



# SpotLight

SEPTEMBER 2019

LAWRENCE LIVERMORE NATIONAL LABORATORY

THE PEOPLE  
WHO DRIVE  
OUR SCIENCE  
& TECHNOLOGY

**A WALK  
ON THE  
WILD  
SIDE**

# WELCOME TO SPOTLIGHT

Welcome to the latest edition of Spotlight: A look at the people who make up Lawrence Livermore National Laboratory.

In this issue, we feature a sampling of employees who not only are scientists but also dabble in photography. But these aren't just photos taken on vacations, these are hobbies that go beyond the norm: safaris, underwater marvels and nature at its finest.

We hope you enjoy this issue of Spotlight. We'd also like to hear from you. Send us your thoughts and suggestions, whether it's what you like — or even if you don't — about this magazine, or if there is something you would like to see in coming editions. You can reach us at [pao@llnl.gov](mailto:pao@llnl.gov)



**On the cover:** An African leopard shown in Tanzania's Serengeti National Park. To get this photo, Michael Carter waited nearly three hours after spotting the leopard in the tree, while other safari vehicles came and went and the group was soaked by rain. After the rain stopped, they found themselves alone with the leopard, who moved down to this position in the tree and gazed back at them. "Shots like this are worth the wait," Carter said. "What do I look for in a great wildlife shot? The eyes."



