



ONCHOCERCIASIS CONTROL PROGRAMME IN WEST AFRICA  
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FISH MONITORING (OCTOBER 1989-SEPTEMBER 1990)

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SUMMARY

The fish monitoring in OCP rivers' continued in Ghana in the rivers Oti, Pru and Black Volta during the 1990 reporting period (i.e. October 1989 - September 1990). According to the OCP, the monitoring is aimed at assessing changes in the fishery of the rivers, which may be directly or indirectly attributed to the OCP larviciding activities in the rivers. The monitoring studies included species composition of catches, estimates of Catch per Unit Effort (CPUE) of fishing; Length-Frequency distribution of catches of particular fish species, their 'condition' and aspects of their reproductive efforts.

Observations made during the period indicated the following: Records of species obtained in samples from the rivers compared to corresponding previous data do not suggest the 'disappearance' of any fish species. Records of catches by local fishermen also showed no loss or disappearance of any species even though the population sizes may have decreased. Generally, the CPUE estimates from all the rivers were higher this current year compared to those of the previous year. There were also results suggesting better recruitment in the Oti and the Black Volta this year compared to the previous year. Results from the Pru, however, suggested lower recruitment level this year.

Estimates of CPUEs of the principal fish species from each river were higher during the current year compared to the previous year. Fluctuations in catch during the year were, as in previous years attributed to river hydrological regime. Estimates of the 'condition' of the five fish species which predominantly or particularly fed on insects showed that three of the species (P. bovei; B. macrolepidotus and S. mystus) maintained or showed improvement over estimates for the 1988/89 year.

However, B. nurse and B. leuciscus showed slight declines in 'condition' especially, during the low water period of 1989/90. The apparent decline in the 'condition' of these species could not be attributed to larviciding. This was because larviciding was suspended for several weeks in the Oti during the current reporting period. In the river Pru, all the principal species studied maintained their condition compared to results obtained in the previous year. One species, H. pictus, showed an improvement in its 'K' compared to estimates of the previous year.

The population structures of four species were studied in river Oti. Three of the species (S. mystus, E. niloticus and L. senegalensis) showed that there were wider size ranges of the fishes available for catch in the system during the reporting period compared to the previous year. This suggests better population structures and that no segment of their populations had been adversely affected during the year and predicts better recruitment next year. The fourth was similar to those of the previous year. In the Pru, most of the species studied showed population structures similar to those observed in previous years. S. mystus in the Pru, however, exhibited a wider size range of fishes.

In all the rivers including the Black Volta, the monthly distribution of fish populations reflected seasonal migrations to spawn during the high water periods. The seasonal spawning activity was also reflected in the evolution of gonadosomatic index analysis of the fishes.