7 Those Other Guys

Out of discord comes the fairest harmony.
—Heraclitus

'Ea

While this is a book about *honu,* we would be remiss if we didn't include an introduction to the *honu*'s cousin Hawaiian sea turtle: the hawksbill, *Eretmochelys imbricate.* Some Hawaiians call them *honu'ea,* others use the name *'ea.* The definitive Hawaiian dictionary by Pukui and Elbert (University of Hawai'i Press) lists both names without stating a preference.

Although *'ea* has other meanings, every authority we consulted agreed that it is accepted as a name for the hawksbill. On the other hand, some rejected *honu'ea,* saying that *honu* and *'ea* are two different species and their names should not be combined. We've chosen to use the shorter name, but there is an interesting exception that we'll get to later in this chapter.

'Ea are much less common than *honu* and are classified as an endangered species under the U.S. Endangered Species Act. The chances that you will see an *'ea* are low—but not zero by any means.

Hawksbills in Hawai'i don't migrate long distances to reproduce. They nest in the main islands, primarily on the Big Island, with some nests reported on Maui, Moloka'i, and O'ahu. Monitoring teams protect the known nests on the Big Island and Maui. They do everything possible to ensure that more hatchlings get into the water so that the population of *'ea* will grow.

For example, they've posted "Turtle Crossing" signs on the highway into Kīhei, Maui, and erected fencing between the road and the shoreline. That's because *'ea* nest along that coast and have been known to crawl beyond the beach and onto the road that runs close by—too close for the safety of hawksbill mothers.

The conservation efforts seem to be working, because we've documented eight *'ea* at our dive sites. Like *honu,* you can identify hawksbills by their faces, so we keep track of *'ea* in the same way we do *honu.*

The face and head are actually the most obvious means to tell *'ea* from *honu.* As the name "hawksbill" suggests, they have a distinctive pointed beak. Their serrated shells, so beautiful when polished, are actually duller and less spectacular than *honu* shells underwater. The scutes of the *'ea* carapace are imbricated, meaning that they are overlapping. This is often obvious at the hind end, so if you see what look like prominent "cracks" in the rear of the shell, right above the tail, you are probably looking at a hawksbill.

The flippers of the hawksbill provide another way to identify them. *'Ea* flippers have two claws on each compared to the *honu*'s single claw. Their flipper scales are outlined in white more clearly than those of *honu.* The flippers are tiny compared to a *honu*'s, especially in relation to their body size. In general, *honu* are larger in all respects.

Then there are those eyes. *Honu* eyes seem docile, languid, even bovine. They're herbivore eyes. A hawksbill's eyes, even during resting, remain alert—an underwater radar system. *'Ea* eyes seem more like carnivore eyes: I-must-hunt-for-my-food eyes.

Despite all these differences, from a distance even an experienced turtle watcher can mistake a really young *honu* for an *'ea.* A few moments of observation will usually settle the issue, however, especially if you focus your attention on the head.

'Ea differ from *honu* in more ways than just appearance. *Honu* mostly like to spend their days lying around on the reef, usually in the company of other *honu. 'Ea* feed during the day and are more likely to be seen alone and on the move. The normal foraging habitat for *'ea* is the shallow fringing reef in the nearshore waters of all the islands—the resting part of the *honu*'s *kuleana.*

'Ea prefer to eat sponges that grow down between and under the corals. They therefore have to work hard for their food. If you are lucky enough to spot an *'ea,* there's a good chance that it will be tearing up the reef to get at some sponge. Holes with newly broken and exposed coral are a sure sign that a hawksbill is somewhere about.

Like their *honu* cousins, *'ea* are tough on the corals—just in a different way. They also seem to be tough on *honu.* When we've seen them resting together—it's rare, but it happens—the hawksbill and *honu* tolerate each other without fuss. Once the *'ea* is moving, however, it's clear who

has the right-of-way. Even the largest *honu* scoots out of an approaching hawksbill's path.

