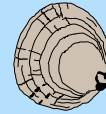


Restoring shellfish reefs using acoustic enrichment

Brittany R. Williams¹, Dominic McAfee¹ & Sean D. Connell¹
¹Southern Seas Ecology Laboratories, The University of Adelaide



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brittany.williams@adelaide.edu.au



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of ADELAIDE

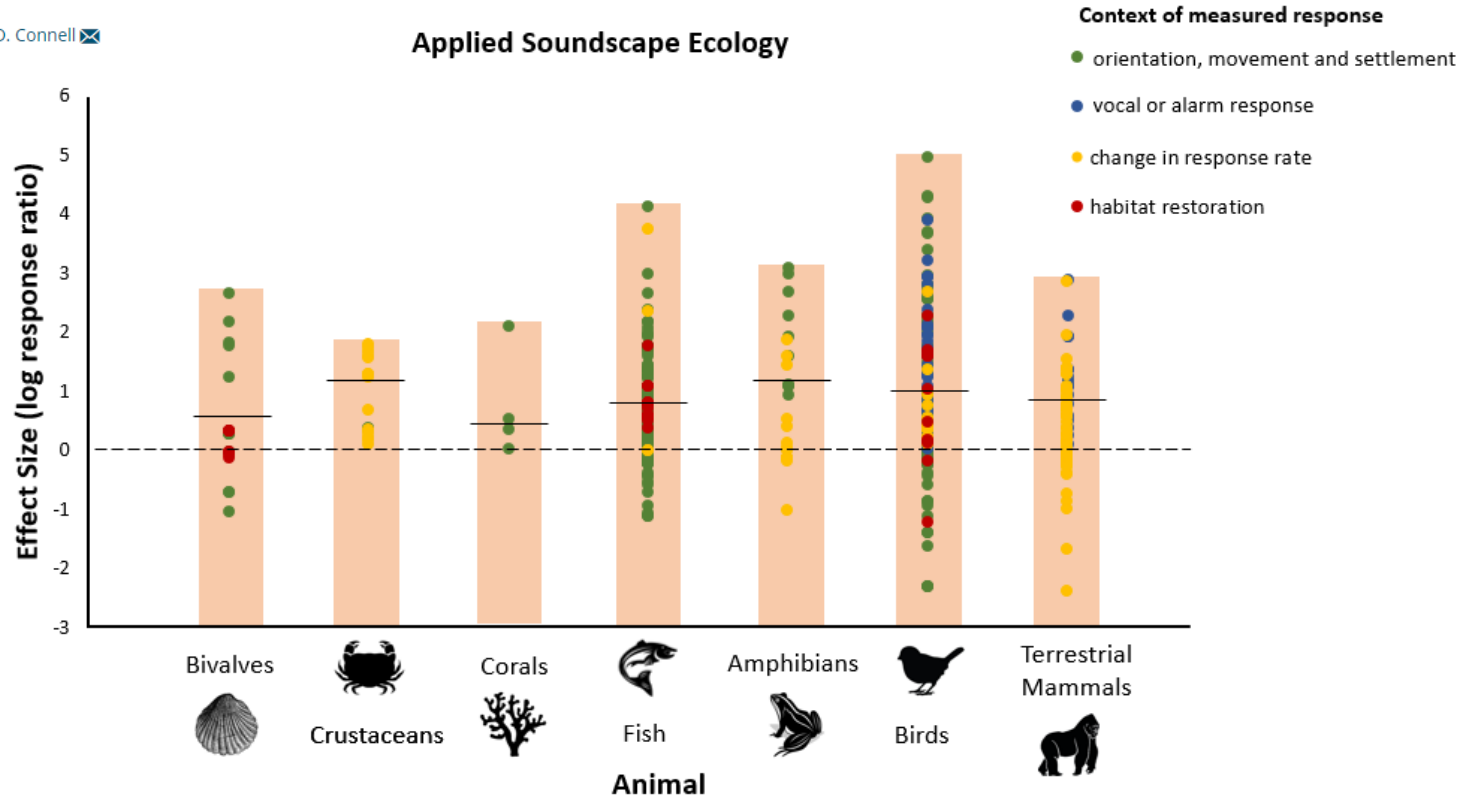


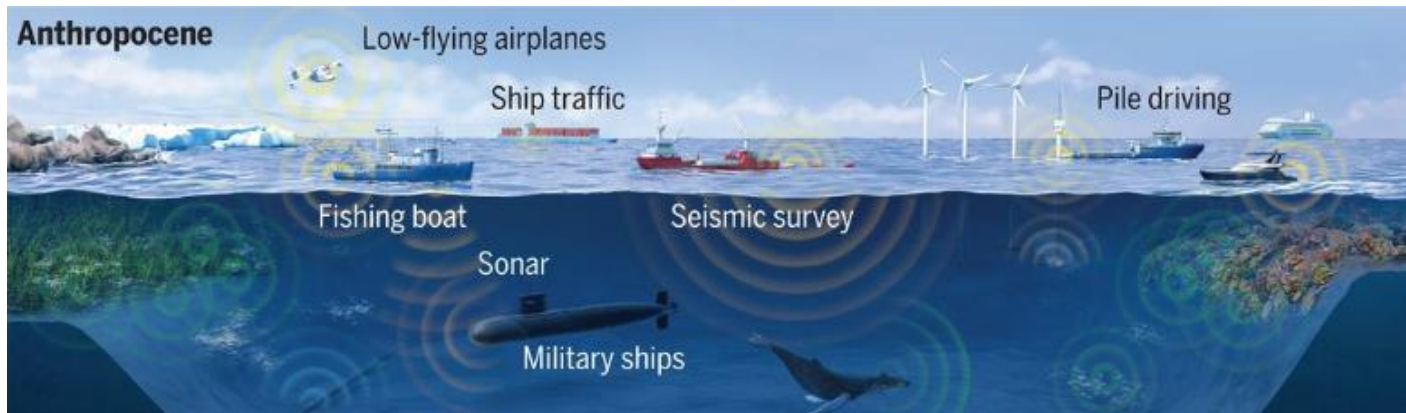
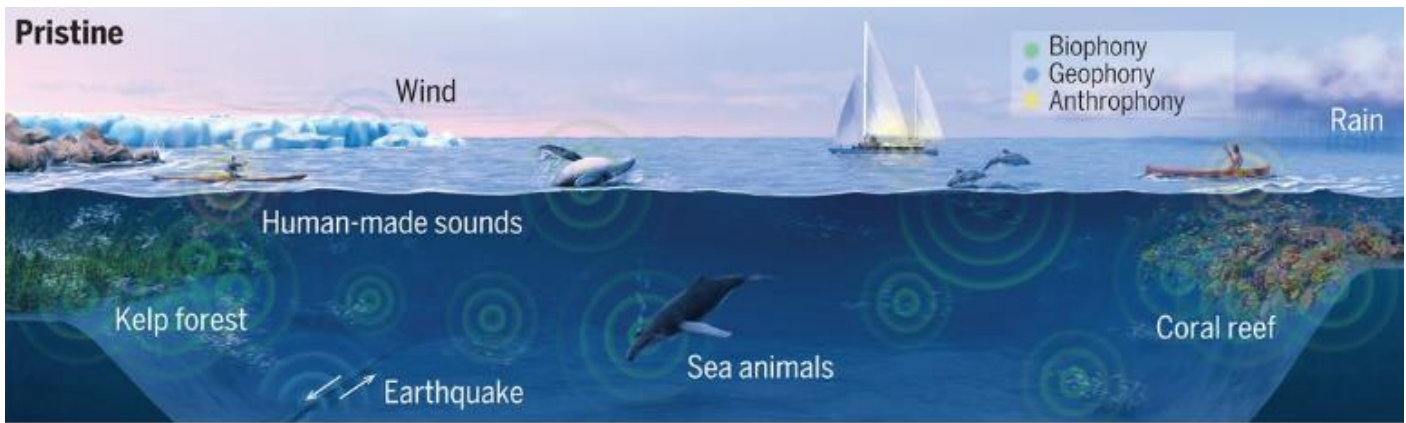
Government of South Australia
Department for Environment
and Water



Repairing recruitment processes with sound technology to accelerate habitat restoration

Brittany R. Williams, Dominic McAfee, Sean D. Connell 





The soundscape of the Anthropocene ocean

CARLOS M. DUARTE  , LUCILLE CHAPUIS  , SHAUN P. COLLIN  , DANIEL P. COSTA  , RENY P. DEVASSY  , VICTOR M. EGUILUZ  , CHRISTINE ERBE  .

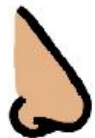
TIMOTHY A. C. GORDON  , BENJAMIN S. HALPERN  , [...] AND FRANCIS JUANES  .

