

# polar action guide

what you and your family can do to save the North Pole

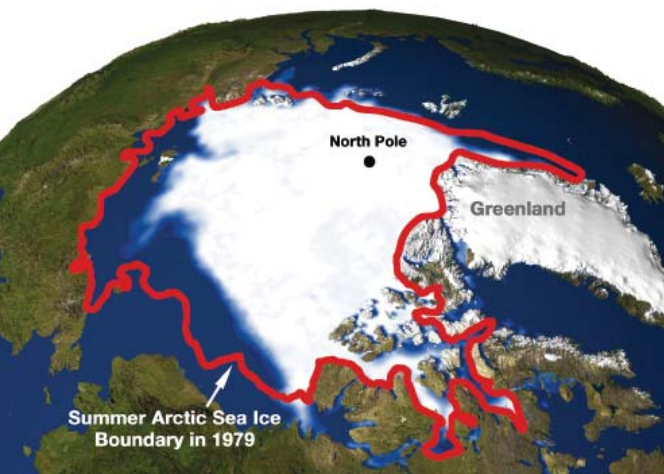


The Earth's North Pole, and the area around it, isn't land at all. Instead, it's really a huge mass of **ice** floating on top of the Arctic Ocean! This North Pole ice (called the "polar ice cap") is very important to our planet. What happens at the North Pole affects **all** of the Earth's people and animals. But the planet is gradually getting warmer, and scientists are worried that this is helping to melt the polar ice cap.

Inside: what's happening to the North Pole and the Earth's climate—and steps we can take today to protect our planet.



# what's UP with the North Pole?



## The polar ice cap is shrinking.

Pictures made regularly by NASA satellites (like the one above, which is from September 2004) show that the area around the North Pole that's normally covered by ice all year round is getting **smaller and smaller**. The red border shows how much larger the ice covering was in 1979, just 25 years ago!

Scientists who are carefully studying these satellite images say that the polar ice cap is melting at a rate of nine percent every ten years. And if it keeps that up—if we don't **do something soon** about the higher temperatures that are melting the ice—by the end of this century there could actually be no more summer ice in the Arctic. Now, no ice in the summer might not sound too serious. But at the North Pole, it is. Ice and snow there form an important protective coating that reflects some of the sun's rays back into space, and helps keep the **whole planet** from getting too warm.

# IF YOU'RE A PLANET, TOO HOT'S NOT GOOD

Planets can be hot or cold, of course, but for a planet to be a place where people and animals can thrive, the temperatures have to be just right. It's normal for temperatures to be slightly colder or warmer from year to year, but unfortunately the average temperature on Earth has been getting steadily warmer. Scientists call this problem "global warming" or "climate change." The melting polar ice cap could speed up this warming even more. The result can be serious disruptions to the planet's climate—from wildfires and heat waves to droughts, flooding, and worse.

## WHY IS THIS HAPPENING?

We burn gasoline when we drive our cars, and power plants burn coal or natural gas to produce electricity for our factories and homes. Burning these "fossil fuels" creates **air pollution**, such as carbon dioxide, that collects in the Earth's atmosphere and acts like an invisible wrapper that traps the sun's heat and causes the planet to warm up.

Here in the United States, we produce **MORE** of this carbon dioxide pollution than any other country—more than China, India, and Japan combined! This isn't because there are more people here (there aren't), but because we burn more fossil fuels. The **good** news is that if the world relies less on fossil fuels, we can start to solve the problem. And that's possible—through homes and cars that waste less energy, and through cleaner energy sources like wind and solar power. A global problem like this will take a global effort—and because we're a big part of the problem, the United States has to do our part to solve it.



# So,

# what ca

To protect the North Pole, countries around the world need to work together to reduce the air pollution that's causing global warming. But there are also some simple first steps that you and your family can take now:

- 1. Change your light bulbs.** Regular ("incandescent") light bulbs waste a lot of energy producing heat, not light! "Compact fluorescent" bulbs use one-quarter to one-third the energy that regular bulbs do, to produce the same amount of light. Look around your house to see which light fixtures are used the most, and replace those bulbs with compact fluorescents. If every U.S. family did that, we could keep one trillion pounds of global warming air pollution out of the air!

# some cool things to know about the polar ice cap and the Arctic

- The **polar ice cap** covers an area in the Arctic Ocean about the size of the continent of Australia! The **Arctic** is a much larger area surrounding the North Pole, including the land of several countries.

