



What Will You Discover?

[SHOP NOW >](#)



[skip to main content](#)

SEARCH

- [earth](#)
- [space](#)
- [tech and gadgets](#)
- [animals](#)
- [history](#)
- [adventure](#)
- [human](#)
- [brain games](#)
- [video](#)
- [rss feeds](#)
- [discovery.com](#)

[Discovery News](#) > [Animal News](#) > Psychedelic-Colored Insects Flew Ancient Skies

Psychedelic-Colored Insects Flew Ancient Skies



Analysis by [Jennifer Viegas](#)

Tue Nov 15, 2011 01:52 PM ET

[\(1\) Comments](#) | [Leave a Comment](#)

[Print](#)
[Email](#)

Friend's Name:

Email:

Your Name:

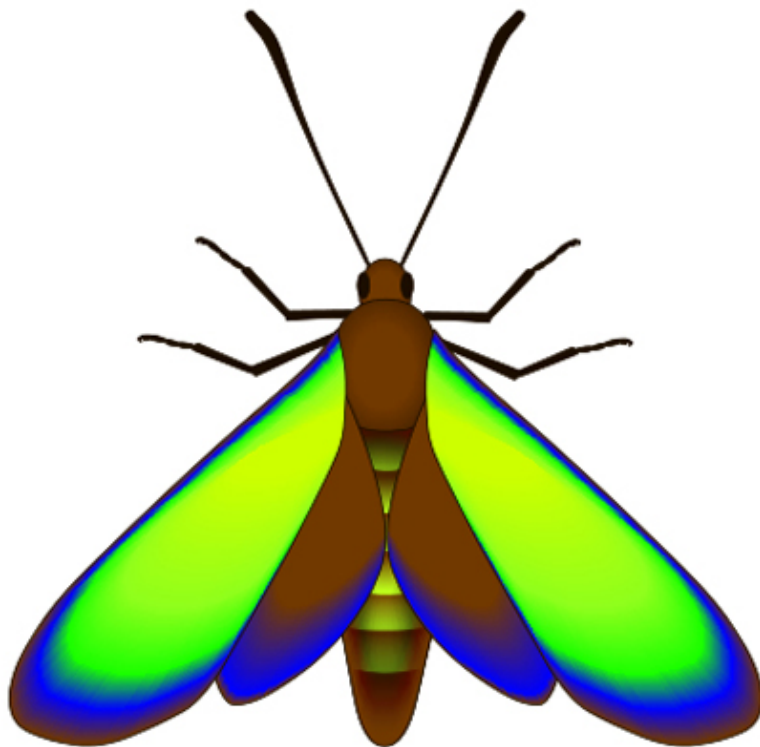
Email:

Message:

characters left = 100

[submit](#) [reset](#)
[close](#)

Like 84
people
[facebook share](#) 37



(Full color recreation of a 50-million-year-old moth; Credit for all images: Maria McNamara)

At least one [moth](#) 50 million years ago sported a yellow-green hue highlighted by blue, black and green-cyan accents, a team of researchers concludes.

The fashion forward moth, described in the latest [PLoS Biology](#), represents the oldest known moth for which the original colors have been determined.

The discovery, made in Germany, could help scientists learn the colors of a wide variety of long-extinct creatures, including birds, fishes, and other insects, and shed light on color's function and evolution.

[NEWS: Prehistoric Beetles Sported Hotrod Colors](#)

"We can work out what they looked like and what they used the colors for," Yale researcher Maria McNamara said in a press release.



(What the moth looks like in glycerin)

