

Colaboraciones Pescadores - gobierno - investigadores: más probabilidades de éxito para la conservación



CASE STUDIES

Marine Conservation Outcomes are More Likely when Fishers Participate as Citizen Scientists: Case Studies from the Mexican Mesoamerican Reef

Stuart Fulton*, Jacobo Caamal-Madrigal*, Alfonso Aguilar-Perera†, Luis Bourillón† and William D. Heyman§

Small-scale fishers on Caribbean coral reefs have exploited fish spawning aggregations (FSAs) for generations, but intense fishing has led to the loss of traditional aggregation sites. In many areas, the traditional ecological knowledge (TEK) of fishers has contributed greatly to the characterization of spawning aggregations and implementation of local conservation initiatives. TEK has identified more than 40 potential FSA sites along the coast of the Mexican Mesoamerican Reef. These sites have been characterised and scientifically validated, in some cases with traditional western science and in others, with a participatory citizen-science approach. The objective of this work is to compare the science and conservation outcomes at these FSA sites. We report that those FSA sites where scientific surveys were conducted without community participation remain unprotected. By contrast, the FSAs where local fishers were engaged in characterization and subsequent monitoring are now protected at the behest of the fishers themselves. Conservation initiatives to protect FSAs can be more effective through a combination of TEK, western science, and participatory citizen science involving local fishers.

Keywords: Spawning Aggregation; Traditional Ecological Knowledge; Fishers; Citizen Science

Que dicen los pescadores

Hay una larga historia de incorporar el conocimiento tradicional

1955 - Carranza-Fraser

1966 - Craig

1966 - Solis

1982 - Miller

1993 - Aguilar-Perera & Aguilar-Dávila

1994 - Aguilar-Perera

2002 - Sosa-Cordero et al.

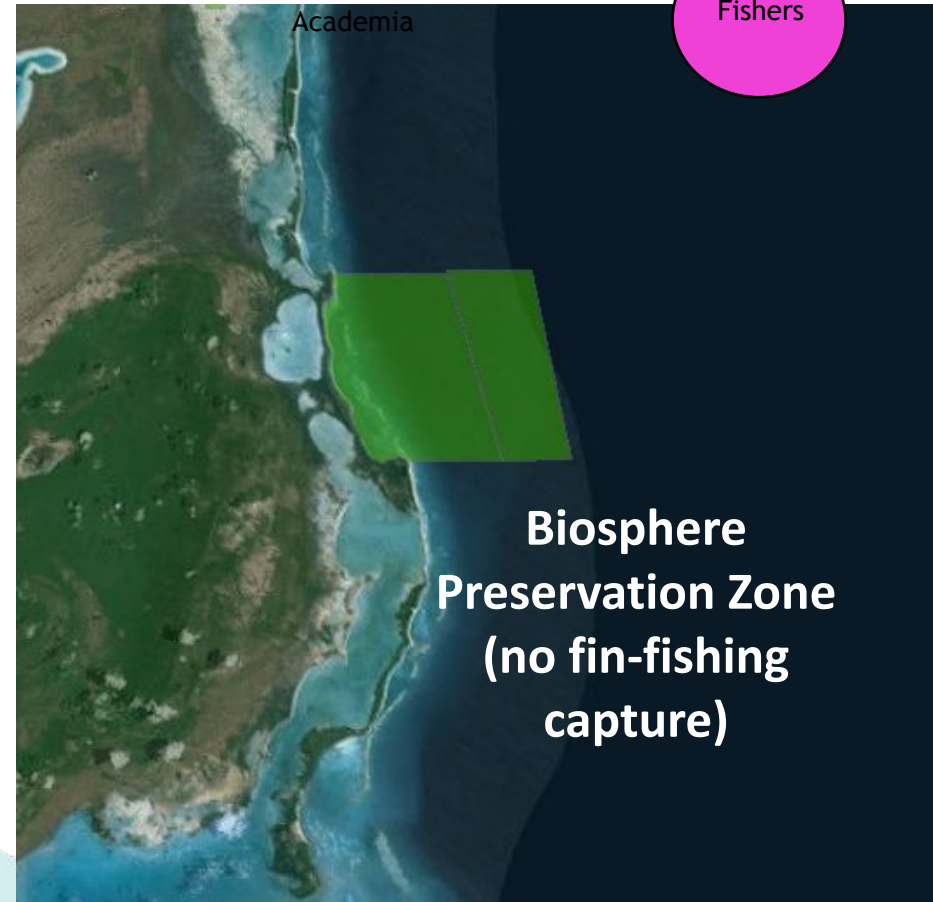
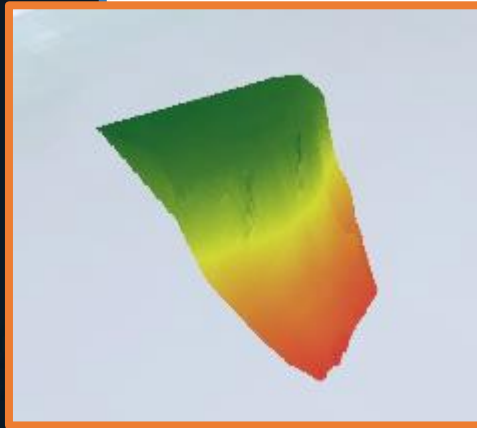
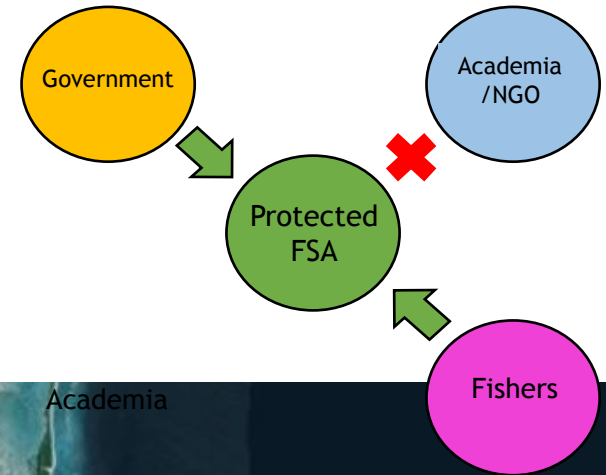
2004 - Medina-Quej