+15 authors

[Authors Info & Affiliations](#)



Sensory Cue



10

100

1000



10 000

100 000

Spatial Scale (m)


Soundscapes to “muted-scapes”

Habitat degradation negatively affects auditory settlement behavior of coral reef fishes

[Timothy A. C. Gordon](#)  , [Harry R. Harding](#), [Kathryn E. Wong](#), , and [Stephen D. Simpson](#) [Authors Info & Affiliations](#)



Lost at sea: ocean acidification undermines larval fish orientation via altered hearing and marine soundscape modification

[Tullio Rossi](#), [Ivan Nagelkerken](#) , [Jennifer C. A. Pistevos](#) and [Sean D. Connell](#)



The sounds of silence: regime shifts impoverish marine soundscapes

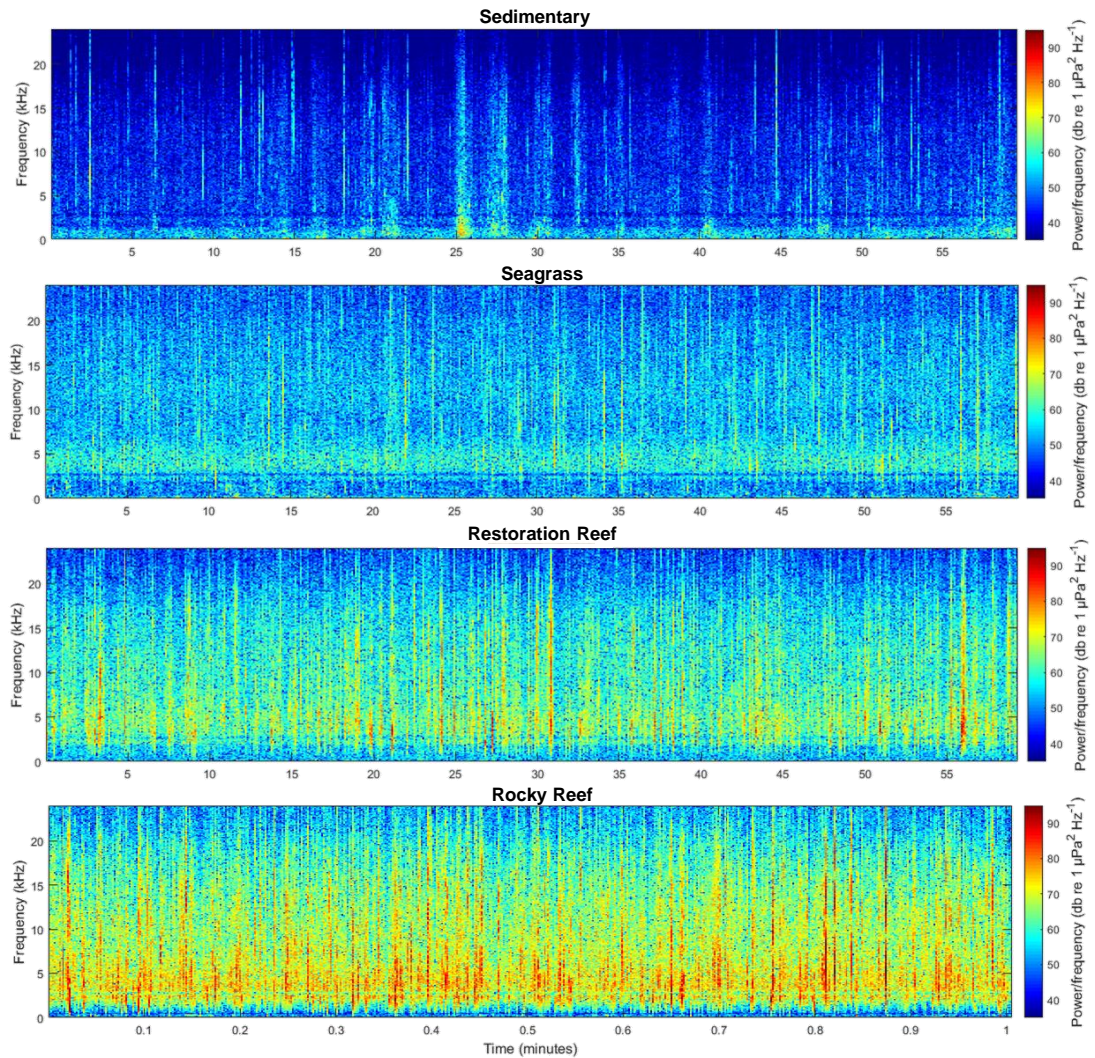
[Tullio Rossi](#), [Sean D. Connell](#) & [Ivan Nagelkerken](#) 



