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SECTION B - 1

ENVIRONMENT

JAN TENBRUGGENCATE

Sea turtle tumors still a mystery

Significant numbers of Hawaiian green sea turtles began showing up with strange white tumors 20 years ago, and the percentage of afflicted animals has grown ever since.

Researchers are now finding 200 to 300 stranded turtles each year, most suffering from debilitating tumors on their faces, necks, flippers and internal organs.

The tumors may be one of the main reasons so many are washing ashore dead or sick, according to a report prepared for a major sea turtle conference in March. The authors are Shawn Murakawa, Denise Ellis and Shandell Eames of the University of Hawaii's Joint Institute for Marine and Atmospheric Research, George Balazs of the National Marine Fisheries Services and Skippy Hau of the state Department of Land and Natural Resources, Division of Aquatic Resources.

The researchers say 47 to 69 percent of stranded turtles have the tumors, known as fibropapillomas. In many of them, the tumors are on the mouth or eyes, perhaps mak-

'Highly prevalent'

"Oral tumors and oral and eye tumors in combination are highly prevalent in stranded turtles, and their annual occurrence has significantly increased since 1990. Internal tumors have also significantly increased since 1990. Turtles with internal tumors always have external tumors," the report said.

The development of fibropapillomas on turtles also has been seen in Australia, Florida, and in both the Caribbean and along the Pacific coast of Central America.

Oddly, though, oral tumors are not found in Florida.

Researchers have long suspected there's more than one thing going on, and they have applied many disciplines to the research of the turtle disease. Stranded turtles have been the major factor in the research.

"Strandings in the Hawaiian Islands provide valuable specimens for disease-related research involving histopathology, virology, parasitology, bacteriology, immunology, molecular genetics, diagnostic testing and forage utilized by turtles at discrete coastal habitats," the report said.

Research continues

Much of the recent research suggests a virus is a major factor. Hau, co-author of the March report, said many turtles with tumors also have parasites. But he suspects the parasites are able to invade because the turtles have weakened immune systems.

Research is continuing, and scientists want anyone who finds a stranded turtle, dead or alive, to call them so the turtles can be used for testing if dead, or given medical attention if alive. Call Balazs at 983-5733, or call the state Division of Aquatic Resources on your island.

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