

P-25

**OCCURRENCE AND DISTRIBUTION OF LARVAL AND JUVENILE SCOMBROPIDS IN THE WATER AROUND THE JAPANESE ARCHIPELAGO**

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Japanese gnomefishes, *Scombrops boops*, *Scombrops gilberti* and *Scombrops* sp. (Teleostei, Scombropidae) are marine fish inhabiting the coastal waters around the Japanese Archipelago. Because *S. boops* and *S. gilberti* inhabits the shallow waters in the sublittoral zone during the juvenile stages, and later migrate to the rocky bottom in the dysphotic zone at a depth of 200 to 700 m, all the scombropid species are thought to show similar life history patterns: however, their life history patterns were actually unknown. Therefore, in this study, we investigate the difference in the occurrence patterns of three scombropid species based on the sequence of the mitochondrial cytochrome *b* gene. Scombropid larvae/juveniles collected from coastal waters around the Japanese Archipelago were subjected to direct sequencing analysis followed by phylogenetic analysis. As the results, *S. boops* were detected as a major species in waters from both sides of the Pacific Ocean and the Sea of Japan. The larvae/juvenile individuals identified as *S. gilberti* were mainly observed at north Pacific waters off Japanese Archipelago, whereas those identified as *Scombrops* sp. were marginally detected in the nearshore Kuroshio Current.

P-26

**PUFFERFISH INGESTS TETRODOTOXIN BY FEEDING ON TOXIC EGG PLATES OF THE FLATWORM *PLANOCERA MULTITENTACULATA***

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Pufferfish of the genus *Takifugu* possess highly concentrated tetrodotoxin (TTX), an extremely potent neurotoxin, to protect their larvae from predators at least. However, the source of the toxin has remained unclear. Recently, the sequence of toxic flatworm *Planocera multitentaculata* was detected from intestinal contents of wild juveniles and young of the pufferfish *Takifugu alboplumbeus* (formerly known as *Takifugu niphobles*), suggesting that the flatworm contributes to the toxification of the pufferfish throughout its life. In this study, we describe that the behavior of the pufferfish in intertidal zone would be one of possible processes for pufferfish toxification before/during their spawning period. The pufferfish ingested flatworm egg plates by scraping them off the surface of rocks. Phylogenetic analysis based on 28S rRNA gene identified the egg plates as those of *P. multitentaculata*. LC-MS/MS analysis revealed that the egg plates contain highly concentrated TTX. The feeding behavior of the pufferfish on the flatworm egg plates was observed in aquarium. These results suggest that the pufferfish utilize the flatworm egg plate as a source of TTX with which to fortify themselves and the next generation.