Data from: Intraspecific variation in body size does not alter the effects of mesopredators on prey

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Abstract

As humans continue to alter the species composition and size structure of marine food webs, it is critical to understand size-dependent effects of predators on prey. Yet, how shifts in predator body size mediate the effect of predators is understudied in tropical marine ecosystems, where anthropogenic harvest has indirectly increased the density and size of small-bodied predators. Here, we combine field surveys and a laboratory feeding experiment in coral reef fish communities to show that small and large predators of the same species can have similar effects. Specifically, surveys show that the presence of a small predator (Paracirrhites arcatus) was correlated with lower chances of prey fish presence, but these correlations were independent of predator size. Experimental trials corroborated the size-independent effect of the predator; attack rates were indistinguishable between small and large predators, suggesting relatively even effects of hawkfish in various size classes on the same type of prey. Our results indicate that the effects of small predators on coral reefs can be size-independent, suggesting that variation in predator size-structure alone may not always affect the functional role of these

predators.

Usage Notes

Hawkfish_alldata

References

This dataset is supplement to https://doi.org/10.1098/rsos.160414

Keywords

predator, Fish, functional response, risk

Files

1 files for this dataset

Hawkfish_alldata.xlsx	22.19 kB	application/vnd.openxmlformats-officedocument.spreadsheetml.sheet

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