

REPRODUCTIVE BEHAVIOUR OF JAPANESE TUBESNOUT, *AULICHTHYS JAPONICUS*.

AKAGAWA I., IWAMOTO T. & M. OKIYAMA

Miyazaki University, Miyazaki, Japan

Aulichthys japonicus is known as the only one species that copulates and hides the eggs in the sea squirts in Gasterosteiformes. Courtship and spawning behaviour of *A. japonicus* was observed under natural environment in Otsuchi Bay, Japan and in the aquarium, respectively. The males showed remarkable nuptial colouration (metallic green or blue) on their snout during the spawning season and established the territory on the wall of the harbour. They courted the gravid female approaching to them and tried to lead her to their territories by tail flagging. The females were significantly larger than the males. In the aquarium, the gravid females repeatedly looked into the sea squirts, *Halocynthia roretzi*. The males were swimming around them or watching them still. The female spawned the egg mass above the sea squirt and put them through the exhalent opening by her mouth. The eggs were attached to the atrium. Only for a few minutes after the spawning, all the males tried to copulate the female lying on their back beneath the female. Spawning behaviour and sexual dimorphism in size and colouration is discussed in comparison with other related species; *Aulorhynchus flavidus*, which is the other Aulorhynchid species, *Hypoptychus dybowskii*, having been considered as the most primitive in Gasterosteiformes, and Gasterosteid fishes.

— A NEW SEABREAM (SPARIDAE, DENTICINAE) FROM OFF NEW CALEDONIA.

AKAZAKI M. & B. SÉRET

Akazaki Ichthyological Institute, Miyazaki, Japan

The new species of yellow seabream caught from off New Caledonia differs its congeners from Japan, Okinawa, Europe and Africa, by its head length, eye diameter and suborbital width. The New Caledonian specimens have the typical dorsal fin count of the genus *Dentex*: XIII - 9. This new species of *Dentex* described from New Caledonia may have a larger distribution: indeed, the seabream figured on plate 97 in "Illustrations of edible aquatic fauna of the south seas" (Kumada, 1941) as *Taius tumifrons* may be identical. If so, the "New Caledonian" species should also occurs in Australian waters and possibly in those of Japan as reported by Kumada.

PRELIMINARY EXAMINATION OF GENETIC DIFFERENTIATION OF THE "KINUBARI" GOBY, *PTEROGOBIUS ELAPOIDES*.

AKIHITO, IKEDA Y. & Y. SUZAWA

Imperial Palace, Tokyo, Japan

P. elapoides is distributed from Hokkaido to Kyushu in Japan and is also found in waters around the Korean Peninsula. There are two patterns of body coloration: one has 6 bands on the side of the body (Pacific Ocean), the other has 7 bands (Sea of Japan). This geographic variation has never been studied in detail. Therefore, our objective was to clarify possible genetic differentiation using electrophoresis. We compared two populations, one from Kanagawa Prefecture, Japan (Pacific Ocean), and the other from Ishikawa Prefecture, Japan (Sea of Japan). Genetic variations were determined for 23 allozymic loci relating to 12 enzymes and 1 non-enzymatic protein. Our results demonstrate that these two populations do show genetic variation (Nei's genetic distance, $D=0.022$).

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