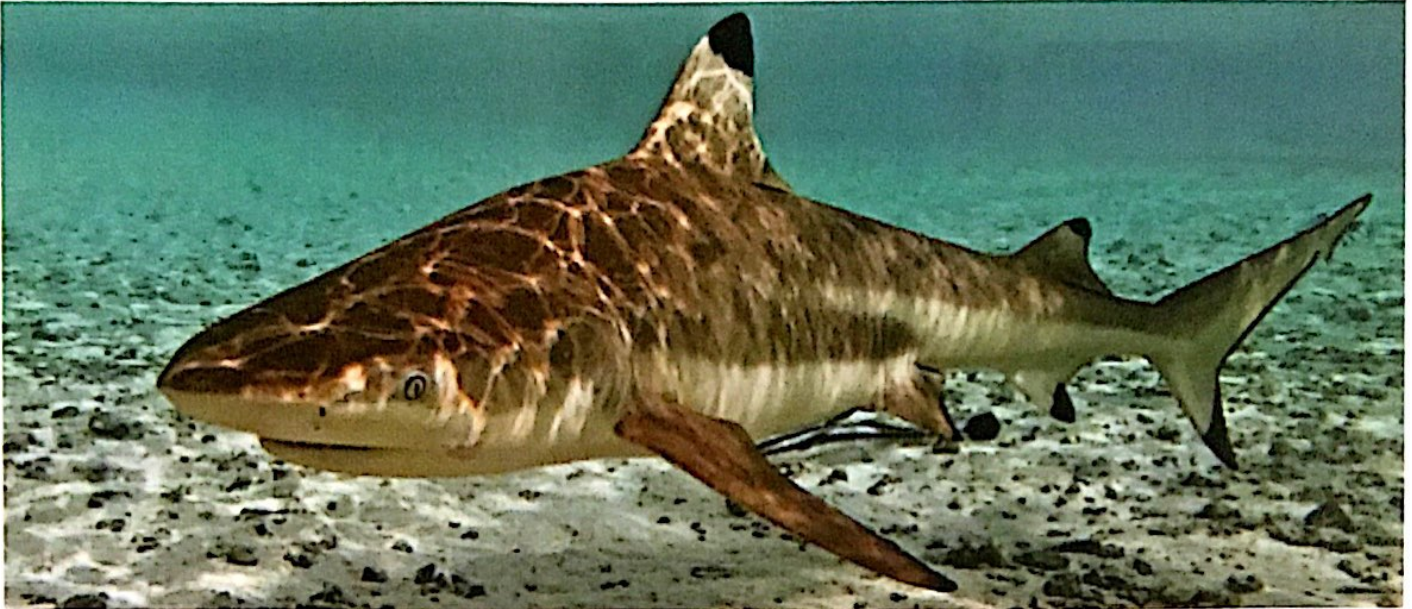


# *Preliminary Investigation Of The Ecology Of Reef Sharks In Their Nursery Areas*

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In most of the world's oceans, shark populations have already been modified by humans. As a result, it is difficult to study shark behavior and ecology under relatively pristine conditions. French Polynesia, on the other hand, stands as the world's largest shark sanctuary, and among the French Polynesian islands Tetiaroa is especially conducive to shark research because it is pristine, accessible, and small enough to be studied as an entire ecosystem.

Sharks are the top predators in marine food webs and as such control the abundance of their prey species (smaller fishes, for example). The smaller fishes eaten by sharks consume primary producers like copepods, which in turn are the fuel that keeps marine ecosystems running. Thus, by controlling numbers of smaller fishes, sharks prevent primary producers like copepods from being overexploited and keep marine ecosystems healthy.

## **PROJECT DESCRIPTION:**

This research program focuses on the shark nurseries because despite their importance they have rarely been studied. On Tetiaroa, there are numerous blacktip and lemon shark nurseries present, and both a stationary camera within the nursery and an aerial drone camera are used for the first time in this type of research. They will be used to answer questions such as the following:

- What are the characteristics of the shark nurseries?
- How many individual of each species are present
- What is the behavior of the juvenile sharks in Tetiaroa's nurseries?



#### **PRINCIPAL INVESTIGATORS:**

- Dr. Jeremy Kiszka is a research scholar at Florida International University, focused on marine top predator ecology, including foraging, behavioral and community ecology.
- Dr. Aaron Wirsing is an associate professor in wildlife science, behavioral ecology, and predator-prey interaction at the University of Washington.
- Dr. Johann Mourier is a marine biologist specializing in shark behavior at CRIOBE.

#### **NEXT PHASE OF RESEARCH:**

The next phase of research will involve tagging juvenile blacktip and lemon sharks with very high frequency (VHF) transmitters and tracking their movements using an array of stationary receivers.

#### **SUPPORT RESEARCH ON TETIAROA:**

This research is sponsored in part by Tetiaroa Society, a non-profit organization established to help protect Tetiaroa, promote sustainable activities, and support scientific research targeted at understanding and protecting delicate island ecosystems.

We invite you to experience the life of a scientist in the field and better understand our work by joining investigators studying on the atoll. If you are interested, please contact one of our scientists on the atoll or the concierge at The Brando.

We also invite you to make a financial contribution to Tetiaroa Society to support the world-class science taking place on the atoll. Your donation will support us in our mission and the next phase of this project. If you want your funds to be used exclusively for this research project, please note this when you donate. Donations can be made online at [www.tetiaroasociety.org](http://www.tetiaroasociety.org) or added to your hotel invoice. Thank you for your generosity, participation, and support.

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