We just finished five days with George Balazs. That should say enough about why our update is not only a day late, but so short. We're exhausted. Mere minutes after giving George our fondest aloha, we collapsed into bed and napped an afternoon coma away.

Now, however, we're awake and determined to provide some sort of...

Weekly Summary--Week 9 (04/08/29)

Wai?

The biggest news this week reaches all the way back to our Week 3 summary. On July 14th of that week, we were diving Kuamo'o and came upon a most unusual turtle resting on The Spine.

A most unusual turtle, resting on The *Spine.*

<u>78K JPEG</u>



On the beach, we immediately speculated that this creature *had* to be a green turtle/hawksbill cross. While we'd dived Kuamo'o numerous times thereafter, we never resighted this turtle, who we had named "Wai?" ("Wai"is the Hawaiian word for "Who".)

As August wore on, Wai slipped from our minds. We'd resolved ourselves to a one-time sighting, and to returning to Canada with another question mark added to Wai?'s existing question mark.

On August 27th, we visited Kuamo'o with George Balazs. He intended to do a snorkel survey there while we dived below him as tour guides of sorts. We dived our conventional route and worked seaward along The Spine.

To our utter astonishment, we saw Wai? resting there! We'd so much forgotten about Wai? that we never made plans with George as to what to do should we stumble upon the turtle again during this dive!

Peter began photographing the turtle as Ursula swam to the surface to let George know that Wai? was resting placidly below him. Unfortunately, there were several turtles resting below and George's response to Ursula was, "Gee, it really looks just like a green to me."

So Ursula descended wondering how we both could be so wrong.

Peter, however, obviously did not hear the conversation that had taken place and still felt he had a remarkable turtle a few feet from him.

We don't know at what point both of us became aware of screaming but George was frantically trying to get our attention. It turned out he'd been looking at the wrong turtle when Ursula spoke with him on the surface.

Once he focused on Wai?, it took George mere seconds to realize--be convinced, in fact, that this was almost certain to be a green/hawksbill hybrid! He began signalling to guide the turtle gently to him on the surface. His plan was to pick off some skin barnacles, a technique he had used successfully <u>in the past</u> to get a skin sample for DNA testing. Fortunately Wai? is a laid-back turtle and did not resist.



Peter helped George by gently guiding Wai? to the surface.

<u> 28K JPEG</u>

Once Wai? was at the surface, George did a quick evaluation. At that point, he realized that if he took barnacles, where would he carry them? Ursula, however, is always equipped to take samples. She produced a vial in which George could drop some of Wai?'s skin barnacles. He quickly relieved Wai? of a dozen skin barnacles that will go through DNA analysis to confirm Wai?'s status.

Wai?'s beak is elongated, more hawksbilllike than honu.

<u>65K JPEG</u>



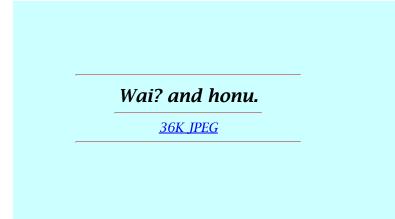
Finally George performed a detailed inspection. He ran his hands over Wai?'s carapace and found the imbrication (overlap) that hawksbills have. He got a good look at Wai?'s beaky beak--more of a hawksbill's beak than a green's. He tested Wai?'s serrated marginals. Then, George let the turtle be on its way.

George is about to release Wai?, after collecting DNA samples and taking a good close look.

<u>49K JPEG</u>



Most turtles would probably have left the vicinity in a hurry. Not this one. It appears Wai?'s temporary "detainment" didn't faze the turtle all that much. Upon release, our shelled question mark descended, spied a honu resting in the sand, and decided to settle right beside its bigger cousin.





After the dive, George was excited. He'd seen enough to be pretty sure this was indeed a green/hawksbill cross--the first one known in Hawaii--and immediately began referring to Wai? as a "honubill."

Wai?'s skin samples now go to Dr. Peter Dutton, who will do the DNA analysis. We now eagerly await the results.

Skippy Hau dives with us

Skippy Hau is the biologist for the State of Hawaii on Maui. We met him through George Balazs, and got to know him a little every time we attended <u>the excavation of one of 5690's nests</u>.

Skippy is involved in a coral reef monitoring project, and much to our delight, one of the reefs they've chosen to look at is our own Reef 2. It therefore seemed like a good idea to invite Skippy to dive with us one day, so that he could meet the honu who live on that reef. Sunday, August 22, he went out with us.



thay nasad tagathar
they posed together.

While the dive with Skippy was lots of fun and highly gratifying, the long chat we had afterwards was the real highlight of the day. Skippy is extremely knowledgeable about Maui's environment and not only can he explain it well, he loves to do so. For the wealth of information he gave us, we want to say to Skippy, "mahalo nui loa!"

