



Changing Climate, Changing Habitat

Name: _____

Date: _____

SCRIPT

It's happening to creatures...both large and small...around the globe. As climates throughout the world change, insects and other animals are reacting to conditions they never had to face before.

Dateline: Baja, Mexico...

Scientists look at some animals as early indicators of trouble in the environment. Edith's checkerspot butterfly is one of them. It used to be seen in areas ranging from Baja Mexico to British Columbia. But recent trends have shown otherwise.

Southern populations of this delicate insect have been dying off in alarming numbers. It depends on one certain plant to develop from a caterpillar to a butterfly. And that plant has been stressed by climate changes.

...as has this indicator species -- a clear sign that the effects of a changing climate are rippling through the environment.

Dateline: American West

Changes that are showing up in other insect populations spell more trouble for humans.

Since 1999, different regions of the US have had to deal with West Nile virus...a flu-like disease caused by *Culex* mosquitoes. This virus can be deadly in some cases.

Scientists who have analyzed West Nile virus outbreaks have found out that the disease spikes in places where there are increased temperatures and/or droughts. *Culex* mosquitoes evidently thrive in these conditions. As their numbers grow, so does the danger that people will come into contact with them and be exposed to this disease.

Scientists now think that these extreme weather conditions are going to become more common throughout the US...meaning mosquito numbers will continue to climb ... and so will the danger of getting this disease.

Dateline: African Uplands

The story is the same in mountainous regions of countries like Kenya and Tanzania. *Anopheles* mosquitoes have responded to climate change there by moving into areas that were once too cool for them.

When they moved into these new areas, the mosquitoes brought with them the deadly parasites that cause malaria.

The people who live in these areas hadn't been exposed to malaria before. They weren't as immune to the disease as some living in hotter regions of these countries. As a result, people living in these mountainous regions have become the victims of more frequent and more lethal malaria epidemics.

Dateline: The Arctic

Climate changes are also affecting the Arctic's top predator.

The polar bear stands at the top of the Arctic's food chain. People used to be the only natural enemies these animals had.

Now, they are facing an even more serious enemy -- climate change.

Polar bears depend on sea ice for many things. It's the platform they hunt seals from. It's the place where they build their dens and raise their babies.

And, lately sea ice in the Arctic has been disappearing due to generally warmer temperatures in the region. The rate of change is much faster than scientists had previously predicted ... so fast that scientists now say the Arctic will have ice-free summers by 2040.

It's hard to track all the effects this disappearance has had. Scientists know that certain groups of bears have lost up to 22 percent of their members.



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But, they know the more sea ice is lost, the more bears will die. Some now predict that two-thirds of the polar bear population will disappear by the middle of this century.

Why are people so concerned about what's happening to the polar bear?

For one thing, if this species becomes extinct, there will never be another polar bear seen on earth.

For another, removing the top predator in a food chain can have lots of undesirable effects ... some of which we cannot predict.

And, third, many see polar bears as “canaries in a mine.”

What's happening to the polar bear could affect all of us in the future in a very serious way. Sea ice is melting because the Arctic is warming up. Icebergs are on the move. Glaciers are melting. All of this means that a whole lot of water is being released from the ice and sea water levels are on the rise.

And that doesn't affect just the Arctic.

The reality of climate change is making its way known in many small and large ways around the globe.

It is important that everyone understands what is happening.

But it's crucial that they know why it is happening.

My notes: _____
