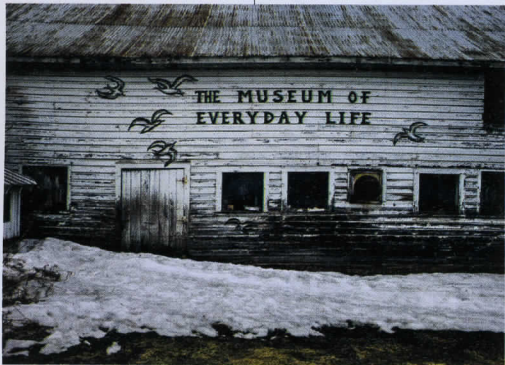


# CONTENTS

## PROOF



# 12

### Uncommon Kingdom

A Vermonter describes the state's northeast corner as a realm apart, a kingdom whose subjects are independent and eccentric.

BY ARCHER MAYOR  
PHOTOGRAPHS BY  
STÉPHANE LAVOUÉ

## EMBARK

# 21

### THE BIG IDEA

### A Sun-Powered Sail Into Space

A solar-sail spacecraft, set for a fall launch, is the stuff of astronomers' dreams—and a glimpse of the future.

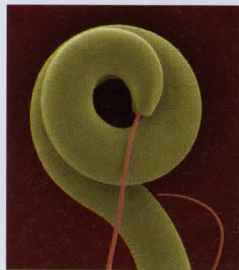
BY BILL NYE

### CAPTURED

### As the Worm Turns

An intestinal parasite can actually be beneficial.

BY LORI CUTHBERT



### ALSO

Crow Funeral Rites  
Flu Virus Genetics

## EXPLORE



# 34

### THROUGH THE LENS

### When a Friend Defies Death

A photographer documents his buddy's ropeless climb of Yosemite's El Capitan.

BY PETER GWIN

### DECODER

### Taking Mars's Pulse

Late this month, the Mars lander InSight is set to start gathering data on the red planet.

BY JASON TREAT

## MARS

The second season of the National Geographic series premieres at 9/8c on November 12.

### On the Cover

The Nature Conservancy bought Dugout Ranch, the largest private landholding within Utah's Bears Ears National Monument, to keep it from developers. Matt Redd, who directs a Conservancy research center, also tends the ranch's cattle. AARON HUEY



## FEATURE





**FEATURES**

**Battle for the American West**

Who gets to choose how the land is used?

BY HANNAH NORDHAUS  
PHOTOGRAPHS BY AARON HUEY

..... P. 42

**Saving the Sage Grouse**

It's a symbol in debates about land use versus conservation. It's also a bird species in decline.

BY HANNAH NORDHAUS  
PHOTOGRAPHS BY CHARLIE HAMILTON JAMES

..... P. 68

**Menu of the Future**

Coming to your table: dishes featuring grass, insects, and algae.

BY TRACIE McMILLAN  
PHOTOGRAPHS BY GRANT CORNETT

..... P. 82

**DISPATCHES**

**Caught in Chaos**

As thousands of migrants flee Venezuela for Brazil, they take their woes with them.

BY PAULA RAMÓN  
PHOTOGRAPHS BY FEDERICO RIOS

..... P. 94

**Flooding History**

A controversial dam in Turkey will destroy an ancient settlement.

BY SUZY HANSEN  
PHOTOGRAPHS BY MATHIAS DEPARDON

..... P. 102

**A Crack in the World**

Life at the Antarctic Peninsula needs sea ice and krill to survive. What if they go away?

BY CRAIG WELCH  
PHOTOS BY PAUL NICKLEN, CRISTINA MITTERMEIER, AND KEITH LADZINSKI

..... P. 114