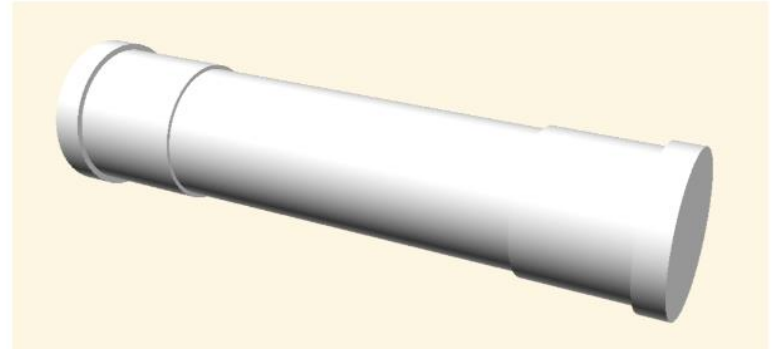


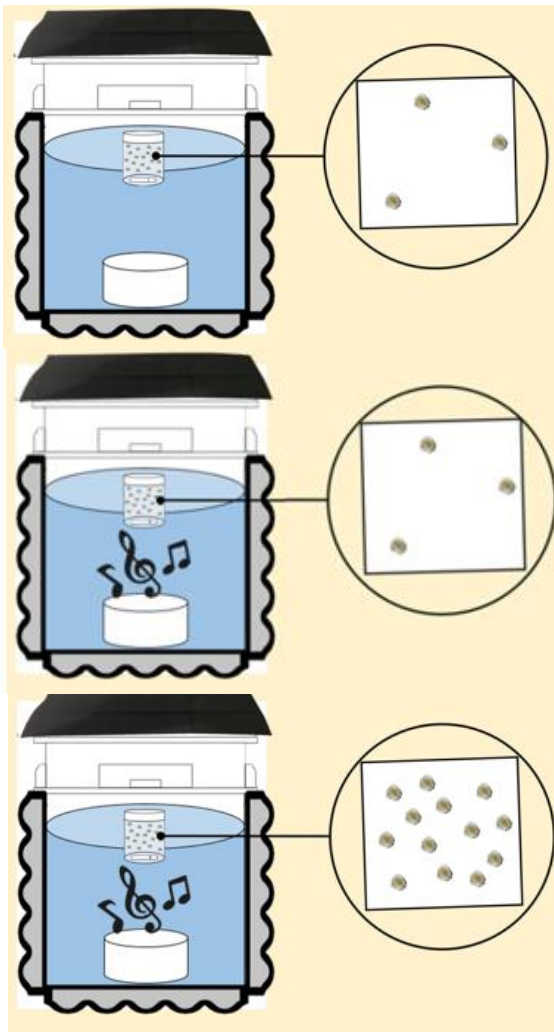
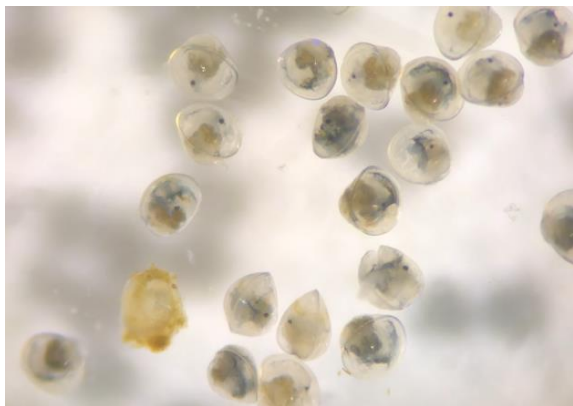
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Map: McAfee, Williams & Connell, 2022





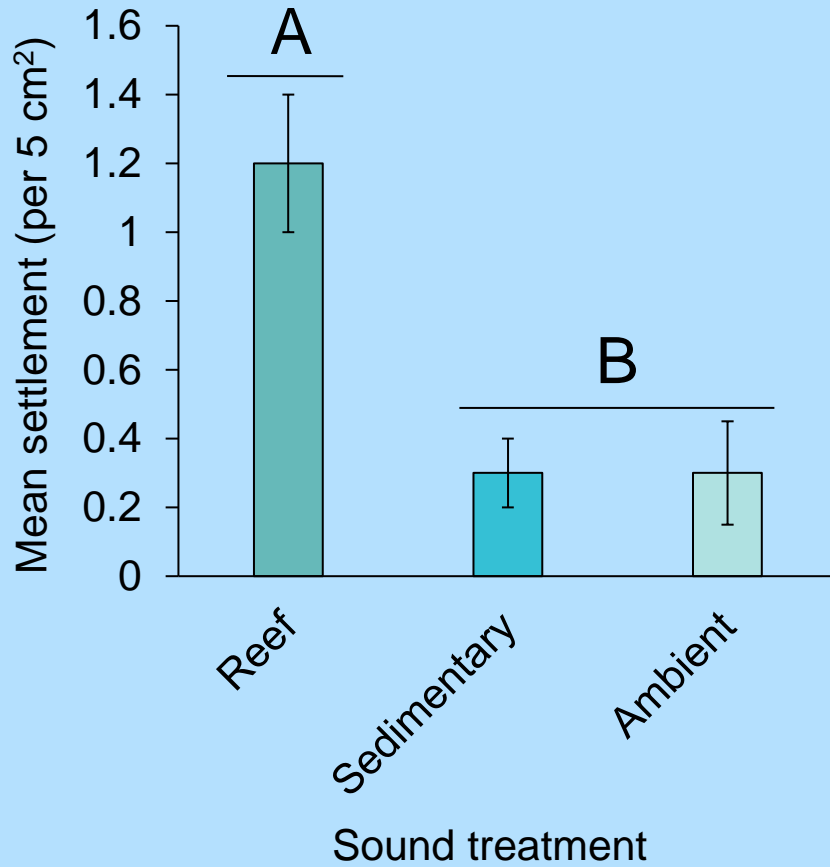




Ambient

Sedimentary

Reef



Oyster larvae swim along gradients of sound

Brittany R. Williams, Dominic McAfee, Sean D. Connell [✉](#)