While we're resting on the bottom watching a dozen green turtles, there's an air of peace and tranquility. *Honu* trips to the surface and back are lessons in graceful slow motion. Your blood pressure can dive twenty points in the company of resting *honu*.

When a hawksbill approaches one or more contented resting *honu*, it's much like dropping a squirrel into a tea party. Something will happen, and you can bet that it will involve intimidated *honu* and a hawksbill perpetrator. *'Ea* have sharp, pointed beaks, and they use them without hesitation.

Since hawksbills are thought to be so scarce, we aren't sure why we've been blessed with so many. Possibly *honu* attract *'ea* in a roundabout way. We have a roundabout theory.

Extracting sponges from corals is difficult work. The hawksbill must first find a sponge and then dig down, often plucking out coral piece by piece and flinging it aside.

Imagine tiny underwater backhoes at work. That's the foraging *'ea*. The strength in their necks is impressive as they strain to pull up a coral chunk, working ever deeper, finally gaining access to the prize they know is there.

Now contrast this to the much easier foraging of *honu*, whose food grows on the rocks out in the open. It's much like the difference between the pecking life of a barnyard chicken and the dig-dig-dig of a badger.

That's the point. When you dig for your daily living, it's to your advantage to forage in areas already "excavated." A *honu kuleana*, with its Turtle Tramples and cleaved corals, provides great places to prospect for sponges. The *honu* arrivals and departures of each new day expose more coral, bringing a hawksbill that much closer to its food.

We therefore speculate that *'ea* benefit from the presence of large numbers of their bigger and heavier *honu* cousins. So it's possible that if you come upon a well-worn *kuleana*, a hawksbill will show up sooner or later.

We used to think that *'ea* are just bad tempered. That's because when we've seen a hawksbill swimming past a *honu*, the *'ea* has usually veered and rousted the *honu*. If our theory is correct, however, there's another explanation: The *'ea* simply wants the *honu* to move. There could be an easy meal underneath.

Ake (Hawaiian for "Archie") was only the second Hawaiian hawksbill we'd ever seen. This photo is from our first encounter in 1999. Ake was busy breaking and ripping away at corals, trying to get at the black sponges that she knew grew there. We were a bit surprised at how blasé she was around divers, until we learned that Ake makes her home at a popular site known as Kahekili (Airport Beach) just to the south of Honokōwai. This means that she sees snorkelers and divers regularly. In December 2005 we received a report that a diver had spotted Ake and read her brand new tags. It turned out that she had been tagged on July 16, 2005, at Pōhue on the island of Hawai'i, where she nested three times during her first nesting season.

Other strangers

Over the years, we've met two turtles that appeared odd. There was something not quite "*honu*" about them. Both demanded closer attention.

Ho'omalu

The first oddity was a turtle whose carapace and face looked subtly different. Her carapace was a bluish gray, with a speckled pattern we don't see on *honu*. The beak was slightly rounder, and her eyes were somehow not quite *honu* eyes.

Then there was the plastron. This was what really made her stand out from *honu*. Unlike a *honu*'s yellowish-orange hue, this turtle's plastron was a definite gray.

We concluded from this detail that Hoʻomalu must be either partly or completely a Pacific black turtle, the name often given to the green turtle population of the eastern Pacific. (Some experts argue that black turtles are a separate species.)