2010 - ASK & COBI

- Verified, protected
- Verified, unprotected
- Verified, extinct
- Unverified
- Not explored

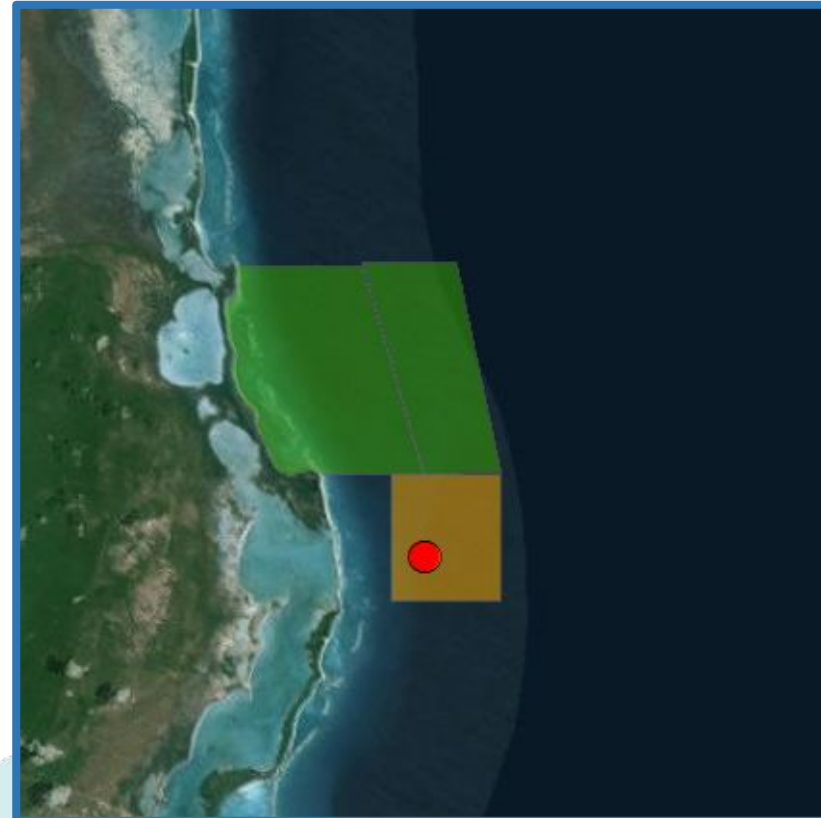
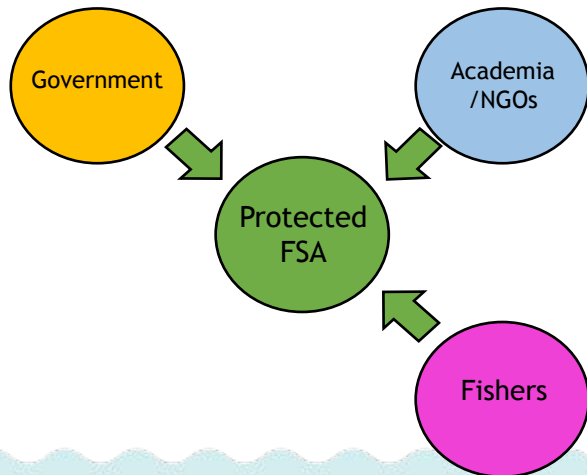


