

TITLE: ASSESSMENT OF ICHTHYOFAUNAL BIODIVERSITY OF DOYANG RIVER OF NORTH EASTERN HIMALAYAN REGION (NAGALAND) (HJRF001).

Objective wise detailed outcome and results:

Outcome for objective 1:

- 5 sampling sites were selected to study fish faunal diversity, habitat ecology of the River.

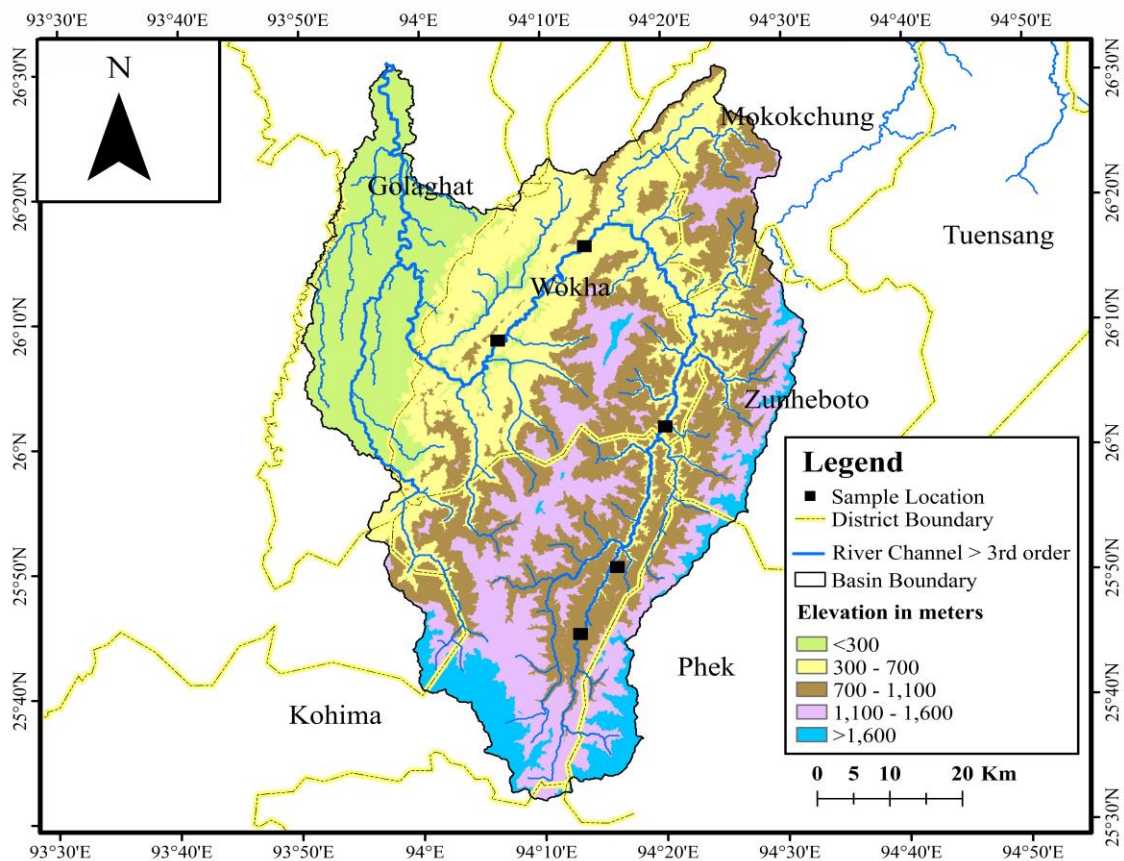


Fig. Map of the Study Area.

Detailed characterization of each of the sampling site is below:

Survey site	Name of the site	Elevation (Metre above MSL)	River	Details
1	Mithelephe Kohima	867.63	Doyang	River is narrow, with less water current with rocky substratum
2	Kohima-meluri road	754	Doyang	Water current is less with rocky substratum. A stone crusher machine is located nearby river side.
3	Chakabhama Nagaland	706	Doyang	The river is broadened up with rocky pebbles as substratum with periphyton as substratum
4	Longidang, Wokha	287.57	Doyang	River is much wider with high water current large rocky and sandy substratum.
5	Mukhami, Nagaland	263.53	Doyang	River is much wider with high water current large rocky and sandy substratum. Sand and boulder mining is observed.