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## THROUGH THE LENS

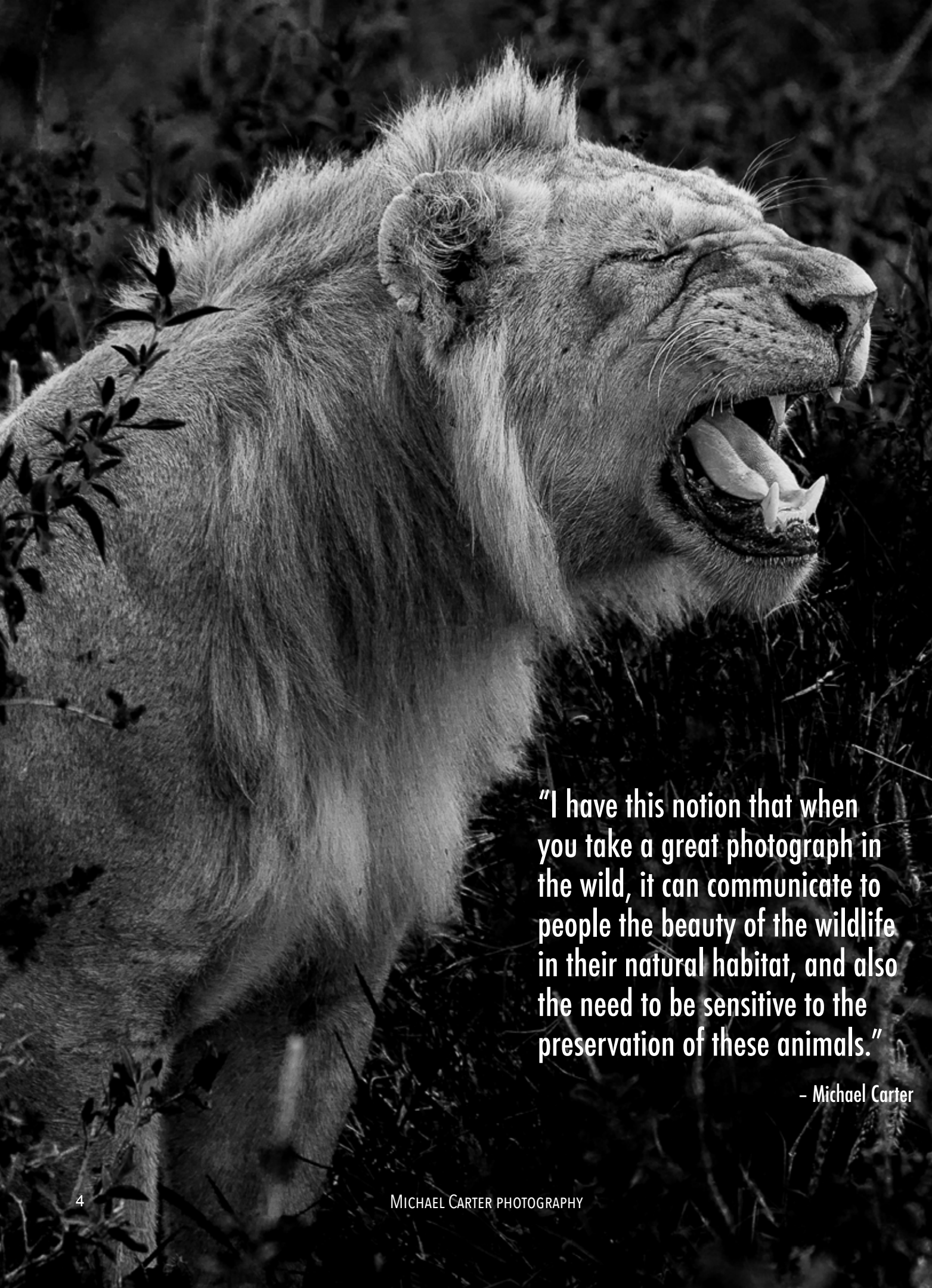
MICHAEL CARTER PHOTOGRAPHY

By Breanna Bishop/LLNL

For more than 65 years, Lawrence Livermore National Laboratory's visionary employees have leveraged science and technology to solve some of the world's most difficult challenges. But the ingenuity this workforce brings to the Lab's mission doesn't stop there – they carry their creativity through the gates and into their personal pursuits.

As writer and biochemist Isaac Asimov said, "There is an art to science, and a science in art; the two are not enemies, but different aspects of the whole."

This is true for many Livermore employees, including Bruce Warner, Diana Thai and Michael Carter. While they are scientists and technicians by day, the inspiration and attention to detail they bring to their work has paid dividends in their shared hobby – wildlife photography.



**"I have this notion that when you take a great photograph in the wild, it can communicate to people the beauty of the wildlife in their natural habitat, and also the need to be sensitive to the preservation of these animals."**

**- Michael Carter**



## MICHAEL CARTER

Michael Carter began his visits to Africa through an educational nonprofit. "I love to say 'go to Africa for the wildlife, go back for the kids,'" he said. Carter, on left, is pictured on the Serengeti plain with Albert Jumbe, safari company owner and the Tanzania scholarship coordinator for the nonprofit.

After joining LLNL in 1981, Michael Carter and his officemate took up photography, attempting to emulate iconic Ansel Adams pieces. The hobby fell by the wayside when they both had children, but when Carter's children had grown, he was ready to take it up again.

Carter – who recently retired after a nearly 40-year career ranging from magnetic fusion to the nuclear test program, Global Security and the National Ignition Facility – bought his first digital camera and won a bid on a silent auction for a day with a professional photographer.

"This turned out to be a really important turning point in my life, but I didn't necessarily know it at the time," Carter said.

Carter had been interested in landscape and portrait photography, but when he joined the photographer on

a trip to East Africa, he got his first taste of wildlife photography.

"It's a completely different sport – completely different than landscapes, different than portraiture. I really developed a passion for capturing these animals, in the wild, doing their natural behaviors, in the best light that I could find," he said. "In the wildlands of East Africa, you get to capture these wild animals interacting, opportunities that you don't get in a wildlife sanctuary or zoo."

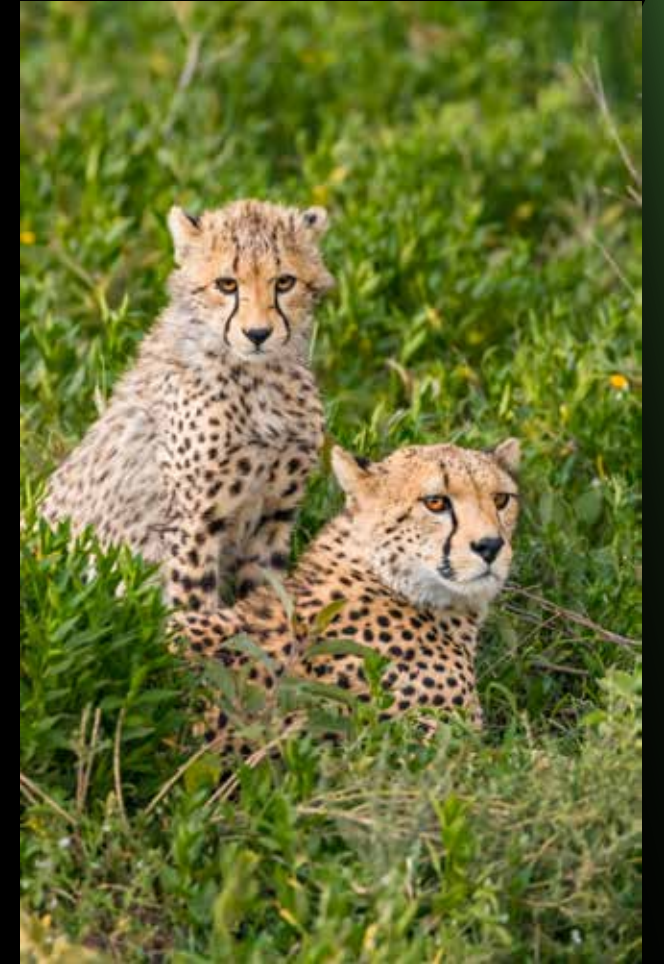
Carter sees his hobby as an opportunity to stretch his boundaries.