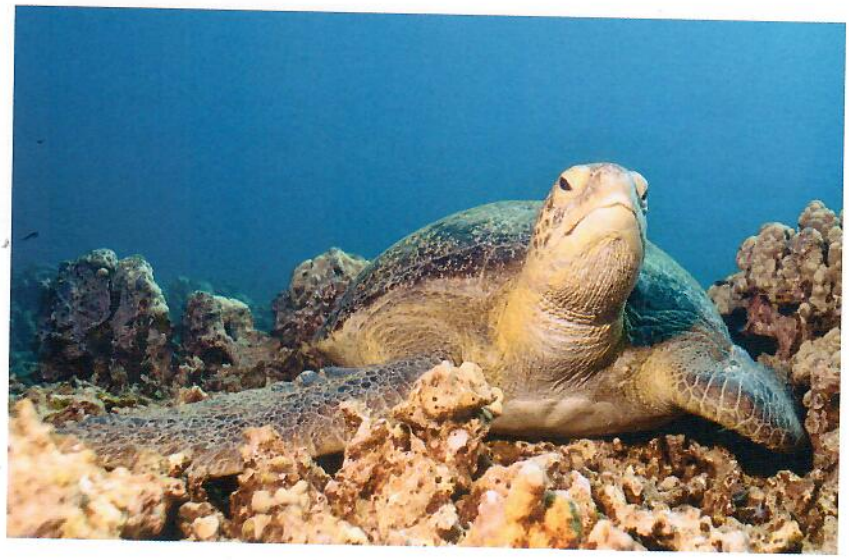
We named the turtle Hoʻomalu, a Hawaiian word with several meanings, but the sense we intended was "to bring under the care and protection of." We were certain that her presence at Honokōwai was just temporary, so we hoped that the name would keep her safe throughout her transpacific journeys. We reported the turtle to George Balazs, who took an immediate interest.

George eventually met Hoʻomalu while diving with us. Because she was calm and tolerant, he was able to approach her and achieve a unique method of DNA sampling: Without any apparent discomfort to Hoʻomalu, he gently plucked a few skin barnacles.

Enough shedding skin clung to the barnacles to allow DNA testing, and when the results came back our suspicions were confirmed. One of Hoʻomalu's parents was a *honu*, but the other was a Pacific black.

There was another surprise in store: We continued to sight Hoʻomalu in subsequent summers. It turns out that this turtle calls Honokōwai home.

In an unusual turn of events, a *honu* picks a fight with a hawksbill. Usually *honu* "respect" *ʻea*. Not this time. The passing *honu* noticed the peacefully foraging *ʻea*, then deliberately turned, approached, and snapped. This incident is unique in our experience.



Wai? (top, swimming) and Ho'omalu (bottom, resting) are both examples of extremely rare cross-breeding: Wai? across species (*honu/'ea*) and Ho'omalu across populations (Mexican/Hawaiian). To encounter an example of either is highly unlikely, but to find both of them in the same small patch of Hawaiian ocean tests believability—yet there they are.

Wai?

Another turtle with a different look caught our attention in 2004. From a distance, we first thought we were seeing an *'ea*. The face had a hawk's bill. Seen in silhouette, the turtle looked and moved like a hawksbill. The front flippers featured boldly outlined patterns like those of an *'ea*. The rear of the shell was serrated and some scutes were slightly separated, which are *'ea* attributes.

When we got closer, however, we noticed many *honu* characteristics. Apart from the rear of the carapace, the shell was definitely that of a green turtle. There were only two prefrontal scales (the ones between the eyes), just like a *honu*. A hawksbill has four.

At first, we could see only one claw per flipper, again like a *honu*, but a close examination of our photographs revealed that this odd turtle has vestigial claws on the front flippers just where you'd find a hawksbill's second claw. Here we had a creature that didn't seem able to decide which species it wanted to be!

So we named this turtle "Wai?" — complete with question mark — which is the Hawaiian expression for "Who?" Just who was this?

We sent over a dozen pictures of Wai? to George Balazs, who agreed that this odd fellow could be a cross between a *honu* and a hawksbill — a "honubill," he dubbed it. George eventually got to see Wai? for himself.

Here you can see Wai?'s fully grown claw at the position where a *honu*'s single claw is found and a partially emerged claw in the foreground exactly where an *'ea* would have a second claw. This vestigial claw is strong supporting evidence that Wai? is a crossbreed.

He attempted the same DNA sampling method that he pioneered with Hoʻomalu. Unfortunately, this time the turtle's barnacle samples didn't have enough skin adhering to them for the lab to conduct tests.

