



SPLENDORS AND CHALLENGES: NAVIGATING THE GLOBAL ORNAMENTAL FISH TRADE WITH A FOCUS ON INDIA'S POTENTIAL

Anzil Rikesh B^{1*} and N Karthik²

¹B.F. Sc student, College of Fisheries Science, DIFST, Kanniyakumari, Tamilnadu-629 193.

²Assistant Professor, College of Fisheries Science, DIFST, Kanniyakumari, Tamilnadu-629 193.

*e-mail: anzilbaskar@gmail.com

INTRODUCTION

Maintaining an aquarium at home not only offers a captivating display of nature's beauty but also contributes to enhancing mental well-being. The history of fishkeeping as a hobby dates back to ancient civilizations, including the Sumerians, Ancient Egyptians, Assyrians, and cultures in China and Rome. Originating in mid-1700s England, the practice of keeping fish in glass containers has evolved into a widespread pastime. According to the American Pet Products Association, fish are the third most commonly kept pets in households, after dogs and cats. The global ornamental fish trade, valued at \$15-30 billion, plays a significant role in supporting economies, particularly in tropical regions. South East Asia is a major contributor, with over 95% of freshwater ornamental fish being produced through commercial breeding. While freshwater species dominate in quantity, marine ornamentals hold higher unit value. The marine ornamental trade, which began in the 1930s in Sri Lanka, involves an estimated 46 million organisms from 2,500 species, with significant growth potential. The family Pomacentridae leads marine ornamental fish popularity, comprising 43% of all traded species.

HISTORICAL PERSPECTIVES

The fascinating history of fish keeping as a hobby can be traced back to ancient civilizations such as the Sumerians, Egyptians, Assyrians, and cultures in China and Rome. The hobby gained prominence in 18th-century England, where goldfish were kept in glass containers, marking the inception of aquarium keeping. Today, it stands as the second most popular hobby globally, following photography.

GLOBAL TRADE DYNAMICS

The international trade in ornamental fishes has experienced a steady 14 percent annual growth since 1985. Major exporting nations, predominantly from Asia and Europe, significantly contribute to the market. A report by the American Pet Products Association ranks fish as the third most commonly kept pets, after dogs and cats, in 2019/2020. Southeast Asian countries, particularly Singapore, Thailand, Hong Kong, and Indonesia, dominate the global trade, with China, the Amazon region, and the African Great Lakes following suit.

INDIA'S ORNAMENTAL FISHERIES RESOURCES

India, blessed with diverse aquatic ecosystems, boasts over 2500 species of ornamental fishes. While the Northeast region and Western Ghats alone host around 195

indigenous varieties and nearly 400 species, respectively, India's contribution to the global trade remains below 1%. Challenges such as habitat destruction and overexploitation persist, but the sector presents immense opportunities for economic growth, community-based aquaculture, and foreign exchange earnings.

TRADE TRENDS AND MARKET DYNAMICS

The domestic aquarium trade in India, valued at about Rs. 300 crore annually, supports numerous households. The market is segmented based on the value of ornamental fishes, ranging from low-value varieties to high-value marine species. However, India's global share in ornamental fish trade remains modest, with Singapore being a key destination.

SWOT Analysis for Ornamental Fisheries Sector in India

Strengths	Weaknesses
Varied climatic conditions supporting 300-500 ornamental species	Lack of breeding techniques for indigenous species
Rich biodiversity in hotspots like Himalayas, Western Ghats, and natural lakes	Limited expertise in marine ornamental fish breeding
Resource hotspots for both freshwater and marine species	No species-specific techniques for wild collection
	Bio-piracy issues and lack of certification
	Limited awareness for sustainable practices
Opportunities	Threats
Growing domestic market for ornamental fish	Utilization of indigenous species for higher prices
Rich biodiversity offers untapped potential	Destructive collection methods from the wild
Established market linkages and support	Natural stock depletion and coral ecosystem degradation
Capitalizing on untapped marine breeding	Introduction of alien species

Challenges and Opportunities

Challenges	Opportunities
Habitat Destruction and Overexploitation	Growing Domestic Market
Lack of Captive Breeding Techniques	Rich Biodiversity Resources
Bio-piracy	Captive Breeding of Marine Ornamental Fish
Lack of Certification Mechanism and Awareness	Institutional Support and Market Linkages

CONCLUSION

Ornamental fishkeeping has evolved from a hobby to a global industry, offering both aesthetic pleasure and economic opportunities. The trade has seen substantial growth, with the overall market, including non-exported products, wages, and retail sales, valued at approximately US\$15 billion. The global export of ornamental fishes has surged at an average rate of 14% per year since 1985, with Asian and European countries dominating production. Despite India's rich aquatic resources, its contribution to the global ornamental fish trade remains below 1%. The country, with its diverse micro-habitats, possesses significant potential for ornamental fisheries. While India faces challenges such as habitat destruction and overexploitation, there is an opportunity for sustainable growth through captive breeding. The Northeast and Western Ghats regions, recognized as biodiversity hotspots, are rich sources of indigenous ornamental fish species. However, the ornamental fish industry in India is still in a developing phase, with limited expertise in breeding techniques, particularly for marine species.