

See fewer ads and support this site.
Contributor works on millions of sites and all of your devices.



https://www.sciencedaily.com/releases/2016/05/160523125851.htm

Science News

from research organizations

Print Email Share

In changing oceans, cephalopods are booming

Date: May 23, 2016

Source: Cell Press

Summary: Humans have changed the world's oceans in ways that have been devastating to many marine species. But, according to new evidence, it appears that the change has so far been good for cephalopods, the group including octopuses, cuttlefish, and squid. The study shows that cephalopods' numbers have increased significantly over the last six decades.

Share: Facebook Twitter Google+ LinkedIn + Email

RELATED TOPICS

Plants & Animals

- Fish
- Nature
- New Species

Earth & Climate

- Environmental Awareness
- Ecology
- Exotic Species

RELATED TERMS

- Intelligence of squid and octopuses
- Cuttlefish
- Octopus
- Squid
- Marine conservation
- Colossal Squid

See Also

Top 10 Brain Supplements

How to Burn Belly Fat

Natural Blood Thinners

Schizophrenia Therapy Techniques

Most Endangered Species

Marine Species

Marine Wildlife

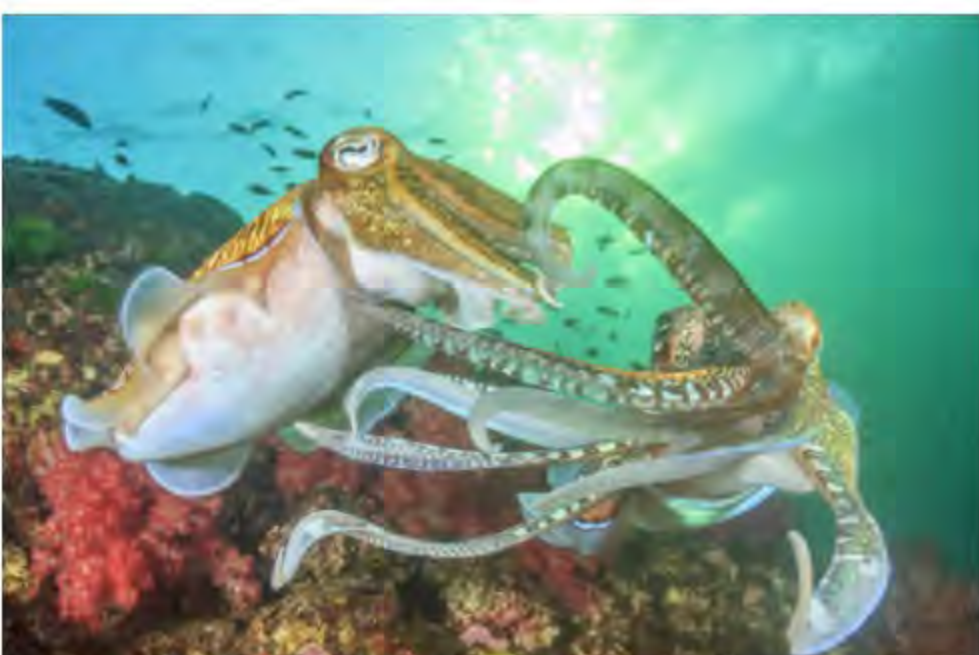
Marine Mammals

Freshwater and Marine

Species Conservation

Marine Pollution

Marine Biodiversity



Cuttlefish (stock image).

Credit: © Richard Carey / Fotolia

Humans have changed the world's oceans in ways that have been devastating to many marine species. But, according to new evidence, it appears that the change has so far been good for cephalopods, the group including octopuses, cuttlefish, and squid. The study reported in the Cell Press journal *Current Biology* on May 23 shows that cephalopods' numbers have increased significantly over the last six decades.

"The consistency was the biggest surprise," says Zoë Doubleday of Australia's Environment Institute at the University of Adelaide. "Cephalopods are notoriously variable, and population abundance can fluctuate wildly, both within and among species. The fact that we observed consistent, long-term increases in three diverse groups of cephalopods, which inhabit everything from rock pools to open oceans, is remarkable."

According to the researchers, there has been growing speculation that cephalopod populations were proliferating in response to a changing environment, based partly on trends in cephalopod fisheries. Cephalopods are known for rapid growth, short lifespans, and extra-sensitive physiologies, which may allow them to adapt more quickly than many other marine species.

To investigate long-term trends in cephalopod abundance, Doubleday and her colleagues assembled global time series of cephalopod catch rates (catch per unit of fishing or sampling effort) from 1953 to 2013. The study included 35 cephalopod species or genera representing six families. The data show that cephalopods, of many different types living all over the world, are on the rise.

The ecological and socio-economic ramifications associated with this increase in cephalopods are much less clear and are likely to be complex, according to the researchers.

"Cephalopods are voracious and adaptable predators and increased predation by cephalopods could impact many prey species, including commercially valuable fish and invertebrates," they write. "Conversely, increases in cephalopod populations could benefit marine predators which are reliant on them for food, as well as human communities reliant on them as a fisheries resource."

What may happen to cephalopod populations in the future is difficult to predict, particularly if fishing pressure continues to increase. Doubleday says that they are now investigating the factors responsible for cephalopods' proliferation.

"It is a difficult, but important, question to answer, as it may tell us an even bigger story about how human activities are changing the ocean," she says.

The research, funded by the Environment Institute at the University of Adelaide, was the result of a workshop involving researchers all over the world.

