

Phylogenetic analysis of ornamental Pomacentridae from the southern coast of West Java

Title	Phylogenetic analysis of ornamental Pomacentridae from the southern coast of West Java
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Abstract	<p>Abstract. Pomacentridae has a wide distribution in Indonesia waters. Research on species richness of Pomacentridae has been carried out in some areas in Indonesia. However, there are no data about the relationships of Pomacentridae on the southern coast of West Java. This research aims to know the evolutionary kinship of Pomacentridae ornamental fish in Ujung Genteng and Taman Manalusu Beach, West Java. This research used a survey method with a judgment sampling technique. The parameters measured were the consistency index (CI) and character evolution of the resulting phylogenetic tree. Cladogram reconstructed based on maximum parsimony algorithm with 1000 bootstrap replicates in PAUP software. The result showed that the tree had a CI value of 0.6000 which indicated low homoplasy. Pomacentridae formed a monophyletic group when they compared with <i>Chaetodon collare</i> as outgroup. The Pomacentridae clade divided into two subclades. The first subclade consisted of <i>Abudefduf indicus</i> as a basal species, then <i>Neoglypydodon bonang</i> and <i>Plectroglyphidodon lacrymatus</i> have a closed kinship and diverged after <i>Dascyllus trimaculatus</i>, and then <i>Abudefduf notatus</i> and <i>Abudefduf sexfaciatus</i> have a close kinship and diverged after <i>Abudefduf vaigiensis</i>. The second subclade referred to as a basal group, and within this subclade, <i>Chrysiptera brownriggii</i> has a closely related to <i>Chrysiptera unimaculata</i> and diverged after <i>Chromis opercularis</i>. Keywords: Cladistics, damselfish, meristic, morphometric, Pomacentridae</p>
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