

TIME for KIDS



PROJECT PENGUIN

Find out why scientists are counting chinstrap penguins in Antarctica.

COUNTING PENGUINS



Click. Click click. Click. Steve Forrest is in Antarctica. He's standing on a rocky cliff. Below him are hundreds of chinstrap penguins.

Forrest is a biologist. He uses a metal clicker to count every penguin he sees. It's not easy. It's snowing. The wind is howling. And the fluffy chicks won't stay still!

Forrest is part of a team working on a penguin **census**. The census will help scientists better understand the Antarctic environment.

Over the years, the number of chinstrap penguins in Antarctica has gone down. "Our best guess on why that could be is **climate change**," Noah Strycker says. He's on the census team.

Chinstrap penguins are named for the black band that runs around their throat. Can you see it?



COVER AND THIS SPREAD: CHRISTIAN ASLUND—GREENPEACE (3)

Scientists say climate change is making the ocean warmer. This may be hurting krill. Chinstraps eat these tiny shrimplike creatures. But krill are hard to study. So scientists focus on penguins. If penguins aren't doing well, it probably means krill aren't either. "Penguins give us an idea about what is going on in the ocean around us," Forrest says.

Drone Solution

This year, robotics engineers are helping Forrest with the penguin census. They fly a drone over the penguins. The drone takes pictures.

Forrest's team will use the photos as a record of each colony's location and size. It will also use the photos to teach computers to spot penguin nests. That way, computers could one day use satellite cameras to count penguins. For now, Forrest and his team will keep on clicking. —By Aryn Baker

A-Z Power Words

census *noun*: an official count of a population

climate change *noun*: changes in the Earth's weather patterns



In January, scientist Noah Strycker counts chinstrap penguins on an island in Antarctica.



KID'S-EYE VIEW

What will Earth look like in 30 years? We asked kids to draw an answer to that question. Here are a few of their drawings. What do you see?

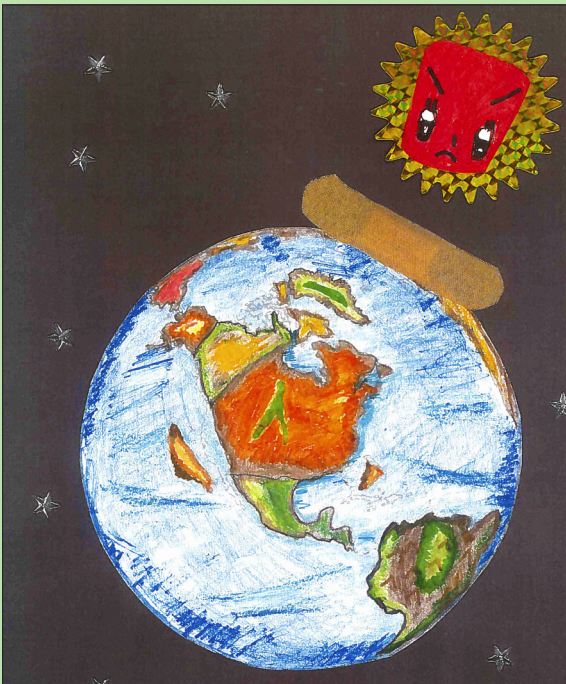
We also got letters from kids who are doing things to help the planet. Great job! Soon, your generation will be in charge. You give us hope for that future.



AANYA C., 6, KOWLOON TONG, HONG KONG



ALEXANDRA A., 9, MIAMI, FLORIDA



KELLIE K., 8, BROOKLYN, NEW YORK



WILLIAM L., 14, SYDNEY, AUSTRALIA



SARAH A., 17, PARIS, FRANCE

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