Story Source:

The above post is reprinted from materials provided by Cell Press. Note: Materials may be edited for content and length.

Journal Reference:

- Zoë A. Doubleday, Thomas A.A. Prowse, Alexander Arkhipkin, Graham J. Pierce, Jayson Semmens, Michael Steer, Stephen C. Leporati, Silvia Lourenço, Antoni Quetglas, Warwick Sauer, Bronwyn M. Gillanders. **Global proliferation of cephalopods.** *Current Biology*, 2016 DOI: 10.1016/j.cub.2016.04.002

Cite This Page:

MLA APA Chicago

Cell Press. "In changing oceans, cephalopods are booming." ScienceDaily. ScienceDaily, 23 May 2016. <www.sciencedaily.com/releases/2016/05/160523125851.htm>.

Share This Page:

Facebook Twitter Google+ LinkedIn + Email

See Also

1 Marine Food Chains

2 Species Conservation

3 Marine Recruiter

4 Marine Species

5 Outboard Motor Parts

6 Marine Wildlife

Recommended Articles

Cover Study Of Nature Provides Startling New Evidence That Only 10% Of All Large Fish Are Left In Global Ocean
SeaWeb, ScienceDaily, 2003

North Atlantic Fish Populations Shifting As Ocean Temperatures Warm
NOAA Fisheries Northeast Fisheries Science Center, ScienceDaily, 2009

Anglers' gear, cooperation affect coral reef fisheries
Dartmouth College, ScienceDaily, 2016

How Many Fish In The Sea? Census Of Marine Life Launches First Report
Census Of Marine Life, ScienceDaily, 2003

Baby fish will be lost at sea in acidified oceans
University of Adelaide, ScienceDaily, 2015

30 Great Vacation Ideas for Doctors

Neil Chesanow; Darbe Rotach; Fredy Perojo, Medscape, 2016

One Vision of Academic Nursing Centers

M. Christina Esperat; Alexia Green; Cindy Acton, Medscape, 2004

Jole Rider and bicycles for Africa.

Arch Dis Child Fetal Neonatal Ed, 2008

Happy World Family Doctor Day

Laurie Scudder, DNP, NP, Medscape, 2015

Animal poisons and the nervous system: what the neurologist needs to know.

J B Harris et al., J Neurol Neurosurg Psychiatry, 2004

See fewer ads and support this site.

Contributor works on millions of sites and all of your devices.



Related Stories



Octopus Genome Reveals Cephalopod Secrets

Aug. 12, 2015 — Imagine a skeleton-less creature with three hearts, with most of its nearly half a billion neurons distributed in eight tentacular arms. Each arm can regenerate like the mythical Hydra and has a mind ... [read more »](#)



Vampire Squid Discovery Shows How Little We Know of the Deep Sea

Apr. 20, 2015 — Among soft-bodied cephalopods, vampire squid live life at a slower pace. At ocean depths from 500 to 3,000 meters, they don't swim so much as float, and they get by with little oxygen while ... [read more »](#)



New 'Invisibility Cloak': Octopus-Inspired Camouflage Systems Automatically Read Surroundings and Mimic Them

Aug. 18, 2014 — Researchers have developed a technology that allows a material to automatically read its environment and adapt to mimic its surroundings. Cunjiang Yu, assistant professor of mechanical engineering at ... [read more »](#)

Bizarre Parasite May Provide Cuttlefish Clues

Apr. 15, 2014 — New research into parasites of cuttlefish, squid and octopus has uncovered details of the parasites' astonishing life cycles, and shown how they may help in investigating populations of their ... [read more »](#)

See fewer ads and support this site.

Contributor works on millions of sites and all of your devices.



Strange & Offbeat

PLANTS & ANIMALS



In Changing Oceans, Cephalopods Are Booming

Sexual Conflict Can Cause Genitals to Change Shape, Beetle Study Shows



Human-Eating Monster Crocodile May Be Florida's Newest Invasive Species



Using Static Electricity, Microrobots Can Land and Stick to Surfaces

EARTH & CLIMATE



Mighty Mealworms: Solution for Food Insecurity, Pollution



Big Thinking in Small Pieces: Computer Guides Humans in Crowdsourced Research



New Evidence Connects Dung Beetle Evolution to Dinosaurs



Endangered Venomous Mammal Predates Dinosaurs' Extinction, Study Confirms

FOSSILS & RUINS



New Horned Dinosaur Species With 'Spiked Shield'



Ancient Irish Musical History Found in Modern India

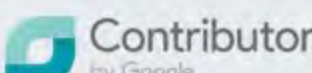
Medieval Women Better Dressed Than Men



Do Bearded Dragons Dream? Reptiles Share Sleep Patterns With Mammals and Birds

See fewer ads and support this site.

Contributor works on millions of sites and all of your devices.



Print Email Share

Free Subscriptions

Get the latest science news with ScienceDaily's free email newsletters, updated daily and weekly. Or view hourly updated newsfeeds in your RSS reader:

- Email Newsletters
- RSS Feeds

Follow Us

Keep up to date with the latest news from ScienceDaily via social networks:

- Facebook
- Twitter
- Google+
- LinkedIn

Mobile Apps

Get the latest news from ScienceDaily via our free mobile apps, available for download on the following platforms:

- iPhone/iPad
- Android

Have Feedback?

Tell us what you think of ScienceDaily -- we welcome both positive and negative comments. Have any problems using the site? Questions?

- Leave Feedback
- Contact Us