Soundscape enrichment enhances recruitment and habitat building on new oyster reef restorations

Dominic McAfee ✉ Brittany R. Williams, Lachlan McLeod, Andreas Reuter, Zak Wheaton,
Sean D. Connell ✉

0925		1110		Concurrent Session 10	
Urban ecology			Restoration on temperate reefs		
Room:			Sir Stanley Burbury Theatre (Room 208)		
Chair:			Social Sciences Building – Lecture Theatre (Room 209)		
0925		0940		Keynote:	
				Experimental research combined with monitoring oyster reef restoration	
				Associate Prof Katie Dafforn	
				Dr Victoria Cole	
0940		0955		Enriching marine soundscapes accelerates habitat building on restored oyster reefs	
				Dr Dominic McAfee	

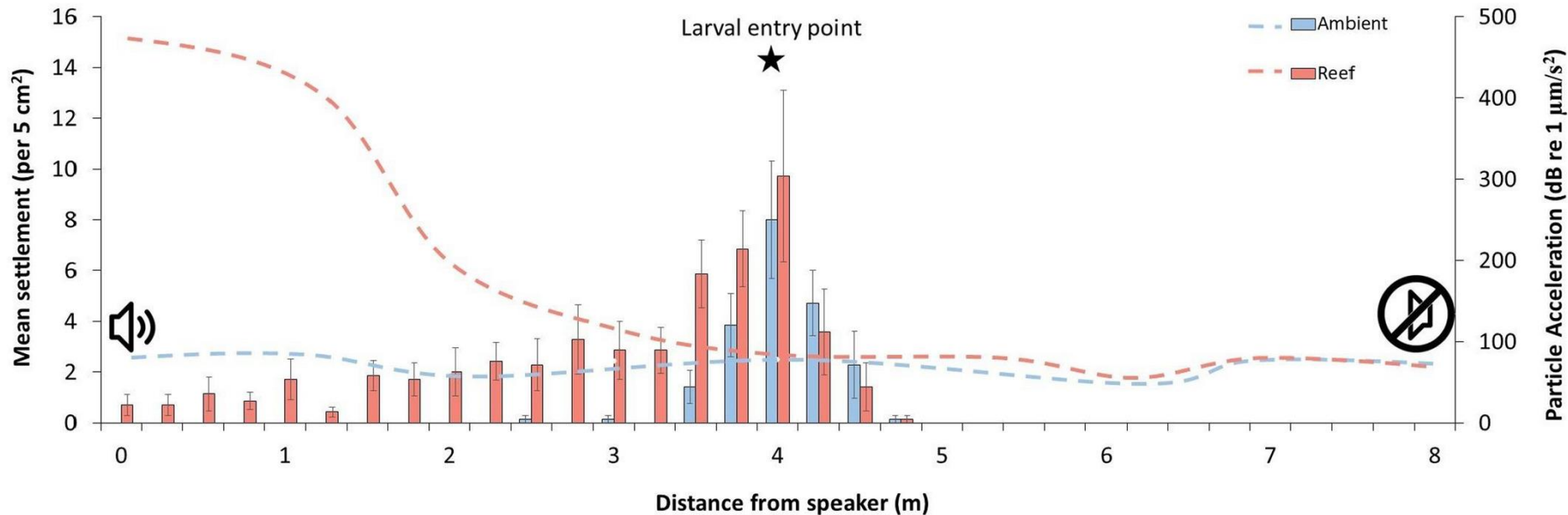
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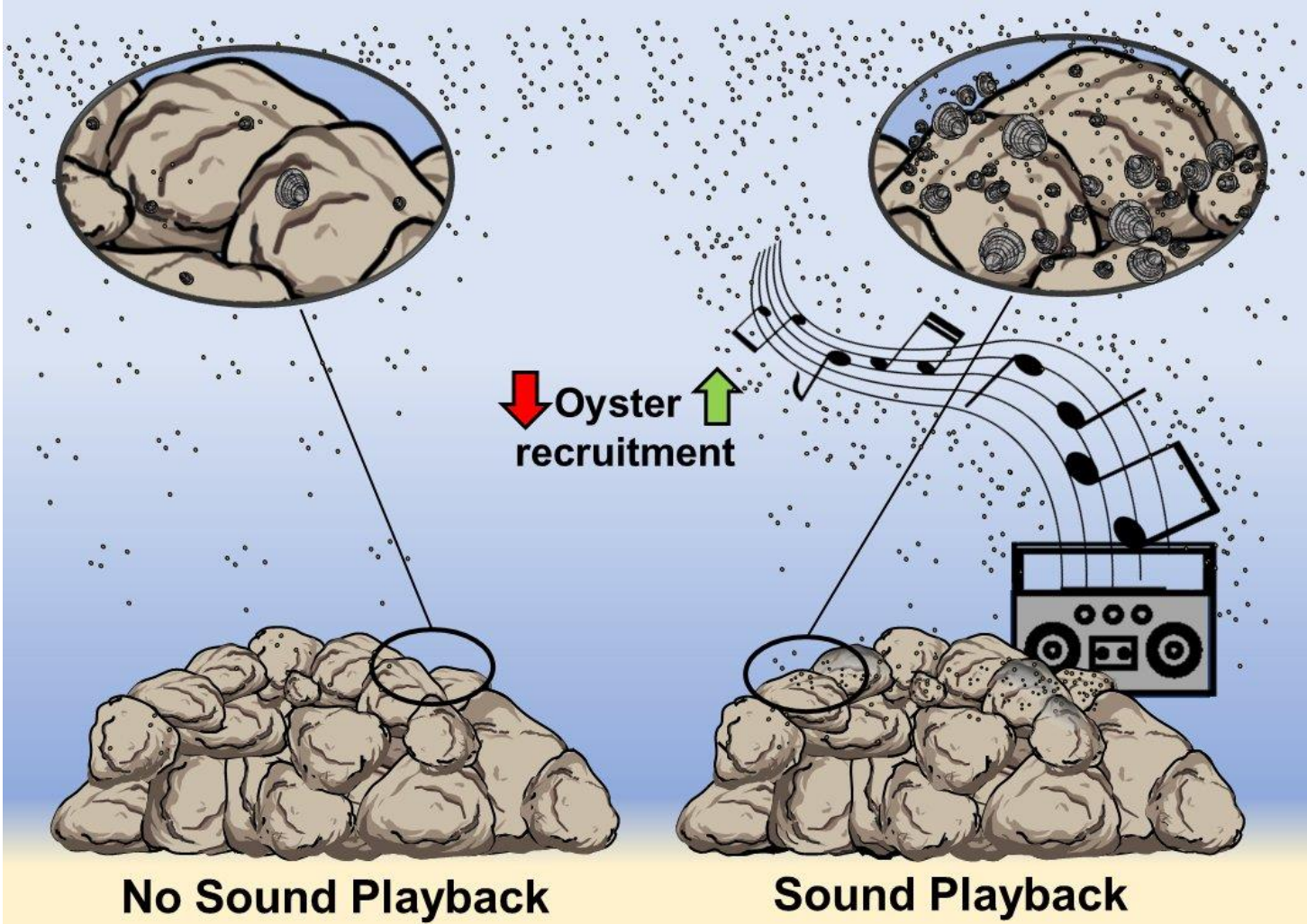


