

Sharp Eyes Keep Watch Over Rain Forests

Only a very small part of Earth is covered by rain forests. But of all the different kinds of plants and animals on Earth, at least half can be found in rain forests.

Rain forest plants store and release huge amounts of carbon, taking it from the *carbon dioxide* in the air. Carbon is the building block of living things, both plant and animal. But only plants can get it out of the air, and thus provide it as food to animals—and people. Also, the more carbon dioxide in the air, the warmer Earth's surface becomes. Rain forests help keep carbon dioxide levels just right.

However, each year, millions of acres of rain forest are cut down. According to some scientists, Earth loses enough rain forest each year to cover the entire state of Louisiana. Losing the rain forests means losing many species of plants and animals, and upsetting the delicate balance of carbon dioxide in the air.

Testing New Equipment

The National Aeronautics and Space Administration (NASA) is working to understand rain forest loss and how that loss will affect Earth's environment. For years, scientists at NASA have been studying pictures of Earth taken by a group of satellites called Landsat. The latest satellite, *Landsat 7*, was launched in April 1999.

But the equipment aboard a special spacecraft called *Earth*

Observing-1 (EO-1), should make Landsat satellites even better. EO-1 is scheduled for launch in late spring. It will carry some new high-tech sensors that will be tested in space for the first time, says NASA.

One new piece of equipment is called the Hyperion. The Hyperion is a camera that is so sensitive that from miles up in space, it will see the slightest color differences between different kinds of trees.

For example, Hyperion should show the difference between old rain forest growth and rain forest trees that are regrowing after the forest was cut down.

Helping Earth from Space

To make sure *EO-1*'s instruments work, NASA will have the satellite orbit Earth right behind *Landsat 7*. The pictures taken by *EO-1* will be compared with the *Landsat*'s images to make sure they are accurate.

With such new equipment on *EO-1*, NASA hopes to help people understand, and take better care of, Earth.

For more information on *EO-1*, visit The Space Place at <http://spaceplace.jpl.nasa.gov>.

