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# SELECTIVITY PATTERNS IN THE MULTI-MESH GILLNET FISHERY FOR CICHLID SPECIES IN A SRI LANKAN RESERVOIR

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Gillnet selection for Oreochromis mossambicus and O. niloticus in Kaudulla reservoir, Sri Lanka was estimated using Baranov-Holt method. The selection curves for the both species were asymmetrical and the selection ranges increased with mesh size. A water beating technique to drive fishes towards gillnets has perhaps increased the encountering probabilities resulting asymmetrical selection curves. The overall selection seems to simulate a sigmoid selection ogive over a wide size range of fish. The following relationships between optimal lengths of fish (Y) and mesh size of gillnets (X) for the two cichlid species could be used to regulate the minimum size of capture from the fishery.

O. mossambicus:

$Y = -14.9331 + 3.9163\ X$ ($r = 0.999$; $p < 0.001$)

O. niloticus:

$Y = 3.4855 + 2.2270\ X$ ($r = 0.993$; $p < 0.01$)

Key-words: Gillnet selectivity, Cichlidae, Reservoir, Capture fisheries.