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Teratology

RECORD OF THREE ABNORMAL FISH SPECIMENS FROM
THE CAUVERY RIVER

DONIESIENIE O TRZECH PRZYPADKACH NIENORMALNYCH RYB
Z RZEKI CAUVERY

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The authors recorded three abnormal specimens of teleost fishes. The specimens of *Labeo boga* (Hamilton) and *Xenentodon cancila* (Hamilton) were with deformed caudal fins, while that of *Channa gachua* (Hamilton) was devoided of left eye. The descriptions of the abnormalities and comments on them are given.

In the course of a survey of the Cauvery River in Tamil Nadu, three abnormal specimens of teleosts were obtained which are recorded here. The three specimens are identified as *Labeo boga* (Hamilton), *Xenentodon cancila* (Hamilton) and *Channa gachua* (Hamilton). Specimen of the last species is blind of its left eye, whereas the other two have deformed caudal fins.

Externally the caudal fins in both the specimens is completely changed compared to the normal formed condition, they show unpaired structures, as if only one lobe of the fin is present, or as if both the lobes have fused. An X-ray photograph of *Labeo boga* shows that the deformity is due to the bent condition of the posterior vertebral column. The total vertebral counts is 34, and the bend starts from the 27th vertebra and is directed upwards. The caudal fin axis has undergone a twist with the results that the urostyle is deformed. The lower lobe of the caudal fin is twisted to 45° above its normal line. All centra of vertebra are normal, so also are the neural haemal spines. As Kapoor and Sarkar (1955) have observed the centrum of the last vertebra is like a nodule.

In the case of *Xenentodon cancila* an X-ray photograph revealed a varied configuration of the vertebral column at the caudal region. The total number of vertebrae is 57. At the

47 vertebra the bend is formed. The caudal part is bend downwards as a result of the deformity and the entire 47th to 56th vertebrae are affected. From the 57th vertebra onwards, the normal angle and shape of the vertebral column is restored. All central, neural and haemal spines are normal. Caudal fin lobes are also unaffected. *Channa gachua* has no eye on the left side, and in the place where the eye should have been, a black spot is present.

Teratological conditions such as pug headedness, loss or absence of fins, or development of supernumerary fins are frequently observed in natural fish populations. Vertebral anomalies are more common in larval and postlarval stages of fishes. The abnormalities are usually considered to originate from mutations, teratogenic effects of adverse environmental factors on developing embryos and young or trauma (Dawson 1967). The malformations recorded here appear to be due to some environmental stress or misadventure in an early developmental stage of the species.

REFERENCES

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- Kapoor B.G., Sarkar H.L., 1955: Notes on four deformed specimens of Indian Carp *Labeo rohita* (Hamilton). Proc. Nat. Hist. Sci. India, 21B: 129–139.

DONIESIENIE O TRZECH PRZYPADKACH NIENORMALNYCH RYB Z RZEKI CAUVERY

Streszczenie

Autorzy znaleźli w rzece Cauvery (Tamil Nadu) trzy okazy ryb ze zniekształconymi płetwami ogonowymi i przyległą partią ogona. Były to ryby z gatunku *Labeo boga* (Hamilton) i *Xenentodon cancella* (Hamilton). Natomiast ryba z gatunku *channa gachua* (Hamilton) nie posiadała lewego oka. W miejscu oka zaznaczała się tylko ciemna plama.

СООБЩЕНИЕ О ТРЁХ СЛУЧАЯХ ВЫЛОВА НЕОБЫЧНЫХ РЫБ В РЕКЕ Cauvery

Р е з ю м е

Авторы обнаружили в реке Cauvery (Tamil Nadu) три экземпляра рыб с деформированными хвостовыми плавниками и прилегающей к ним хвостовой частью тела. Это были рыбы из вида *Labeo boga* (Hamilton) и *Xenentodon cancella* (Hamilton). У рыбы из вида *Channa gachua* (Hamilton) не было левого глаза. На месте глаза виднелось только тёмное пятно.

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Received: 15 September 1974

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