

Eisner, "the evidence seems overwhelming that in the case of the Endangered Species Act, we are not dealing with a situation in which legitimate goals conflict; rather we are witnessing a struggle to keep mankind's long-term options open in the face of threats by short-term interests."

At congressional hearings, it appeared that the bulk of scientific knowledge resides with those who are concerned with species protection. Developers are fond of laughingly asking the rhetorical question, "what is the value of the snail darter?" In fact, as Parenteau of the National Wildlife Federation points out, any species can act as "a miner's canary for monitoring the health of the environment." The weakening of the shells of falcon and eagle eggs, for example, pointed up the extensive penetration of DDT. The depletion of an aquatic species can signal growing levels of pollution or excessive diversions of water.

Elimination of lower species from pro-



E. P. Haddon/USFWS

tection of the act would be the height of folly, according to Stanford biologist Paul Ehrlich, who observes that microorganisms are the workhorses in "ecosystem services." He says, "Every population you wipe out is a working part of a system" that can be providing pest control, soil maintenance, climate amelioration, nutrient cycling, waste disposal, air and water purification, flood control, and myriad other functions.

The world faces an unprecedented and probably unavoidable tragedy of unspeakable proportions in the coming decades. According to a National Research Council report on tropical biology, 1 million species may be lost by the end of this century, and more than half of all existing species could cease to exist by 2100.

In view of what is happening in the tropics, the protection offered by the Endangered Species Act may seem small. But as scientists insist, the law is vitally important as a symbol worldwide. If Congress does not take a firm position defending the act this year it will become increasingly difficult to establish and defend the principle that mankind's well-being depends on diversity of species.

—CONSTANCE HOLDEN

Astronomer May Be Barred from Telescopes

How far can a scientist wander from the mainstream before his colleagues cut him off? A California astronomer is confronting that question now.

For 15 years, Halton C. Arp of the Carnegie Institution's Pasadena office has maintained that a key tenet of contemporary astronomy could be dead wrong. Quasars, he says, may not be immensely bright objects at immensely great distances; at least some of them may be dimmer entities associated with relatively nearby galaxies. He suspects that their high redshifts—commonly taken to indicate great distance from Earth—are actually due to some new principle of physics.

Over the years he has collected some provocative examples of quasars that indeed seem to cluster around visible galaxies. In certain cases the objects appear to be connected to those galaxies by faint tendrils of material. But the majority of Arp's colleagues have found his examples less than convincing, and Arp has gradually found himself more and more isolated. When quasars were new, the debate was stimulating, astronomer Leonard Searle recently told the *Los Angeles Times*. After nearly two decades, it has become "sterile and unproductive."

Now, the *Times* reports, the committee that allocates observing time on the Mt. Wilson, Palomar, and Las Campanas, Chile, telescopes, has recommended that Arp either prove his case, take a new research tack, or be denied further observing time after this year. The recommendation, made last November in a letter addressed to the directors of the observatories, was only recently made public.

Wanting to avoid the appearance of suppressing an unorthodox view, the committee members said, they had been allocating Arp generous blocks of observing time over the years, even though they unanimously felt that there was little scientific merit in doing so. This year's grant of time was only made because of Arp's senior standing in the community.

The recommendation came as a surprise to Arp, who has always professed to enjoy the debate with his

colleagues. "What was particularly upsetting," he says, "was their statement that they couldn't see where [my] research was leading."

Apparently it was not an easy decision for the committee. "No committee member is ever 100 percent certain he is right," one scientist said. "Everybody is aware of cases where a scientist regarded as wrong later turned out to be right. It boils down to this: You make a judgment and you simply do the best you can at that time and place."

Contacted by *Science*, Arp emphasized that his access to the telescopes has not yet been denied. The final decision will not come until the committee meets again in October, and everyone is trying to stay calm until then. "I hope they will actually look at the scientific validity of the observations," he says. "And if they do that, I think they will grant the time."—**M. Mitchell Waldrop**

White House Science Committee Formed

A panel of 13 scientists has been named to advise George A. Keyworth, director of the Office of Science and Technology Policy (OSTP) and science adviser to President Reagan. The committee, known as the White House Science Council (the acronym is pronounced whisk), contains several familiar faces on the Washington science policy circuit and two individuals generally regarded as being on the right wing of the scientific establishment—Edward Teller and Harold Agnew. All the members are male, and most of them are physicists.

The committee is, in theory, the highest level scientific advisory committee in the federal government. But it will be much less powerful than the old President's Science Advisory Committee (PSAC), which was formed in 1957 by President Eisenhower and abolished in 1973 by President Nixon. PSAC formally reported directly to the President; WHSC will report to the President's science adviser.

Indeed, in an interview late last year, Keyworth made clear that he had no intention of resurrecting PSAC. The new committee will func-