EARTH: Flames Fan Lasting Fallout from Chernobyl

Alexandria, VA – In the years following the 1986 Chernobyl nuclear disaster, forest fires billowed plumes of contaminated smoke, carrying radioactive particles throughout Europe on the wind. Now, researchers fear that a shift to a hotter, drier climate in Eastern Europe could increase the frequency of these fires.

Researchers from the University of South Carolina in Columbia used satellite imagery of fires in the 2000s and field measurements of radioisotope levels to model changes in the distribution of radiation over the region. The researchers found that fires likely spread radiation across much of Eastern Europe, with Ukraine, Belarus and Russia receiving the highest doses. Traces of radioactive cesium-137 may have even traveled to Turkey, Italy and Scandinavia.

Previously, the same researchers had found that reduced microbial activity in the area leads to slower than expected rates of decomposition of dead plant matter, leading to a build-up of leaf litter and plant debris on the forest floor — providing more fuel for forest fires.

Under climate models that predict a hotter, drier Eastern Europe in the future, such forest fires could become more frequent, the researchers concluded. Read more about it in EARTH Magazine: [http://www.earthmagazine.org/article/flames-fan-lasting-fallout-chernobyl](http://www.earthmagazine.org/article/flames-fan-lasting-fallout-chernobyl).

The June issue of EARTH Magazine, now available on the digital newsstand at [www.earthmagazine.org](http://www.earthmagazine.org), looks at how solar winds are mapped, and how tiny plant fossils offer scientists insight about ancient ecosystems, as well exclusive features on how geologists are portrayed on the silver screen and how new collaborations in paleoanthropology are bringing our ancestors to life.

Keep up to date with the latest happenings in Earth, energy and environment news with EARTH magazine online at: [www.earthmagazine.org](http://www.earthmagazine.org). Published by the American Geosciences Institute, EARTH is your source for the science behind the headlines.

The American Geosciences Institute is a nonprofit federation of geoscientific and professional associations that represents more than 250,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society’s use of resources, resiliency to natural hazards, and interaction with the environment.