Danger lurking below the sand

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A voracious predator that devours prey larger than itself has been found lurking beneath Queensland's golden sandy beaches.

Waves of scurrying blue soldier crabs are a common sight on the sand and mud flats of Moreton Bay near Brisbane and new research led by Dr. Thomas Huelsken, from The University of Queensland's (UQ) School of Biological Sciences, has found these crabs have a good reason to stay on the move.

Dr. Huelsken has discovered the Australian endemic moon snail, Conuber sordidus, can surge up out of the sand to grab fast moving soldier crabs. Some of the crabs caught are larger than the attacking snail.

Capturing this behavior on film for the first time, Dr. Huelsken said the beautiful polished shells of moon snails belie their nature as vicious predators.

“Moon snails are well known for attacking other snails and bivalves and until now, moon snails have been thought to feed almost exclusively on shelled molluscs,” Dr. Huelsken said.

“This observation that they also prey on crabs is a total surprise. Moon snails have now secured their status as top predators of the intertidal sand flats.”

Dr. Huelsken said the slow-moving moon snails typically creep up on

other molluscs, and upon reaching their prey, drill through their victim's shell, eating them alive through the hole.

“Many beaches have a littering of empty shells that have perfect round holes left by an attacking moon snail. These empty shells provide important clues for paleontologists who are studying how prehistoric molluscs interacted with each other and their environment,” Dr. Huelsken said.

“Moon snails were thought to exclusively eat other molluscs and have left clear evidence of their attack on the remaining shells. They have been important scientific models for understanding past predator-prey interactions.

“Now, we can surmise that paleo moon snails were probably eating crabs too, but have somehow not left a fossil record for that part of their diet.”

“This means that the fossil record of moon snail predation may not be as complete as previously believed.”

More information:
www.mapress.com/mr/content/v31/2011f/n2p132.pdf

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