Reef



Oyster larvae swim along gradients of sound

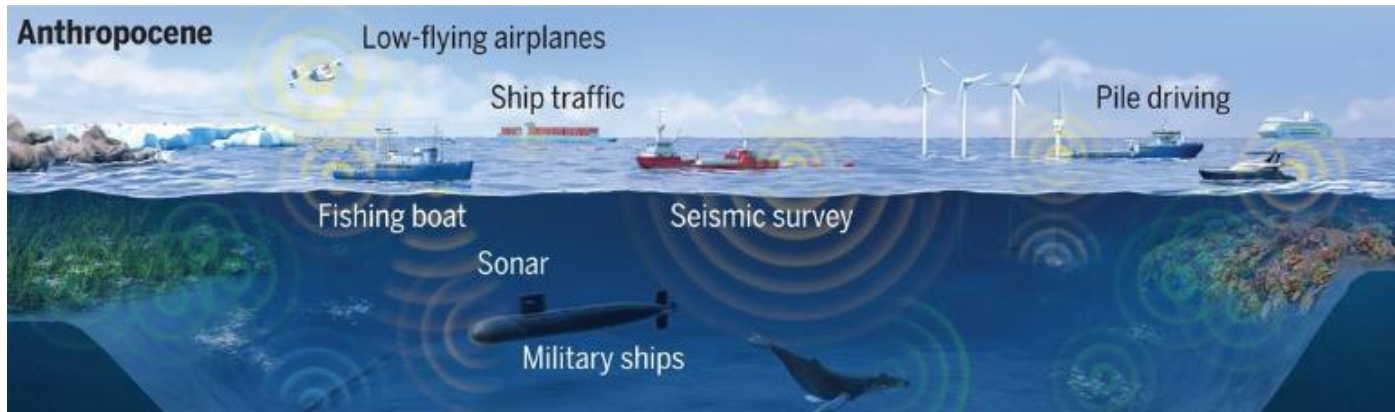
Brittany R. Williams, Dominic McAfee, Sean D. Connell 



