2nd Meeting of the Southern Indian Ocean Fisheries Agreement (SIOFA) Scientific Committee 13-17 March 2017, Saint Denis, La Reunion

SC -02 -INFO -02

SIOFDA Undertakes Collaboration With Two Marine Researchers

Relates to agenda item: 8

Working paper 🗌 info paper 🖂

SIODFA

Abstract

The Southern Indian Ocean Deepsea Fishers Association has a history of collaboration with marine scientists and institutions with similar objectives and interests. This enable experts wishing to acquire materials for scientific research to benefit from the presence on SIODFA vessels of crews and observers who have a long history, and thus much experience, in the collection of materials for scientific research. We are pleased to announce the continuation of this practice, in cooperation with the Ministry of Marine Resources, Cook Islands, with two new collaborations.

Southern Indian Ocean Deepseas Fishers Association News Note 17/01 www.siodfa.org



SIODFA UNDERTAKES COLLABORATION WITH TWO MARINE RESEARCHERS

SIODFA

February 2017

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announce the continuation of this practice, in cooperation with the Ministry of Marine Resources, Cook Islands, with two new collaborations.

Analsyis of otoliths from boarfish (armourhead) – Pentaceros richardsoni

Dr Peter Coulson, Centre for Fish and Fisheries Research, School of Veterinary and Life Sciences, Murdoch University, Western Australia Boarfish has been an important retained bycatch species in the



Southern Indian Ocean deepwater trawl fishery, more so in the past than now. However, little biological information for this species in the Indian Ocean exists. Extensive work has been carried out by researchers at



NOAA in Hawaii on the related northern hemisphere species *Pentaceros wheeleri*, but there has been only one limited study on *Pentaceros richardsoni* in the Indian Ocean. Questions still exist concerning the ageing of both of these species, with published works suggesting that *P. richardsoni* only lives for a maximum of 12 years. However, given that boarfishes in Western Australian waters have been aged to 55 years this raises concerns about the validity of previous aging methods. This work will provide insight into the longevity and productivity of boarfish in the SIO, which will be needed for developing a suitable management stratagem for this species.

• Global analysis of the fisheries biology of blue antimora (Antimora rostrata)

Dr A. Orlov, Laboratory of Ecology and Bioresources of Arctic and Antarctic, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Moscow.

Blue antimora (violet cod) is a low incidence bycatch species in the deepwater SIO trawl fishery, usually taken in association



with fishing targeting orange roughy, and thus a boreal winter catch item. This member of the Moridae has a bathypelagic depth range of 350 - 3000 m and is circumglobal in distribution with the exception the North Pacific Ocean. SIODFA vessels will provide fin clip material for genetic analysis as well as traditional scales and otoliths for aging analyses

Our collaboration will support the project of the Russian Fund of Basic Research, "Taxonomy, microevolution, distribution and biology of *Antimora* spp. of the world's oceans". Comparative analysis of external morphological characters and sequences of the CO1 gene of samples will enable taxonomic analysis of this genus. Biologicial material will enable analysis of age composition and growth rates of different populations. The use of the genetic markers (Cyt b, control region, microsatellites, etc.) and modern software will enable investigation of the intra-species organization of *Antimora* spp and study of microevolutionary processes of their populations in recent historical times.