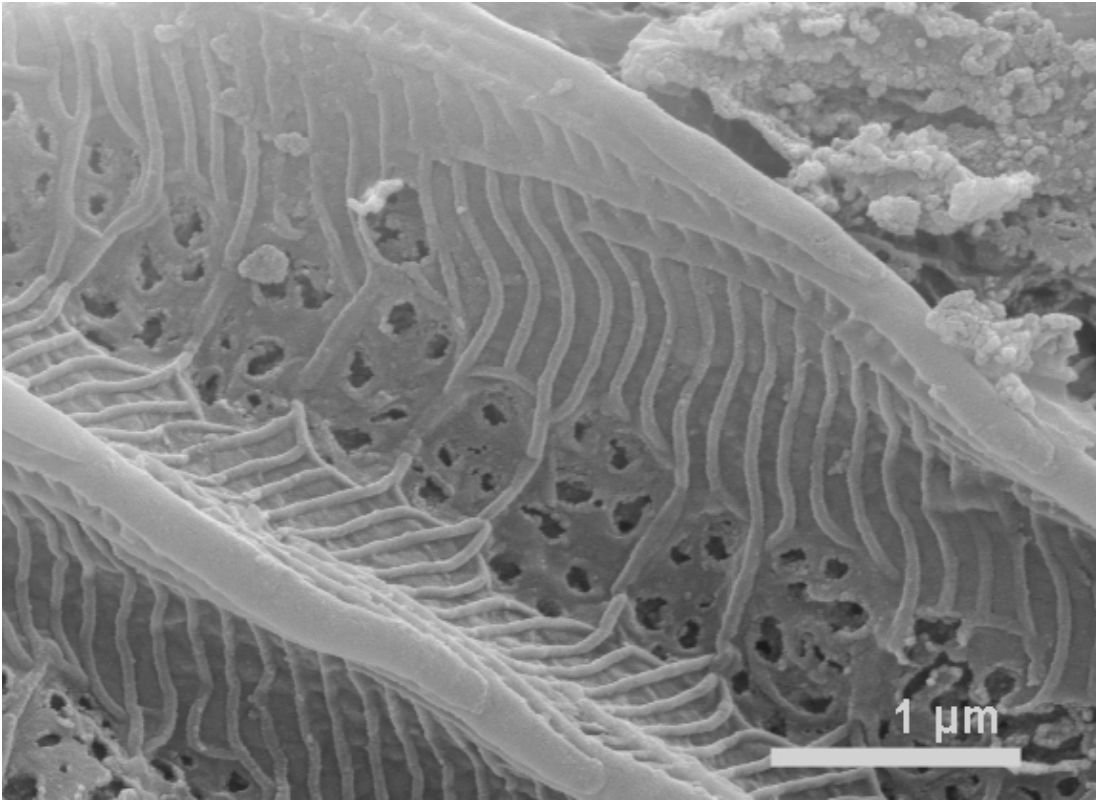
Fossils rarely preserve evidence of original color, so we've only known the Dinosaur Era and other prehistoric times in black and white, although artists have taken creative liberties in adding color to drawings.

McNamara and her team, however, have figured out a way to tease color information out of fossils. Coloration, in turn, suggests how the long-dead individuals may have behaved and communicated, since color can play a role in both of those things.

The scientists figured out the colors by using [electron microscopy](#) and other techniques to examine fossilized scales of daytime moths that lived around 50 million years ago. The moths lived at what is now the [Messel oil shale pit](#) near Frankfurt, where numerous other high-quality fossils have been unearthed.

Evidence from anatomical details preserved in the scales helped establish the structural color of the moths' forewings, which

you can see in the recreation image. McNamara says that structural colors are the brightest colors in nature -- purer and more intense than chemical pigments. Tissue design generates structural colors by scattering light.



(Fossil moth scale detail)

The researchers believe the ancient day moth's colors served defensive purposes by either warning off predators, or serving as camouflage.

[NEWS: Dino Era Animals Now in Full Color](#)

"The living members of this group of day-flying moths are often brightly colored, and this fossil shows that color evolved for protection in these insects at least 50 million years ago," co-author Derek Briggs said in the press release.



(Close-up of the moth scales in glycerin)

Other recent research by Briggs, who is the director of Yale's [Peabody Museum of Natural History](#), led to the first full-color reconstruction of the plumage of a feathered dinosaur. He also worked on the prior beetle study.

When told of the hotrod prehistoric colors, Andrew Parker, a research leader at both Oxford University's Green Templeton College and The Natural History Museum, London, expressed great interest.

"This informs us that the myriad interactions involving color that we see today -- the arms race between predators and prey, and the signaling to a potential mate within conspecifics -- extend back through time," Parker told Discovery News.

SIGN UP FOR DISCOVERY NEWS DAILY

Email:

Tags: [Extinct Animals](#), [Fossils](#), [Insects and Arachnids](#), [Mystery](#), [Science and Technology](#)

84
people
[facebook share](#)37

[stumbleupon share](#)

[digg share](#)

[reddit share](#)

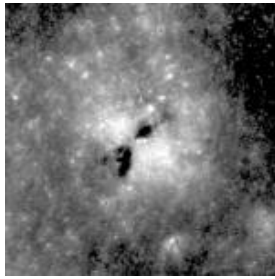
YOU MIGHT ALSO LIKE



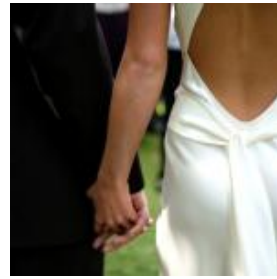
[What Is This Chupacabra-Demonoid Monster?](#)



[The Interstellar Space Sex Fallacy](#)



[NASA Finds Lost Spacecraft on Dark Side of the Moon](#)



[Thinner Wife Makes Happier Marriage](#)



[Russian Dead Alien Video Surfaces](#)



[Animal Suicide Sheds Light on Human Behavior](#)



[Vanished Persian Army Said Found in Desert](#)



[First Hybrid Shark Found](#)

Powered by [Vertical Acuity](#)

comments (1)

	Login	Login required, click here to begin
	Share	<input type="button" value="This Page"/>
<input type="text"/>		
<input type="text"/>		
Add images	Follow	<input type="button" value="Cancel"/> <input type="button" value="Post"/>

Echo 1 Items

[Admin](#)



Crystal Moore

Amazing!