Trend of Environment Health status of the river from July, 2019 to December, 2019:

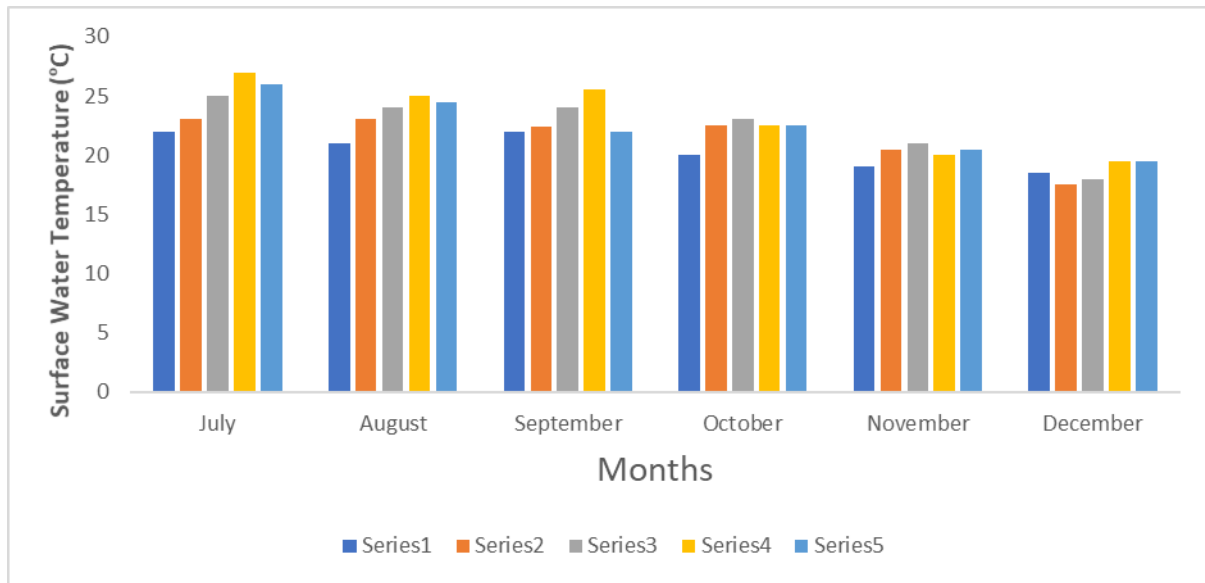


Fig: Monthly Variation of Surface Water Temperature of River Doyang from July, 2019 to December, 2019

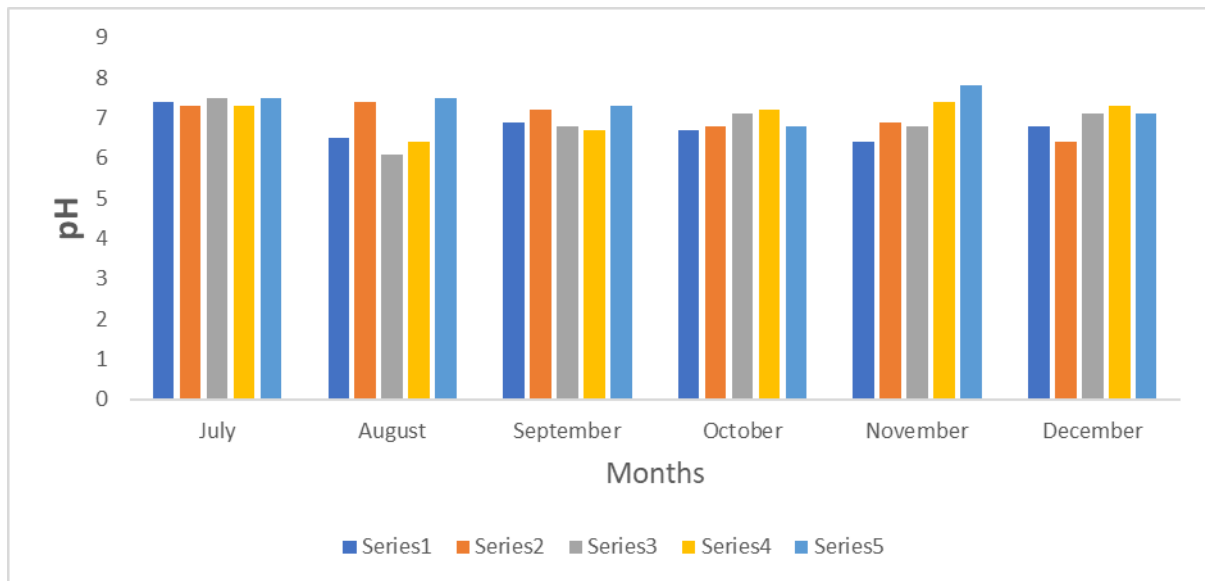


Fig: Monthly Variation of Water pH of River Doyang from July, 2019 to December, 2019