↓ Oyster recruitment ↑

No Sound Playback

Sound Playback



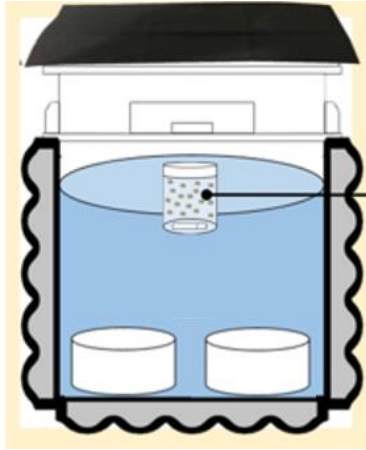
The soundscape of the Anthropocene ocean

[CARLOS M. DUARTE](#)  , [LUCILLE CHAPUIS](#)  , [SHAUN P. COLLIN](#)  , [DANIEL P. COSTA](#)  , [RENY P. DEVASSY](#)  , [VICTOR M. EGUILUZ](#)  , [CHRISTINE ERBE](#)  .

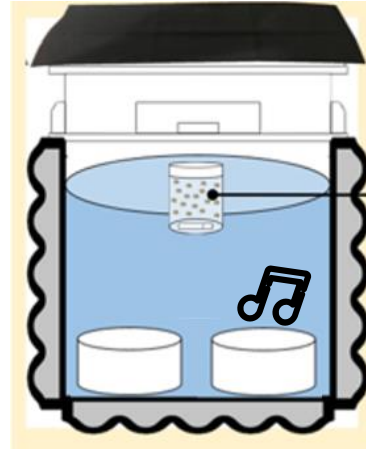
[TIMOTHY A. C. GORDON](#)  , [BENJAMIN S. HALPERN](#)  , [...], and [FRANCIS JUANES](#)  [+15 authors](#) [Authors Info & Affiliations](#)

Natural Setting

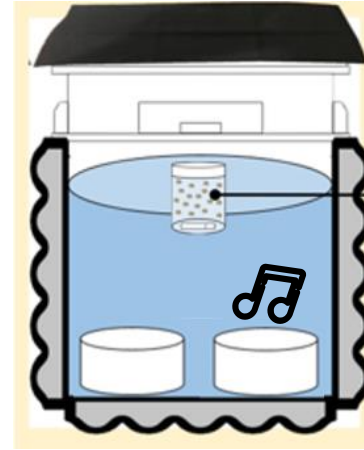
Anthropogenic Setting



Control



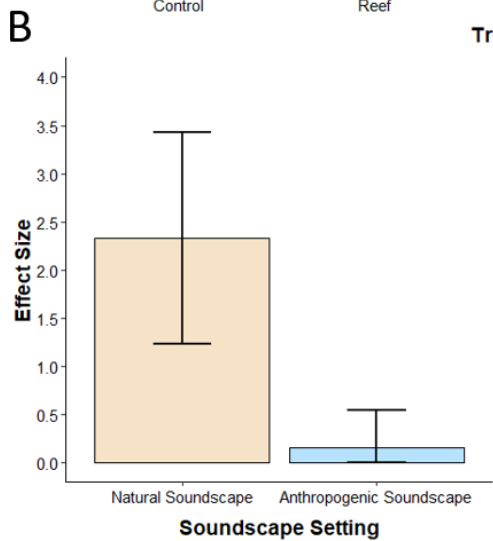
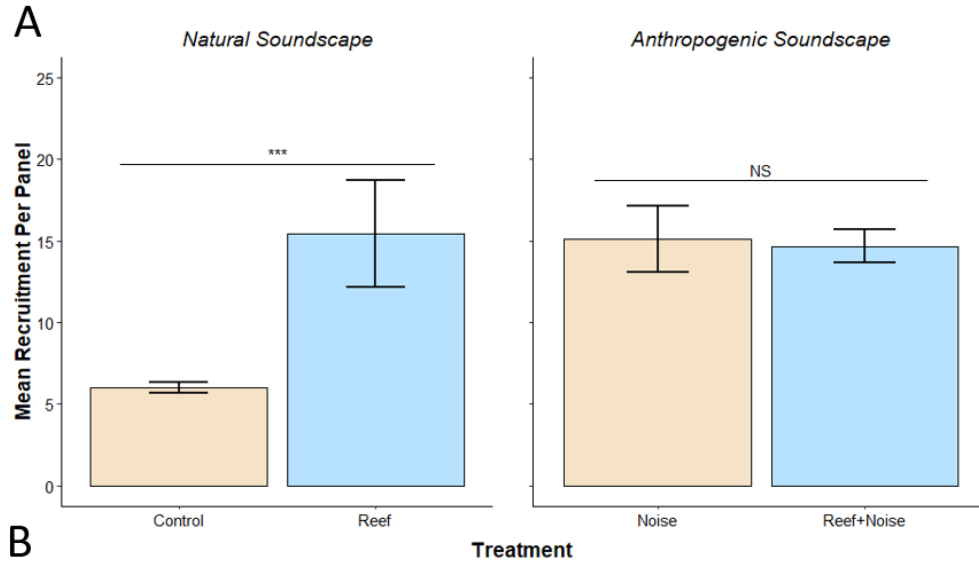
Reef