Punta San Juan

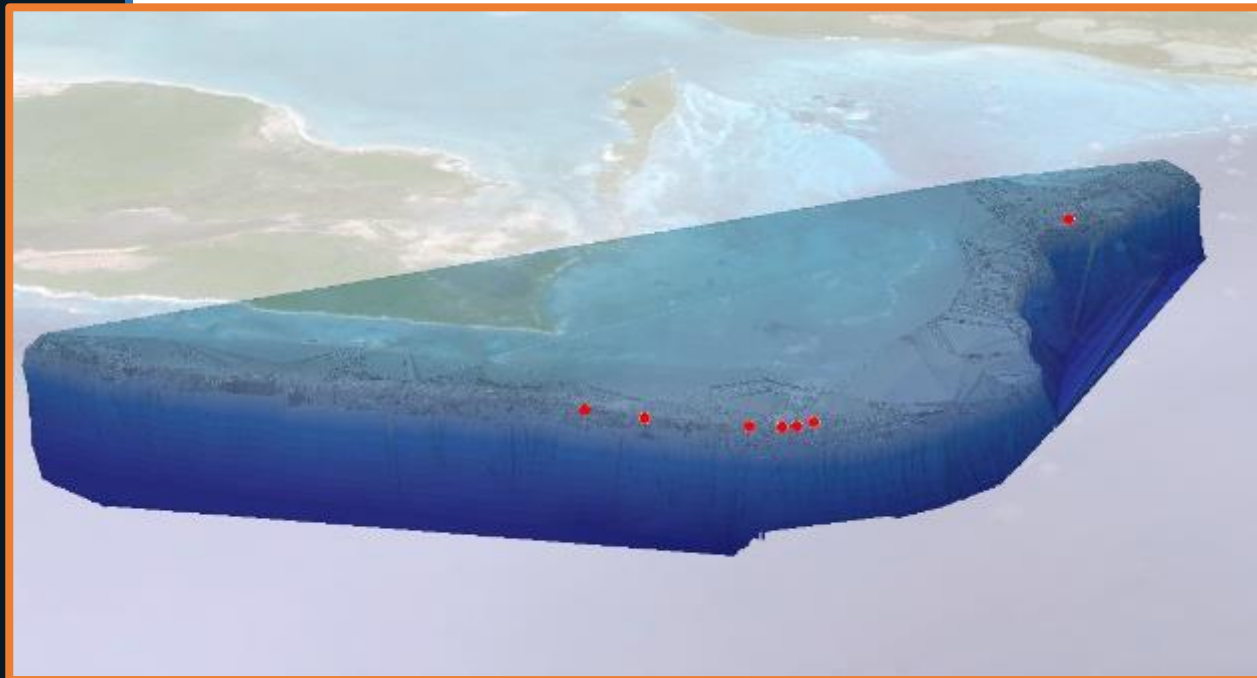
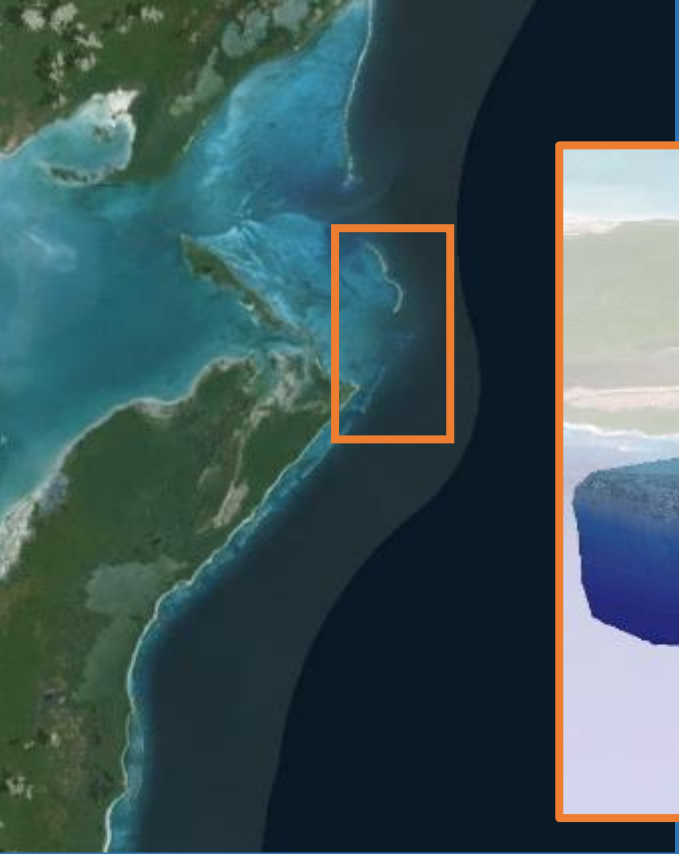


