

FACTSHEET



Shark Reef National Marine Park, Fiji Coastal community benefits from shark tourism

Removal of any marine species, including corals, are prohibited within Shark Reef Marine Reserve

History

The area known as Shark Reef, located in the Beqa Passage off Fiji's main island, *Viti Levu*, (Fig. 1) was declared Fiji's first fully protected National Marine Park in November 2014, although a project to develop the site as a Marine Protected Area was originally initiated in 2002. The initial concept to develop Shark Reef Marine Reserve was to declare parts of Shark Reef, a small fringing reef located off the south of *Viti Levu* as a no-take zone.

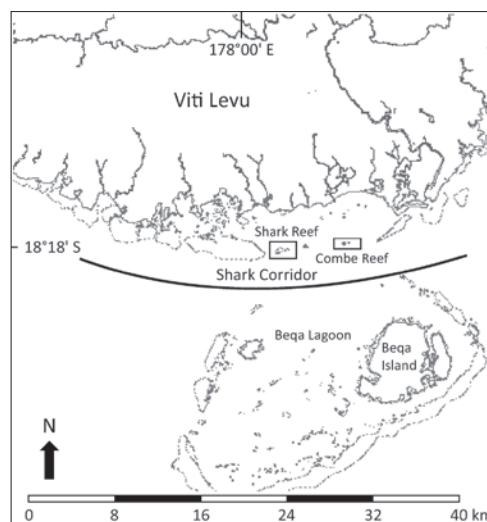
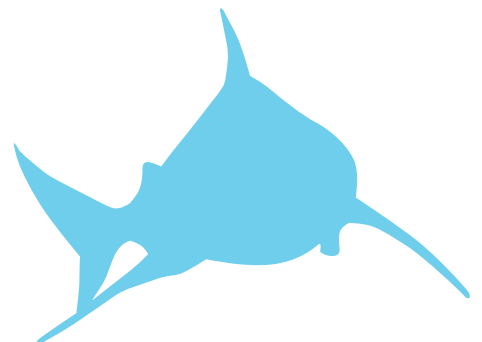
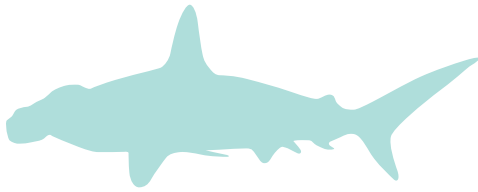


Fig 1. Beqa Passage off the south coast of *Viti Levu*, highlighting Shark Reef & the Fiji Shark Corridor

Photo: Juerg Brunnschweiler





Under Fijian law, the state retains the ownership of the sea and its resources within the Exclusive Economic Zone. Indigenous Fijian communities have been granted a right to fish for subsistence within allocated inshore areas. This established system of fishing rights is known locally as *qoliqoli*. The *qoliqoli* area is fished by inhabitants of specific villages defined within boundaries of customary fishing rights areas. Anyone who wishes to fish commercially within the *qoliqoli* must attain permission from the village chief, which will then be endorsed by the government.

In 2003, a dive operator, Beqa Adventure Divers, approached the two local communities that held the traditional fishing rights for the *qoliqoli*. An agreement was reached between the parties, including Fiji's Department of Fisheries, whereby the local communities voluntarily relinquished their fishing rights within the boundaries of Shark Reef, granting the dive operation exclusive access. To compensate the villages for giving up their fishing rights, Beqa Adventure Divers would charge customers a fee for entering the park boundaries, which would be donated directly to the villages. In essence, the dive operator "purchased" the rights to operate within the reef, and offered financial compensation to the local communities in exchange for them to not fish within a set of defined boundaries. The number of villages involved in the project increased to five in 2006. More recently, all five villages declared a prohibition on shark fishing throughout the entire *qoliqoli*, creating a 30 km stretch of protected water named the *Fiji Shark Corridor*.

In 2014, the Fijian government officially declared Shark Reef a fully protected National Marine Park, allowing strictly controlled diving operations within its boundaries.

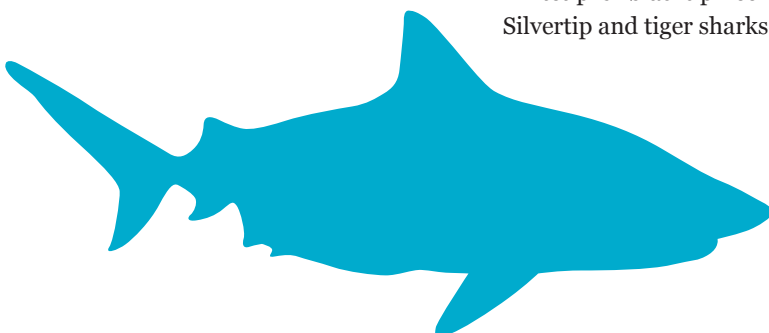
The shark reef experience

**The Shark
God Dakuwaqa**
highlights the significant
role sharks play in
Fijian cultural heritage

Shark Reef is known for close encounters with seven species of shark, with the main attraction being large numbers of adult bull sharks (*Carcharhinus leucas*) that can be encountered all year round. Shark numbers vary, with a maximum of around 100 large bull sharks at the height of the season (June – August). Bait is used to attract sharks to specified feeding areas at the site, with feeding stations at depths of 30 m, 15 m, 10 m & 3 m.

