

MOLECULAR SYSTEMATIC OF GROUPERS (SERRANIDAE) IN THE INDO-WEST PACIFIC

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Groupers are bottom-associated fishes found in the tropical and subtropical waters of all oceans. Most species occur on coral reefs, but some live in estuaries or on rocky reefs. They are generally associated with hard (rocky) bottoms, although juveniles are found in seagrass beds, and adults of a few species prefer sandy or silty areas. Groupers are usually the most expensive fishes in the local markets, separate catch statistics are not reported for most species, and landings are often summarized as 'serranids' or 'groupers.' This lack of species-specific catch data is due, to the difficulty of identifying many of the species. This study focuses on the molecular phylogeny of several species of the family Serranidae. Phylogenetic analysis will be done on samples from Tanzania, Indonesia, Malaysia and Japan. Fish were identified at species level and fin clip, muscle and gill tissues were sampled and preserved in 96% ethanol. Analysis will be done at the Plant Biology and Nature Management (APNA) Laboratory at the VUB Etterbeek campus from October 2010 to February 2011 and will involve DNA extraction from samples according to the Chelex method of Walsh *et al.* (1991). Fragments of the mitochondrial cytochrome *b* and 16S rRNA genes will be amplified by PCR and sequenced. This will be followed by a phylogenetic analysis in special computer programs to obtain cladograms and phylogenetic trees for biological systematics.