

Global Network To Monitor Air Pollution Started

By Bruce Wiersma

The International Biosphere Reserve Program has many uses, one of which is to provide a locale for background monitoring. This monitoring would cover not only pollutants but also ecosystem processes and functions.

These reserves: (1) act as locales for establishing levels of pollutants; (2) provide a frame of reference against which changes in more impacted areas can be compared; and (3) may reflect changes in pollutant levels of a global nature long before such changes are obvious in more impacted areas. In other words, biosphere reserves can serve as an early warning system for pollutants transported over long distances.

The National Park Service has supported research on the development of techniques for measuring pollutants in remote biosphere reserves, determining their distribution in these reserves, and trying to obtain estimates of their movements through these reserves. Currently work is proceeding with the cooperation of the NPS, Dr. Jerry Franklin's team of USFS

personnel, and Oregon State University and the Department of Energy's Idaho National Engineering Laboratory to continue much the same kind of research in Olympic National Park, a designated biosphere reserve.

The work in Olympic NP will be coordinated with similar kinds of monitoring, both for pollutants and ecosystem parameters, in two other countries, the Soviet Union and Chile. In the former case, the work is coordinated through the US/USSR Bilateral Program on the Environment. The reserve is likely to be the Berezhinski Reserve. Meetings on cooperation between the U.S. Program and the Soviet Program have taken place on numerous occasions over the last five years, the most recent being discussions held at Sequoia/Kings Canyon NPs.

The Chile site is in the Torres del Paine National Park. Funded from contribution through the UN Environmental Program's Global Environmental Monitoring System, this work will consist of measurements similar to those being made in Olympic NP, measuring pollutants and ecological parameters. The work in Chile is being conducted by the Chilean National

Forest Service, CONAF, with cooperators from the University of Chile and Catholic University in Santiago.

These three sites will serve as a pilot network to test techniques and coordinating procedures among the three locations. Coordination will be maintained through the Global Environmental Monitoring System of UNEP, with input from the World Meteorological Organization and the UNESCO's Man and the Biosphere Program. This project will also be a component of the US Man and the Biosphere Pollution Directorate Program, MAB 14. Eventually it is hoped that the program will expand to a larger number of sites around the world and will continue on a long-term basis. The program is currently planned to be coordinated with other existing networks, such as the U.S.'s National Atmospheric Deposition Program and the World Meteorological Organization's Background Monitoring Program.

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