



Distribution of Tetraodontiformes (Family: Tetraodontidae) along the Parangipettai Coast, Southeast coast of India

ANGUCHAMY VEERURAJ, MUTHUVEL ARUMUGAM¹,
THANGAPPAN AJITHKUMAR & THANGAVEL BALASUBRAMANIAN

Centre of Advanced Study in Marine Biology, Faculty of Marine Sciences, Annamalai University, Parangipettai – 608 502, India

¹Corresponding author. E-mail: arucasmb@gmail.com

Abstract

The present study discusses the distribution and systematic position of puffer fishes from coastal waters of Parangipettai along the southeast coast of India. The puffer fishes collected from three different stations (Mudasal odai, Annankoil and Samiyarpettai) included nine different species from five different genera: *Lagocephalus*, *Arothron*, *Torquigener*, *Chelonodon* and *Takifugu* in the order Tetraodontiformes and family Tetraodontidae, viz., *Lagocephalus lunaris*, *Lagocephalus inermis*, *Arothron reticularis*, *Arothron hispidus*, *Arothron stellatus*, *Arothron immaculatus*, *Torquigener brevipinnis*, *Chelonodon patoca* and *Takifugu oblongus*. This study also summarized the distribution and taxonomic positions in terms of species availability and key characters.

Key words: Puffer fish, taxonomy, tetraodontidae, distribution, Tamilnadu coast

Introduction

India has a vast coast line of about 8000 km spanning 13 maritime mainland states and Union Territories which are home to a diversity of coastal and marine ecosystems and comprising significant biodiversity (Venkataraman and Wafar, 2005). It also supports almost 30% of its human population being dependent on the rich exploitable coastal and marine resources. The coastline of the Bay of Bengal and Arabian Sea continues to be a rich fishing ground in the south Asian region and India is one of the world's largest marine product nations.

India's annual fish landings are about 3.16 million tons during the period of 2009 (CMFRI, 2010). Today, the focus of research has been on commercial species and very little is known about some by-catch resources.

Tetraodontidae is diverse with species such as Puffer fish, Balloon fish, Blowfish, Bubble fish, Globefish, Swellfish, Toadfish, Toadies, Honey Toads and Sea Squab (Mills and Passmore, 1988; Ramaiyan and Senthilkumar, 1998; Froese and Pauly, 2007). They are commonly distributed in the tropics, but are relatively uncommon in temperate regions and completely absent from cold water. The identification of Tetraodontiformes is very difficult due to their analogous nature and their biological study in India is in inadequate level due to their poor taxonomic descriptions.

There are 189 species of puffer fishes and 28 genera in the family Tetraodontidae (Oliveira *et al.*, 2006). According to Sabrah *et al.* (2006) and Froese and Pauly (2007), these fishes typically occur in tropical seas and estuarine environments. Among the 185 species, *Lagocephalus wheeleri* and *Lagocephalus sceleratus* are the two most common puffer fish species in Malaysia and the former are eaten by local people. Puffer fishes are the second most poisonous vertebrate in the world, the first being a "Golden Poison Frog" (Keiichi *et al.*, 1998). They are typically small to medium in size, although a few species reach a length of 100 centimeters (Matsuura *et al.*, 1998). The skin and certain other internal organs of puffer fish are highly toxic to humans. Puffer fish poisoning is considered to be the common cause of fish poisoning along the Asian coast (Chew *et al.*, 1983).