Impact of Sailfin Catfish (Pterygoplichthys spp.) on the Catch Composition in Kala Wewa and Rajanganaya Reservoirs in the North Central Province of Sri Lanka

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Two species of Sailfin Catfishes (previously misidentified as Hypostomus plecostomus), namely Pterygoplichthys disjunctivus and P. pardinis, have been identified in Sri Lanka. The present study was carried out with an objective of investigating the impact of Pterygoplichthys spp. on the fish catch composition in Kala Wewa and Rajanganaya reservoirs in the North Central Province of Sri Lanka. The study was conducted from November 2013 to April 2014 at the Gal Potta Thatupa (N 07° 59.627′, E 80° 32.316) and Kuda Gama Thatupa (N 08° 08.011′, E 80° 15.446′) fish landing sites in Kala Wewa and Rajanganaya reservoirs, respectively. Fishermen who used nylon gill nets of 8.4 cm mesh size (20 m length and 1.5 m height) were selected to collect the fish catch data. The net soaking time in both reservoirs varied from 12-15 hrs. The number of nets set by a fisherman varied from 8-20. Fish catch in the Kala Wewa reservoir consisted of Oreochromis mossambicus, O. niloticus, Tor khudree, Catla catla, Cyprinus carpio, Chirinus mrigala, Labeo dussumieri and Pterygoplichthys spp. and the fish catch in the Rajanganaya reservoir consisted of O. mossambicus, O. niloticus, L. dussumieri and Pterygoplichthys spp. The marketable fish catch in Kala Wewa varied between 1.3-2.4 kg/net while the Sailfin Catfish catch varied between 3.3-7.3 kg/net, with a ratio between catch of marketable fish to Sailfin Catfish of 1:3. The marketable fish catch in the Rajanganaya reservoir varied between 0.9-2.6 kg/net while the Sailfin Catfish catch varied between 0.04-0.4 kg/net, with a ratio between marketable fish catch to Sailfin Catfish catch of 1:0.1. The marketable fish catch between two reservoirs were not significantly different (t=0.25, p=0.80) while the Sailfin Catfish catch between the reservoirs were significantly different (t=13.02, p=0.0) with lower Sailfin Catfish catch in the Rajanganaya reservoir. Sailfin Catfishes caught in the nets in both reservoirs are presently thrown back to the reservoir as this fish has no market demand. Thus, fishing mortality does not play a significant role in reducing the number of Sailfin Catfishes in the reservoirs. There is a need identify economic uses of this fish as this species reduces the catch efficiency of gillnets in reservoir fisheries.

Keywords: Sailfin catfish, Pterygoplichthys, reservoir fisheries