Bait drums are placed at the site in the early morning before diving operations begin, to attract sharks. Boats arrive at the dive site at around 9 am, with two dives undertaken per day. Vessels moor up to fixed mooring buoys, with dives always occurring in the same location. Divers descend and ascend to fixed feeding stations. Physical interaction with the reef is limited to an area of less than 2% of the entire reef. No recreational diving is undertaken on any other part of the reef. All divers are deliberately over-weighted and remain on the seabed for the duration of the dive. Divers crouch or lie down behind a small man-made wall and remain stationary while sharks are fed tuna heads via hand feeding or via heads dropped from a plastic bin suspended in mid-water. Safety divers keep a watch on all guests, and the operator limits the numbers of divers to 2 boats per day, 5 days a week.

Species regularly encountered on the dive include bull sharks, grey reef sharks, whitetip & blacktip reef sharks, tawny nurse sharks, and sicklefin lemon sharks. Silvertip and tiger sharks are occasionally encountered.





100% of Marine reserve access fees paid to local community



MPA related finance

Bega Adventure Divers initially charged FJ\$ 10 (US\$ 4.70) fee on all their customers to enter Shark Reef when the project commenced. The current fee is FJ\$ 25 (US\$ 11.80) for a day's entry to the Marine Park with Bega Adventure Divers. The fee is charged as direct financial compensation for the communities who have relinquished their rights to fish in the area, with communities receiving 100% of the funds raised. This fee is charged in addition to the operator's diving fees.

Since its inception, funds raised via the "Shark Reef Levy" have been distributed to various village accounts. In 2004 – 05, the two partner villages received approximately US\$ 10,000 between them. In 2006 – 08, the levy raised US\$ 48,000 for the three partner villages. The current levy rate (2015) is FJ\$ 25 (€10), with an average annual amount of around US\$ 100,000 distributed to the local communities. While there are no obligations placed on the communities as to how to allocate the levy funds, money raised has been used for a wide variety of purposes and include:

- Construction & maintenance of community buildings
- Development of infrastructure, such as drainage & sewerage systems, electrical grid connection & flood mitigation
- Education bursaries & tuition fees
- Bereavement payments



Whitetip5

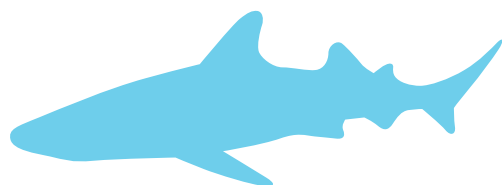
Photo: Sam Cahir



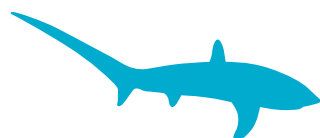
Fish Wardens

Photo: Bega Adventure Divers

**Around forty
local villagers
have been certified as
recreational dive
instructors**



**Similar proposed projects
in Fiji have been met with
scepticism from some
tourist operations**



As well as the financial compensation provided by Shark Reef, the local communities also receive further benefits and incentives to ensure the project's success. Every year Beqa Adventure Divers takes one person from Galoa village and provides training up to the level of PADI Dive Master. The success of this scheme is such that the majority of the dive staff employed by Beqa Adventure Divers come from local communities. A number of villagers that attain this qualification have found employment with other dive operators.

To ensure Shark Reef is effectively monitored, Beqa Adventure Divers, in partnership with the Department of Fisheries, trains all of its staff, as well as local fishermen, as Fish Wardens. A Fish Warden has the power to act as a representative of the Department of Fisheries, and law enforcement agencies that receive any reports received from Fish Wardens documenting illegal activities within Shark Reef are obliged to conduct investigations. This public/private partnership reduces the financial burden of monitoring from the ministry with the deputised private operator acting as principal trustee of the National Marine Park resource.

Challenges and solutions

- i) There is no legal recourse to formalise levy payments in Fijian law. Levy payments are solely at the discretion of the operator. This poses potential problems should the operation change ownership.
- ii) Declines in local shark populations and large predatory fish pose the greatest threat to the operation. Due to the relatively small size of the protected area and the migratory nature of bull sharks, individuals are likely to spend most of their time outside the Marine Park where they can be targeted by commercial fishing operations. A decline in local shark populations is likely to reduce the numbers of divers visiting the site, resulting in a decrease in levy paid to the local communities.
- iii) Success of Shark Reef has increased the popularity of Fiji as a shark diving destination. There is evidence of this leading to an increase in dive operations offering shark experiences without guarantee of following a similar model of sustainability and community benefit.
- iv) Relinquishing of fishing rights can only be done with community consent. Communities need to be involved from the beginning in any projects considering a similar model.

Replicability of the model

The current model of Shark Reef seems suited to very small MPAs with limited stakeholders and particularly where local communities can hold fishing rights under law. The model is currently in the trial phase in a larger area in Fiji incorporating a greater number of communities and operators. Initial consultations have highlighted a number of challenges in an up-scaled model, including difference of opinions on levy charges between operators and effective monitoring and enforcement, especially of privately owned vessels entering the site.

For areas incorporating greater numbers of operators, preliminary discussions have incorporated exploring the possibilities of developing an association for operators willing to follow best practice guidelines.

This factsheet was produced as part of a collaboration between Manta Trust, Project AWARE and WWF to produce a guide to best-practise shark and ray tourism.

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