

First catches of the African pike *Hepsetus odoe* (Bloch, 1794) (Pisces : Hepsetidae) in Lake Kariba, Zimbabwe

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ABSTRACT

*A representative of the African pike *Hepsetus odoe* was taken in a seine netting survey in Lake Kariba. Three other specimens were reported from the same basin since then. The discovery widens the geographical range of the species as previously known and adds one more fish species to the checklist of Kariba.*

KEYWORDS : African pike — *Hepsetus* — Hepsetidae — Fish — Kariba — Distribution — Africa.

RÉSUMÉ

PREMIÈRES CAPTURES DU BROCHET AFRICAIN, *HEPSETUS ODOE* (BLOCH, 1794) (PISCES, HEPSETIDAE),
DANS LE LAC KARIBA (ZIMBABWE)

*Un premier exemplaire du brochet africain, *Hepsetus odoe*, a été échantillonné avec une senne lors de pêches expérimentales. Par la suite, il a été recensé trois autres spécimens capturés par des pêcheurs locaux, à l'aide de filets maillants ou de lignes.*

Ces captures contribuent à élargir l'aire de répartition jusqu'alors connue de l'espèce. Elles permettent en outre de compléter l'inventaire de l'ichtyofaune du lac Kariba.

MOTS CLÉS : Brochet africain — *Hepsetus* — Hepsetidae — Poissons — Distribution — Kariba — Afrique.

INTRODUCTION

Lake Kariba's fish fauna is characterized predominantly by inhabitants of the Middle Zambezi River. The Zambezi River stretches over 4000 km starting in Angola and ending in the Indian Ocean. The river is hydrologically divided into three sections, the Upper Zambezi, the Middle Zambezi and the Lower

Zambezi. Created in 1958, Lake Kariba is in the Middle Zambezi section of the river which starts above the Victoria Falls and stretches to the Cahora Bassa rapids which divides the Middle and Lower Zambezi. Although there are overlaps in the faunal distribution among the three sections it was always assumed that the Victoria Falls created a barrier which separated the Upper and Middle Zambezi spe-

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cies. Most of the Upper Zambezi species not previously recorded in the Middle Zambezi are now slowly invading the lake.

Since the formation of Lake Kariba several species, new to the Middle Zambezi system, have been incidentally or intentionally introduced into the lake. Although only 2 species have been intentionally stocked in the lake, *Tilapia macrochir* 1959 to 1962 and *Limnothrissa miodon* in 1967 and 1968, some further 8 species are now known to have invaded the lake (BALON, 1974a). Prior to the closure of the dam, JACKSON (1961) recorded only 28 species in the area now flooded by Kariba, although the whole Middle Zambezi system contained 61 known fish species (JUBB, 1961). At present 49 species have been recorded for Lake Kariba. There are mainly cichlids and cyprinids.

This paper reports the finding of the *Hepsetus odoe* (BLOCH, 1794), in Lake Kariba. In Southern Africa the African pike is geographical documented as a fish of the Cunene, Okavango, Upper Zambezi and Kafue systems (SKELTON, 1993). Although widely spread in West African rivers, it was never recorded for the great lakes or the Zambian system.

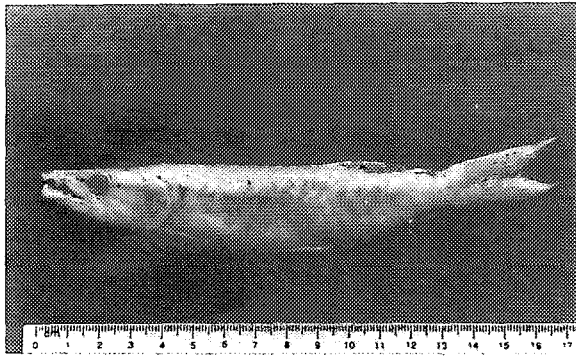


PLATE 1. — *Hepsetus odoe*, African pike.
Hepsetus odoe, le brochet africain.

DESCRIPTION OF SPECIMEN

Plate 1 shows the physical structure of the specimen. The total length is 163 mm and fresh weight of 98 g. The characteristics are those of *Hepsetus odoe*.

LOCALITY

The fish was found in a shallow bay in Basin 1, less than 2 m deep next to the mouth of Mlibizi

River at the western end of Lake Kariba (fig. 1). The area has muddy water and has a variety of vegetation. This fish was the only specimen found during the netting survey in March 1989. Three more specimens were reported to have been caught by fishermen in 1992.

