

UQ researcher exposes something fishy

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(PhysOrg.com) -- University of Queensland research has found being a copycat works out pretty well for a certain reef fish.

Dr Karen Cheney, from the School of Biological Sciences, has revealed the secrets of an underwater imposter - the bicolour fangblenny.

"This fish resembles another poisonous <u>reef fish</u> - the yellowtail fangblenny - to avoid <u>predator</u> attack and to also avoid detection from passing reef fish, which they approach and attack to gain a meal of skin and fins," Dr Cheney said.

"This is the first example of a mimicry system in which the mimic gains multiple benefits from its resemblance to another species."

The research, conducted at Hoga Island, Indonesia, and at Lizard Island on the <u>Great Barrier Reef</u>, involved observing the number of attacks made by the mimic and how close it stayed to the fish it resembled.

Mimics who stayed in close proximity to models were more likely to be successful in securing food, Dr Cheney found.

To investigate whether the mimics also benefited from a reduction in predator attacks, Dr Cheney placed replicas - photographs glued to Perspex - of the bicolour fangblenny among potential predators.

"Significantly fewer predators approached the true replica compared with the other replicas," she said.



Dr Cheney said it was possible that the mimic used its colour as a signal to warn potential predators not to attack.

A previous study conducted by Dr Cheney confirmed cleaner fish which remove parasites from passing reef fish - used colour to advertise their services.

The study will be published in <u>Proceedings of the Royal Society B</u> on February 24.

Provided by University of Queensland

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