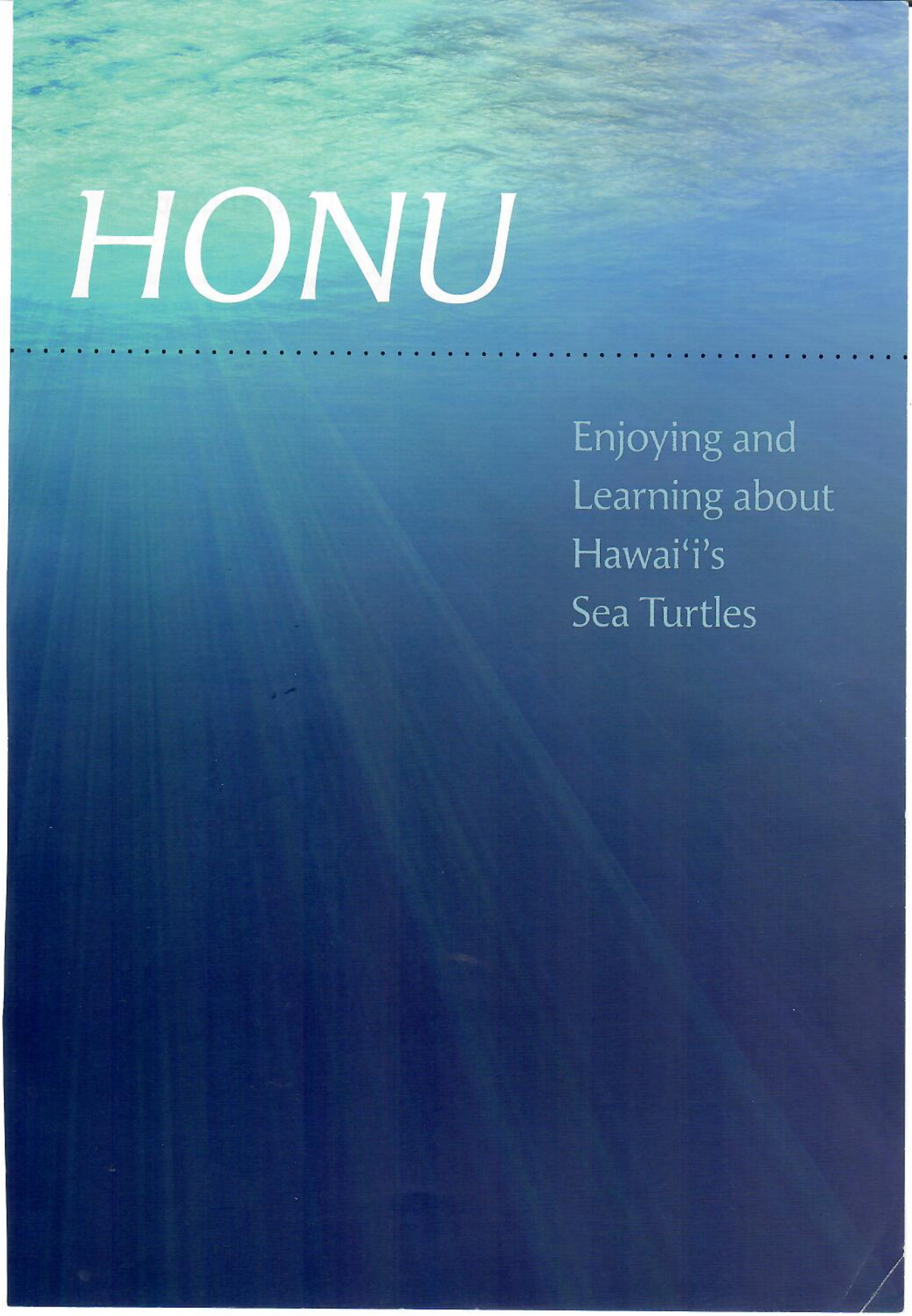
Wai? still calls the reefs of West Maui home. George might yet get enough DNA to confirm that we really have discovered a honubill—a turtle with a legitimate claim to the Hawaiian name *honuʻea,* but like George, we're already convinced that Wai? is a true hybrid.

Hoʻomalu and Wai? represent yet another facet of Hawaiian turtles. Meeting them reminded us why the *honu* are so fascinating. Each dive offers another opportunity to make new discoveries, and the Hawaiian ocean serves up plenty of surprises.

