JAMES WHITE

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The Role of Boldness in the Ecology of Juvenile Marine Fishes

James first fell in the love with the ocean at age five, snorkelling around the coral reefs of the Caribbean and Mexico. By twelve, he was SCUBA diving and taking marine science courses at summer camp.

He went on to complete his bachelor degree at the University of California, Santa Cruz and started volunteering heavily for various research groups in the area. When he realized marine science fieldwork frequently involves hanging out with like-minded science nerds (in bikinis!), diving, driving boats, and occasionally battling krakens, there was no turning back.

Variation and flexibility in behavioural traits has important implications in understanding the ecology and evolution of various species. In particular, consistent behaviours are important to population ecology through limiting distribution and abundance, affecting species interactions, population dynamics, ecological invasions and responses to environmental and ecological shifts.

Recent studies have noted consistent, individual differences in the behaviour of many species. Individuals may differ in behavioural traits such as boldness, aggression, activity levels, reactivity, sociability, fearfulness and exploration. These consistent signatures of behaviour are often termed personalities or behavioural syndromes. This research explores various aspects of the extent to which coral reef fish demonstrate personalities and the importance of these to their fitness.

Fish that take more risk (are more bold) tend to also be faster learners and more exploratory. This suggests adopting a high risk-taking behavioural strategy can pay off with a higher reward despite the increased chances of predation.

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Publications

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