Project Title

Studies on the Living Marine Resources of Angria Bank

Context

Angria Bank, is a submerged plateau that exists around 120 km west of the Konkan coast. It is a submerged reef with rich coral diversity and associated biota. It is 39 km in length and 17 km wide, with an average water depth of ~20 m.

Although, detailed ecological explorations to the area are lacking, initial survey conducted by researchers from various organizations (viz., CSIR-NIO, CMFRI and Fishery Survey of India) have confirmed the occurrence of extensive corals in the region. A preliminary survey by the Science and Technology Park, Pune estimated the coral extent to over 350 square kilometres providing ideal habitat and refugium for other divergent reef flora and fauna. These reports also suggest the presence of fishing operations and naval exercise in the region, which may threaten the marine flora and fauna of the Bank.

Considering the importance of the marine Biodiversity of the Bank, an ecological exploration of the Angria Bank to assess the biodiversity of the region, and map the potential threats to the marine life was contemplated and accordingly, the GOI-UNDP-GEF Sindhudurg Project funded the National Institute of Oceanography (NIO) to undertake the first expedition.

An expedition, involving the newly commissioned research vessel of the NIO viz RV Sindhu Sadhana (SS) was conducted from January 4 -10, 2014. Apart from the modern fittings for navigating, mapping and bathymetric the SS has approx. 250m2 area of laboratory space for chemistry, geology and biology. These laboratories are well equipped with various instruments and computers for analytical work with a lab power demand of 110 KVA.

Implementing Agency

National Institute of Oceanography, Goa

Project Duration

Nov 2013 – Nov 2015

Objectives

1. Studies on the Angria Bank Ecosystem with reference to ecology of coral and associated flora and fauna.
2. Preparing an inventory of biological diversity of Angria Bank.
3. Biodiversity profiling of Angria Bank and formulating a GIS database for Angria Bank.

4. To identify human activities (e.g. destructive fishing practices, presence of fishing nets, oil spill in the vicinity etc.) that may cause harm to the reef system.
5. Site selection for long-term monitoring of the reef ecosystem.

Outcomes

- Preliminary observations indicate the presence of corals in 10 out of 15 dive sites. Eight of these sites showed significant presence of corals.
- Angria Bank has good presence of cetacean fauna, a wide variety of fishes including angel fish, anemone fish, groupers, snappers, barracudas, jacks, glass fish, flying fish, pipe fish, leopard eels, parrot fish, goby, scorpion fish, trigger fish, puffer fish and rays.
- The perceived threats to marine life in Angria Bank could be from fishing and naval exercises which need to be ascertained.

	Genus	**Species**
Seaweed	**8**	**9**
Sponge	**2**	**2**
Ctenophore	**2**	**2**
Hard Coral	**26**	**44**
Soft coral	**6**	**12**
Sea anemone	**3**	**3**
Jelly fish	**1**	**1**
Echinoderm	**8**	**8**
Tunicate	**1**	**1**
Fish	**11**	**14**
Total	**70**	**98***

***2 unidentified species**

Way Forward

- More expeditions need to be carried out using divers and Remotely Operated Vehicles (ROVs) to cover at least 10% of the Angria Bank area.
- The threats to the marine biodiversity of Angria Bank need to be assessed and appropriate measures need to be identified for conservation and long-term monitoring of the biodiversity.
- The efforts to assess the need and level of protection for the marine life here may lead to setting up of a Marine Protected Area (MPA) in these waters in the Exclusive Economic Zone (EEZ) of India.