

# The Threats to Coastal Ethnobiology under a Blue Economy Paradigm

Nemer E. Narchi<sup>□</sup>, Gustavo M. Moura\* & George Leddy<sup>✦</sup>

<sup>□</sup>El Colegio de Michoacán, A.C. nenarchi@gmail.com; \*Universidade Federal do Pará; ✦ Los Angeles Valley College

## What is marine ethnobiology?

Marine ethnobiology is the study of the relationships of present and past human societies to marine biota and ecosystems (Narchi, 2014). So far, research on fisheries and fisheries management represent the most abundant body of literature regarding this relationship. However, looking at coasts and oceans with ethnobiological lenses could shed light into studies of cultural perception and cognition of the natural world, and associated behaviours and practices (Fig 1) (cf. Pieroni, Price and Vandebroek, 2005).



Figure 1. Marine invertebrates with cultural value; A) Seastars sold as medicine in Bolivia, B) Octopi used to run faster in Mexico, C) Chunks with ritual and religious significance in Bhutan. All images: NEN

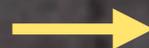
## (lack of) Marine Ethnobiology in the Literature

With nearly 40% of the human population living within 100 km from the sea (Millennium Ecosystem Assessment, 2005) one would expect marine ethnobiology to be a thriving area of research with a vast and diverse literature. Yet, coastal and marine local knowledge has been poorly recorded and analyzed and its current richness as a subdiscipline is yet untapped.

## Marine Ethnobiological Research

Marine ethnobiological research has contributed to the discovery of new species, alternative strategies for mangrove management, previously unknown behavior of ecological relevance, and ultimately, to the discovery of novel metabolites like palytoxin (Narchi et al., 2015 and references therein).

Scan to learn how marine ethnobiology informs conservation plans for long-lived marine species.



## What is blue economy?

Blue economy is an emerging paradigm that has created spaces of knowledge in which oceans and marine ecosystems are considered a new source of goods and services capable of fulfilling the capitalist promise of sustainable development. In such a view, these resources will maintain and improve the production of food, energy, transport, medicines, and raw materials.

## Can risks emerge from blue economy development?

Yes! Intervening oceanic and coastal ecosystems to expand the economic frontiers of capitalist economies poses additional pressures to the natural and social dimensions to these socioecosystems. The former is exemplified when local ranchers gave away their land for almost nothing in the face of residential tourism projects in northwestern Mexico (Fig 2), their decision immediately impacted their relationship with the biota and quickly fragmented the ecosystem.

To consider blue economy development as a potential risk is particularly true for indigenous, traditional and other subordinated coastal communities and their associated small-scale fisheries, who hold comparatively less agency than national and international actors.

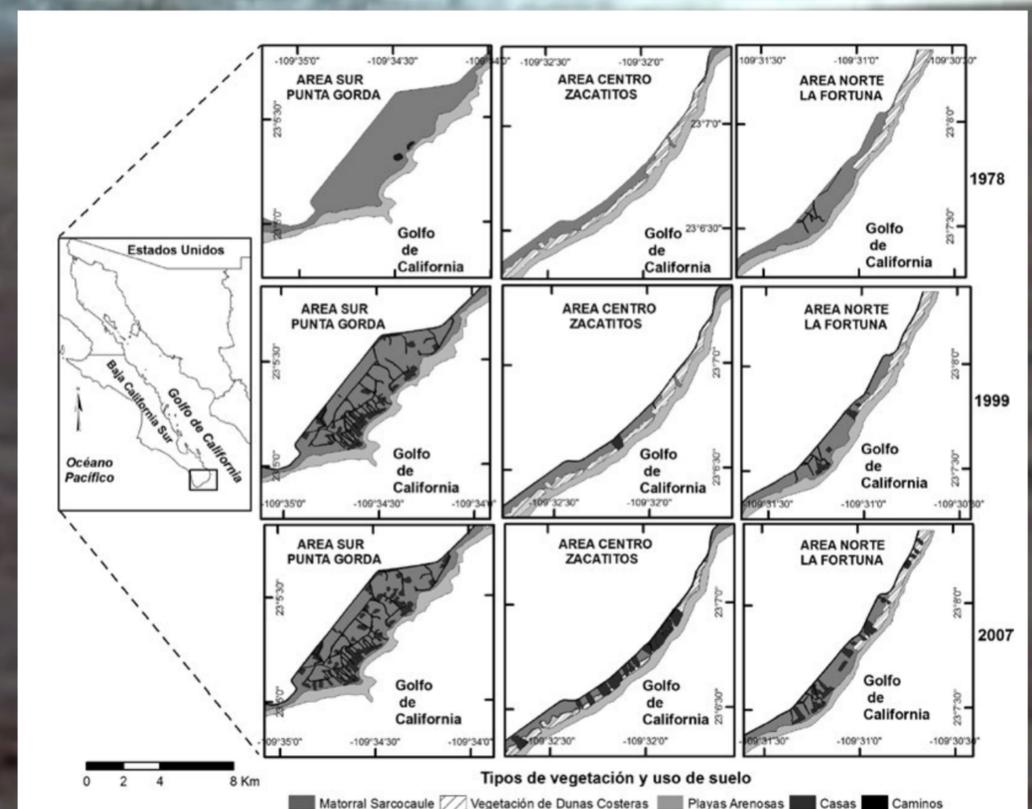


Figure 2., Casas, D. A., & Narchi, N. E. (2016). Las contradicciones del turismo residencial en la ruralidad de Baja California Sur, México. *Ecología Política*, (52), 51-56.

References

