

Sustainable development of Bardawil lagoon fisheries, Egypt

Sahar Fahmy Mehanna

National Institute of Oceanography & Fisheries, Egypt



sahar_mehanna@yahoo.com

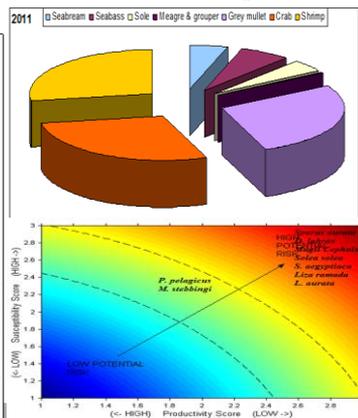
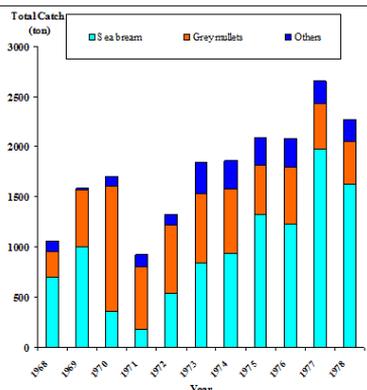
Introduction

Small scale fisheries in Egypt comprise about 85% of the fishing fleet providing about 67% of the annual landing in the country (Statistical book, 2011). The Egyptian Mediterranean coast exhibits six lakes or lagoons which are situated along the Nile delta coast (Northern delta lakes) and to the east of the Suez Canal (Port-Fouad and Bardawil). All of them, with the exception of Lake Mariut, are directly connected to the sea and provide about 77% of the harvested fish from the Egyptian lakes. Bardawil lagoon plays an important role in lakes' fisheries of Egypt since it is the least polluted wetland in Egypt and most of its catch is exported. Bardawil lagoon total annual commercial landings varied between 2226 and 5410 ton (1998-2011) earning almost 96 million LE. About 5000 local fishermen are working in the lagoon using different kinds of fishing gears some of them are very harmful to the lagoon ecosystem. Seven species (seabream, seabass, grey mullet, common sole, Egyptian sole, thinlip grey mullet and shrimp) are targeted in the lagoon while more than 20 species and two threatened ones (turtle and seahorse) are caught as bycatch.



Bardawil lagoon

It is a shallow hyper-saline lagoon, extends to about 90 km length with a maximum width of 22 km, and range in depth from 0.3 to 5 m. It is occupying much of the Mediterranean coast of Sinai with an area of 650 km² and separated from the sea by a sandbar that varies in width between 100 m and 1 km. Bardawil is connected to the sea via two small natural inlets at its eastern extremity (Boughaz Zaranik and Abo Salah), and two artificial openings (Boughaz I&II). The Bardawil lagoon fisheries are operated on a small scale basis, utilizing small boats and limited technology which is comprised of trammel nets, trawl nets, shrimp and crab nets and hook and line. During the last 25 years, the catch composition of the lagoon was changed where the crustaceans (shrimp and crab) have greatly increased reaching up to 65% of the total catch, affecting the catch of other economic fish species like seabream and seabass.



Fishing methods and challenges



Conclusion

Although several efforts have been made by the Egyptian government and scientific communities to support and protect the small-scale fisheries, more can be done to improve our understanding about this important sector:

- Replacing the centrally-managed natural resources by fisheries co-management or community-based systems.
- Initiate 6 fishing Associations (FA's) whose objectives are to safe all requirements for fishers in the lagoon and represent them in the higher administrative bodies.
- Deciding the total allowable catch (TAC) where every species in the lagoon should be subjected to quota regulation.
- Protecting fish juveniles, under sized fish and the ecosystem through the regulations on the type of fishing gear allowed in different areas, the closing of fishing grounds, using of small-fish sorting grids and controlling the mesh sizes.
- Improving the fishery statistics recording system and introducing the new technologies in recording system to ensure transparency.
- Kalsa or bottom trawl must be totally prohibited and replaced by traps and set nets.