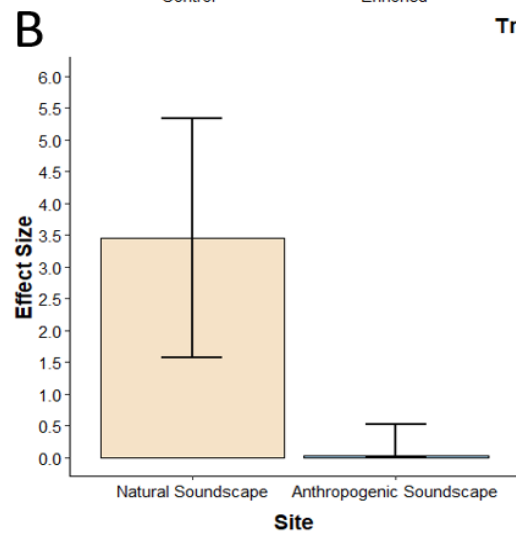
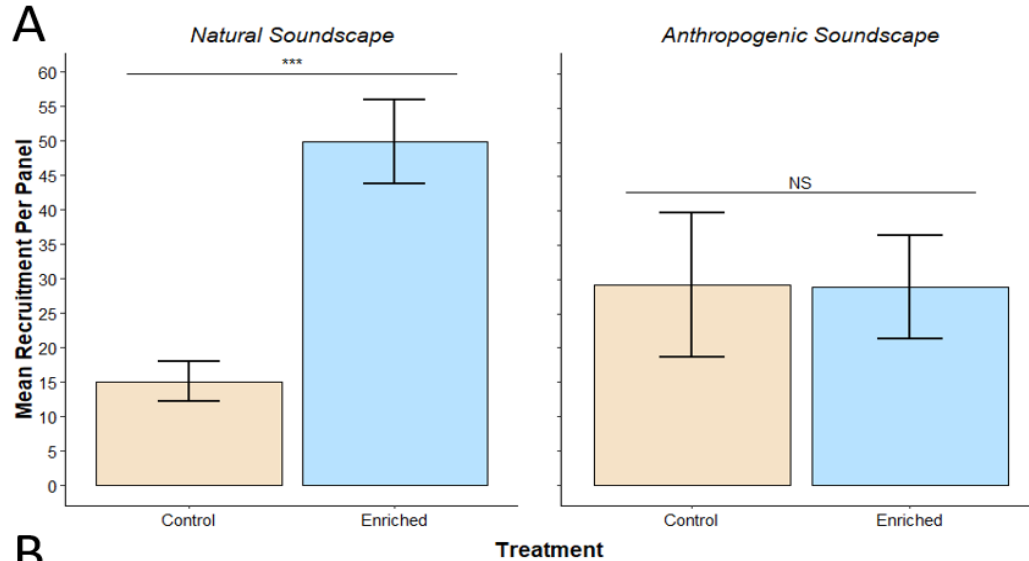


Noise

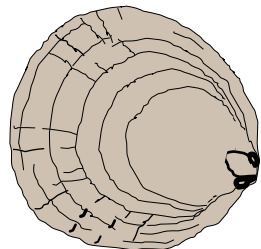
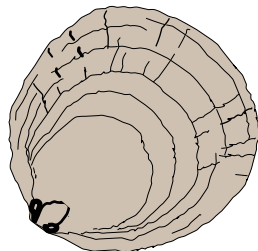
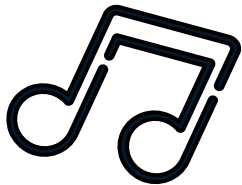
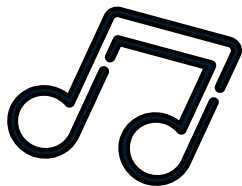
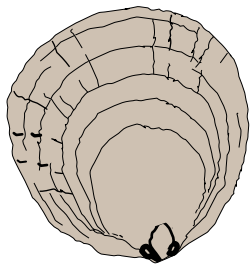


Reef + Noise









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