

**YEAR DIVE CERTIFIED**

[Christy, Open Water I, 1988](#)

[Brice, Junior Open Water, 1985](#)

AGE WHEN CERTIFIED

[Christy, 17](#)

[Brice, 12](#)

DIVE CERTIFICATION LEVEL

[Christy, Advanced Diver](#)

[Brice, Master Diver](#)

WORDS TO LIVE BY

[“Nothing contributes so much to tranquilize the mind as a steady purpose — a point on which the soul may fix its intellectual eye.”](#)

[— Mary Shelley](#)

Sea Heroes

CHRISTY AND BRICE SEMMENS

Devoting more than a decade to saving an iconic Caribbean fish

In 1993, Christy Pattengill and Brice Semmens were interning in the Florida Keys. Reef Environmental Education Foundation in Key Largo was establishing its now-legendary Volunteer Fish Survey Project; the pair worked on testing and development. They stayed involved with the program, and each other; today Christy is REEF’s director of science, and Brice is an associate professor at Scripps Institution of Oceanography, UC San Diego. For 15 years they have led an effort that has joined government, science and fisheries to save the Caymans’ Nassau grouper, a project that could be replicated across the Caribbean.

Q: Could you give us a snapshot of the Grouper Moon Project?

A: Nassau grouper are a critical part of the ecological and social fabric of the Caribbean. For more than a century, the species supported traditional fisheries from Bermuda to the Mexican Caribbean. Fisheries that lacked the benefit of motors, refrigeration or commercial markets sustainably targeted the groupers’ highly predictable aggregations. Improvements in technology and commerce ultimately turned these fisheries unsustainable. Today, very few Nassau grouper spawning aggregations remain.

Like most of the Caribbean, the

Cayman Islands had fished its Nassau grouper spawning aggregations to collapse by the turn of the millennium. However, progressive management over the past 15 years, coupled with a unique partnership between the Cayman Islands Department of Environment, REEF and several academic institutions (the Grouper Moon Project), has resulted in a remarkable turnaround.

In just over a decade, the population of Nassau grouper on both Little Cayman and Cayman Brac has tripled. Today, Little Cayman boasts the largest spawning aggregation in world.

Q: How could the Grouper Moon model be applied elsewhere?

A: We have demonstrated that progressive management, action-oriented research, and community outreach can foster rapid recovery. Our extensive education and outreach programs support the Cayman government’s efforts to inform the public about management action and successes.

In short, we aren’t just doing research on a dying species — we’re figuring out how to save it.

Q: How important are MPAs?

A: Marine protected areas are a potent management tool for conservation,

but they aren't a panacea. In the Caymans, for instance, our research suggested that seasonal closures would simplify regulations and ease the burden on enforcement. But marine protected areas are often difficult to implement because, fundamentally, they impinge on the rights of fishermen. Most fishermen are willing to give up some freedoms in order to preserve resources or make opportunities for fishing better. The key to selling marine protected areas is to plainly communicate the benefits.

With the Grouper Moon Project, we created an education and outreach program to disseminate our findings, and conducted the work through a strong collaborative partnership. This approach has worked very well.

Q: What are the greatest challenges in marine conservation today?

A: Balancing conservation and human use in the marine environment. It's easy to take positions like "no fishing



Christy (left, foreground) and Brice Semmens talk to classroom students via a live underwater feed.

ever" or "no marine protected areas anywhere." It's much harder to develop management strategies that balance competing needs.

Q: What can divers do to help?

A: Don't just dive; dive with a purpose. Make data. Survey the marine environment while on your dives, and submit those data to a citizen science program

such as REEF's Volunteer Fish Survey Project. And make informed seafood choices, even while on vacation. Ask questions like, "What kind of fish is in your tacos?" Informed seafood consumers are powerful, and if we all ask these questions, seafood will be both more sustainable and more delicious — and less endangered.

Q: What's been your most satisfying moment?

A: Just last year, watching a river of critically endangered Nassau grouper flow along the western shelf edge of Little Cayman during spawning season, and knowing that we had a part in preserving the spectacle.

Each Sea Hero featured in *Scuba Diving* receives a Seiko Prospex Automatic SRPC07 watch worth \$525. For our December issue, judges select a Sea Hero of the Year, who receives a \$5,000 cash award from Seiko to further his or her work. Nominate a sea hero at scubadiving.com/seaheroes.