THE BOOK OF HONU

Enjoying and Learning about Hawai'i's Sea Turtles

PETER BENNETT AND URSULA KEUPER-BENNETT



HONU

Enjoying and
Learning about
Hawai'i's
Sea Turtles

To Clothahump

Clothahump, the first sea turtle we ever met, known at our dive site from 1988 to 1993. Sketch in watercolor pencil on illustration board, 10" x 15". Ursula Keuper-Bennett, winter 2003.

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Contents

Acknowledgments ix

1 How It All Began 1

A promise kept 1
Finding answers 2

2 So You Want to See a Turtle 5

Best place in the world to see sea turtles 5
Spotting *honu* without getting wet 6
Snorkeling with *honu* 14
Kayaking with *honu* 18
Diving with *honu* 20
Finding *honu* underwater 23
The nature of *honu* 26

3 About *Honu* 29

Why are they called green turtles? 29
A little sea turtle biology 29

4 Life as a *Honu* 43

The *honu*'s life cycle 43
Nesting 47
Hatchlings 53
New arrivals 60
Younger and older *honu* 63
Sorting out the sexes 65

5 *Honu* at Home 69

Honu homebodies 69
The *kuleana* and its *'ohana* 69
Honu at rest 78
Honu feeding 78

The faithful *honu* 85
Social structure 86
Can't we all just get along? 86

6 The Things *Honu* Do 89

Honu behavior 89
Honu in motion 89
The observations 90
Disclaimer 91
The *honu*'s castle 97

7 Those Other Guys 101

'Ea 101
Other strangers 104

8 *Honu* Relationships 109

Honu and ancient Hawaiians 109
Honu in the era of exploitation 111
Honu in the era of protection 112
Honu today 113

