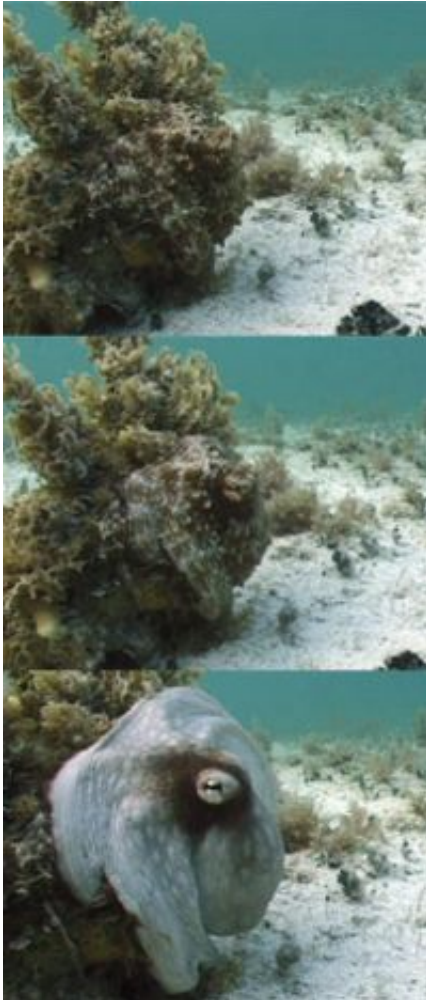


Octopus and kin inspire new camouflage strategies for military applications

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Researchers are studying the remarkable shape- and color-changing abilities of the octopus and its close relatives in an effort to understand one of nature's most remarkable feats of camouflage and self-preservation.

Eventually, such knowledge could lead to new and improved camouflage strategies for military applications, according to an article scheduled for the Nov. 12 issue of *Chemical & Engineering News*, ACS' weekly newsmagazine.



Octopus emerges from concealment. Credit: Roger Hanlon, Marine Biological Laboratory, Woods Hole, Mass

In the article, C&EN associate editor Bethany Halford points out that cephalopods, which include octopus, squid, and cuttlefish, are experts in the art of camouflage and renowned for their ability to make themselves look like fish, rocks, coral and other objects in an effort to hide from predators.

By studying the various layers of skin of these creatures, particularly the chemicals in these layers that are behind their color transitions, scientists

hope to develop similar camouflage strategies.

In the article, Halford describes the specialized skin cells involved in the creatures' color transformations, including the leucophore layer, which serves as a veritable base coat, another layer with chromatophores that are filled with pigments, and yet another layer sporting iridophores that reflect light in curious ways.

Link: pubs.acs.org/cen/science/85/8546sci2.html

Source: ACS

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