REPOSITORY OF THE SPECIMEN

Lake Kariba Fisheries Research Institute (LKPRI), Kariba, Zimbabwe.

DISCUSSION

From the time of the creation of the lake in 1958 it was envisaged that new species from the catchment area would invade and occupy available niches (JACKSON, 1961). Since then a number of species have appeared and disappeared, as detailed in BALON (1974a), BALON and COCHE (1974), BOWMAKER *et al.* (1978) and KENMUIR (1984).

It is of concern that some of the species which make up the Kariba checklist have been one-off recordings, (see BALON, 1974b). It is also not established whether this is due to scarcity of the species or mis-identification. This is further complicated by lack of sample specimens and by continual changes of species names.

Altogether there are four specimens of the African pike which have been recorded in Kariba. One officially, two by local fishermen in gill-nets and the fourth by an angler. All the fish have been caught in Mlibizi basin where the Zambezi River flows into the Lake.

The pike is the only member of the Hepssetidae family found in Africa (ROBERTS, 1984). The nearest relative is found in South America. The species is easily recognizable because of its uniqueness. This finding calls for a revision of the species list of Kariba whose exact number has always been debatable.

The pike is a top predator and is known to eat prey up to 40 % of its size. The well known top predator in Kariba is the tigerfish *Hydrocynus vittatus* Castelnau, 1861. These two predators are not found together as their habitat and hunting strategies differ (SKELTON, 1993). *Hydrocynus* mainly inhabits large lakes and the middle and lower stretch of large rivers. *Hepsetus* inhabits upper stream of large rivers, small rivers and small dams. In fact *Hepsetus* is found where and when *Hydrocynus* is absent (MERRON *et al.*, 1990). If there is a decrease or disappearance of *Hydrocynus* in the area where the specimens

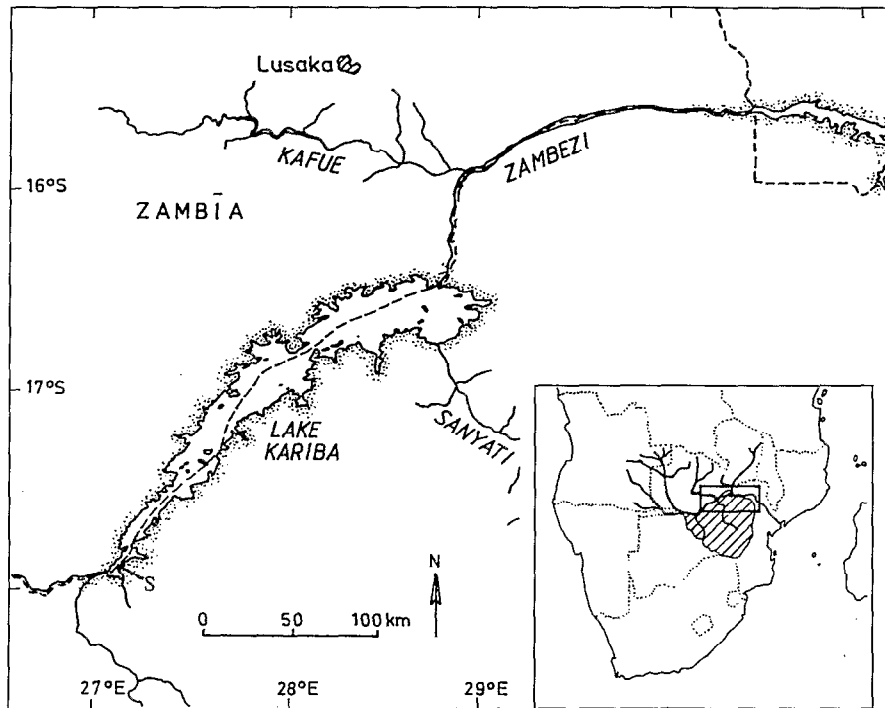


FIG. 1. — Map of Lake Kariba showing the locality (S) where the specimens were found.
 Carte du lac Kariba montrant le lieu (S) où les spécimens ont été découverts.

have been found, it is therefore possible that there is a development of the *Hepsetus* population.

The African pike has been recorded previously in rivers close to Kariba, such as the Kafue River (Zambia), the Gwaai River (Zimbabwe) and the Upper Zambezi. It should therefore not be surprising that it has now been found in Lake Kariba. This does not rule out the fact that these could have been stray specimens or introductions by anglers since it is an excellent angling species. It is still premature to

say whether a viable population could have been established in the lake yet.

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