



1  
00:00:00,000 --> 00:00:01,840

[Music]

2  
00:00:01,860 --> 00:00:09,289

As Arctic summers warm, Earth's northern landscapes are changing.

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00:00:09,309 --> 00:00:12,550

Using satellite images to track Arctic tundra ecosystems over decades,

4  
00:00:12,570 --> 00:00:15,820

a new study found the region has become greener.

5  
00:00:15,840 --> 00:00:24,371

Greening reflects increasing plant growth. Affecting people, wildlife, and the atmosphere.

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00:00:24,391 --> 00:00:27,774

Global Change Ecologist, Logan Berner, who led the recent research says:

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00:00:27,794 --> 00:00:31,411

"The Arctic tundra is one of the coldest biomes on Earth, and it's also one of the most rapidly warming,"

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00:00:31,431 --> 00:00:36,816

"This Arctic greening we see is really an indicator of global climatic change"

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00:00:36,836 --> 00:00:44,620

This study is the first to measure vegetation changes across the Arctic tundra using satellite data from Landsat

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00:00:44,640 --> 00:00:49,696

Berner and his colleagues used the Landsat data from 1985 to 2016

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00:00:49,716 --> 00:00:55,360

to estimate annual peak greenness at 50,000 randomly selected sites across the tundra.

12  
00:00:55,380 --> 00:01:02,942

These Landsat data showed greening at about 38% of the tundra sites across Alaska, Canada, and western E

13  
00:01:02,962 --> 00:01:08,415

This study was part of NASA's Arctic Boreal Vulnerability Experiment (ABoVE).

14

00:01:08,435 --> 00:01:15,522

Lead of the ABoVE science team, Scott Goetz says: "Landsat is key for these kinds of measurements"

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00:01:15,542 --> 00:01:23,761

"There's a lot of microscale variability in the Arctic, so it's important to work at finer resolution while also having

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00:01:24,884 --> 00:01:27,620

[Music]

17

00:01:27,640 --> 00:01:29,135

NASA USGS Science for a changing world.