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Taxonomical Review of the Korean Labroidei (Teleostei: Perciformes)

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The perciform suborder Labroidei comprising six families (Cichlidae, Embiotocidae, Pomacentridae, Labridae, Odacidae, and Scaridae) are characterized by having the specialized pharyngeal jaws for food processing, i.e., united fifth ceratobranchials and upper pharyngeal jaw articulating with the basicranium via diarthroses (Stiassny and Jensen, 1987). They usually inhabit in the most tropical and subtropical seas and comprise about 235 genera and roughly 2,274 species worldwide (Nelson, 2006).

Concerning the Korean labroid fishes, Mori (1952) had listed 18 genera and 26 species belong to four families in his check list of Korean fishes since Jordan and Metz (1913) firstly reported six genera and seven species in only two families (Embiotocidae and Labridae). Chyung (1977) added two species, Tilapia mossambica and Cirrhilabrus temmincki, to Mori's list and also classified them into three suborders, i.e., Embiotocina (containing only Embiotocidae), Pomacentrina (Cichlidae and Pomacentridae), and Labrina (Labridae and Scaridae). Subsequently, Lee and Kim (1996) reviewed the Korean labroid fishes taxonomically resulting in 22 genera and 32 species in five families with some taxonomical modifications including a new Korean record. It is remarkable to be added many new Korean records to the pomacentrids or the labrids for recent 10 years (Koh et al., 1995; Yoo et al., 1995; Koh et al., 1997; Myoung, 1997; Choi and Kim, 2000; Choi et al., 2002; Kim and Go, 2003). Recently, Kim et al. (2005) briefly described all members of the Korean Labroidei with a color photograph or a figure, recognizing 27 genera and 42 species in five families.

In the present study, the current taxonomical status of the Korean labroid fishes including distributional features is summarized based both on specimens collected from the Korean waters and on literature survey to provide bio-information of the Korean native fish species. As a result, the Korean labroid fishes totally consist of 27 genera and 44 species in five families, that is, Cichlidae (1 species), Embiotocidae (3), Pomacentridae (15), Labridae (22), and Scaridae (2). They distributed mainly in the coastal waters of the South Sea, Korea, however, most pomacentrids or labrids occur in the coastal waters of Jeju Island only, although some species were observed in their larval or juvenile stages only from coastal waters of the island. Interestingly, several species are expanding their distribution north to Ulreung and Dok islands in the East Sea, Korea lately.

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