UH Oceanographer Makes Mark

From the depths of the Pacific to the summit of Mauna Kea, scientists in Hawaii are contributing new understanding of the earth's life, land, waters and universe. In a series of articles, the Star-Bulletin looks at a few of the many outstanding scientists working with public and private institutions in the state.

By Helen Altonn
Star-Bulletin Writer

One of the most productive scientists at the University of Hawaii is David Karl, 34, a biological oceanographer with national stature.

Last year he was selected as a Presidential Young Investigator with potential research funding of $500,000 in the next five years. He was one of only two scientists in the nation who were honored with the president's award in the oceanographic and atmospheric field.

His many research projects already bring more than $200,000 annually into the state in federal funds, not including the national award.

Karl specializes in marine microbial ecology, studying small organisms and their environment in the sea.

He has been exploring the Juan de Fuca Ridge, an undersea range off Oregon and Washington, and is now in the Antarctic on a National Science Foundation Polar Duke Project.

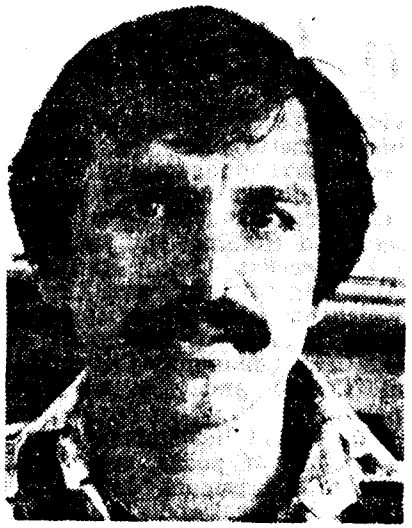
HE IS working out of McMurdo Sound, looking at chemical interactions in the Antarctic waters that result in large fish production, said Christopher Winn, one of Karl's research colleagues at the Hawaii Institute of Geophysics.

Karl also is studying the microbiology of a vent system in the Guaymas Basin in the Sea of Cortez between Baja California and mainland Mexico, Winn said. Field work is planned this summer.

He also has another project to study the transport of particles from the surface of the ocean into deep water.

Karl's specialty, Winn said, is studying the chemical transformations that occur in the particles as they sink in the ocean. This is important, he said, because "these small organisms are the most numerous organisms in the ocean and the predominant organisms in terms of metabolism. They determine the chemistry of sea water..."

"The reason the federal government, and taxpayers ultimately, are willing to support the kind of work Dave does, even though it seems unimportant, is that very small plants and animals really determine what goes on in the ocean," Winn said.



David Karl

"THEY'RE THE grass or plants of the sea, even though we don't see them, and all life in the ocean depends on them and, ultimately, mankind if we're to derive food from the ocean."