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## Effective technique for collecting gametes from new and difficult species of naturally spawning fish

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Many species of fish are not cultured due to the special requirements of adults of the species. As brood stock, they are unable to be kept in captivity. However, their larval and grow out traits are well suited to aquaculture for both food and ornamental market. We review the work of Tom Bowling on, using spawning aggregations as a source of gamete supply. The positives and negatives among this technique and the interesting outcomes. Among the newly cultured species at Biota are the Blue Lined Seabream (*Symphoricichthys spilurus*) and Bumphead Parrotfish (*Bolbometopon muricatum*) which is not only a newly cultured fish but a newly cultured family of fish. They will also discuss the trials and the challenges of finding out the requirements of these sensitive larvae and why they are important to culture.

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## DNA barcoding detect new genetic diversity within migrated goat fish species (*Mullidae*) through the Suez Canal

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The accurate identification of species is a very important component in many fields of biological research and conservation efforts. The high level of expertise and time consuming process needed to identify them means a loss in biodiversity due to this lack of identification. Goat fishes of family *Mullidae* are harvested all over the world. In Egypt goat fishes occurs in the Red Sea, Suez Canal and the Mediterranean Sea, migration and speciation of goat fishes through the Suez Canal have not been studied before. In this study we examine the evolutionary history and speciation of selected species of the family *Mullidae* using DNA barcoding techniques by using partial cytochrome c oxidase subunit I (COI) sequences for standardized and routine species identification. The results uncover new species and genetic diversity within the family *Mullidae* along the Egyptian coastal waters. Three (03) species were renamed and cryptic species complex were also discovered.

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