

to encourage the use of methoxychlor, a less persistent pesticide.

The fact remains, however, that the refusal of the Michigan state courts to grant an injunction against the use of dieldrin was a defeat for EDF. To this setback was added another when Judge Stanislaw finally ruled in the Long Island case on 30 November. He held that, while DDT was admittedly harmful to wildlife, use of this pesticide did not appear "wholly unjustifiable or so manifestly and broadly injurious as to compel [its] cessation." Essentially, his position was that banning DDT is a matter for the legislature to consider, though Yannacone contends that legislative and administrative bodies have largely ignored warnings about the effects of such "hard" pesticides. Stanislaw still has under consideration the request for a reopening of the trial.

It is in the federal courts that Yannacone hopes to strike a decisive blow against governmental use of dieldrin and DDT. In a suit filed 1 December in the U.S. District Court in Brooklyn, New York, EDF seeks to stop the U.S. Department of Agriculture from taking part in the dieldrin-spraying project in Michigan and from continuing to recommend DDT for control of Dutch elm disease.

If and when this case is heard, Yannacone's argument will be based in part on the Ninth Amendment, a seldom-cited constitutional provision which simply says, "The enumeration in the Constitution of certain rights, shall not be construed to deny or disparage others [such as the right to an uncontaminated environment, EDF says] retained by the people." Also, his case will rest on the constitutional guarantees that all citizens shall enjoy equal protection of the laws and that none shall be deprived of life, liberty, or property without due process of law. Thus, he will argue that the courts must hear the scientific evidence about the ecological damage done by the application of dieldrin by governmental agencies—which, in the Berrien County case, happen to be acting largely for the economic benefit of fruit growers.

Yannacone's theories are unorthodox, and it is by no means unlikely that the courts will reject them. Robert Jaspersen, general counsel of the Conservation Law Society in San Francisco, predicts precisely such an outcome. "You just can't stretch the Constitution that far," he remarked to *Science*. Jaspersen

believes, however, that through conventional damage suits, such as those downstream property owners might bring against upstream polluters, what amounts to a citizen's right to an uncontaminated environment may be established.

The Environmental Defense Fund is as yet little known by most conservation groups, and the EDF concept and legal approach have not received their considered appraisal. But it is clear that not all of them will embrace EDF as quickly as the Audubon Society has done. David Brower, director of the Sierra Club, which is by far the most militant of these groups, suspects that EDF has not prepared adequately for its undertakings.

"I think there needs to be more consultation with some people who are older and stuffer," he says. Such consultation, one might add, should extend to leaders of organizations such as the American Civil Liberties Union and the National Association for the Advancement of Colored People's Legal Defense Fund, groups Yannacone regards as akin to EDF. Organizations of this kind have done much to lead the courts to broaden their definition of constitutionally protected rights.

Even though EDF has yet to win a court suit, Yannacone and Puleston (EDF's board chairman) have drawn up a proposal for a \$350,000 foundation grant, which would be used over a 6-month period to develop a program of legal action and education. To some, this may seem a plea for too much, too soon. A case surely can be made, however, for giving EDF the support necessary to test its potential.

Even if EDF's search for major new legal precedents is unsuccessful, the group's usefulness will not necessarily be at an end. For EDF could then consider devoting itself to court and administrative proceedings in which existing laws and accepted legal principles could be invoked. For example, EDF might keep enforcement of the new air- and water-pollution laws under review.

In fact, it should be able to bring substantial expertise to bear on a variety of environmental questions. A significant feature of EDF is its scientific advisory committee, made up of three EDF trustees plus an ecologist at Yale and one at the University of California's Irvine campus. This group, chaired by Woodwell, plans to establish a number of *ad hoc* committees which will

pool the talents of scientists and social scientists in various disciplines.

The scope of EDF's interests ultimately may extend beyond environmental contamination to other problems, such as the generation of excessive noise, the dredging and filling of estuaries, and the needless destruction of other valuable natural areas. Indeed, the growing number and complexity of environmental problems itself suggests the timeliness of the EDF concept of lawyers and scientists going to court in the interest of achieving an ecologically sound habitat for man and beast.

—LUTHER J. CARTER

## APPOINTMENTS

**T. M. Barkley**, associate professor of botany and curator of the Herbarium at Kansas State has been named associate director of the division. . . .

**Louis A. Wienckowski**, deputy director, Division of Special Mental Health Programs and acting chief, Center for Studies of Narcotic and Drug Abuse, National Institute of Mental Health, to director of the Division of Extramural Research Programs, NIMH. . . . **W. L. Grant**, deputy director general and director of the Reactor Engineering Division, Atomic Energy Board, South Africa, to director general of the board. . . .

**Richard T. Smith**, chairman of the department of pediatrics, University of Florida, who has recently been on leave conducting studies at the Karolinska Institute, Sweden, to chairman of the department of pathology, University of Florida. He succeeds **Joshua Edwards** who has become chairman of the department of pathology, University of Indiana. . . . **Stan Ulam**, research adviser, Los Alamos Scientific Laboratory, to chairman of the department of mathematics, University of Colorado. . . .

**John S. Fabianek**, chief research chemist, Veterans Administration Center, Martinsburg, W.Va., to associate professor of chemistry and deputy chairman, department of life sciences, New York Institute of Technology.

*Erratum:* In the report "5-Hydroxytryptamine in the carotid body of the cat" by S. R. Chiochio *et al.* (10 Nov., p. 790), lines 21 and 22 of the third column should read "immersed in 0.1N hydrochloric acid, and assayed for 5-HT by the . . ."

*Erratum:* In the report "Enzyme concentrations in tissues" by P. A. Srere (17 Nov., p. 936), the first equation in the next to last paragraph of the first column on p. 937 should read:

$$\frac{U_c/kg_t}{U_o/g_o} = g_c/kg_g$$