

# U.S. Plowing Up Vietnam Forests

By David Perlman  
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Massive armored plows, their steel blades ripping away trees and ground cover at the rate of an acre an hour, are now being used by military forces in Vietnam as a substitute for chemical defoliation, an American scientist charged yesterday.

Speeding up their destructive work since President Nixon banned the use of herbicides, the plow troops have laid 800,000 acres of Vietnam forest land completely bare and have levelled \$26 million worth of rubber trees, the scientist said.

This word on the new military defoliation campaign was reported at a Stanford University seminar by Dr. E. W. Pfeiffer, professor of zoology at the University of Montana, who recently returned from Vietnam.

## SURVEYS

Pfeiffer has made four survey trips through South Vietnam and Cambodia since 1969. Under the auspices of various scientific groups, the expeditions drew the full cooperation of civil and military authorities, both American and Vietnamese, Pfeiffer said.

His most recent survey was made with Dr. Arthur H. Westing, a biologist and member of the Herbicide Assessment Commission appointed by the American Association for the Advancement of Science. They were sponsored by the Scientists' Institute for Public Information.

Pfeiffer reported yesterday that five American military "land clearing companies" and two Vietnamese army units are now operating in forest areas. They are equipped with 20-ton D-7E Caterpillar tractors which mount an 11-foot-wide steel plow blade; each plow crew is protected by 14 tons of armor plate. On every blade is a three-foot-long steel spear — a "stinger" that can rip apart three trunks too massive to be topped by the plow alone.

## FLATTENED

Pfeiffer said he and Westing were dropped by Army helicopter in a contested area north of Saigon and spent a day with the 984th Land Clearing Company in the Boi Loi forest of the "Iron Triangle."

The plow troops, Pfeiffer said, had been in action for 26 days in that sector, and had flattened 6037 acres of forest terrain. Much of the area in this particular operation he said, had been "zapped" earlier with chemical defoliants, and the forest's massive stands of hardwood timber were largely dead. B-52 raids, raining 108 500-pound bombs per plane, had also pocked the forest with craters, Pfeiffer said.

The result, according to the scientists, is that the area has been effectively ruined for the foreseeable future. Ecologically it is dead, he said, and although timber has traditionally been one of South Vietnam's major ex-

ports, this forest will never contribute to it again.

## DESTROYED

Another hardwood forest area, known as the Ho Bo Woods, has also been totally destroyed, Pfeiffer reported, and the only vegetation that has returned here is dense elephant grass, weedy bamboo and useless evergreen shrubs.

While the forests are flattened to wipe out ground cover for enemy troops and to expose Viet Cong bunkers, the new vegetation sprouts quickly and in the Ho Bo woods it is already ten feet high and thick enough to hide the enemy all over again, Pfeiffer said.

Military plows have been busy clearing Vietnam highway areas since 1968, Pfeiffer said. In the country's precious rubber plantations swaths of trees 300 to 600 yards wide have been felled along roads. Pfeiffer said the South Vietnam Ministry of Forests estimates the value of destroyed rubber trees at \$26 million.

During their recent survey Pfeiffer and Westing also examined ecological damage from bomb craters. Over vast areas, Pfeiffer said, crater devastation has ruined crops and forests totally.

Pfeiffer and Westing also surveyed the damage done by the U.S. military's new 7.5-ton "daisy cutters" — huge bombs dropped by parachute, which explode above the ground to blast away trees and ground cover.

These bombs, Pfeiffer said, can kill all human and animal life within a radius of three-quarters of a mile of an explosion.