

Reef sites

Honduran Miskito Cays: among the last unexplored reef systems in the Caribbean

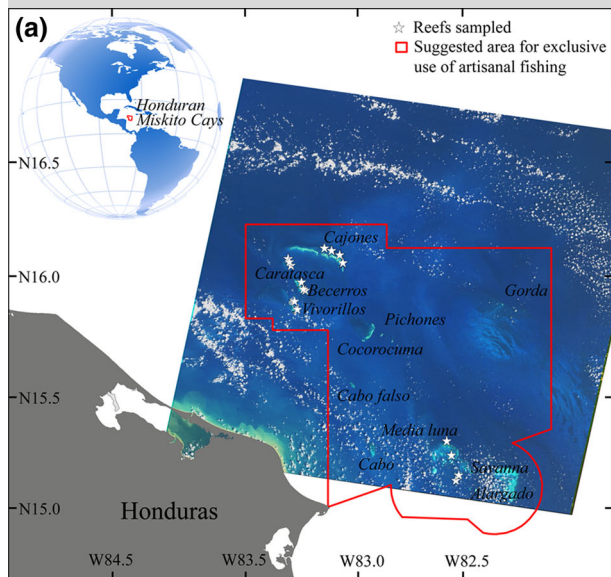


Fig. 1 **a** Study area over a Landsat satellite image showing forereefs assessed at 10 m depth. **b** School of midnight parrotfish (*Scarus coelestinus*) and rainbow parrotfish (*Scarus guacamaia*) in Medialuna reef. **c** *Acropora palmata* colony and schoolmaster snappers (*Lutjanus apodus*) in Caratasca Cays. Photos by G. Stoyle

Many Caribbean reef systems have been studied over the past five decades of active reef exploration and research. An exception is the Honduran Miskito Cays, an archipelago of 49 cays and about 750 km² of consolidated shallow benthic habitat off the northeast coast of Honduras (Fig. 1a). The only scientific publication describing reefs in the area (Hay 1984) predated the Caribbean-wide *Diadema* and *Acropora* die-offs. It describes two shallow forereefs, a small sample of a region that extends along more than 100 km in latitude. There have never been tourist diving operations in the Miskito Cays.

This area is, however, well known by locals as the shallow habitats include important banks for industrial fishing. Concerns over dangerous and unsustainable fishing practices and the livelihoods of the local indigenous communities have now turned attention towards the Miskito Cays. Under proposed reforms, industrial fishing would be excluded from the waters around the Cays with the establishment of an area for the exclusive use of artisanal fishers and the development of new fisheries (hook and line targeting yellowtail snapper and pelagics, and skin diving for conch and lobster). Implementing strategies to ensure the sustainable use of reef resources under this proposal is now urgent, and survey and assessment of the area is the first step in the process.

An expedition to the Miskito Cays was launched in May 2013 to undertake the first comprehensive assessment of the state of the reefs and their diversity. The fourteen (14) mid-depth forereefs assessed over a week using AGRRA methodology ranged in coral cover from 3 to 33 % (with a mean of 17 % based on 84 transects) and had high latitudinal differences in composition and diversity (e.g. twice the number of erect sponges in the south). The survey team discovered many sites with signs of degradation, such as coral mortality and disease, in spite of limited local threats, but also factors that could favour fast recovery, such as high abundances of herbivorous parrotfishes, *Diadema* urchins and fast-growing acroporids.

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References

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