Waihee excavation

5690 is no longer the only known green turtle nesting in the main islands. Another honu made a nest on a much wilder and more remote beach than Lahaina, at Waihee on the East side, and it was time to excavate.

Skippy Hau and Glynnis Nakai had their work cut out for them. No one had seen the nesting event, just the tracks and the body pit. It wasn't at all clear exactly where the egg chamber might be--or even if it was was a real nest. After all, some false crawls can look much like a nest.

After much digging around the beach, and some clever analysis of photos taken the morning after the nest was made, Glynnis hit the jackpot--an empty shell!



<u>56K JPEG</u>



The remarkable thing about this nest was the success rate: 93%! There were 99 eggs, and 92 empty shells. Even more remarkable, every hatchling made it out. While it would have been nice for those attending to see a live hatchling, there weren't any. That's a Good Thing, and nobody seemed disappointed. It was a happy and successful excavation.

5690's nest 5 hatches!

In <u>our Week 2 summary</u>, we described how we spent all night on a Lahaina beach babysitting Maui's most famous sea turtle, Maui Girl (AKA 5690) while she made the 5th nest of her 2004 reproductive season.

This week, we were privileged (and amazingly lucky) to witness the hatchlings emerge from this nest. The sight of the cute tiny honu aiming for the ocean was made all the better because George Balazs was there with us.

We were lucky because this nest hatched early, on day 52. Returning from the Waihee excavation, we only stopped to check the nest on a whim. We'd just arrived and noticed a crater right where we knew the nest to be.

Ursula noticed what appeared to be a tiny beak poke up from the sand. Peter stepped in carefully for a closer look and confirmed the presence of a single tiny turtle head. What luck! We would witness our second emergence of the summer!

George brought a large beach towel and set about making himself comfortable near the nest to watch the hatchlings. We sat on the wall above him watching events unfold under a summer-bright full moon.

A quarter to midnight, three hatchlings and two partial beaks poked up through the sand. Soon it would be *showtime!* Ursula leaned towards the nest and said, "OK, Dudes, just hang on til midnight! Just please wait til midnight."

Well they did. At 12:10 AM, the earliest minutes of August 28th, the nest awoke and hatchlings bubbled forth. Peter set his camera up and aimed it for the now-alive nest and took this long exposure photo. (Flash is *not* to be used around hatchlings at any time!)

The full moon and 15-second exposure made the photo look almost like daytime.



<u>57K JPEG</u>



Ursula counted fourteen hatchlings stride toward the ocean. Peter stood at the water's edge and counted each turtle as it disappeared into the gentle waves. Fourteen out the nest. Fourteen in the water!

Fourteen on Peter's birthday! Yes, fourteen of 5690's offspring share Peter's birthday!

Our fondest memory: while thirteen hatchlings aimed unfailingly for the beach, one immediately turned left and headed for George. George waited for the turtle to course-correct but the little creature didn't. So George gently picked the little honu up, planted a generous kiss on its shell, turned it towards the ocean and then placed it in the sand.

That's how Number Fourteen made its ocean debut!

From the "if that wasn't enough" department

While George was with us, we sighted two more females with mototools: turtles 301 and 339. Both were around our new "forage area." Peter managed to get photographs of both their left and right profiles. Back at our computer, we matched them to turtles we've seen before.

So at summer's end, we know that <u>Tutu</u> (#278) is home safe from nesting. To our delight we sighted <u>Raphael</u>--a turtle we've known since 1992--with her first mototool #131. Then we spotted #493--<u>Shredder</u>, and #424, a turtle first seen in 2001. Finally, this week we managed to identify #301 and #339 as turtles we've sighted previously.

Six females safely returned to Honokowai and Turtle #327 at Kuamo'o.

Seven mototools reported to George Balazs--a new record of returned females sighted!



Mototool numbers 301 and 339, honu mamas just back from the nesting grounds.

<u>50K_JPEG</u>

What a week!

It's impossible to summarize everything that happened in the five days George was here with us, but the one thing he seemed to enjoy most was trying out his underwater video camera on our cooperative ohana of honu.

George videotapes a calm, cooperative honu foraging.

<u>32K JPEG</u>



On the late afternoon of Peter's birthday, George spent two hours in the water close to shore following foraging turtles around and videotaping them. Watching them feed answered several previously unanswered questions. A dive survey on his last day here answered a couple more.

It also raised a new mystery, however--altogether puzzling. Intriguing. Frustrating, because exploring that question must now wait until Summer 2005.

Ten months away from the honu is long enough. Ten months with a nagging mystery dangling from a brain-thread makes the winter months drag by even longer!

2004 Zeus report

Nothing. One more dive. Probably too much to hope for. We've been so lucky already this summer, the chances are incalculable.



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