

**A NEW RECORD OF *PUNTIUS GEMELLUS* KOTTELAT
FROM MUARA KENDAWANGAN NATURE RESERVE, WEST
KALIMANTAN
(Teleostei : Cyprinidae)**

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Puntius gemellus is an interesting freshwater fish and has a potential to be ornamental fish. The body colour of *P. gemellus* is yellowish brown and usually ornamented by 6 narrow black stripes giving brilliant look in an aquarium.

The colour pattern of young *P. gemellus* is different from that of the adult. At the young stage (the smallest specimen observed 13.5 mm SL) there are 4-5 irregular vertical bars, where in the bigger specimen (17.5 mm SL) this pattern changed into vertical rows of spots. The spots also form three horizontal rows. In a specimen of 21.0 mm SL, the spots are partly fused into four irregular stripes (Kottelat, M. 1996. *Raffles Bull. of Zool.* 44: 301-316). This species was described by Kottelat (Kottelat, M. 1996. *Raffles Bull. of Zool.* 44: 301-316) based on 19 specimens collected from the market in Jambi (Holotype, MZB 5939, 65.0 mm SL & Paratypes : CMK 4751, 59.8 mm SL) and other paratypes from Sungai Landei, Jambi Province (CMK 4710, 36.4 mm SL), Sungai Pijoan, Jambi Province (CMK 11041, 2 ex.; ZRC 38703, 2 ex., 13.5-25.8

mm SL), Sungai Liat, Bangka island (CMK 9561, 6 ex., 26.2-36.8 mm SL; ZRC 30906-30910, 5 ex., 28.3-34.8 mm SL) and from peat swamp forest draining into Sungai Bengkuan, Riau Province (CMK 12202, 40.6 mm SL). The author stated that *P. gemellus* could be present in Central Kalimantan.

A field work was conducted in Muara Kendawangan Nature Reserve, West Kalimantan Province from June to July 2000. The field work succeeded to collect *P. gemellus* from some small streams in the nature reserve area i.e. Simbar river, Pangguk river, Lembawang Manis river, Seriam river and Purun lake. The collection consisted of 45 specimens with the length ranges from 15.91 to 73.1 mm SL. The smallest specimen has 4 irregular vertical bars on its body which appear from posterior operculum to the below dorsal fin and three rows of black spot behind the caudal; a larger specimen however, which is 22.73 mm SL has already shown the adult patterns. All of the small specimens (20 ex., 15.91 mm – 32.73 mm SL) were collected using seine net; the

bigger size (25 ex., 37.38 mm SL – 73.1 mm SL), however were collected by hook and fishing line. All of those specimen are deposited in the MZB collection. Since formerly this species was collected only from Western Sumatra and Bangka, the occurrence of *P. gemellus* in Muara Kendawangan Nature Reserve, West Kalimantan is a new record for Kalimantan.

Modern Malaya Peninsula and Borneo and Sumatra islands during the Pliocene and Pleistocene are known to form contiguous highlands, where several river systems originating here drained the coastal lowlands during the Late Glacial Maximum and the first phase of Late Glacial Flooding. The largest paleoriver system is known as the North Sunda River or Mollengraaff River that flowed north east. The ice began to melt 21.0 thousand years ago and the melting process was divided into four segmentations (Hanebut, T., K. Statterger & P.M. Grootes. 2000. *Science* Vol. 288 : 1033-1035). The Sunda drainage fishes is thought to be mixed and widely distributed in contiguous areas which are now called Malay Peninsula, Sumatra, Western Borneo and Java (Roberts, T. 1993. *The fishes of Western Borneo, Kalimantan Barat, Indonesia*, 1-3, California Academy of Sciences). The faunistic similarity is high among the rivers in the southern slope of the Malay Peninsula, Northern Sumatra and Western Kalimantan (Banurescu, P. 1990. *Zoogeography of Freshwater*. Vol. 2. *Distribution and Dispersal of Freshwater Animals in North America and Eurasia*: 1023-1027. Aula-Verlag Wiesbaden). The occurrence of *P.*

gemellus in Muara Kendawangan Nature Reserve supports that statement.