

REFRAMING THE INVASION: BELIZE'S APPROACH TO LIONFISH CONTROL
REPLANTEANDO LA INVASIÓN: EL ENFOQUE PARA CONTROLAR EL PEZ
LEÓN EN BELICE

REPENSER L'INVASION: L'APPROCHE DE BELIZE AU CONTRÔLE DU POISSON LION

JENNIFER K. CHAPMAN, CHARLOTTE L.A. GOUGH, and MARC L. FRUITEMA

Blue Ventures Conservation Omnibus Business Centre 39-41 North Road London, N7 9DP UK

jen@blueventures.org

ABSTRACT

Belize's fishing communities face an unprecedented challenge: the introduction of the invasive red lionfish in 2008 has exacerbated existing threats to coastal livelihoods. This voracious predator has the potential to cause significant losses to the recruitment of native fish, disrupting coral reef community dynamics. Targeted lionfish fishing offers a means to control the invasion, while creating alternative livelihood opportunities and improving food security - in direct support of Belize's National Economic Alternatives and Fisheries Diversification Plan. To accelerate the development of this fishery, targeted awareness raising activities have been conducted countrywide, increasing lionfish market penetration in restaurants across Belize's six districts by 9% since 2011. To further assess the potential for market growth, lionfish densities are being calculated for coral reefs across Belize and population dynamics under different catch scenarios are being modelled. This information will be used to determine necessary catch rates to achieve population suppression, as well as to identify strategies for maximum economic return. In conjunction with a livelihood viability assessment, this approach aims to ensure that Belize's control strategy integrates needs and capacities of coastal communities, to confer direct socioeconomic and environmental benefits.

KEYWORDS: lionfish, small scale fisheries, Belize, invasive species, market-based conservation

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