

## Lee Talbot: An ecologist for all seasons

The meeting had reached one of its periodic low points. The 30-odd wildlife experts—government scientists in tailored suits interspersed among rumpled-corduroy academics—had begun to bicker about semantics and range so far from the original topic one impatient listener complained they were in danger of “rediscovering the wheel.” Finally a bearded man at the head table who had said little up until then suggested the group break into small committees and draw up specific recommendations along lines he then set forth. As the assembly obediently headed for their committee rooms, one scientist paused. “Lee is a master at this,” he murmured.

Lee M. Talbot, at 44, has already performed ecological work in some 90 countries, varying from the directorship of the East African Ecological Research Project to biological studies at the Arctic Research Laboratory in Point Barrow, Alaska. Now, from his vantage point as senior scientist at the Council on Environmental Quality, he is determined to gently prod his fellow scientists into standing up—together—to be heard on important issues. An unflappable ex-Marine, who taught hand-to-hand combat and has become a successful race-car driver, Talbot combines a soft-spoken, understated approach with great perseverance and an acute sense of timing to assemble “critical masses” of generally reticent scientists and lead them onto the intellectual battlefield—“to rock the boat.”

In addition to organizing the Airlie conference on living natural resources, Talbot has been instrumental in reversing U.S. policy favoring commercial killing of whales, getting a ban on use of poisons to kill predators, and helping develop the U.S.-U.S.S.R. agreement on environmental protection. The convention on Control of Trade in Endangered Species was, according to EPA Administrator Russell E. Train, Talbot’s “brainchild.” This year, on the hundredth anniversary of Albert Schweitzer’s birth, Talbot was presented the Schweitzer medal for his conservation efforts.

Though most public attention has been paid to endangered species, Talbot says the health and productivity of the many other species, upon which man relies for his welfare, must not be neglected. The focus, he says, should be on the health of the entire ecosystem, and management theory must therefore undergo some fundamental changes. Since the concept of maximum sustainable yield first came into vogue, total world production of fish, for example, has more than tripled, and knowledge of complex relationships among various species has increased enormously. “My concern,” says Talbot, “has been that our management concepts haven’t kept pace.” By bringing together the experts “who wrote the books” and working with them to produce a coherent set of new principles to replace the old doctrine, he hopes to influence new legislation and such negotiations as the Law of the Sea conference.

Talbot takes a pragmatic approach toward preserving species balance, comparing those who would let animals become extinct, without any effort at preservation, to people on a spaceship throwing out part of the life support system because they don’t understand its function. Many animals have potential benefits to man not yet dreamed of, he says, and cites an example from an expedition he took to northern Cambodia. There a native ox, the kouprey, had been so decimated that less than a hundred were left; and since the area is now a war



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zone, Talbot says the animal has probably become extinct. The significance of this is that in a region critically short of animal protein, where conventional breeds of cattle have trouble surviving, the kouprey could probably have been interbred with highly productive European strains to produce a hardy, productive herding animal to supplement the diet of starving people. A similar match was made between the African zebu and some cattle in Texas to form the Santa Gertrudis, which has proved enormously successful in many semi-arid countries. Unfortunately, one promising chance to produce a hybrid suited to another sort of tropical environment has now probably been lost, Talbot says.

To prevent further ecological deterioration, Talbot calls for a “holistic approach” to environmental management. Unfortunately, the present educational system is not set up to train people with such a broad perspective, he says: “I regard it as a powerful obstacle. The traditional university is divided into watertight departments. . . . While many universities have established interdisciplinary or interdepartmental programs, frequently little has changed but the name.” (Brian J. Rothschild, director of the Southwest Fisheries Center, calls such halfway measures “the great stapling,” in which basically traditional work is lumped together and called interdisciplinary.)

What is needed, Talbot believes, is a “different breed of ecologist—I’m not even sure that’s the right term—people capable of generalizing with scientific rigor.” Such “scientifically rigorous synthesis” is the only thing that can overcome what Talbot sees as the “understanding gap” between academic experts and the decision makers they advise: When academics argue they have no scientifically valid reason to recommend either yes or no to a question, he says, the decision maker is likely to wind up storming, “‘I’ve got until five o’clock today and you have just spent eight hours telling me why I can say neither.’” But beyond the specific need for a different sort of formal training, Talbot likes to recall the words of Albert Schweitzer engraved on his medal—“We need a boundless ethics which will include the animals also.” □