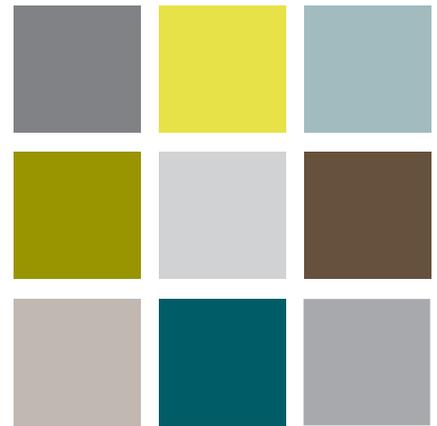


Non-native Species as Prey for Native Predators

Impact Statement



SUMMARY

Understanding and quantifying the effect of non-native species as prey for native predators provides a balanced perspective of when biological invasions may result in the loss of biodiversity.

SITUATION

Our knowledge of the role of predation in biological invasions is largely one-sided, with most studies of non-native species introductions focused on the predatory roles of invaders, as opposed to their role as prey. This one-sided perspective of predator-prey invasions highlights a gap in our understanding of the consequences of non-native prey for native predators, and limits our ability to predict when biological invasions will result in the loss of native biodiversity.

RESPONSE

Scientists at OARDC/OSU and the University of Georgia have expanded and completed a comprehensive meta-analysis to quantify the effects of non-native prey on native predator population abundance across aquatic and terrestrial ecosystems worldwide.



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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IMPACT

Revised results indicate that native predator populations across diverse ecosystems increase in abundance following invasions of non-native prey, but that non-native species may be of lower quality than alternative native food sources. These results suggest that non-native prey could serve a valuable role for native predator species when alternative native prey are scarce. However, elevated predator populations may have unintended, negative consequences for native biodiversity and alter important ecosystem functions. These results have important implications for the management of commercially and economically important predator populations, such as fish and wildlife species, by providing a balanced perspective of the effects of invasions by non-native species.

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