishing zone + Grid location + (Boat ID nested in Grid location)	0.253	0.387	210069
ln(CPUE) ~Month + Year × Fishing zone + Grid location + Depth + (Boat ID nested in Grid location)	0.260	0.396	208841
ln(CPUE) ~Month + Year × Fishing zone + Grid location × Depth + (Boat ID nested in Grid location)	0.279	0.411	209056
AFMA Danish seine			
ln(CPUE) ~Month	0.012		49734
ln(CPUE) ~Month + Year	0.027		49483
ln(CPUE) ~Month + Year + Fishing zone	0.038		49269
ln(CPUE) ~Month + Year × Fishing zone	0.040		49234
ln(CPUE) ~Month + Year × Fishing zone+ (Random boat ID nested in Location)	0.045	0.258	47501
ln(CPUE) ~Month + Year × Fishing zone + Location + (Random boat ID nested in Location)	0.097	0.196	47387
ln(CPUE) ~Month + Year × Fishing zone + Location + Depth + (Random boat ID nested in Location)	0.100	0.197	47341
ln(CPUE) ~Month + Year × Fishing zone + Location × Depth + (Random boat ID nested in Location)	0.102	0.201	47583
NSW ocean trawl fishery			
ln(CPUE) ~Year	0.027		17282
ln(CPUE) ~Year + Month	0.093		17256
ln(CPUE) ~Year + Month + (Random boat ID nested in Location)	0.029	0.408	15595
ln(CPUE) ~Year + Month + Zone + (Random boat ID nested in Location)	0.081	0.423	15538
ln(CPUE) ~Year + Month + Zone + Method + (Random boat ID nested in Location)	0.176	0.379	15219