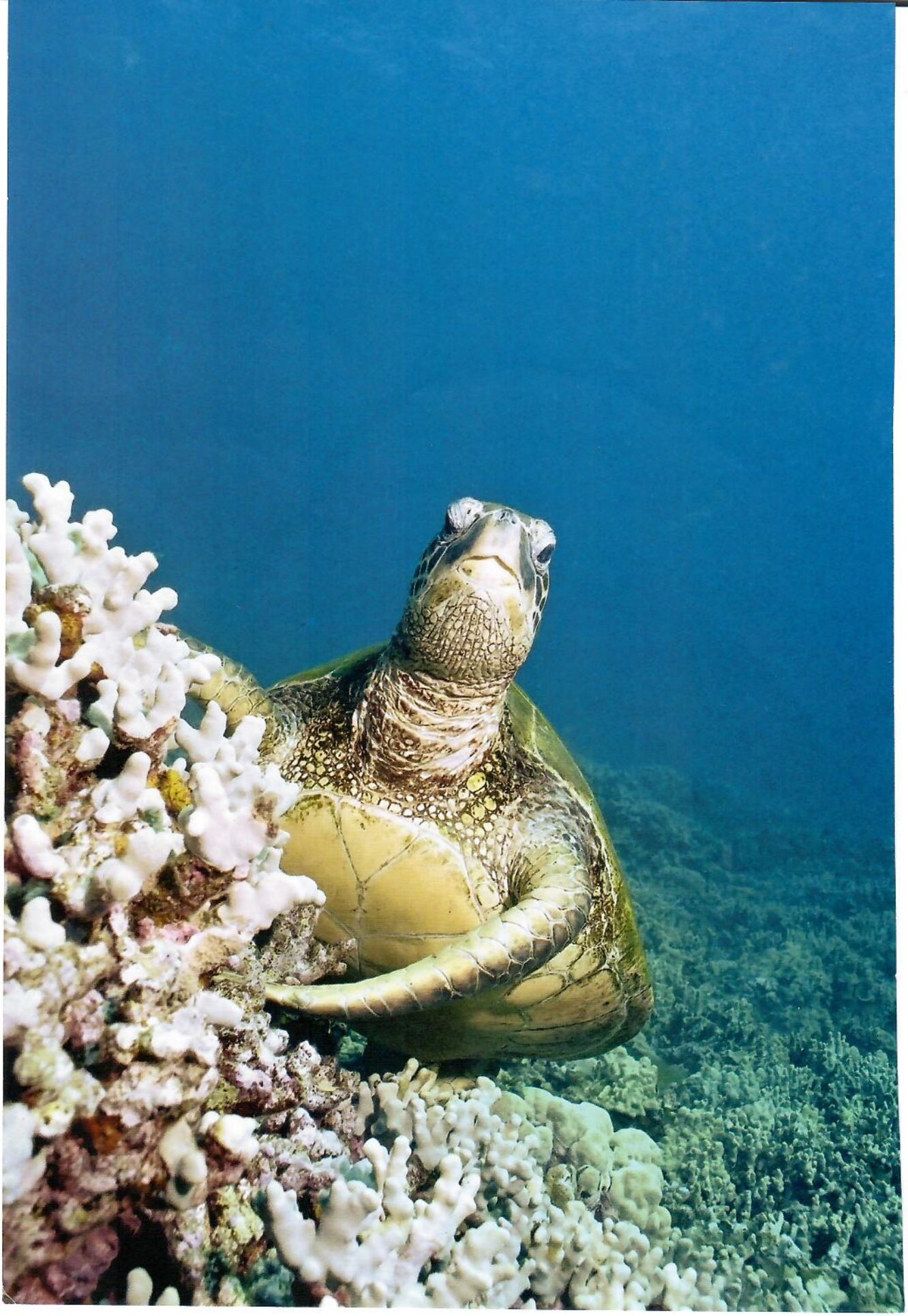
9 *Honu* in Distress 119

The good news 119
Hatchlings as prey 120
Swimming with sharks 120
Humans and *honu* 125
FP and *honu* 130

10 Of *Honu* and Foxes 137

A perfect allegory 137

For further reading 141



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Finally, thanks to everyone who cares about the turtles. They need all the friends they can get.

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HAWAI'I NATURAL HISTORY

This is the first guide to finding and observing Hawaiian green turtles, or *honu*. It describes an exciting journey of discovery undertaken by two avid sports divers, Peter Bennett and Ursula Keuper-Bennett, who encountered their first *honu* twenty years ago while diving off Honokōwai, Maui. The Bennetts soon realized that many *honu* (and green turtles worldwide) were afflicted with debilitating and potentially deadly tumors. They began to document the disease using photographs and videotape and in the process educated themselves about the daily lives of *honu*. To their surprise, they discovered they were the first to make prolonged observations of a marine turtle population in its natural habitat.

Drawing on their extensive experience, the Bennetts explain how to find and watch *honu* from shore and while snorkeling, kayaking, and especially diving. They describe the behaviors they have documented over the years and what they might mean. Their rich collection of photographs will introduce readers to *honu* not only as a species, but also as individual animals whose histories they have closely followed and recorded. This special group of *honu* includes Clothahump, the one who started it all; Tutu, who has made the 500-mile migration to her nesting grounds at least six times and shown amazing fidelity by returning to the same spot on the reef after each migration; 5690, who vanished for twenty years until she decided to make her nest on the busiest beach in Lahaina, Maui; Nui, a youngster suffering from tumors who went on to beat the disease and mature into a handsome adult male; and George, the survivor of a particularly vicious shark attack.

Thanks to a highly successful conservation and research program and protection granted by the U.S. Endangered Species Act, encounters between sea turtles and humans in Hawai'i have become common. Accessibly written and extensively illustrated, *The Book of* Honu will alert turtle enthusiasts and others on what to expect when they come across these gentle creatures and how to observe them respectfully.

Since 1988 Peter Bennett and Ursula Keuper-Bennett have journeyed every summer from their home in Ontario to West Maui to dive with and learn from *honu*. They pioneered the use of underwater photography and videotaping in the study of *honu* and in 1995 developed Turtle Trax, the first web site devoted to sea turtles.