# A Study on the Fish Fauna of Coorg District, Karnataka

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35 species of fishes were collected from 57 localities spread in various taluks of Coorg district of Karnataka State. Four species of fishes which are rare and restricted to this region are recorded after a lapse of several years. A number of species of Puntius, namely, P. arulius arulius, P. arulius tamraparniei, P. pulchellus, P. micropogon, P. conchonius, P. vittatus, P. parrah, P. sarana, P. sophore, P. chola, P. denisonii were observed. Cold water species namely, Barilius bakerii, Barilius vagra vagra, Barilius gatensis, Barilius canarensis are recorded. Maximum number of species (13) were met in Ramthirtha stream at Poochkal.

Coorg district in the mountainous and densely forested belt of Karnataka state is distinctive with an average rainfall of 500 to 550 cm per year. The area is covered with evergreen and semievergreen forests with patches of moist deciduous forests and planations. This region feeds the main river Cauvery. In spite of the richness of its varied fauna no attempt has so far been made to explore them. With this aim faunal studies of fishes in Coorg district (600 m above MSL) were taken up. Very few references are available on the fish fauna of this district (Hora, 1937; 1942; Silas, 1951; Jayaram et al., 1982).

## Materials and Methods

By operating a castnet, fishes were collected during 1985 from 57 localities spread over various taluks in Coorg district covering all types of freshwater bodies. Besides the four large rivers namely, Cauvery, Kannige, Harangi and Hemavathy there are 21 smaller streams. In addition there are numerous perennial and seasonal tanks and ponds all over the district namely, Kadaguthal V.P. tank, Valnur tank, Dalavaikere, Hosaguthikere, Sanivarsanthe pond, Istlbidahalli pond, Hanse pond, Intikere, Honsukeihosali Odramadu tank, Moorkal pond, Mayamudikere, Hannamenakere and Perumbadikere. The only major reservoir is Harangi reservoir. The collected fish were separated specieswise and their numbers taken.

### Results and Discussion

Fish species recorded along with number of examples in different habitats are given in Table 1.

Among the fish species collected following cold water species, namely, Barilius bakeri, B. vagra vagra, B. gatensis, B. canarensis were also present. From river Cauvery at Bhagamandla (756 m MSL) maximum number of B. gatensis and B. vagra vagra were recorded. Incidentally, one specimen of Aplocheilus lineatus was also met with. This species is restricted to Coorg, Wynad and Nilagiri areas in distribution. Only one example of B. canarensis restricted to Karnataka state was recorded from Harangi reservoir. Esomus barbatus was also found in very few numbers from Valnur tank. Another species Osteocheilus (Osteochilichthy) nashii reported from Barapole is one restricted to Coorg and Wynad area (Hora, 1942). Noemacheilus denisonii restricted to Coorg and Nilgiris is represented by one example. The incidence of Batasio travancoria frpm Swollakollipole is worth mention-

The other fishes which were dominant in the collections are Salmostoma boopsis, Danio aequipinnatus and Garra mullya. Jayaram et al. (1982) indicated the doubtful occurrence of Salmostoma boopsis in Karnataka, however in the present studies 183 examples were recorded from 14 localities in Coorg district.

Table 1. Fish species and number of example in different habitats

Family: Notopteridae	Species	Pond	Number Tank	of example Reservoir	
Family: Cyprinidae  Salmostoma boopsis (Day)  Esonus barbatus (Jerdon)  Rasbora daniconius (Hamilton)  B. gatensis (Valenciennes)  B. vagra vagra (Hamilton)  B. gatensis (Valenciennes)  B. canarensis (Jerdon)					22,72
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Esomus barbatus (Jerdon)	Family: Cyprinidae				
Rashora daniconius (Hamilton)         14         32         1         25           Barilius bakeri (Day)         —         —         —         5           B. vagra vagra (Hamilton)         —         —         90           B. gatensis (Valenciennes)         —         —         17           B. canarensis (Jerdon)         —         —         1           Puntius conchonius (Hamilton)         —         12         —         37           P arulius atulius (Jerdon)         —         —         —         17           P. arulius tamraparniei (Silas)         —         —         —         —         —           P. parlius tamraparniei (Silas)         —         —         —         —         —         —         —         —         —	Salmostoma boopsis (Day)		41	79	63
Barilius bakeri (Day)	Esomus barbatus (Jerdon)		3		
Barilius bakeri (Day)		14	32	1	25
B. gatensis (Valenciennes)       —       2       173         B. canarensis (Jerdon)       —       —       1       —         Puntius conchonius (Hamilton)       —       —       1       —         P. arulius taunraparniei (Silas)       —       —       17       P. ramphibius (Valenciennes)       —       —       17       P. ramphibius (Valenciennes)       —       —       17       P. p. arulius taunraparniei (Silas)       —       —       —       17       P. p. arulius taunraparniei (Silas)       —       —       17       P. p. arulius taunraparniei (Silas)       —       —       17       P. p. arulius taunraparniei (Silas)       —       —       14       P. p. pulcraparniei (Day)       —       —       —       1       —       1       — <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
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P. amphibius (Valenciennes)       —       12       —       44         P. vittatus (Day)       —       —       —       1         P. parrah (Day)       —       2       —       —         P. sarana sarana (Hamilton)       —       1       —       14         P. sophore (Hamilton)       —       1       —       14         P. chola (Hamilton)       5       1       —       —       —       —         P. pulchellus (Day)       —       —       —       1       —					1
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Notopterus notopterus and Cirrhinus reba which usually occur in plains were also found at higher altitudes.

The following species belonging to Puntius viz., Puntius arulius arulius, P. arulius

tamraparniei, P. conchonius, P. parrah, P. sophore, P. pulchellus, P. micropogon and P. denisonii were observed in the collections. Only P. arulius arulius, P. pulchellus and P. micropogon have been recorded earlier (Hora, 1937, 1942 and Rajan 1955). P. conchonius

is present in more numbers in the mountainous zone as observed by Jayaram et al. (1982).

Among the different localities maximum number of species (13) were recorded from Ramthirtha at Poochkkal where both the high altitude as well as plain forms were observed. Regarding the habitats surveyed, maximum number of species (29) were obtained from streams and rivers. Among the other lenitic waters, tanks have more species (11) than reservoirs (4) and ponds (3).

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#### References

- Hora, S. L. (1937) Rec. Indian Mus. 39, 5
- Hora, S. L. (1942) Rec. Indian Mus. 44, 193
- Jayaram, K. C., Venkateswarlu, T. & Raghunathan M. B. (1982) Rec. Zool Sur. India. Occ. Paper 36, 115
- Rajan, S. (1955) J. Bombay nat. Hist. Soc. 53, 44
- Silas, E. G. (1951) J. Zool. Soc. India. 3,10