



Project Brief

Lighthouse Reef Atoll, Belize

2019-BZ-LRA1

MarAlliance has been conducting research at Lighthouse Reef Atoll on an annual basis since 2007. We use scientific longline, Baited Remote Underwater Video (BRUV), and snorkel underwater visual census (UVC) to analyze long-term trends in the abundance of sharks, rays, turtles, and large finfish.

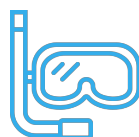
We work in partnership with local fishers, university students, and other NGOs at this iconic and fragile location.



1,000+ Sharks tagged



300+ Underwater videos



1,228 UVC Km swum

A hawksbill turtle is captured for tagging



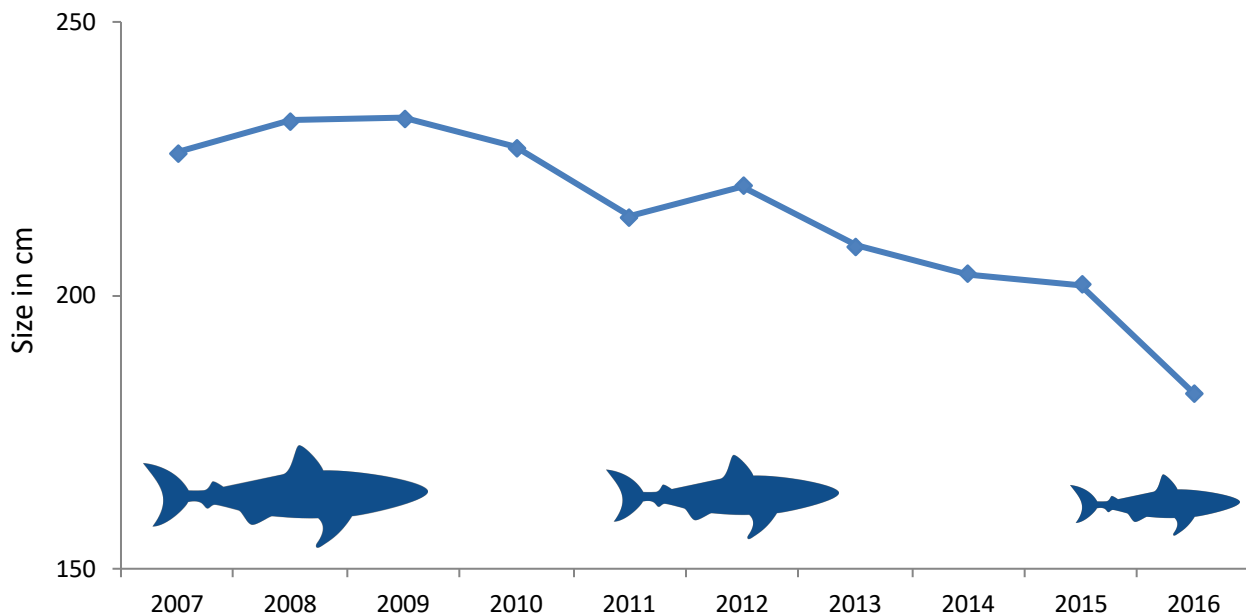
Seaturtles are in high abundance at Lighthouse Reef, especially juvenile hawksbill turtles (*Eretmochelys imbricata*), which use the atoll as a feeding refuge. Green and loggerhead turtles are also sighted, but in lower numbers. Tagged hawksbill turtles have been re-sighted at the same locations over the course of several years, indicating long-term site faithfulness to small areas at the atoll.

Icons from flaticon.com: Freepik, Eucalyp



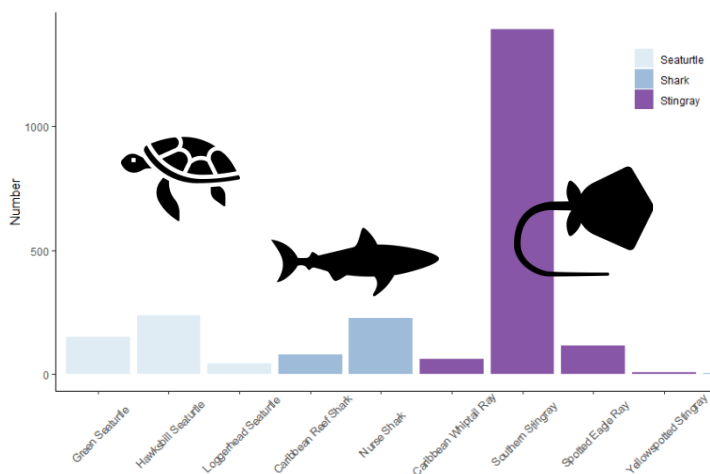
For more information visit www.maralliance.org

Maximum size of Caribbean reef sharks captured fell over a 10-year period



Lighthouse Reef Atoll likely has the largest population of Caribbean reef sharks in Belize; however, ongoing fishing activities are having an effect. **Sizes** of reef sharks have **decreased** over a 10-year period, showing that fishing is removing the largest animals.

Screen shot from a BRUV showing a great hammerhead at the bait cage



Great hammerheads (*Sphyrna mokarran*), which are **endangered** globally, use the atoll to hunt for their favorite prey, stingrays. Southern stingrays (*Hypanus americanus*), Caribbean whiptail rays (*Styracura schmardae*), and spotted eagle rays (*Aetobatus narinari*) are among the most commonly sighted species on BRUV and UVC.

Total turtle, shark, and ray species sighted during UVC



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