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Page: A1

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Memo:

Memo2:

Correction:

Hot on turtles' trail

Byline: *Suzanne Wentley staff writer*

Source:

Scientists say green sea turtles use the Key West National Wildlife Refuge as foraging ground before returning to Treasure Coast beaches to rest OFF THE MARQUESAS KEYS -- "Green turtle on your left!"

Chris Koeppel, a Brevard County environmental specialist, pointed from a tower atop the 24-foot Carolina skiff as he peered through polarized sunglasses into the clear waters west of Key West, where the endangered sea turtle swam.

"Left! Left!" Koeppel screamed to Michael Bresette, the president of **Inwater Research Group** and a Martin County biologist based at the St. Lucie Power Plant.

Bresette, who was driving, burst into high gear to force the turtle -- which was scurrying away from the sandy bottom to hide in a patch of turtle grass -- toward a second boat. There, Rick Herren, an Indian River County environmental specialist, was waiting on the bow in flippers and gloves.

Within minutes, Herren -- with the help of Blair Witherington, a **research** scientist with the Florida Fish and Wildlife Conservation Commission -- dove into the water, jumped on top of the turtle and wrestled it into the boat.

It was the first adult green sea turtle the team of Treasure Coast scientists -- or any other turtle expert -- had ever verified to be using the waters of the Key West National Wildlife Refuge. [

With their hands-on, "rodeo-style" **research**, the non-profit **group** of biologists from Melbourne to Stuart believe they've discovered where green sea turtles go when they leave developmental grounds like the Indian River Lagoon and before they return to use the Treasure Coast and other nearby beaches as nesting adults.

'TOTAL SHOCK'

After four years of counting, identifying the loggerhead, green and hawksbill species and determining where the turtles search for food, the researchers have made a scientific break-through.

"No one has ever verified a foraging ground in the continental United States before," Bresette said. "But they were just everywhere. We've never seen anything like it, not even close. We're still in a total shock, trying to grasp what we've found."

Funded by a U.S. Fish and Wildlife Service grant, members of the **Inwater Research Group** -- a multi-agency mix of volunteer scientists -- have used individual **research** projects, such as attaching satellite tags on adolescent green turtles, to further the study in the Keys.

Dean Bagley, a Melbourne-based **research** associate with the University of Central Florida, tracked a few green sea turtles from the Indian River Lagoon and the St. Lucie Power Plant intake canal to the waters of the Marquesas, an oasis of uninhabited, mangrove-covered islands with miles of sponges and sea grass.

Until now, scientists weren't able to find where the "missing size class" -- with shells 50 to 70 centimeters long -- went when they left Treasure Coast waters.

"The next size class, where do they go? Guess what -- they're here too," she said. "From here, they could go anywhere in Florida -- or to the Yucatan, Costa Rica or elsewhere in Central America."

But it takes practice and coordination to bring the turtles out of the water and onto the boat, where the scientists perform a 10-step process to collect data that can be used to learn more about the endangered, elusive creatures.

'DOWN HERE FOR YEARS'

On a recent trip, there were many times when the biologists would dive into the water, only to come up empty-handed. Spotters like Koeppel would have to shout direction to the boat's driver while the diver would climb back into the boat to jump again.

"We aren't thrill-seekers," Witherington said. "We're simply trying to catch turtles in a safe and efficient way."

The water's surface was so smooth that cormorants made ripples with their wings, and the biologists focused on the rare hawksbills and green sea turtles -- collecting data that will eventually be published in scientific journals so wildlife officials can help protect crucial habitat and nesting areas in the future.

Bresette said the new discovery of the foraging ground, where adults and adolescents co-existed by the hundreds, will keep the scientists searching for critical foraging areas busy for more than a decade.

"We're just hitting one area. There could be many more between the Marquesas and the Tortugas," he said. "We'll be down here for years."

Illustration:

Caption:Color photo by Sam Wolfe, staff photographer: Rick Herren, an environmental specialist for Indian River County and treasurer of the **Inwater Research Group**, dives off the front of a flat-bottomed boat onto a large green sea turtle as it comes to the surface to breathe nearer the Marquesas Keys, about 200 miles west of Key West, in the Key West National Wildlife Refuge.

Color photo by Sam Wolfe, staff photographer: Dean Bagley, right, reads a scale as a large green sea turtle is weighed by, from left, Rick Herren, Mike Bresette, Chris Koeppel and Blair Witherington. This was the first adult green sea turtle captured during the **group's** trip along the Marquesas Keys.

2 photos by Sam Wolfe, staff photographer: Top: A large green sea turtle - weighing 266 pounds- dives into the water after being processed on the boat. A larger female captured shortly before tipped the scales at 427 pounds. Above: Blair Witherington, left, and Rick Herren wrestle a large green sea turtle to the side of a boat after they captured it.

Left: Karen Holloway-Adkins, an aquatic biologist for Dynamac, stands on the fly bridge of a flat-bottom boat while searching an area around the Marquesas Keys for sea turtles.

Color map graphic by Robert Lane, staff artist: Location of Key West National Wildlife Refuge.

Chart:

