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DSCC Submission on Bottom Trawl Fisheries on the Saya de Malha
Bank

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Working paper Info paper

Delegation of Deep Sea Conservation Coalition

Abstract

The bottom trawl fishery on the Saya de Malha Bank poses a continuing and imminent danger to the unique ecosystem of the Saya de Malha Bank. The Bank supports the largest contiguous seagrass beds in the world and is home to other diverse and some endemic species. The Bank is a shallow tropical ecosystem different from the deep sea ecosystems for which CMM 2020/01 is principally designed and on which the Thai measures seem to be based. Data on taxa including seagrass is not collected and the move-on rule is not designed for such ecosystems.

It is clear there is a problem that needs to be addressed urgently by MOP8. Thailand could be requested to cease bottom trawling on the Saya de Malha Bank pending development of precautionary measures to protect the biodiversity and species including seagrass of the Bank.

Fishing on the Saya de Malha Bank

Background

The attached report of threats from fishing on the Saya de Malha Bank provides a geological, ecological and biological description of the Bank. References are provided in that report. The Bank hosts the largest contiguous seagrass beds in the world covering much of the estimated 40,000km² shallow area. In the shallower waters of the Saya de Malha Bank corals form small clumps to reefs up to 100m long and elevated just 1m-2m above the surrounding seafloor or occur as scattered individuals or small clumps in seagrass. Coral communities were very mixed rather than being dominated by a few prevalent taxa. Sponges, bryozoans and tunicates have been said to dominate slope habitats. A high diversity of fish was observed in 2002 on the Saya de Malha Bank with the greatest concentrations near the seafloor and close to coral reefs / clumps. Some invertebrates in particular (e.g. Saya de Malha giant clam) are likely to be endemic to the Bank. Some fish may also be endemic to the area. At the same time there were frequent observations of green turtles likely feeding on seagrasses (Hibertz et al., 2002). Observations of schools of spotted dolphin, spinner dolphin, pilot whales, and beaked whales were also recorded, either over the bank or on the bank edges.

Global threats include the effects of climate change such as increasing ocean temperature, ocean acidification and changes in oxygen saturation. But fishing is by far the most significant threat to the benthic and pelagic ecosystems of the Saya de Malha Bank.

In 2015 the Thai distant-water fishing fleet commenced an otter board trawl fishery on the Saya de Malha Bank. Before that there had been mainly handlining. The main catch of the Thai trawl fleet during this period were reported as lizardfish (mainly *Saurida undosquamis*) and round scad (mainly *Decapterus russelli*). The number of trawl tows was not recorded in 2015 but in 2016 was 3,971 hauls for otter trawls and 544 pair trawl hauls. This fell to 719 otter trawls in 2017 and 75 pair trawl hauls. All trawling ceased in 2018 but otter trawling recommenced in 2019 and continued in 2020 with 176 and 464 tows in these consecutive years. One trap-fishing vessel seems to have operated in 2015-2017 and handline fishing by Thai vessels commenced in 2019. The precipitous decline in catches are likely to represent significant overexploitation of lizardfish and scad populations from 2015 - 2017. However, the impact of the trawl fishery on seabed ecosystems is likely to have been catastrophic. The report to the Scientific Committee of SIOFA indicates VME bycatch of 590kg and 308kg of sponge in 2019 and 2020 respectively and 6.5kg and 0.02kg of corals over the same period. The handline bycatch of corals over the same period was 27.5kg and 10kg.

The problem

Seagrass is not a VME taxon in the Annex I of [CMM 2020_01](#) and so none are recorded on observations. It is not known whether seagrass would be retained by fishing gear or rather just torn up and left on the seafloor. 3 leatherback turtles, 560kg of hammerhead sharks, 1 Mobula ray and 5 guitarfish were also caught as bycatch in 2020. Seagrasses support fisheries and biodiversity, clean the surrounding water and help take carbon dioxide out of the atmosphere.

The objective of CMM 2020/01 is to "The objective of this CMM is to promote the sustainable management of deep-sea fisheries resources in the Agreement Area, including target fish stocks and non-target species, and to protect the marine ecosystem, including, inter alia, the prevention of significant adverse impacts on vulnerable marine ecosystems." The emphasis on deep sea appears to have left the biodiversity of the Bank exposed.

The threshold that triggers the encounter protocol for the trawls is more than 60 kg of live corals and/or 300 Kg of sponges in any tow (CMM 2020/01 para. 12(b)). These limits would appear to be entirely unsuitable for otter trawls and pair hauls on the Bank.

[Thailand's Benthic Fishery Impact Assessment \(BFIA\)](#) stated with respect to VMEs that "However, there is no record from observer report that these fishing activities encounter with Endangered, Threatened or Protected (ETP) species neither marine mammals, corals or sponges." However no further detail are given, and since Annex 1 of [CMM 2020_01](#) was designed for deep sea rather than shallow ecosystems, the VME taxa are not designed for the Bank. Whether the limits and constraints required under Paragraph 10(a) are observed is unknown, as is what have been the provisions to ensure its bottom fishing will not have significant adverse impacts on VMEs.

Thailand's BFIA stated that:

"Detection of 'Evidence of VMEs' and move on rule

Thailand has adopted the protocol of detection of evidence of VMEs base on the reference benchmarks from related RFMOs e.g. Northwest Atlantic Fisheries Organization (NAFO) and South East Atlantic Fisheries Organization (SEAFO) which are 60 kg of coral and 600 kg of sponges. Thailand has set the regulations for Thai fishing vessels when detect corals or sponges in the area which are likely to be a vulnerable ecosystem. These include stop fishing when catch living corals or sponges more than the defined benchmarks and take actions follow rules which classified by gear type as follow;

Trawler: Stop fishing when catch living corals more than 60 kg or 700 kg of sponges per one time of the operation and move at least 2 nautical miles from that area. Then, report catch of living coral or sponge to DOF, Thailand with 24 hours.

Longliner: Stop fishing when catch living corals or sponges more than 10 kg per 1,000 hooks or per 1,200 meters of longline and move at least 1 nautical mile from the center of the line Segment. Then, report catch of living coral or sponge to DOF, Thailand with 24 hours.

Fish Trap Vessel: Stop fishing when catch living corals or sponges more than 10 kg and move at least 1 nautical mile from that area. Then, report catch of living coral or sponge to DOF, Thailand with 24 hours.

In addition, observers onboard are required to record and report species and quantities of coral and other marine organisms derived from each fishery and area. The data will be used to analyze the abundance and diversity of benthic marine organisms. This for further define VMEs in the SIOFA area."

and

"Operational measures to minimize benthic impacts

General Thai trawl nets composed with bobbin at the ground rope which can minimize the impact on benthic habitat and organism. Furthermore, acoustic equipment will be used to monitor the sea bottom of the fishing grounds in order to prevent fishing on VMEs area."

In summary, it seems that neither SIOFA nor Thailand have taken account of the special characteristics of the Saya de Malha Bank and shallow water fishing, and this is compounded by the inadequacy of the VME taxa limits to prevent damage to vulnerable marine ecosystems as well as vulnerable species. The VME measures designed from NAFO, a temperate / sub-Arctic region, designed for the deep sea, that Thailand were using are completely inappropriate for the Saya de Malha Bank, a tropical region in a different ocean in shallow water. The NAFO measures were designed on the basis of scientific sampling from a that specific region.

The regulatory environment

At present, the Saya de Malha Bank is part of a Joint Management Area between Seychelles and Mauritius and the competence of SIOFA over the Bank has been discussed including in the 2018 and 2019 Meetings of the Parties.

That this fishery has been continuing in this way while SIOFA has been in force without appropriate measures being designed is deeply concerning. Not only are inappropriate measures designed for North Atlantic deep-sea fisheries being applied to very shallow water tropical ocean but seagrass has not been included in the list of VME taxa, yet seagrass is a habitat-forming species and is very vulnerable to direct damage from trawling as well as potentially from indirect effects from sediment resuspension such as smothering and reduction of light availability.

Conclusion

DSCC suggests that it is clear there is a problem that needs to be addressed urgently by MOP8. Thailand could be requested to cease bottom trawling on the Saya de Malha Bank pending development of precautionary measures to protect the biodiversity and seagrass of the Bank.