

AAAS OFFICERS

Election of Athelstan Spilhaus, president of Franklin Institute, as president-elect of the AAAS was announced at the association's meeting in Dallas last week. Elected to 4-year terms on the board of directors are Richard H. Bolt, chairman of the board of Bolt, Beranek and Newman, Inc., and Mina S. Rees, provost, Graduate Division, City University of New York. Spilhaus is scheduled to succeed to the presidency at the AAAS meeting next year when H. Bentley Glass, who takes office as president this week, completes his 1-year term.

lower number of registrations was attributed to the location of the meeting, the fact that less travel money is available this year, the Asian flu, and the bad weather in other parts of the country.)

J. B. Neilands of the University of California, Berkeley, who is chairman of the newly created "Scientists' Committee on Chemical Warfare in Vietnam," called the formation of this committee an evidence of "the quickening conscience of the American scientific community." Arthur Galston of Yale said that scientists might ask "what chance do we have that's better than a snowball in Hell" of helping stop chemical warfare in Vietnam. He argued, however, that a small group in the Federation of American Scientists had played a significant role in bringing atomic energy under civilian control after World War II, and said that scientists could play an equally important part in controlling chemical and biological weapons.

On the other hand, anthropologist Margaret Mead warned the group that they had better make it clear that the defoliation in Vietnam was "just peanuts" as compared to other environmental hazards caused by technological intrusion, such as the building of the Aswan Dam in Africa. "The issue here is warfare, not defoliation," Dr. Mead argued; scientists, she said, should be working on methods to control violence throughout the world.

Earlier that day, Dr. Mead and other scientists had participated in a scholarly discussion on the use of herbicides in

Vietnam. Boysie E. Day, of the University of California, Riverside, explained the uses of herbicides in agriculture in the United States. During the discussion, Day was challenged by Galston and Commoner, who quoted from the MRI report. At one point, Day replied that the MRI report was prepared in 60 days by people who do not understand herbicides. Commoner then noted that Day was one of the consultants for the MRI report.

One of the most widely discussed papers on herbicides was that given by Fred Tschirley, of the U.S. Agricultural Research Service. At the request of the State Department, Tschirley made a 1-month study of defoliation in South Vietnam, from mid-March to mid-April 1968. He noted that his study was short, and made during the dry season, when natural defoliation and many fires make it more difficult to determine the extent of defoliation by herbicides. He explained that he had to make most of his observations by aircraft and was able to get out into defoliated forest only around three Special Forces camps. Although he had expected to work in a team of scientists, his study had, he said, turned out to be a one-man operation.

"The defoliation program has caused ecologic changes," Tschirley reported; "I do not feel that the changes are irreversible, but complete recovery may take a long time. The mangrove type is killed with a single treatment. Regeneration of the mangrove forest to its original condition is estimated to require about 20 years.

"A single treatment on semideciduous forest would cause an inconsequential ecologic change. Repeated treatments will result in invasion of many sites by bamboo. Presence of dense bamboo will then retard regeneration of the forest."

Tschirley reported that about one-third of the mangrove forests and about one-sixth of the semideciduous forests in South Vietnam had been treated with herbicides. He did not examine closely areas in which crops have been treated with herbicides in the highlands of Vietnam.

In summary, Tschirley made three recommendations. (i) The desirability of ecologic research in Vietnam after the war cannot be overemphasized. (ii) Continuing assessment of the defoliation program as it affects forestry and watershed values should be made. (iii) From an ecologic point of view, the concept of defoliating in strips or

in a checkerboard pattern has great merit and should be pursued further.

There has been no firm decision yet concerning the form of the AAAS ad hoc committee, or the form of the study group on herbicides in Vietnam that it is to appoint. Don K. Price of Harvard, past president of the AAAS, speculated that the ad hoc committee would be comprised of about 12 people representing about eight organizations. Members of the board who spoke on the subject seemed to be skeptical about the possibility of making a full-fledged study before hostilities cease in South Vietnam. Tschirley, in his three trips into the defoliated forest, had to carry a carbine and a revolver for protection. One Special Forces camp underwent a Viet Cong mortar attack during his visit. Obviously, it is much easier to authorize a study of the use of herbicides in Vietnam than it will be to carry it out in the near future.

—BRYCE NELSON

RECENT DEATHS

Mariano R. Castex, 82; former rector of the University of Buenos Aires and president of the 8th International Congress of Internal Medicine; 30 July.

Christian H. Cochran, 51; a missile systems engineer with the Johns Hopkins University Applied Physics Laboratory; 15 Dec.

Giotto Dainelli, 90; Italian geographer, geologist, and explorer who was professor of geography and geology at the universities of Pisa, Naples, and Florence; 16 December.

Carl Epling, 74; emeritus professor of botany at the University of Los Angeles; 17 November.

Walter Friedrich, 85; former president of the Medical-Biological Research Centre in Berlin-Buch, former chancellor of Humboldt University, and former president of the German Academy of Science in Berlin; 16 October.

Oliver J. Irish, 76; former chief biochemist for the Veterans Administration; 14 December.

George M. Murphy, 65; professor emeritus of chemistry at New York University; 7 December.

William M. Wallace, 56; director of the department of pediatrics at Case Western Reserve University School of Medicine; 9 November.

Henry Wermer, 55; chief of the adolescent unit at Beth Israel Hospital; 5 November.