HONOLULU – A new device is being tested that would keep fish bait – and fish hooks – away from seabirds, making way for a possible return of commercial fishing for swordfish from Hawaii-based vessels.

The device still does not address the main drawback of longline fishing – the killing of sea turtles. But it appears to clear a major hurdle, according to government and industry officials.

Scientists, wildlife advocates and fishermen are testing an underwater setting chute, which is designed to deploy baited hooks deep below the surface, where birds can't see them. The chute, first developed in New Zealand, is being used for the first time in U.S. waters.

"This chute is significant. I'm thrilled," said Kathy Cousins, protected species coordinator for the Western Pacific Regional Fishery Management Council. The chute works better than previous methods used to keep birds away from fish bait, including dyeing it blue, which the birds learned to ignore.

The chute method also appears to eliminate the danger to seabirds in a way that is acceptable to fishermen, said Jim Cook of the Hawaii Longline Association, representing about 120 vessels now engaged primarily in tuna fishing.

In cooperation with the National Audubon Society and government fisheries officials, Cook attached a 30-foot metal chute to one of his vessels operating in waters off the Northwestern Hawaiian Islands.

The National Marine Fisheries Service barred Hawaii-based fishing boats from longline fishing for swordfish, where the baited hooks usually are thrown out on top of the water, where birds swoop in on them before they sink. The birds often get themselves killed in the process.

A few California boats and foreign vessels, including Japanese, use the same waters and are not covered by the ban, which is aimed at saving rare sea turtles and birds. The ban originally was the result of a court order but is now under the authority of federal fisheries officials. The rules closely follow the recommendations of a final environmental impact statement by the National Marine Fisheries Service.

In a test run over a few days, Cook said, one of his boats, the Katy Mary, sent more than 6,000 baited hooks into the water using the chute. Not a single sea bird was killed or even dove for the bait, he said.

In a similar run without the special chute, Cook said, albatross dove 750 times for the bait, and 24 were killed.

Australian biologist Nigel Brothers said seven fishing boats also are testing the chute in Australia. He said it's the first procedure used to protect the birds that seems to be effective.

Attempts at restricting daytime fishing or other methods have proved to be unacceptable to the fishing industry.

The chute may actually improve the catch by saving bait, Brothers said, but more experience with it is needed to determine its total impact.

The Katy Mary is equipped with a main line that drags 40 miles or more behind the boat, with 2,000 or more short lines and hooks attached to it.

For tuna, the hooks sink to a depth of 800 feet or more. For swordfish, the bait remains closer to the surface, but birds generally go after it only as it comes out of the boat.