

Discover

SCIENCE FOR THE CURIOUS

November 2015

D2

NEW SPECIES!

Mysteries of the DEEP

Exclusive photos never before seen p.38

PLUS

Archaeologists of Armageddon p.28

The Stroke That Wasn't p.24

Satellites for Students p.20

Who Made the First Tools? p.72



A new type of jellyfish (center) from the genus *Eutiara*.

0 74470 01372 3 11

DISCOVERMAGAZINE.COM

\$5.99 U.S.



p.38



p.22



p.57

72 ORIGIN STORY
WHO MADE THE FIRST TOOLS?
The Evolutionary Timeline, Retooled
 When it comes to tool making, researchers were pretty confident that our *Homo* genus was the first to succeed. But another group may have beaten us to it. **BY HILLARY WATERMAN**

74 20 THINGS YOU DIDN'T KNOW ABOUT ...
Wool
 Think your wool sweater is itchy? Our ancestors would probably beg to differ. But if you can't stand wearing it, at least appreciate its biodegradable properties. **BY MARGARET SHAKESPEARE**

FEATURES

COVER STORY

38 MYSTERIES OF THE DEEP

Nocturnal Nautica

A Discover exclusive: Haunting images of creatures — some new to science — that rise from the ocean's depths only at night. **BY ERNIE MASTROIANNI**

44 The People's Scientist

In a world where industrial corporations are rarely held accountable for their environmental negligence, Wilma Subra helps communities fight back.

BY LINDA MARSA

52 Rooted in Truth

By definition, mythology is full of larger-than-life tales, but not everything in those tales is fantasy — some myths are surprisingly grounded in science.

BY MATT KAPLAN

COLUMNS & DEPARTMENTS

6 EDITOR'S NOTE

A Foreshadowing

A tale of two eclipses, and possibly the adventure of a lifetime.

7 THE CRUX

How flu virus strains get their names, plus:

- Researchers rediscover a forgotten part of the brain
- Your smartphone can double as a microscope
- What the blood of the dead can teach us about diseases
- Sperm-inspired robots

20 BIG IDEA

SATELLITES FOR STUDENTS.

Classroom in the Sky

Thanks to shoebox-size satellites, students aren't just learning the ropes of space study. They're teaching us more about our cosmic neighborhood while they're at it. **BY CAROLINE BARLOTT**

22 MIND OVER MATTER

My Own Worst Enemy

Sometimes we act against our better judgment. What can you do to keep from wandering off the path to your goals? **BY CHRISTIE ASCHWANDEN**

24 VITAL SIGNS

THE STROKE THAT WASN'T

Playing the Odds

A fit, middle-aged woman can't move her arm one minute, but she is fine the next. An MRI shows it's not her arm that's the problem. **BY TONY DAJER**

57 OUT THERE

Special Astronomy Section

The invention of the blue LED may have been a boon for most of us, but for astronomers, the little light is a nightmare. Plus: Excitement is already bubbling around 2017's long-awaited total solar eclipse. Find out more in this special section.