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**ROUTING AND RECORD SHEET**

SUBJECT: (Optional)

FROM:

**Acting Legislative Counsel**

EXTENSION

NO.

DATE

**3 September 1971**

TO: (Officer designation, room number, and building)

DATE

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

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**The attached news clip from a Vermont paper indicates that Professors Pfeiffer and Westing are associated in a private scientific organization which has done a number of studies on the ecological problems in Southeast Asia and they may still be there.**

[Redacted]  
**Acting Legislative Counsel**

APPROVED FOR  
RELEASE  DATE:  
23-Oct-2009

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NONE/UNKNOWN

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# Study charges U.S.

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## earth-clearing disrupts Vietnamese ecology

N.Y. Times News Service

SAIGON, South Vietnam —

Two of the latest measures used by the United States military against the enemy in Vietnam are causing new and, at times, widespread environmental disruption in vast areas, two American scientists have charged here.

They said that large earth-moving plows have uprooted all vegetation on an area totaling 1.5 per cent of South Vietnam's land mass and, that new concussion bombs have taken a severe toll of Vietnam's natural environment.

"The erosion of the topsoil is seriously affecting the water-holding capacity of the land and is preparing the way for serious floodings," said Prof. E. W. Pfeiffer, a leading expert on the effects of warfare on Vietnam's environment. "For the wildlife," he added, "it has already been disastrous."

The plowed land now totals 750,000 acres, said Prof. A. H. Westing, who has been studying the Vietnamese environment since 1966. "It appears as if the plowing has now replaced chemical defoliants as the primary means of denying cover to the enemy," he said.

Pfeiffer, a zoologist from the University of Montana, and Westing, a botanist from Windham College in Vermont, represented a private scientific organization called the Scientists' Institute for Public Information during their trip.

They have just completed a new three-week study of the effects of the war on the Vietnamese environment and have been conducting ecological studies here periodically for five years. This last tour was Prof. Westing's third trip to Vietnam and Prof. Pfeiffer's fourth.

"Every day from dawn to dusk, between 100 and 150 huge plows are making flat wastelands, while severely upsetting the environment," Westing said.

The plows are bulldozers with specially equipped blades. They are called Rome plows because the blades were developed in Rome, Ga. The machines are being used here to clear wooded areas so that North Vietnamese and Vietcong troops will be denied cover.

The scientists visited areas that had been plowed experimentally nearly three years ago by the American military. Other than imperata grass, sometimes called elephant grass, no vegetation had grown back, they reported.

"Imperata grass," Professor Westing said, "is universally recognized as the worst weed problem in the world."

The scientists said that more than 2,500 acres of rubber trees have been destroyed by the bladed plows in the 3d Military Region, around Saigon.

Their study also showed that many trees that had been hit by bomb or shell fragments are developing new diseases that eventually cause them to weaken and topple in rainstorms.

It was the first time, they said, that ecologists had found diseased trees in such a condition. "Just like wounds in humans that fester without

treatment, the trees in many areas are becoming diseased," Pfeiffer said.

The study also dealt with the latest 15,000-pound bombs that are being used by the American military to clear landing zones. The bombs are designed to explode horizontally, to clear areas without cratering the earth. The concussion bomb was one of the most disturbing aspects of their study, the scientists said. "Each time a concussion bomb is dropped, all animal life within a 760-acre area is instantly killed,"

Pfeiffer said. Beyond 760 acres, he added, severe damage can be done to eardrums. The bomb, he said, is "necessarily indiscriminating." Although the giant bomb was first intended to clear landing zones, the scientists said, they had learned from military and United States Embassy officials that it is also being used as an antipersonnel weapon. The embassy said it had no comment to make on the scientists' allegations, but it did say that the bomb is used as a weapon.

The scientists also expressed concern that chemical defoliants, including Agent Orange, which has been linked to fetal malformations, have been turned over to the South Vietnamese government and remain in its hands. The scientists said that the South Vietnamese now have 1.5 million gallons of Agent Orange. "When we found out that Agent Orange caused fetal malformations, we stopped using it," Westing said. "It would be the height of irresponsibility to leave the chemicals behind for ARVN to use as we pull out of Vietnam." The United States Embassy said that the problem had not been forgotten, but that until now, no one has decided on the best way to get rid of the chemicals.