

A review on the Fauna of the Superorder Batoidea (Elasmobranchii, Pisces) in the East Asia

°Choong-Hoon Jeong, Jae-Myung Yoo and Hyung-Tak Huh
Marine Biology Division, Korea Ocean Research & Development Institute

Introduction

The living cartilaginous fishes, class Chondrichthyes, may comprise about 900 described species, and include approximately 170 genera and 50 families (Compagno, 1991). At present the Chondrichthyes consists of two subclasses, the Holocephali and the Elasmobranchii. The dominant subclass Elasmobranchii includes modern sharks and rays, the former is more diverse than the latter in higher taxa but have fewer species. The superorder Batoidea, batoids or rays, is speciose with about 500 species in six orders, fourteen families and about 60 genera.

Material and Method

The batoids from the East Asia were reviewed based on the published materials. We follow the higher classification of the superorder Batoidea proposed by McEachran *et al.* (1996). Although the genus *Platyrhina*, thornback ray, is move from guitarfishes to stingrays and treated as suborder level by McEachran *et a* (1996), the family Rhinobatidae follows Nelson (1994). The classification of the stingrays, order Myliobatiformes, follows Nishida (1990), who considered that there is six families.

Result and Summary

A review of the previous records revealed that there were about 140 species belonging to 40 genera, 14 families and 6 orders of the superorder Batoidea in the East Asian waters. The largest group of batoid fauna in the area was orde Rajiformes having 47 species, 10 genera of a single family. The predominant

families were Rajidae (47 spp.) and Dasyatidae (34 spp.). The most dominant genus was *Bathyraja* (18 spp.), which is mainly distributed in the North Pacific coast of Japan.

There are 22 species in the Yellow Sea, 67 species in the East China Sea, 7 species in the South China Sea, and 58 species in the North Pacific coast of Japan. The East Sea (Japan Sea) batoid fauna is the poorest of the five regions, consisting of 13 species.

In the Korean waters includes only 27 species, 14 genera, 10 families and 5 orders. A single species was torpediniforms, four rhinobatiforms, a rhyngobatiforms, eleven rajiforms and ten myliobatiforms.

A comparison with the batoid fauna of the East Asian waters was made, and the phenetic classification and a check list of the valid species of batoid fishes will be presented.

References

- Compagno, L.J.V. 1991. The evolution and diversity of sharks. In: Gruber, S.H. (ed.) *Discovering Sharks*. Amer. Lit. Soc. Spec. Pub. 14, pp. 15~22.
- McEachran, J.D., K.A. Dunn and T. Miyake. 1996. Interrelationships of the batoid fishes (Chondrichthyes: Batoidea). In: Stiassny, M.L.J., L.R. Parenti and G.D. Johnson (eds.) *Interrelationships of Fishes*. Academic Press, San Diego, pp. 63~84.
- Nelson, J.S. 1994. *Fishes of the World* (3rd ed.). John Wiley & Sons, Inc., New York, 60 pp.
- Nishida, K. 1990. Phylogeny of the suborder Myliobatidoidei. *Mem. Fac. Fish., Hokkaido Univ.*, 37: 1~108.