Punta San Juan

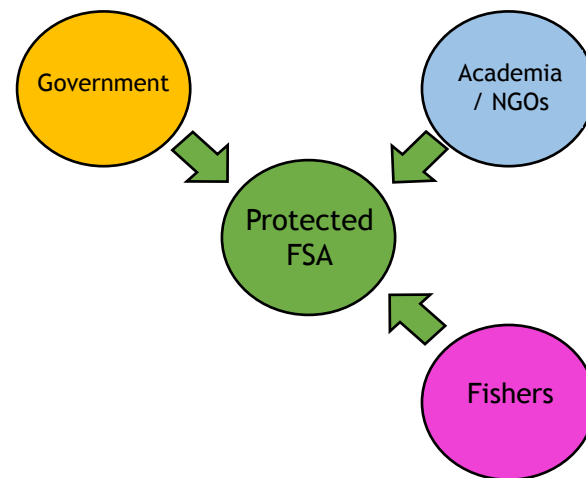
	Date	Who
TEK	1986?	Government
Site Map	2015	NGO, Fishers
Verification	2005	NGO, Gov, Fishers
Protection	2016	NGO, Gov, Fishers

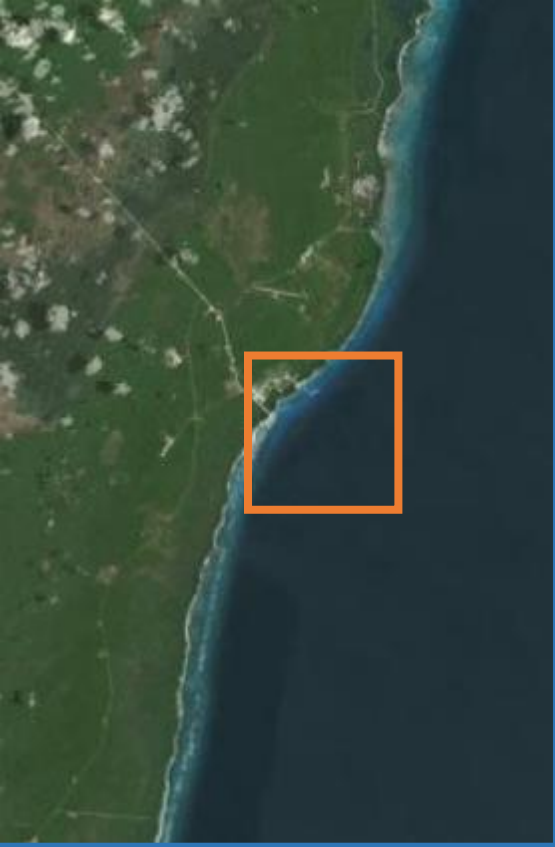


Punta Herrero



	Date	Who
TEK	2002	Researchers
Site Map	2013	NGO, Fishers
Verification	2008	NGO, Fishers
Protection	2013	NGO, Gov, Fishers





