



Advertisement



Ampeg
48 MONTHS 0% INTEREST
LIMITED-TIME OFFER ***When you use the Sweet Deal financing program with 48 equal monthly payments.

[Log in](#) | [My account](#) | [Contact us](#)[Become a member](#) | [Renew my subscription](#) | [Sign up for newsletters](#) 401 18

AUDREY VELASCO

The transparent teeth of this dragonfish evolved for one lethal purpose

By [Helen Santoro](#) | Jun. 5, 2019 , 11:00 AM


Five hundred meters below the ocean's surface off the coast of California lives a creepy looking sea monster with a huge jaw and sharp rows of teeth. Even creepier, these teeth are transparent. Now, scientists think they know what makes them this way.

Researchers collected 10 dragonfish (*Aristostomias scintillans*, pictured) with a fishing net. They analyzed 40 of their teeth using detailed imaging to capture the teeth's colors, makeup, and structure.

Like human teeth, the dragonfish's teeth have a dense inner dentin layer surrounded by an outer enamellike layer. Dispersed throughout the enamel, however, the researchers found tiny nanocrystals that **prevent light from reflecting off of the teeth's surface** and camouflage them in the deep ocean, the team reports today in the journal *Matter*. The teeth are also thinner than most predators', which helps them scatter less light and appear translucent.

SIGN UP FOR OUR DAILY NEWSLETTER

Get more great content like this delivered right to you!

Country * 

Email Address * **Sign Up**

Click to view the [privacy policy](#).

Required fields are indicated by an asterisk (*)

Despite dragonfish's small size—only about 15 centimeters long—they are apex predators and can kill fish up to 50% of their size. Their teeth may be key: Because the fish have jet-black mouths, their teeth are practically invisible, so most prey never see them coming.

Posted in: [Plants & Animals](#)

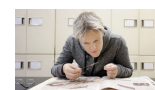
doi:10.1126/science.aay2626

Helen Santoro

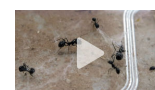
 [Twitter](#)

More from ScienceShots

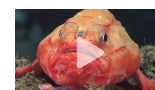
Twice as many plants have gone extinct than birds, mammals, and amphibians combined



Watch an ant rip apart a spiderweb to rescue a sibling



Spotted for the first time: a fish holding its breath underwater



Enjoy reading News from *Science*? **Subscribe today**. If you have already subscribed, log into your **News account**.

Got a tip?

How to contact the news team

Advertisement

Ampeg **Sweetwater**

**48 MONTHS
0% INTEREST*****

ON ALL **AMPEG** PRODUCTS

LIMITED-TIME OFFER **SHOP NOW**

***When you use the Sweetwater Credit Card.
48 equal monthly payments required. Now-6/25.

Science

7 June 2019

Vol 364, Issue 6444



ANATOMY/MORPHOLOGY/BIOMECHANICS

The mismeasure of hands?

SCIENTIFIC COMMUNITY

Bipartisan bill proposes forum on U.S. academic espionage

SCIENTIFIC COMMUNITY

Women of color face double dose of bias

ANTHROPOLOGY**DNA barcodes jump-start search for new species**

SCIENTIFIC COMMUNITY**Radical open-access plan is delayed a year**

MATERIALS SCIENCE**Perovskite LEDs begin to shine**

Table of Contents

Subscribe Today

Receive a year subscription to *Science* plus access to exclusive AAAS member resources, opportunities, and benefits.

Subscribe Today

Get Our Newsletters

Receive emails from *Science*. [See full list](#)

- Science* Table of Contents
- Science* Daily News
- Science* News This Week
- Science* Editor's Choice
- First Release Notification
- Science* Careers Job Seeker

I agree to receive emails from AAAS/*Science* and *Science* advertisers, including information on products, services, and special offers which may include but are not limited to news, career information, & upcoming events.

Click to view the [Privacy Policy](#).

Sign up today

Required fields are indicated by an asterisk (*)

About Us**Journals****News from Science****Leadership****Team Members****Work at AAAS****For Advertisers**

- [Advertising Kits](#)
- [Awards and Prizes](#)
- [Custom Publishing](#)
- [Webinars](#)

For Authors

- [Submit](#)
- [Information for Authors](#)
- [Editorial Policies](#)

For Librarians

- [Manage Your Institutional Subscription](#)
- [Information for Librarians](#)
- [Request a Quote](#)
- [FAQs](#)

Related Sites

- [AAAS.org](#)
- [EurekaAlert!](#)
- [Science in the Classroom](#)
- [Science Magazine Japanese](#)

Help

- [Access and Subscriptions](#)
- [Order a Single Issue](#)
- [Reprints and Permissions](#)
- [Contact Us](#)
- [Accessibility](#)

Stay Connected



© 2019 American Association for the Advancement of Science. All rights Reserved. AAAS is a partner of HINARI, AGORA, OARE, CHORUS, CLOCKSS, CrossRef and COUNTER.

[Terms of Service](#)

[Privacy Policy](#)

[Contact AAAS](#)