Some Arctic **peoples** are the Inuit, Inupiat, Yupik, Saami, Nenets, Sakha, and Chukchi.

- Arctic animals have adapted to the cold and ice. **Polar bears** can weigh as much as a small car, but they



## ...and not-cool problems

You might imagine that a warmer Arctic would be a good thing for the animals that live there. Not at all! Higher temperatures are already causing problems for Arctic animals. Polar bears, whales, walrus, and seals are changing their feeding and migration patterns, as they're forced to travel further for food. Disappearing polar ice will be a disaster for polar bears. With a longer summer, their dens may melt earlier, disrupting their hibernation. And as the ice disappears, the bears will have to swim longer distances to get to new hunting ground—something that will be especially difficult for cubs.



have large furry feet that help distribute their weight and make it possible to walk on thin ice. Polar bears travel long distances by floating on “flocs”—chunks of loose ice in the sea water.

- **Arctic foxes** also have furry feet that help them walk on snow and ice. Their white fur in winter helps protect them from polar bears!

- Many birds stop over in the Arctic when they're migrating, but only a few species, including **snowy owls**, stay year-round. Snowy owls are brown with spots and stripes in the summer, and completely white in the winter.

- Whales come up for air in “**leads**”—passages of open water in the ice. Many orcas live in the Arctic.

Three kinds of whales—belugas, bowheads, and narwhals—spend their whole lives there.



# n you DO?

**2. Unplug!** Those little plastic transformer boxes that charge cellphones and cameras or run other equipment use up almost 10 percent of the electricity in your house—even when they aren't being used! So keep them unplugged until you need them. Things like your TV and VCR also use energy even when they are turned off, so unplug them too when they're not being used.

**3. How about a hybrid?** Cars are one of the biggest sources of carbon dioxide. If your family is getting a new car soon, consider a “hybrid.” These cars run on both gas and electricity, so they get much better gas mileage, and create much less air pollution, than regular cars do.

**4. Be a good polar-protecting citizen!** Together

we can convince our government to solve global warming. Help elect officials who care about the environment, and write letters and emails to officials who are already in office.

**5. Join NRDC.** You can join forces with 1 million other NRDC Members and online activists to help save our planet. Become a Member online for as little as \$10 at [www.nrdc.org](http://www.nrdc.org). Become a BioGems Defender at [www.savebiogems.org](http://www.savebiogems.org), and join with other activists who are working with us to protect the Arctic National Wildlife Refuge and the Western Arctic Reserve habitats.

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## NRDC

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The **NRDC Climate Center** was created in 2001 to break the logjam in U.S. climate policy. The Climate Center is working to enact new laws to cut the pollution that causes global warming, and to put cleaner, more efficient technology to work throughout the U.S. economy. The Climate Center combines top policy expertise with strategic communications, organizing, and advocacy at the federal, state, and local levels.

The **Natural Resources Defense Council (NRDC)** is the nation's most effective environmental action organization. NRDC uses law, science and the support of more than 1 million Members and online activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.



## For more information

Here are some great online resources:

- NRDC's website ([www.nrdc.org/globalwarming/](http://www.nrdc.org/globalwarming/)) has many resources about global warming, from basic FAQs to in-depth reports, and activism tools that make it easy for you to write emails to elected officials.
- NRDC's Consumer's Guide to Buying Clean Energy ([www.nrdc.org/air/energy/gcleanen.asp](http://www.nrdc.org/air/energy/gcleanen.asp)) tells how utility customers in several states can switch to electric utility companies that rely on renewable or less-polluting energy sources. The NRDC guide "How to Reduce Your Energy Consumption" ([www.nrdc.org/air/energy/genenergy.asp](http://www.nrdc.org/air/energy/genenergy.asp)) details lots of steps that can save you money and reduce pollution.
- NRDC's monthly online newsletter "This Green Life" ([www.nrdc.org/thisgreenlife/](http://www.nrdc.org/thisgreenlife/)) is full of practical information about ways to save energy and help protect the environment. Check out the issues on compact fluorescent bulbs and hybrid cars.
- The Smithsonian National Museum of Natural History "Arctic Studies Center" ([www.mnh.si.edu/arctic/](http://www.mnh.si.edu/arctic/)) is a beautiful interactive web feature on the peoples, cultures, and environment of the Arctic.

The mission of the Natural Resources Defense Council is to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends.