

Sea Dreams

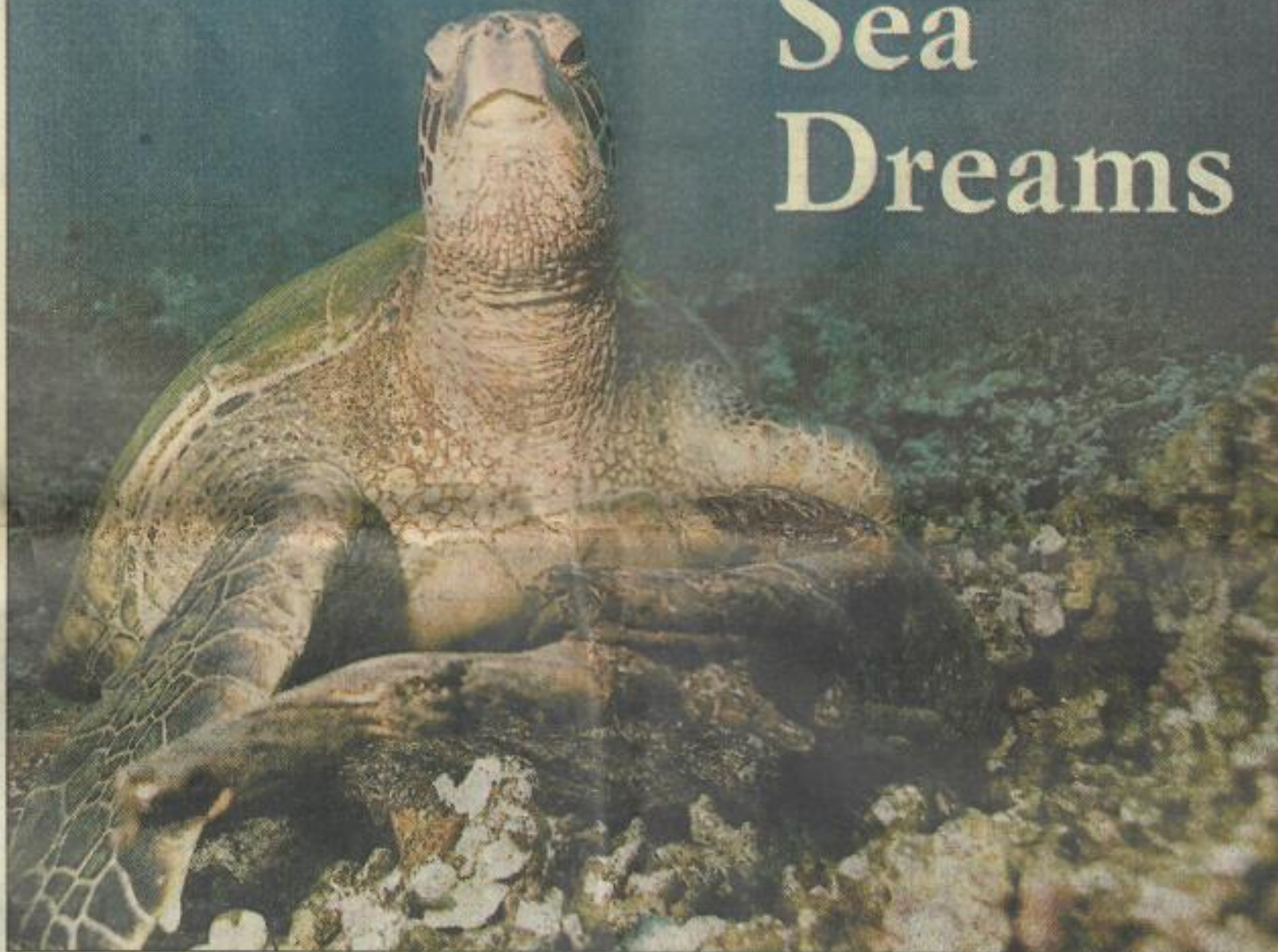


Photo courtesy of Ursula Keuper-Benne

A green sea turtle, or honu, surveys its surroundings from its perch on a submerged log. In the years since hunting was banned, sea turtles have become more accepting of humans, allowing personal encounters like this. Still, they are endangered creatures and should not be touched or disturbed.

Conservation efforts are helping, but extinction still looms

9-9-2000

BY LORI TIGHE

Star Bulletin

HS-B

THEY hover in the ocean like flying saucers and when the sun glints off their domed shells, they've been compared to angels.

One personal encounter with a sea turtle is often all it takes to convert people to lifelong fans.

"They have gotten the vote by every scuba diver and won the hearts of everyone who sees them," said George Balazs, Hawaii's foremost sea turtle ex-

pert. "They are their own best ambassador for their survival."

Sea turtles were in the news this summer as a federal judge sharply restricted Hawaii-based longline fishing. Environmentalists alleged in a lawsuit that the fishing method kills an unacceptable number of the endangered and threatened sea turtles: the leatherback, the green, the loggerhead and the Olive Ridley.

The legal battle will revive in April 2001, when the National Marine Fisheries Service is to have more scientific data about the effects of longlining on the

four types of sea turtle living in Pacific waters around Hawaii.

Meanwhile, sea turtles are carving their own niche in the tourism market. With each encounter, they seem to attract another defender — such as Lisa Shall.

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"She was gigantic," said Shall, of her first meeting with a 300-pound green sea turtle in mid-August.

Scuba divers, including Shall, hauled the sea turtle, wrapped in fishing line, up onto a dive boat in

Waimea Bay. They held her flippers and head still, as her large brown eyes searched for the ocean. They cut the tightly wound line out of her flipper.

They heaved her back into the bay, and she dove down through the waves to freedom.

The eight divers on board erupted into applause.

"It was very exciting," said Shall, a 27-year-old pharmaceutical chemist from Palo Alto, Calif. "The experience was amazing. I made me more aware of sea tur

PLEASE SEE **TURTLES, A-10**



Photos courtesy of Ursula Keuper

A hawksbill turtle is silhouetted by the sunlight filtering through the ocean. Some divers have compared seeing turtles in this setting to seeing angels. "They are their own best ambassador for their survival," says George Balazs, Hawaii's foremost sea turtle expert.

TURTLES: Becoming a close second to whales among tourists

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ties and what's being done to save them."

"There's no question about it," said Balazs, zoologist and leader of marine turtle research for the National Marine Fisheries Service in Honolulu.

"Turtles have a following of their own."

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Among the four species of sea turtle found here, the green sea turtle, or honu, is the most common, the "local" turtle. The others, experts say, migrate here to feed on the "ono grinds" in Hawaiian waters.

Sea turtles in general are dying out. Of the seven species of sea turtles found in U.S. waters, six are on the endangered species list, according to the Center for Marine Conservation.

In addition to deaths by commercial fishing, their troubles include egg poaching, tumors, marine debris and losing their nesting grounds.

Some species are more in trouble than others, such as the leatherback, the largest of sea turtles. Scientists estimate they are within five years of extinction.

The Fisheries Service estimates that between 1994 and 1998, Hawaii longline fishermen hooked about 710 sea turtles, killing 136.

Environmentalists say the death toll may be greater and warn that the turtles, particularly the endangered leatherback, can't afford a single mortality.

Fishermen say interactions are lower, and they are not killing enough turtles to make or break a species.

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"Why save the turtles? It's a good question. A lot of people have a hard time understanding why they need special protection," said James Spotila, Ph.D., an environmental researcher at Drexel University in Philadelphia, who has studied leatherbacks since 1988.

The leatherbacks "represent the last of the dinosaurs. They are a big, long-lived creature, and the big ones are the first to go extinct. We look at it as an early warning sign of other species in trouble," Spotila said.

Plus, the leatherback turtles are simply fascinating creatures, Spotila added.

They are called the gypsies of the sea because they travel thousands of miles for food. Leatherbacks dive as deep as a whale, about 3,000 feet, to get food. They have a constantly



This young turtle was seen on a dive this summer. She was resting, with her flipper up, on Cladophora algae, which is often seen at dive sites. From her expression it's clear she found the divers of interest, and scuba divers are rapidly becoming avid fans of sea turtles.

They can live 50 years and become as large as a Volkswagen Bug.

And if scientific wonder doesn't impress, what if the leatherback "carries a special gene or oil for curing cancer? If we cause them to go extinct, the world will be a poorer place," Spotila said.

"If we're catching leatherback turtles, we need to change our fishing practices."

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Balazs, who has studied sea turtles in Hawaii for 30 years, sees signs of hope for the comeback of some species — "if you leave them alone and don't kill them," he said.

The turtle he has researched most, the

cess story because it's been left alone.

"Hawaii is well known for placing the green turtles back on the road to recovery for the past 28 years," he said.

Balazs fell in love with the first green sea turtle he ever saw in 1963 while on vacation in Bora Bora.

"They stir the imagination," he said. "I like those eyes. It's a vegetarian, the only sea turtle that is. It grazes on the pastures of the sea."

Hawaiians revere the sea turtle they call honu for nourishing them as food and for guarding families with its amakua spirit.

In Hawaiian lore, one green sea turtle changed its shape into a child and protected the children of Punaluu on the Big Island. Her name was Kaula.

The commercial fishing of turtles, and not the native Hawaiian takes, drove the species to the edge of extinction in the late '60s.

Balazs' research convinced the state to ban commercial killing of green sea turtles in 1974.

Tens of millions of green sea turtles once swam the world, according to Turtle Trax, a respected web site of sea turtle information (www.turtles.org). Now fewer than 200,000 mature females are believed left.

In Hawaii, the green turtle is a threatened species. Only 100 to 350 females nest each year, mainly at the French Frigate Shoals.

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Today green sea turtles swim up to divers for the first time in decades, Balazs said.

"If a turtle saw a scuba diver in the early '70s, it turned around and hauled butt," he said. "Now, they'll swim to you. They have no fear of people. They are actually inquisitive about people."

In recent years, they have been hauling their 300- to 400-pound bodies onto remote Big Island beaches to sunbathe — unheard of and unseen for decades, Balazs said.

As turtle encounters with humans increase, more fans are born. The turtles are redefining the limits of how humans can interact around them, Balazs said. They could even give Hawaii's beloved humpback whale competition for its popularity.

"On Maui at the Kahului Airport you see fliers advertising snorkel and dive trips selling sea turtles, turtle town, turtle alley, turtle dives," Balazs said.

"They are a close second to the whales, and it's real hard to compete with a whale."

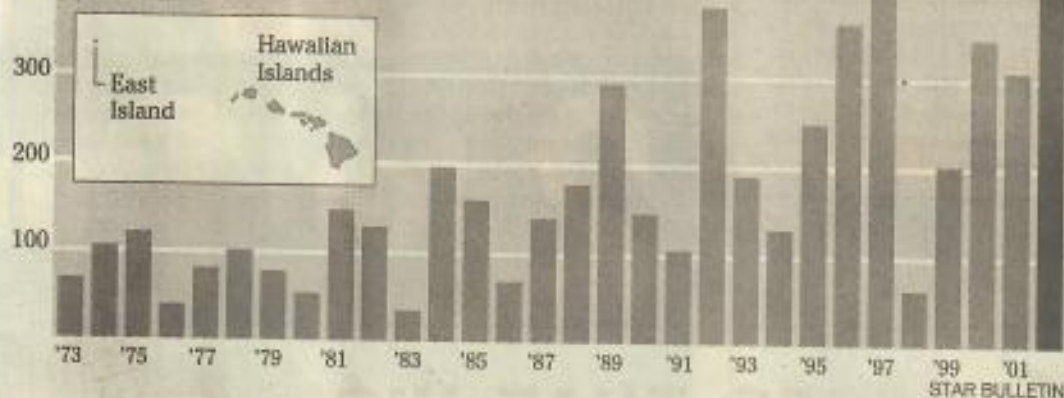


PHOTO BY AP/WIDE WORLD

Green turtles nesting at East Island

Annual trend for 30 seasons

The population of green sea turtles has grown since the animals gained protection under the Endangered Species Act in 1978.



Such information could eventually lead to guidelines for longline fishing boats that would help them avoid ocean areas where juvenile turtles congregate, Balazs says.

Balazs is tracking 27 loggerhead turtles off Japan, three

loggerheads off Taiwan, three green turtles off Hawaii and eight loggerheads off California.

At East Island — the starting point of his turtle research career — Balazs mounted a "Turtle Cam" last year that scans

the 12-acre island from atop a 65-foot pole, providing him with photos and video of turtle behavior dawn to dusk.

Balazs and company also head a network that responds to sea turtle strandings (alive or dead) on all the main islands

and study the fibropapilloma tumor disease that has become the turtles' worst enemy now that hunting has been banned.

Despite all his professional time spent focused on turtles, Balazs would be excused for trying to get away from them during downtime. But honu occupy his leisure time, too. His destination on a recent vacation was a tour of temples honoring turtles on a small fishing island between mainland China and Taiwan. One of his hobbies is photographing, with permission, people's honu tattoos.

One day, he noticed a woman posing a baby on a blanket near a basking sea turtle at Laniakea on Oahu's North Shore, then taking a photograph. The woman told Balazs that she'd been taking monthly portraits of her child with a honu as background.

Balazs was charmed.

"I love to watch how people interact with them."

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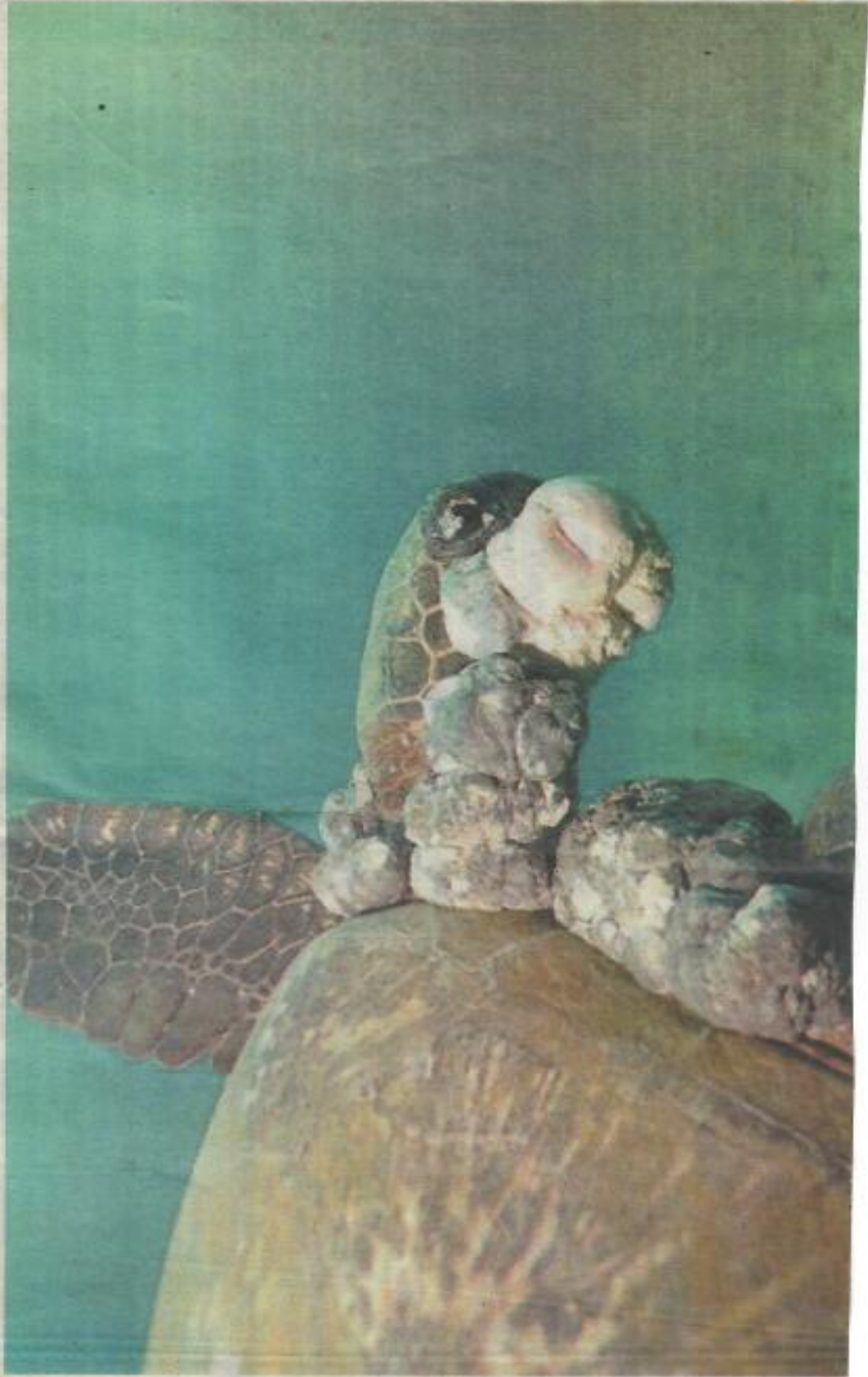
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Aloha

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SECTION D

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Turtle trauma

From Maui to Malaysia, sea turtles are falling victim to human influence and a deadly epidemic of tumors

11/12/2001

By Burt Burlingame

bburlingame@starbulletin.com

LAURIE MCKEON SAW her first sea turtles on the beaches of Malaysia. Driven by eons of evolutionary wiring, hundreds of leatherback turtles were desperately crawling ashore on a moonless night, attempting to lay eggs in the warm

sands. As soon as the gravid females laid their eggs and crawled back into the sea, Malaysian teenagers dug up their eggs. All of their eggs. That night, on that Malaysian beach, an entire generation of leatherback sea turtles became soup. My god, thought McKeon, this is not ... sustainable.

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Peter Bennett and Ursula Keuper-Bennett of Canada spend every summer diving in a turtle sanctuary area near Maui dubbed the "Turtle House," and in the pro-

cess have become lay experts in the narrow field of sea turtle behavior. To the Bennetts, the turtles are individuals, with varied appearances and moods, and they've given the creatures names. They taken hundreds of hours of video, thousands of photographs and reams of obser-

"Fire in the Turtle House: The Green Sea Turtle and the Fate of the Ocean"; By Osha Gray Davidson (Public Affairs, 258 pages, \$26).



PHOTOS BY URSULA KEUPER-BENNETT/PETER BENNETT, WWW.TURTLES.ORG

Top, a turtle bears the tumors of fibropapillomatosis which is killing green sea turtles. Above, Makana was one of author Osha Gray Davidson's favorite turtles. The photograph was taken in 1998. By 1999 Makana was showing signs of the disease, by 2000 she had numerous growths, and this year she was not sighted at all. FP is hardest on young sea turtles.

vations, an invaluable resource for behavioral scientists.

One turtle favorite was Clothahump, a cheerful little fellow who liked to play, and always the first to welcome humans back to the Turtle House. Clothahump, named for a turtle wizard in a fantasy story, darted here and there like a puppy, sleek and flashing beneath the waves.

But the last time the Bennetts saw Clothahump, he was mottled in leaking tumors, billowing out of his skin like yard mushrooms, trailing blood and pus in the water. The turtle had trouble moving, trouble seeing, trouble breathing. He climbed his friends once and headed slowly away, into the vast blackness of deep water. He vanished. A videotape Peter Bennett shot of the encounter is shaky, for he was weeping into his face mask.

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Something is killing the sea turtles of the world. Man takes his toll, but now there is a type of herpes virus called fibropap-

Please see **Turtle, D6**

Book imparts fondness for sea turtles

"Sea Turtles of Hawai'i"
By Patrick Ching (University of
Hawaii Press, \$16.95)

This is a handsome companion book by author/artist/naturalist Patrick Ching. It focuses on the honu, the Hawaiian green species of sea turtle, although several of the seven species known worldwide pass through Hawaiian waters.

Ching takes a scrapbook approach, gathering diverse ma-

terials from the scientific, Hawaiian and fishing communities. The sea turtle is not only sacred to Hawaiians as *aumakua*, it was considered good eating as well. Ching provides a brisk overview of the sea turtle's anatomy.

A section on dangers to this threatened species has a section devoted to the mysteries of fibropapilloma, and sections on the modern fondness for sea turtle conservation shows

tourists encountering this most ancient of sea creatures.

The meat of the book, however, is the many splendid color photographs — many taken by Ching — and Ching's evocative, naturalistic paintings of the animals.

It's impossible not to become fond of sea turtles after leafing through this book.

—
Burt Baringtone

Sea Turtles of Hawai'i



TURTLE: Disease threatens to wipe out species

Continued From D1

pillomatosis. First noticed by a handful of sea turtle scientists like Hawaii's George Balazs, the disease has grown exponentially over the last decade, striking simultaneously all over the world.

There's an excellent chance, says McKeon, that "this creature that has survived for 100 million years, longer than the dinosaurs, will become extinct in our lifetime."

McKeon is one of the founders of the Honu Project, an educational consortium dedicated to bringing citizens up to speed on the plight of sea turtles. The nonprofit agency, about a decade old, "concentrates on educational videos rather than political activism — we'd rather educate a larger audience than alienate a smaller one," explained McKeon.

Fibropapillomatosis, or FP, was just a rare textbook disease when the Honu Project

was created. There were more pressing concerns. Although sea turtles were on the endangered species lists, they were victims of gillnets, of habitat destruction, of ballooning popularity — particularly in the Pacific — as an exotic meal. Some Hawaiians felt they had an aboriginal right to kill sea turtles.

And throughout the world, as beaches became developed and industrialized, the sea turtles' Achilles' heel — their dependence on laying eggs on land — became more and more a vulnerability.

"There's so much we still

don't know about sea turtles. How do they navigate across thousands of miles of ocean? There are the 'lost years,' between the time the turtles hatch and mature and return as adults — we don't know where they go," mused McKeon.

The main problem at the moment, however, looms over the species' future like a thundercloud on the horizon, is the mystery disease. The Honu Project and the Waikiki Aquarium are sponsoring a talk and book-signing by science writer Osha Gray Davidson, whose "Fire in the Turtle House" documents the work of dedicated

scientists and volunteers to understand FP.

We caught Davidson in California. "There's a pathogenic firestorm on the loose," he said. "Clearly, something has changed, and that's the shore waters around the world, and that's our doing. The water has become friendly to diseases, and created a metademic that is creating mass mortality.

"It's not just sea turtles. Other ocean creatures are becoming affected. We're fond of sea turtles, however; they're the ambassadors of the sea, sacred in many cultures. Kupuna Sam Kaal says we're all children

Osha Gray Davidson to speak

>> 7:30 p.m. tomorrow at the Waikiki Aquarium, 2777 Kalakaua Ave. Call 923-9741. Free.

>> 6:30 p.m. Wednesday at the Maui Ocean Center, 192 Ma'alaea Road. Call (808) 270-7085.

>> 7 p.m. Thursday at Kilauea Visitor Center, Hawaii Volcanoes National Park; \$1 donation. Call (808) 985-6014 or (808) 985-6011.

Book sales will benefit the Waikiki Aquarium. The Honu Project can be reached at P.O. Box 61449, Honolulu, HI 96839 and at <http://www.Hawaii50.com/honuCall> 732-4668 or direct email to honu@aol.com.

of the sea, and he's right. What happens in the sea affects us all, and we understand so little about it.

"Oceans ARE sacred. We need to treat them that way. Everything flows from that. The good news is that if man is doing this to the ocean, then we can undo it."

Heena was the name given to this turtle sighted in 1996. The name means "victim."

URSULA KEUPER-BENNETT,
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WWW.TURTLES.ORG

