Preparation of fishmeal as a possible method to eradicate *Pterygoplichthys species* (Amazon Sail Fin Catfish and Vermiculated Sail Fin Catfish) from Sri Lankan Reservoirs

R. Weerasingha,N. B. P. Punyadewa, V. Pahalawaththarachchi,and H.M.P. Kithsiri

National Aquatic Resources Research and Development Agency, Crow Island, Mattakkuliya

A sustainable method to eradicate the Tank Cleaner (TC) species *Pterygoplichthys pardalis*(Amazon Sail Fin Catfish)and *P. disjunctivus*(Vermiculated Sail Fin Catfish)from Sri Lankan reservoirs was investigated in this study. In the present study we aimed to determine the best selective fishing gear to exploit these species with minimum harm to other fish species and to prepare a fish meal using the harvested fish. Kalawewa and Hurulu Wewa were identified as target reservoirs. One landing site from each reservoir was selected, and the following fishing gear were tested: 1) a 200 m long 3.5 inch meshed drag net, 2) four small traps, 3) a 4.5 in. meshed bottom set net of 13 x13 ft., and 4) a 1500 in. long 3.5 in. meshed gill net with a few 2 x 3 in. floaters to increase its sinking ability so that it would touch the bottom. Areas where these fish are highly aggregated were selected and the nets and devices tested in them. The submerged gill net showed the best performance with a catch ratio of 5:1 (TC : other food fishes) during the afternoon and 9:1 (TC : other fishes) during night time. *P. pardalis* was predominant in the catches, accounting for 90%, while *P. disjunctivus* accounted for 10%, in Kalawewa. Furthermore, fishermen's TC catch at each landing site averages 50 kg during the onset of rainy season and exceeds 100 kg in the dry period. One GI framed plastic net cage was provided to each landing site in Kalawewa to collect the daily catch. After 4 - 5 days the entire collection (average weight 300 kg) was transported to a fish meal plant in Colombo. The recovery percentage of fishmeal was 16%. The proximate composition of fishmeal was 49% protein, 25.3% ash, 7.7% lipid and 11.7% moisture. Observation revealed that the main limiting factor in the supply chain was the reluctance of a few fishermen to stock tank cleaners in the cages provided without adequate compensation. Therefore motivation is needed. Although it may be impossible to totally eradicate sailfin catfishes from inland water bodies, it may be possible to control the population by the proposed interventions, which could be applicable to other affected inland water bodies.

Key words:*Pterygoplichthys species*, *P. pardalis, P. disjunctivus* , fishing gear, fishmeal production.