

Population variability of *Mugil cephalus* (Pisces :
Mugilidae) from the South Pacific and North and
East Indian Oceans

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A study of population variability of *Mugil cephalus* from east and west Australian waters and from Sri Lanka is reported here. The techniques used were allozyme electrophoresis and Restriction Fragment Length Polymorphism's (RFLD's) of mtDNA. The populations from east Australia and Sri Lanka showed no significant difference in allozyme variation of the 19 loci studied. Estimated genetic distances and fixation index showed no isolation of the populations from east Australia and Sri Lanka although the average heterozygosity was very low. The dendograms showed some degree of variability among different populations. However, all populations from east Australia showed the same restriction profiles in the mtDNA RELP's without any intra population variation. This showed that this group belongs to a single isolated stock. The Sri Lankan population exhibited some intra population variation in the mtDNA profiles and showed different mtDNA restriction profiles to the east Australian populations. A single mtDNA restriction profile from east Australia, West Australia and Sri Lanka showed that the latter two have a closer resemblance.