Sunday, November 20, 2011, 00:48:55 – Flag – Reply

Advertisement



DISCOVERY NEWS DELIVERED



SIGN UP FOR
**DISCOVERY
NEWS DAILY**
HEADLINES **NOW!**

Email:

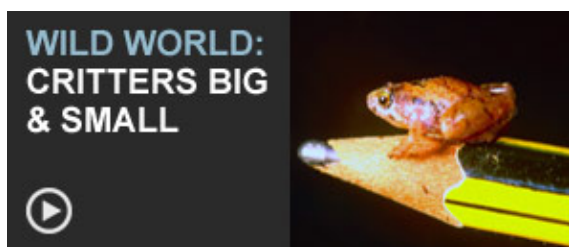
MOST VIEWED STORIES

- [The Discoverator](#)
- [Space Elevator, Going Up](#)
- [New Bat Has Odd-Shaped Nose](#)
- [Puzzle of the Week! It's a Pasta Universe](#)
- [Memory Matrix](#)
- [Condom Use Tricky, Filled with Mistakes](#)
- [Hitler's Wife, Eva Braun, Seen in Rare Photos: Slide Show](#)
- [Best and Worst Public Apologies](#)
- [Earth's Blue Marble Beauty: Photos](#)
- [Color Match](#)

FOLLOW US ON ...



VIDEOS



Blogroll

- [Dinosaur Tracking: Where Paleontology Meets Pop Culture](#)
- [Short Sharp Science](#)
- [Animal Planet's Animal Oddities](#)
- [Monterey Bay Aquarium SeaNotes](#)
- [Zooborns](#)
- [Encyclopedia Britannica's Advocacy for Animals](#)
- [Petfinder](#)
- [Anthropology.net](#)
- [The Jane Goodall Institute's Gombe Chimpanzee Blog](#)
- [4 the Love of Animals](#)
- [Wayne Pacelle's A Humane Nation](#)
- [Wired Science](#)
- [ASPCA](#)
- [Female Science Professor](#)

- [Palaeoblog](#)
- [Four Stone Hearth](#)

Advertisement

[Ads by Google](#)

- [Masters in OT Grad School](#)
We're Only Looking for the Best. Must Be Practicing/Licensed in OT.
www.Quinnipiac.edu
- [Free Online Advertising](#)
See What \$75 of Google Ads Can Do For Your Business. Try It Now!
www.Google.com/AdWords
- [Solar Energy for Home](#)
Install Our Solar PV System & Cut Electricity Cost up to 80%. Call Us
www.CTSolarServices.com

our sites

- [Animal Planet](#)
- [Curiosity](#)
- [Discovery Channel](#)
- [Discovery Kids](#)
- [Discovery Fit & Health](#)
- [HD Theater](#)
- [Investigation Discovery](#)
- [Military Channel](#)
- [Oprah Winfrey Network](#)
- [Planet Green](#)
- [Science Channel](#)
- [TLC](#)
- [Turbo](#)
- [Velocity](#)

- [Consumer Guide Auto](#)
- [Consumer Guide Products](#)
- [Discovery Education](#)
- [Discovery News](#)
- [HowStuffWorks](#)
- [MyDiscovery](#)
- [Petfinder](#)
- [Student Competitions](#)
- [TreeHugger](#)

video

- [Discovery News Video](#)

shop

- [Discovery Store](#)
- [DVDs & Books](#)
- [Custom Gear](#)
- [Toys & Games](#)
- [Gift Sets](#)
- [Sale](#)
- [Discovery Adventures](#)
- [Student Adventures](#)
- [Discovery TS](#)
- [Discovery Corporate Sales](#)

stay connected

- [Email Newsletters](#)
- [RSS](#)
- [Twitter](#)
- [Facebook](#)

corporate

- [Discovery Communications, LLC](#)
- [Viewer Relations](#)

- [Advertising](#)
- [Careers @ Discovery](#)
- [Privacy Policy](#)
- [Visitor Agreement](#)

Image Credits DCL

Copyright © 2012 Discovery Communications, LLC. The number-one nonfiction media company.