

Protests fail to block mountain-lion surveys

Rex Dalton, San Diego

Extensive studies are under way to investigate the impact of predation by mountain lions on wildlife in the western United States. The results are expected to strongly influence the management of scarce and endangered species in the region.

Having defeated a legal challenge by environmentalists in the federal court in Portland last month, biologists with the Oregon Department of Fish and Wildlife are proceeding with a \$5.2-million study of two elk populations, whose numbers have been declining in recent years.

And wildlife biologists with the Arizona Game and Fish Department have just received final approval from the federal government for fieldwork on the effect of lions on a desert bighorn sheep population northeast of Phoenix. The sheep population has recently plummeted, after a successful restoration effort begun 20 years ago.

In both cases, state biologists may kill some lions during the studies to reduce the lion population and determine whether this improves elk or sheep survival. But environmentalists have sought to block both studies because of the proposed killings.

The studies are expected to answer pressing questions about whether it is lions, environmental change or disease that lies behind declining wildlife populations.

The results could have implications for the conservation of many species. Mountain lions, which weigh between 50 and 85 kilograms and are better known as cougars or pumas, head the food chain in many parts of North America. In recent decades, their populations have blossomed, presenting a major complicating factor for biologists seeking to save or restore wildlife.

In California, for instance, the last remaining population of around 250 Sierra Nevada bighorn sheep — which are on both state and federal endangered-species lists — has been seriously threatened by predation by lions in the mountains near Bishop, south of Lake Tahoe.

The studies in Oregon and Arizona will be closely watched by biologists interested in the Californian sheep. “We could never do these studies in California,” says biologist Vern Bleich of the California Department of Fish and Game, citing political resistance to work that might lead to calls for limits on the lion population. California outlaws lion hunting, which is legal in Oregon and Arizona and will be factored into the research.

Environmentalists’ objections to the Oregon study peaked last month when the Sierra Club and other groups sued the US Fish and Wildlife Service, alleging that there had been inadequate environmental



Killer in the sights? Environmentalists want studies halted because of plans to cull the lions.

assessment of the study. But the court in Portland ruled on 19 February that it would not halt the research.

Under the five-year study, biologists will fit some of the lions with radio collars and monitor their movements, together with those of Rocky Mountain elk in national

forests in the northeast part of the state and Roosevelt elk in the southwest.

In the Arizona project, biologists will decide in the autumn whether they need to kill any lions. A total of 12 lions are to be eliminated in the study area, but nine have already been killed by sports hunters. ■

Citizenship gets a science angle

David Adam, London

English schoolchildren will soon be grappling with the social issues surrounding topics such as the growing of genetically modified food under government plans to give ‘citizenship’ lessons a formal place in the school timetable.

But with no extra resources and little training for science teachers in such classroom debates, some science education experts are questioning whether the scheme will work.

From September, English schools will be required to incorporate discussions on social

issues into classes. Science education experts are keen that science teachers hold discussions on topics such as genetically modified crops and nuclear power. “Citizenship education is a golden opportunity to get young people to think about science from a more informed perspective,” says Peter Finegold of the Wellcome Trust, Britain’s largest medical research charity.

On 28 February, the trust, together with Britain’s Association for Science Education, held a conference in London to promote the scientific aspects of the plan. Most teachers at the meeting were enthusiastic, despite worries over how the new subject would be incorporated.

But some education researchers suggested that science teachers could be less suited to promoting such discussions than colleagues who teach other subjects. Last year, a Wellcome Trust report found that most classroom discussions of biomedical issues take place in humanities lessons.

“In general, science teachers feel that they lack the skills, confidence and time to initiate classroom discussion,” says Ralph Levinson of the University of London, co-author of the Wellcome report. “And the scientific facts appear to be incidental to the teaching of these issue-based topics in the humanities.” ■

