

## Animals County termed a 'hot spot' for endangered species

By **DONNA KIMURA**  
Sentinel staff writer

**SANTA CRUZ** — Santa Cruz County is an important "hot spot" for a rich array of endangered species, reports a national study released Thursday.

The research suggests that efforts to protect biological diversity should focus on Santa Cruz County and a few other key areas in the United States where endangered plants and animals are concentrated.

The results of the study by scientists with the Environmental Defense Fund and Princeton University are being released today in the cover story of Science magazine.

Santa Cruz County is host to about 16 endangered species, ranging from the Ben Lomond wallflower to the Zayante band-winged grasshopper, according to the researchers.

"Santa Cruz does not have an immense number of endangered species like some other areas, but it has a good diversity," said

David Wilcove, an ecologist with the Environmental Defense Fund and a co-author of the report. "There is a variety of interesting plants and rare insects, and many of these have narrow ranges. You're not likely to pick them up in other counties."

The year-long study found that most endangered species are clustered in their own hot spots. While each species tends to have its own specific area, there are a few places where these hot spots overlap, creating important sites for endangered species diversity.

They include Santa Cruz, San Diego, Los Angeles, San Francisco, Hawaii, Highlands and Monroe, Fla., and Whitfield, Ga.

The scientists were interested in looking at the big picture on how endangered species are distributed in the United States, whether the plants and animals are clustered or spread out far and wide.

The discovery of the hot spots suggests that it may be advantageous to increase efforts to save species in Santa Cruz, Wilcove

said.

"This might be a good area to use economic incentives," he said.

Instead of just using the regulatory stick of the Endangered Species Act, officials should consider offering economic incentives, he said.

For example, tax credits may be used to reward land owners who go out of their way to restore their properties for one of the threatened plants or animals.

The New York-based, non-profit Environmental Defense Fund represents 300,000 members. "EDF links science, economics and law to create innovative, economically viable solutions to today's environmental problems."

The study comes as pressure mounts to overhaul the Endangered Species Act. Property rights advocates have been calling on Congress to allow a greater balance between protecting species and economic development.

"We can protect a tremendous number of

endangered species on only a small proportion of the nation's land," Wilcove said.

While the hot spots should receive special attention, people must also protect those endangered species that occur in other areas such as the peregrine falcon, which is an endangered species in 49 states, he said.

The study looked at a list of endangered species as of March 31, 1995. Since then, the California red-legged frog and the coho salmon, both known to be in Santa Cruz County, have been listed as "threatened." The steelhead is also proposed to be added to the federal list.

Nationwide, there were 960 animals and plants listed as either threatened or endangered as of June 30.

The next step may be to focus on the regions in greater detail, Wilcove said.

He encourages other scientists to undertake a similar analysis.

"Try not think of this as the last word, but the first word," Wilcove said.

### On the list

Here are some of the endangered species known to be or possibly located in Santa Cruz County:

Mount Hermon June beetle  
Santa Cruz cypress  
Zayante band-winged grass-

hopper

Marbled murrelet  
Southern sea otter  
Brown pelican

White-rayed pentachaeta  
Western snowy plover  
Santa Cruz long-toed sala-

mander

Swamp sandwort  
San Francisco garter snake  
Ben Lomond spineflower

Monterey spineflower  
Robust spineflower  
Scotts Valley spineflower