



IUCN CSS Marine - Georgia Aquarium



# Conservation Success Stories

Novel conservation strategies for sharks: a successful case study with Zebra Sharks (*Stegostoma tigrinum*)



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## THREAT ADDRESSED

Classified as Endangered by the IUCN Red List, Zebra Shark (also called Indo-Pacific Leopard Shark) populations have declined throughout most of their native range, leading to localised extirpation and little recovery in regions with historical and continued fishing pressure.



## TARGET

Continue to lead translocation efforts with Zebra Sharks (*S. tigrinum*) in Indonesia through StAR Project, including site visit in 2023. (T-005)

## 22 Zebra Sharks successfully reared and released in Indonesian waters



# Success category: Increase in population viability

## Success story:



### REASONS FOR SUCCESS

In addition to local communities, this partnership includes aquariums, universities, governments, and conservation organisations; truly embracing the IUCN One Plan approach. It is this passionate, collaborative group of partners with a shared purpose that lies at the heart of project successes to date.

With growing conservation concern for sharks and rays, *ex situ* breeding for wild release and translocation has emerged as a conservation tool for elasmobranchs primarily through the efforts of ReShark, an international collective focused on linking *in situ* and *ex situ* conservation solutions for threatened shark and ray species. The first project within the ReShark collective, the *Stegostoma tigrinum* Augmentation and Recovery (StAR) project, serves as a successful model for *ex situ* conservation management of sharks and rays following IUCN's One Plan Approach and the IUCN SSC Guidelines on the Use of *Ex situ* Management for Species Conservation.

So how does it work? Briefly, genetically appropriate Zebra Shark eggs laid from broodstock at participating zoos and aquariums are shipped to one of two nurseries in Raja Ampat, West Papua, Indonesia, where they are hatched and reared to ~1 m in length by local Papuans trained by the zoological community. Juveniles are acoustically tagged for post-release monitoring and then released into the surrounding waters of Raja Ampat's 1.9 million-hectare marine protected area (MPA) network.

With over 100 partners, the StAR project has advanced from concept to implementation, now releasing and monitoring Zebra Sharks across Raja Ampat. To date, 22 sharks have been successfully reared, tagged, and released, validating proof of concept for this novel conservation strategy. Tagged animals have been detected within local acoustic arrays and by divers near release sites, showing site fidelity and survival for at least 30 days. The project aims to reach a reintroduction target of 50 animals per year by 2025.

Beyond measurable milestones, StAR has generated strong community engagement. Local residents helped build hatcheries using sustainable materials, install tanks and sea pens, and care for pups. Schools and nonprofits contributed live prey collection, inspiring national pride. Reports of fishers releasing Zebra Sharks after learning they are "special" further reflect this awareness. These successes are driving expansion to other regions (e.g., Thailand, the Red Sea, the Maldives), providing a blueprint to apply to other shark and ray species with a global network of conservation experts. ■ LISA HOOPES

### SUPPORTING DOCUMENTS

[https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters\\_georgiaaquarium\\_org/EZslidL8kbNGrAlp9RslXvoBh04dYTWlafgJvZlwFmWqTA?e=Y4pue7](https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters_georgiaaquarium_org/EZslidL8kbNGrAlp9RslXvoBh04dYTWlafgJvZlwFmWqTA?e=Y4pue7); [https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters\\_georgiaaquarium\\_org/Ed2TnfwCaHNNtSiXdiStDI4BWofEs2E6BVBxTEWLM5if2g?e=Nkg0PO](https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters_georgiaaquarium_org/Ed2TnfwCaHNNtSiXdiStDI4BWofEs2E6BVBxTEWLM5if2g?e=Nkg0PO); [https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters\\_georgiaaquarium\\_org/EUNe-UEH5A5MgmwUgCLx9OMBbhJlzmddwwzYicKoPRbH7gA?e=nPH7se](https://gaaquarium-my.sharepoint.com/:b:/g/personal/lschwitters_georgiaaquarium_org/EUNe-UEH5A5MgmwUgCLx9OMBbhJlzmddwwzYicKoPRbH7gA?e=nPH7se)



### SUCCESS LEVEL

Successful



GEORGIA AQUARIUM

Vulnerable Northern River Shark,  
(*Glyphis garricki*)  
Photo: Grant Johnson

Interviews about human wildlife  
interactions with local inhabitants  
Photo: Kiran Thapa Magar

Vicuña management by Cooperativa  
Agroganadera de Santa Catalina and Comunidad  
Aborígen Atu Shapi de Morritos.  
Santa Catalina, Jujuy Province, Argentina  
Photo: Yanina Arzamendia

**Story photo credits**

Raja Ampat Research & Conservation Center  
Nursery on Kri Island  
Photo: StAR Projects

Juvenile Zebra Sharks are released  
into native waters in Indonesia  
Photo: StAR Projects

Community songbird monitoring and  
protection, Indonesia  
Photo: Asian Songbird Trade SG archives

Cacti from genera *Copiapoa* and *Eriosyce*  
confiscated in Italy and repatriated to Chile in 2021  
Photo: Andrea Cattabriga