"It's an ever-evolving quest to get something unique, special, being able to capture things you couldn't on the last trip," he said. "At this stage of my life, I need an 'I love' challenge. The minute I'm not challenged, that's the start of the demise. If I'm not being challenged by outside forces, I have to challenge myself."



“There’s that quest for that really mind-captivating, idea-changing photograph. What is it about these animals that is special, and can you capture it in a way that results in a positive emotional response in others?”

- Michael Carter



MICHAEL CARTER PHOTOGRAPHY



“When you see a bird in action and you catch it with the camera, sharp and clear, it is one of the happiest things.”

- Diana Thai



## DIANA THAI

Diana Thai, shown here at the San Joaquin Wildlife Sanctuary in Irvine, California. She enjoys taking photographs at this location due to its wide variety of birds, including great egrets, white-tailed kites, ospreys, pelicans and great blue herons.

Diana Thai is the lead for the Bldg. 321D PC-Load Shop in the Electronics Fabrication and Installation group, part of the National Security Engineering Division in the Engineering Directorate. As a senior electronics fabrication technician, she specializes in fabrication, prototyping, circuit board rework and quality assurance.

Thai got serious about taking photos in 2007. After their son had grown, she and her husband were seeking a hobby that they could enjoy together, and they settled on photography.

“He’s my husband, but also my friend, so it’s very cool that we share the same hobby,” Thai said. “It’s important to invest in a hobby and this is one we can do together, that’s why I enjoy it more.”

After completing photography school, the two assembled their own separate gear kits and headed outside. They have shot in Southern California at a variety of wildlife refuges, but the subjects vary depending on the season.

Thai credits photography for providing stress release and a source of pleasure.





