

## CHAPTER 12

### Diversity and nutraceutical values of selected indigenous fishes of Odisha, India

Madhusmita Jena<sup>1</sup>, Yashaswi Nayak<sup>2</sup> and Sakti Kanta Rath<sup>\*3</sup>

<sup>1</sup>Biodiversity and Conservation Lab., Ambika Prasad Research Foundation, Odisha, India

<sup>2</sup>School of Applied Sciences, Centurion University of Technology and Management, Odisha, India

<sup>3</sup>Department of Life Sciences, Rama Devi Women's University, Odisha, India

\*Email-Id: [saktirath@gmail.com](mailto:saktirath@gmail.com)

---

#### ABSTRACT

*Odisha, situated in the coastal parts of India is blessed with a rich collection of diverse indigenous fishes. Almost all species under this group encompass ecological, economical, medicinal and environmental importance. Hence an attempt has been taken to gather reported information and availability of species and quantities of fishes from different selling areas of the same. Market survey was carried out in the different areas of the state, specifically Bhubaneswar from January 2020 to March 2020. Data are obtained from the survey from different village residents led us to gathering some idea, information about the different fish species. By analysing them, two fish species viz. *Puntius chola* & *Pygocentrus nattereri* are chosen estimation of bio-chemical screening and antioxidant activity.*

---

**Keywords:** Freshwater, Fish, Nutrition, Medicinal

#### 12.1 INTRODUCTION

The fishes are most numerous and diverse of the major vertebrate groups. The term "fish" most precisely describes any non-tetrapod craniate (i.e. an animal with a skull and in most cases a backbone) that has gills throughout life and whose limbs, if any, are in the shape of fins. Unlike groupings such as birds or mammals, fish are not a single clade but as par a phyletic collection of taxa including hagfishes, lampreys, sharks and rays, ray-finned fish, coelacanth, and lungfish. Fish species diversity is roughly divided equally between marine (oceanic) and freshwater ecosystems. Coral reefs in the Indo-Pacific constitute the center of diversity for marine fishes, whereas continental freshwater fishes are most diverse in large river basins of tropical rainforests, especially the Amazon, Congo, and Mekong basins (Agarwal and Gopal 2013).