	Date	Who
TEK	1955	Researchers
Site Map	1989	Researchers
Verification	1989	Researchers
Protection	-	-

Recommendations made:

- No speargun or gill net
- Seasonal ban (1997)

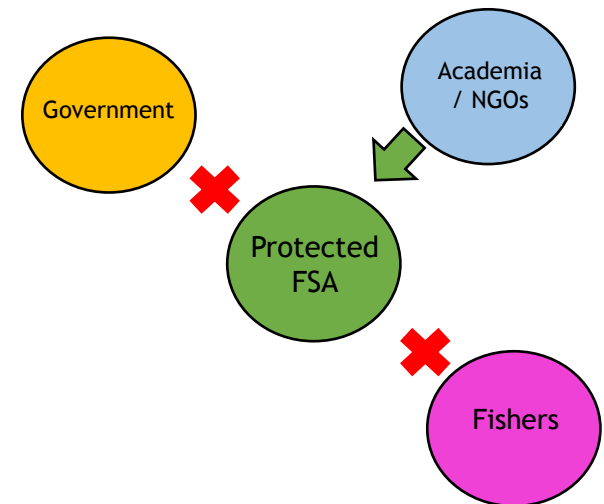
**An Obituary for a Traditional Aggregation Site of Nassau Grouper
in the Mexican Caribbean**

Un Obituário para el Sitio Tradicional de Agrupación del Mero en el Caribe Mexicano

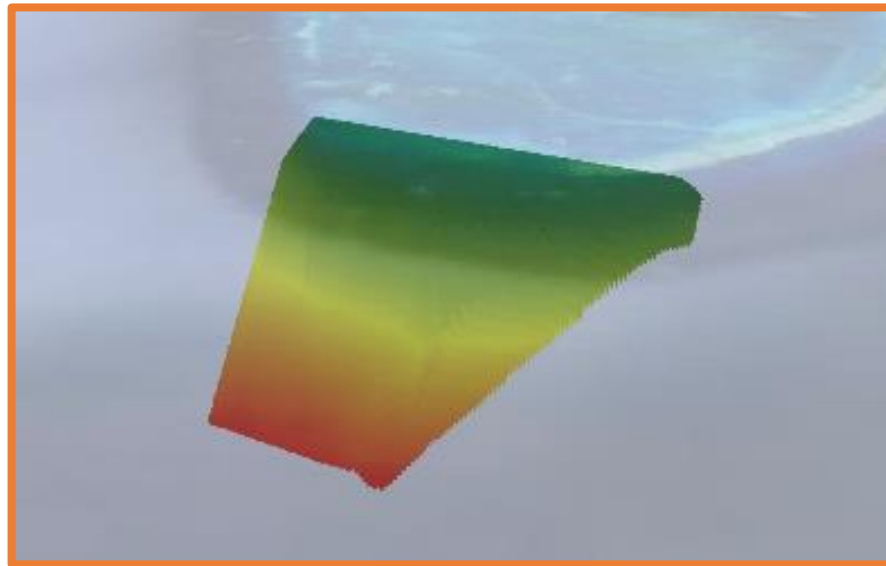
**Une Notice Nécrologique pour un Site Traditionnelle de Regroupement
de Merou des Caraïbes Mexicaines**

ALFONSO AGUILAR-PERERA

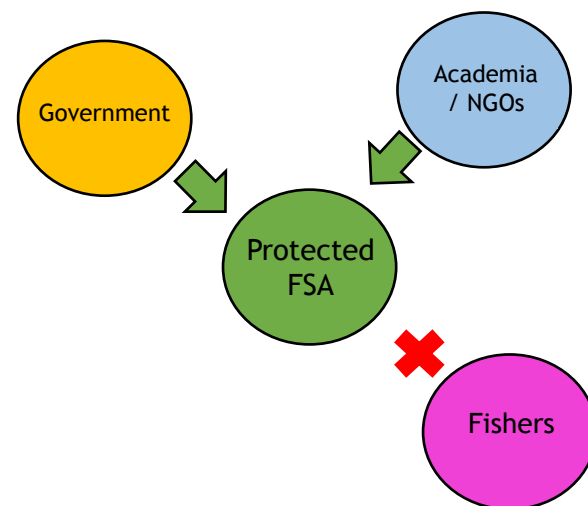
*Departamento de Biología Marina, Campus de Ciencias Biológicas y Agropecuarias,
Universidad Autónoma de Yucatán, Merida, Yucatan, México. alfonso.aguilar@uady.mx*

