

information crossfile

American scientists are slated to visit China and the Soviet Union this summer to search unexplored areas for natural enemies of destructive insects and weeds, according to an AP story by Mike Feinsilber released in March. The U.S. Department of Agriculture's R. Dean Plowman is quoted as saying, "We're raising the priority of making biocontrol a vital part of American food and fiber production."

Taiwanese-born pathologist Yank Shaw-Ming will go to Inner Mongolia in search of a fungus that can destroy the leafy spurge, an aggressive weed that drives grazing cattle and horses away from rangeland. Five DA scientists will work with Russian counterparts to find biological controls against the Russian wheat aphid (which appeared in Texas three years ago and has spread to 15 states) and against a number of other pests such as the Russian thistle and grasshoppers.

David Reynolds, Natural Resource Specialist and NPS Office of International Affairs liaison to the Peace Corps, was in Tanzania May 14 to 20 to assist with an Environmental Education Workshop. Sixty-five participants met in the Mt. Meru Hotel in Arusha and spent six days studying the differences between the "European" and African ways of viewing nature, exploring various approaches to increase community participation in protection of the environment, and examining ways to encourage community involvement in planning and development of parks and protected areas.

Thirty of the participants were Peace Corps volunteers working in parks or on wildlife or environmental education assignments in 15 African countries. The other 35 were African park wardens, directors of parks and wildlife preserves, and university professors, representing the governments of the 15 countries.

Reynolds has promised *Park Science* a report of the workshop upon his return in June.

Staff and wire reports in the *Oregonian* in May tell of a voracious immigrant that has invaded the Great Lakes, threatening to disrupt the food chain and wreak havoc with the area's fishing industry.

The carnivorous culprit is a half-inch-long water flea named *Bythotrephes*. An animal member of the plankton community, *Bythotrephes* eats a smaller type of water flea that is the chief food for the fry of small fish species that are in turn eaten by larger salmon and trout.

Scientists with NOAA in Ann Arbor, Mich., believe that *Bythotrephes* – a native of Northern European waters – hitched a ride into the lakes aboard foreign freighters that dump their water ballast before loading up with grain.

All of which brings to mind the less-than-immortal verse of Jonathan Swift, to wit: "So Nat'ralists observe a Flea/Hath smaller Flea that on them prey/And these have smaller Fleas that bite 'em/And so proceed ad infinitum."

"Environment could lose out in the face of economic realities" is the headline on a major wrap-up article by

Larry B. Stammer, environmental writer for *The London Times* in May 1989. Environmental ministers and other delegates from 124 nations convened in London for a "Saving the Ozone Layer" conference and they heard Mostafa K. Tolba, executive director of the United Nations Environment Program warn:

"There is not a single nation or individual on Earth whose wellbeing is not finally dependent on its biological resources; its seas and rivers, grasslands, forests, soil and air. Unless all nations mount a massive and sustained effort into safeguarding their shared living resources, we would face a catastrophe on a scale rivaled only by nuclear war."

The deep divisions between the developed nations and those still struggling to achieve developed status was mirrored in the words of Mexico's ecology minister, Patricio Chirinos: "What is needed is to design and implement an international program to provide technical and economic resources and provide alternative jobs for the farmers and growers whose survival now depends on wresting land from the forest."

Robert E. Grady, the White House's deputy director for natural resources, said that despite momentous economic and political problems, protecting the global environment has strong appeal: "The beautiful thing about it ... is that it does so clearly cut across ideological lines. The issue is protecting the mutual inheritance of all of us and all those who follow."

Northwest Woodlands, Winter/Spring 1989, carries an article by Jim Agee entitled "How does fire effect the forest's soils?" Agee, formerly an NPS/CPSU research biologist and unit leader at the University of Washington CPSU and now professor and chair at U/WA College of Forest Resources, separates fire effects on soil into three categories: physical, chemical, and biological. "The relative importance of each category," he states, "depends on site characteristics and the way fire is applied..."

Agee considers the appropriateness of pile burning and of broadcast burning, discusses the warning signs of severe impacts, the effects of fire on water repellency, nutrient boosting (in the short term) and sagging (a long-term possibility), and the biotic effects ("complex and not fully understood").

As for "making a difference" with fire, Agee generalizes: "Avoid hot fires whenever possible; burn when the soil is moist ... maintain fuel moisture at as high a level as possible to achieve the objectives of the burn."

The News and Comment section of *Science* (April 7, 1989), commenting on the Valdez oil spill, noted that "the potential disaster ... was forecast in a 1972 Environmental Impact Statement; the bumbling response was not." *Science* writer Leslie Roberts, in the same issue, quotes Howard Sanders, a marine biologist and senior scientist emeritus at Woods Hole Oceanographic Institution and veteran of many oil spills. In addition to the massive short term mortality among seabirds, marine mammals and fish, there is the problem of the longer term effects of oil within the water column. These are "trickier to predict." Sanders suggests that as the oil coats particulate matter it will be ingested by zooplankton and then excreted. This "rain of fecal pellets," Sanders said, is a major route of oil to the bottom. As oil accumulates there, the benthos could become anaerobic, making it unfit for marine fauna and for some marine flora.

Roberts concludes with the statement: "All agree that the rich ecosystem of Prince William Sound will eventually recover. The only question is when."