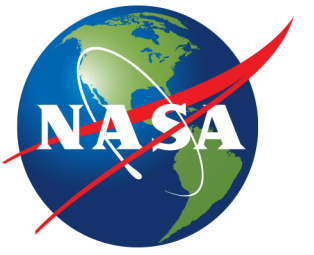


EARTH DAY



FIFTY YEARS



Our Living Planet

2020 EARTH DAY POSTER | FIFTY YEAR ANNIVERSARY

People often celebrate Earth Day by planting trees. Fifty years ago the first Earth Day launched a modern environmental movement —planting trees and other Earth-related activities remind us of the importance of being good stewards to our planet, and how deeply connected we all are to it.

In many ways, trees are more like us than we imagine. If you hold a stethoscope to the trunk of a hardwood tree, you can hear its “heartbeat” as water and nutrients rush through its system. Trees of the same species in a forest will nourish each other and care for their young.

Trees also have a symbiotic, mutually beneficial relationship with other organisms, and their connection to fungi is particularly astonishing. Under the forest floor, fungi attach to tree roots, allowing access to more water and nutrients. This connection even enables communication through a network, identified by Swiss scientists in 2018, that sends “voltage-based signals that appear similar to the electronic impulses in an animal’s nervous system.” These impulses can signal warnings of drought, disease or insect attacks to neighboring trees.

In 1790, the father of modern geology, James Hutton, described Earth as a “superorganism.” Hutton compared the water cycle to blood pumping through the human circulatory system. NASA’s view of our interconnected systems from space has produced stunning visuals, unparalleled in both beauty and science.

Our views of river deltas—many captured by the Landsat satellites we operate in conjunction with the United States Geological Survey—are particularly beautiful and evocative of water coursing through our land like a circulation system of nature. In 2000, Landsat 7 took one of my favorite images of the Lena Delta, which is the basis for this art.

“ *This poster is composited with real Earth science data.* ”

The branches of the river delta fan out and connect back to the center, separate and intermingled. I created this artistic composite using actual Landsat data of the Lena Delta, along with other satellite images, that together illustrate our connection to Earth and its natural circulation system.

Life is a delicate, complex, miraculous balance of various interconnected systems on both the global and micro scales. On this 50th anniversary of Earth Day, we need to remember that we are part of that system and unite to create an environmentally sustainable future for our planet.

Jenny Mottar
Art Director for NASA Science

? Can you find this imagery

Locate these images hidden in the river delta:



A variety of NASA satellite imagery was used in the production of this poster. Below is a list of locations corresponding to the imagery at left. Can you find these images in the artwork?

- | | |
|---|--|
| 1. Lena River Delta, Siberia, Russia | 7. Northwest Coast of Norway |
| 2. Ushuaia, Tierra del Fuego, Argentina | 8. Southern Tip of Chile and Argentina |
| 3. Coast of Brazil | 9. Ymer Island, Greenland |
| 4. Apostle Islands, Wisconsin, U.S. | 10. Airag Lake, Western Mongolia |
| 5. Khyargas-Nuur Lake, Uvs Province, Western Mongolia | 11. Amur River, China-Russia Border |
| 6. Anza-Borrego Desert, California, U.S. | 12. Dolan Springs, Arizona, U.S. |
| | 13. Guinea-Bissau, West Africa |