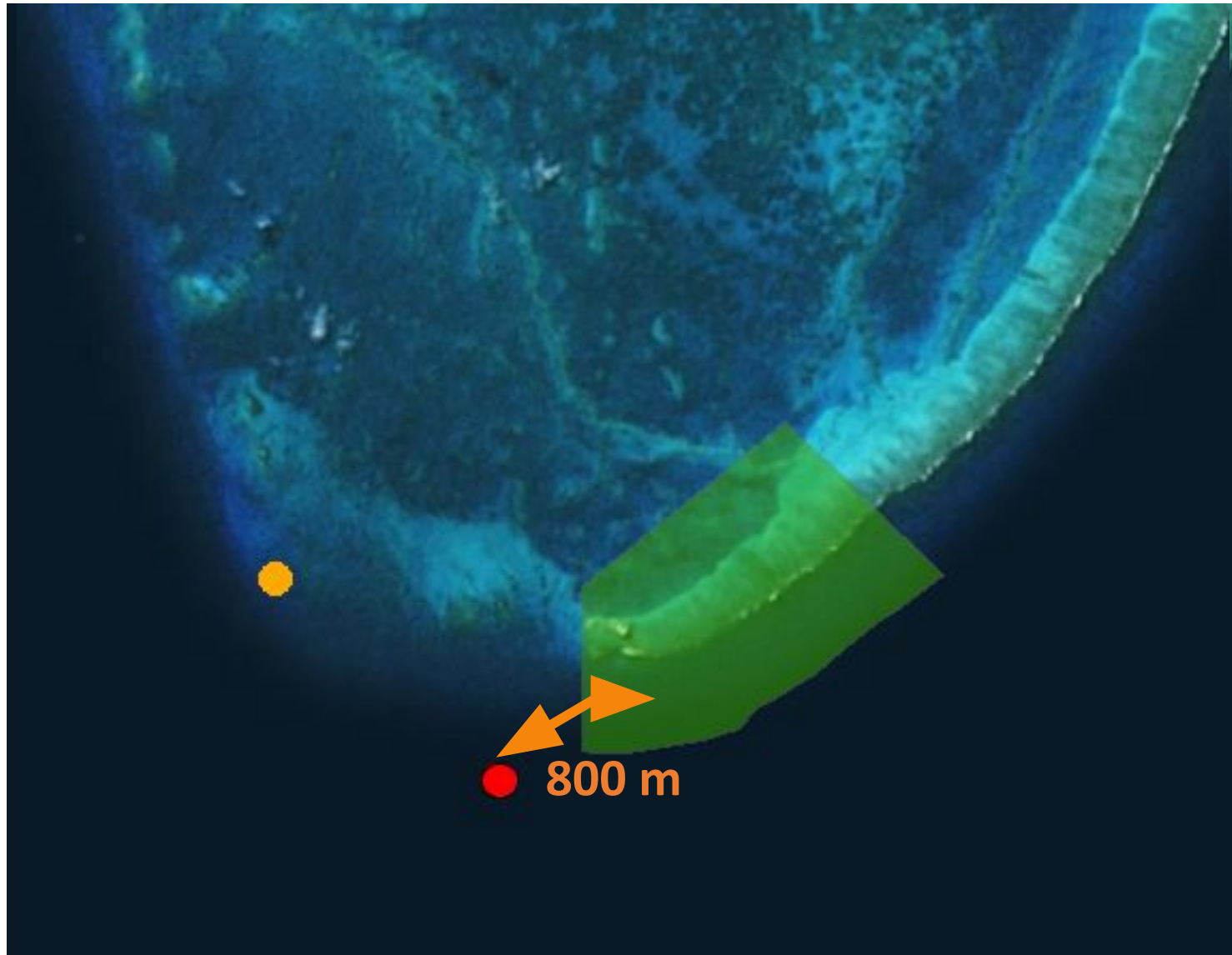


Cayo Lobos



	Date	Who
TEK	1955	Researchers
Site Map	2012	NGO, Gov
Verification	2012	NGO, Gov
Protection		





Conocimiento tradicional - Ciencia - Manejo

...todos son importantes fuentes de informacion.

... CT necesita verificacion en campo, con metodos cientificos, y posteriormente un manejo adaptativo basado en ciencia

