



## Learning From the World's “Electronic Skin”

## Harnessing Data From a Global Web of Sensor Networks Leads to Greater Understanding of the Natural World

**Project Name:** Geospatial Cyberinfrastructure for Environmental Sensing (GeoCENS)

**Project Lead:** Cybera Inc., Alberta

**CANARIE Contribution:** \$1.1M

### Participants:

- University of Calgary, Alberta
- University of Saskatchewan

### What is GeoCENS?

GeoCENS is a web platform for biogeoscientists. It allows scientists to gain new insights into our climate, species and water systems, as well as better understand how our biosphere is changing.

GeoCENS uses the CANARIE high-speed network and its connections to international research networks to allow users to remotely and transparently access, interchange, understand and use different sensor networks and their data, independent of the underlying programming.

Through GeoCENS, scientists are able to collaborate across geo- and biological sciences on a scale not previously possible.

### Value to Research and to Canada:

- Permits Canadian scientists and researchers to amalgamate and share their data with international colleagues, accelerating our understanding of the natural world
- Breakthrough findings enabled by GeoCENS will aid decision makers by shedding light on how human activity impacts Earth's ecosystem

Find out more: [www.CANARIE.ca/en/programs](http://www.CANARIE.ca/en/programs) or  
[www.geocens.ca](http://www.geocens.ca)

### Did you know?

Researchers using GeoCENS can access and download data from more than 5,138 sensors, 1,404 real-time sensors, and more than 1,000 Web Map Servers. More sensors are being added every month.



Screen capture from the GeoCENS platform



Before and after satellite images capture the devastation of the March 11, 2011 earthquake off the coast of Japan. Data like this are available through the GeoCENS portal.

Image courtesy: NASA