

Stick Held Drag Net for Shore Line Fishes of Reservoirs

Proliferation of shore line fishes in the reservoirs adversely affect the growth of commercially important fishes. Natarajan (1976), David *et al.* (1969) and George (1971) recommended the use of stick held drag nets for capturing shore line fishes. Varghese *et al.* (1981) reported that these fishes constituted 25.4% of the total catch in Hirakud reservoir. Of the several methods tried to harvest the shore line fishes, stick held drag net was found most suitable.

The stick held drag net experimented was 20 m long and 1.75 m broad throughout with a uniform mesh size of 7 mm (bar). Bamboo sticks, 65 cm length are fixed at an

interval of 60 cm to both head and foot ropes. 266 observations were made from April, 1977 to February, 1980.

The net was operated by two persons. One end was held on the shore by one man and the other end was payed out in a semi-circular fashion by the other man. The net was hauled from both the ends. During the course of hauling the fishes were scared from both the ends by splashing water and



Fig. 1. Hauling the net



Fig. 2. The net lifted up with the catch

the net was dragged close to the bottom. Finally, it was hauled by holding the sticks in quick succession, lifted up and the catch removed (Figs. 1 & 2).

Table 1. Total number of fishes and their percentage

	Number	Percentage
<i>Gudusia chapra</i> (Hamilton)	11898	64.07
<i>Rohtee cotio</i> (Day)	1370	7.39
<i>Puntius sp.</i>	726	3.89
<i>Chela bacaila</i> (Day)	179	0.96
<i>Chela chela</i> (Day)	800	4.36
<i>Xenentodon cancila</i> (Hamilton)	185	0.99
<i>Ailia coila</i> (Hamilton)	49	0.26
<i>Cirrhinus reba</i> (Hamilton)	213	1.14
<i>Ambassis nama</i> (Hamilton)	1959	10.56
<i>Ambassis ranga</i> (Hamilton)	896	4.82
<i>Rhinomugil corsula</i> (Hamilton)	116	0.62
<i>Channa sp.</i>	127	0.68
<i>Mystus tingra</i> (Hamilton)	16	0.08
<i>Callichorus pabda</i> (Day)	34	0.18

Table 2. *Percentage intensity of dominant species during different seasons*

	Pre-monsoon		Monsoon		Post-monsoon	
	No.	Percentage	No.	Percentage	No.	Percentage
<i>Gudusia chapra</i> (Hamilton)	4380	36.84	1671	14.04	5847	49.12
<i>Ambassis nama</i> (Hamilton)	417	21(27	213	10.89	1329	67.84
<i>Ambassis ranga</i> (Hamilton)	207	23.10	193	21.54	496	55.36
<i>Rohtee cotio</i> (Day)	179	13.07	1000	72.99	191	13.94
<i>Chela chela</i> (Day)	107	13.37	17	2.13	676	84.50
<i>Puntius sp.</i>	266	36.65	142	19.54	318	43.81

The percentage of fishes and seasonal abundance of dominant species are given in Tables 1 & 2. It is evident from Table 2 that *Gudusia chapra*, *Ambassis nama*, *Ambassis ranga* and *Puntius spp.* were maximum during post monsoon followed by premonsoon, whereas *Chela chela* was more abundant during post monsoon. This is consistent with the observations of Natarajan (1976). *R. cotio* was caught in large numbers during monsoon months.

The above observation indicates that stick held drag net can be effectively utilised for the removal of these fishes during their shore-ward movement in the respective period.

The authors are thankful to Dr. C.C. Panduranga Rao, Director, Central Institute of Fisheries Technology for according permission to publish this account. Thanks are also due to the late Director, Shri G. K. Kuriyan for the interest shown in the investigation.

References

- David, A., Ray, P., Govind, B. V., Rajagopal K. V. & Banerjee, R. K. (1969) *Bull. Cent. Inland Fish. Res. Inst.* **13**, 188
- George, V. C. (1971) *Spl. Bull. Cent. Inst. Fish. Technol.* **1**, 68
- Natarajan, A. V. (1976) *Indo-Pacif. Fish. Coun. Symp.* 26 June
- Varghese, M. D., Kesavan Nair, A. K., George, V. C. & Khan, A. A. (1981) *Fish. Technol.* **18**, 17

Burla Research Centre of Central
Institute of Fisheries Technology,
Burla - 768017

V. C. GEORGE
A. A. KHAN
&
M. D. VARGHESE