DIANA THAI PHOTOGRAPHY



DIANA THAI PHOTOGRAPHY

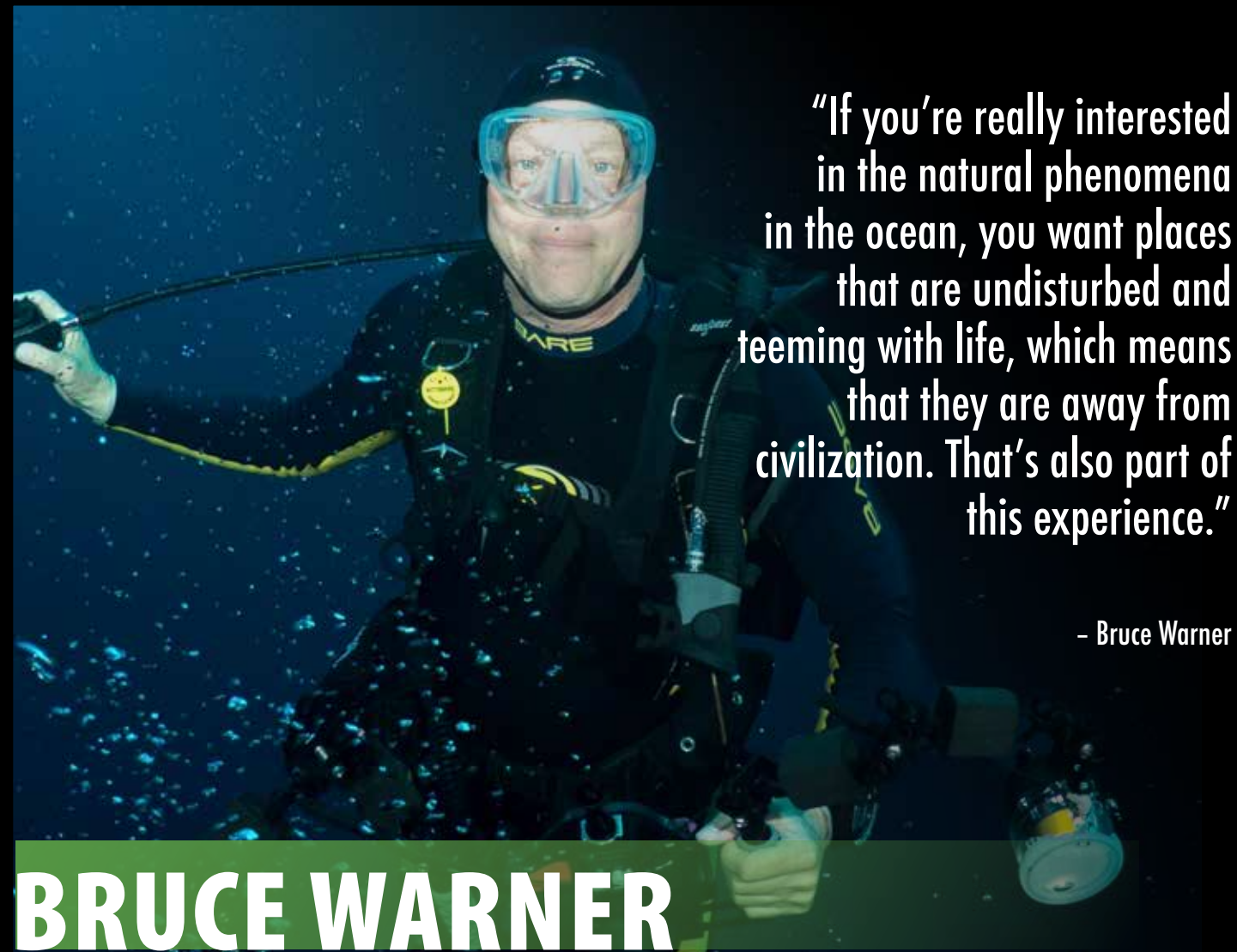
"It's wildlife, so you can't expect anything — you just have to have patience and wait for the moment. Because I have my husband as my companion, we can wait and talk and chat."

- Diana Thai





BRUCE WARNER PHOTOGRAPHY



“If you’re really interested in the natural phenomena in the ocean, you want places that are undisturbed and teeming with life, which means that they are away from civilization. That’s also part of this experience.”

– Bruce Warner

## BRUCE WARNER

Bruce Warner has spent a lifetime in water. He began with swimming lessons in a Philadelphia pool, advanced to surfing in California and today, spends his time scuba diving to photograph underwater beauty. Here, he’s pictured 60 feet under the sea in Thailand.

In high school, Bruce Warner spent a lot of time in two places — in a dark room that he built with a friend, and in the ocean. Those two passions came together when Warner, the principal associate director for Global Security, began scuba diving — and taking a camera with him.

“Diving is such an alien experience. It just really assaults your senses and creates these environments that just are not worldly,” he said. “I thought that capturing both that environment and the flora and fauna in a photograph would bring me back into it whenever I see the pictures. Now, I look at the images and it draws me back to that amazing experience.”

Warner has dived and shot underwater photos all over the world, including Honduras, the Turks and Caicos, Bonaire,

the Bahamas, Fiji, Thailand and French Polynesia. The diverse locations have brought diverse experiences, ranging from viewing vibrant, colorful ecosystems to swimming with sharks and witnessing giant tuna rocketing along at more than 40 miles per hour. “There are phenomenal things to see underwater,” he said.

Warner advises aspiring underwater photographers to be comfortable in water before taking on the hobby. “I was less than 2 years old when I learned how to swim, then I spent time on the swim team and learned to surf as a teenager. Diving was a great extension of being in the ocean,” he said. “All of that was underwritten by this calm confidence in the water, and not fear, and that is important when you dive — knowing that if you follow the guidelines, you will be safe and can take on other activities.”



BRUCE WARNER PHOTOGRAPHY



"Diving itself is an adventure, and quite a bit of diving can be very technical. I've learned over my history of diving and taking pictures, the first three days of a trip I'm mostly worried about staying alive. Most of my photographic productivity is in the last day or two. I'm in the moment, it comes more naturally and I'm seeing things I wouldn't have otherwise seen."

- Bruce Warner





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