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RESEARCH ARTICLE

THE FIRST REVIEW OF ORNAMENTAL FISHES ALONG THE SUDANESE RED SEA

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ABSTRACT

Objective: this review aimed to fill the gap about information related to ornamental fishes in the Sudanese Red Sea waters.
Methods: data was collected from various sources including publications and observations.
Results: the large families found are the Labridae, Pomacanthidae, Gobbidae, Pomacentridae and Chaetodontidae, while the small families are the Torpedinidae, Lenthrindae, Ephipidae, Monodactylidae and Ophichthidae.
Conclusion: the study is the first to review and report in details the presence of ornamental fishes in the Sudanese Red Sea waters.

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INTRODUCTION

The Red Sea is one of the major regions in the world that contains a wide variety of ornamental fishes. The high temperature, high salinity, high clarity of water, suitable depth and availability of hard bottoms of the Red Sea are all suitable environmental factors for coral growth which contains large amounts of ornamental fishes. As marine ornamental fishes are virtually coral fishes, their distribution is that of the hermatypic corals. Base line data about the Red Sea ornamental fishes was lacking. The present review has attempted to provide some of this information in order to promote suitable and sustainable use of these fishes.

Literature Review

Ornamental fishes are aquarium fishes which are raised for their fancy color, strange shape or behavior. The important ornamental fishes include butterflies, wrasses, damsel fish, groupers, angle fish, surgeon, and trigger fishes (Wray, 1979). According to Randall (1983), 26 families of ornamental fishes were identified from the Red Sea. Vine and Vine (1980) reported 12 species of butterflies from the Sudanese Red Sea. Randall (1992) identified 14 species of butterflies in the Red Sea. Information about ornamental fishes of the Sudanese Red Sea was given by the Holand Company (1991-1994). The Saudi company (1998-1999), PERSGA (2001-2000), and Nayla Gamaa (2005) confirmed the presence of 7 species of butterfly fishes and various families from Towaratit fringing reefs and Abu-hashish reefs of the red sea. University of Khartoum Consultancy Corporation (2001) reported 5 butterfly fishes from Towaratit fringing reefs. Elnaeim (2003) reported 9 species of butterflies from Abu-hashish reefs. Osman (2005) reported 5 species from various families. Among all ornamental fishes, only butterfly and angel fishes have been popular as pet fishes in marine aquaria (Revensadle. 1967, Wheeler, 1979). Nayla Gamaa (2005) reported that the abundance of ornamental fishes was limited to the upper 10 meters of the reef surface.

MATERIALS AND METHODS

Data was collected from various sources including publications, reports, field projects and observations, relevant institutions and personal communications. Data collected in this review was collected from corals between Sawaken in the south and Aroos in the north part of the Sudanese Red Sea coast.

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RESULTS

This review found that there were 26 families of ornamental fishes in the Sudanese red sea, comprising 119 genera and 238 *species.* The large families identified included the Labridae (31 genera and 54 species), Pomacanthidae (14 genera and 33 species), Chaetodontidae (4 genera and 23 species), Gobbidae (13 genera and 17 species), Blennidae (9 genera and 16 species) and Pomacantridae (6 genera and 13 species). The small families included the Torpendinidae, Lethrinidae, Ephipidae, Monodactylidae and Ophichthidae, each containing 1 genus and 1 species.

DISCUSSION

It is important to point out that this review is the first review regarding compilation of data about ornamental fishes of the Sudanese Red Sea from various sources. The data collected show that the Sudanese Red Sea contains some important international commercial species that scored 1st, 2nd and 3rd places. These include Chromis viridis, Acanthurus, Zebrasoma veliferum, Zebraqsoma xathurum, Gomphosus caerulus, Labroids dimidatus, Psuedochromis fridmani, Psuedochromis flavivertex and Pomacanthusasfur.

The expanding profitable ornamental fish trade and the availability of abundant ornamental fishes in the Sudanese Red Sea help in establishing coastal villages that assist in raising their income. Ornamental fish trade has caused great damages to the corals especially in Saudi Arabia and Egypt. To minimize coral damage, it will be of great help to use artificial corals for collection of ornamental fishes, avoid poisonous chemicals by using scoop nets and use solar energy for charging batteries. It is also very important that companies involved in ornamental fish collection should have Marine Aquarium Counsel (MAC) certificate as recommended by PERSGA (Farah, 2003). Due to the availability of the 7 Species of the ornamental fishes in the Sudanese Red Sea, it is important to establish investment in this sector. Investment in this sector has started since 2014, but all precautions listed above have not been taken in care yet. Consequently the Sudanese corals will be subjected to great damage in the coming few years.

Conclusion

This review is the first review regarding compilation of data about ornamental fishes of the Sudanese Red Sea from various sources. The Sudanese corals are expected to be subjected to great damage in the coming few years.

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