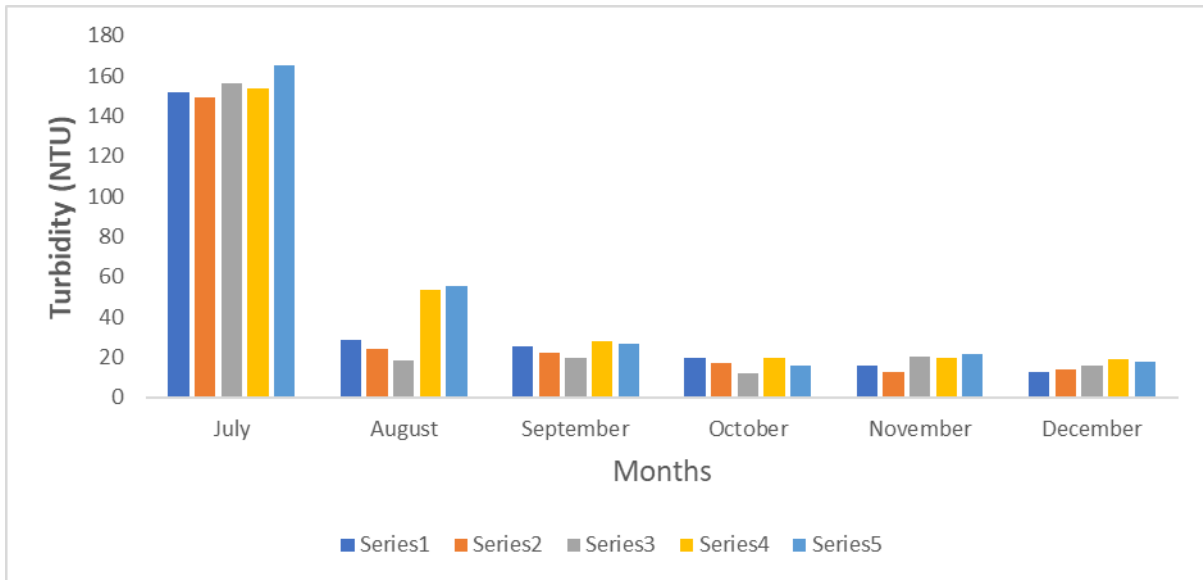


Fig: Monthly Variation of Water Turbidity of river Doyang from July, 2019 to December, 2019

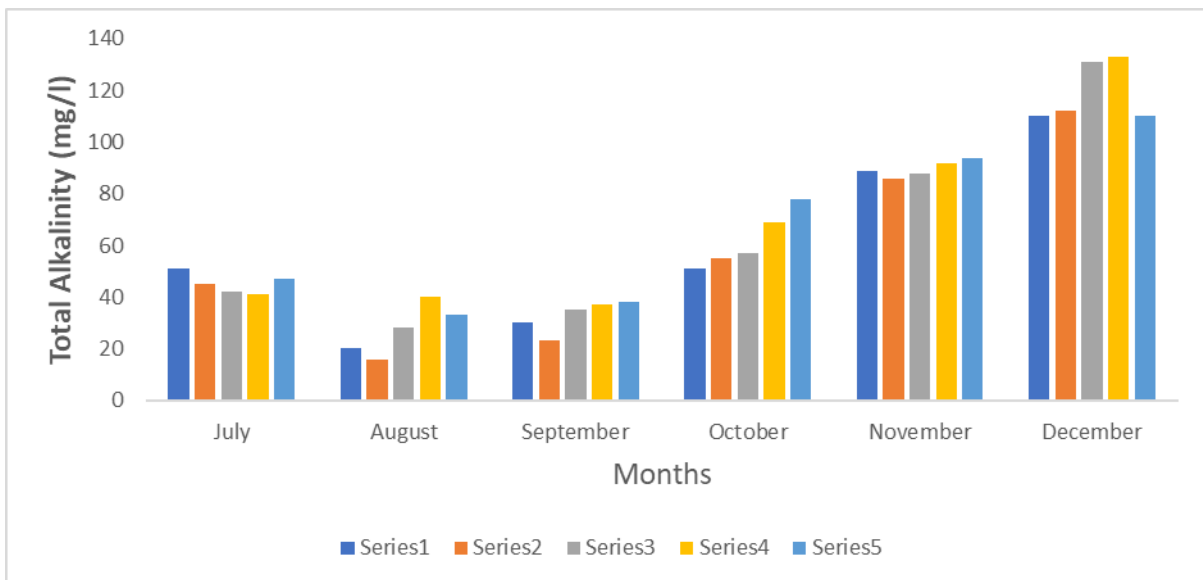


Fig: Monthly Variation of Total Alkalinity of River Doyang from July, 2019 to December, 2019

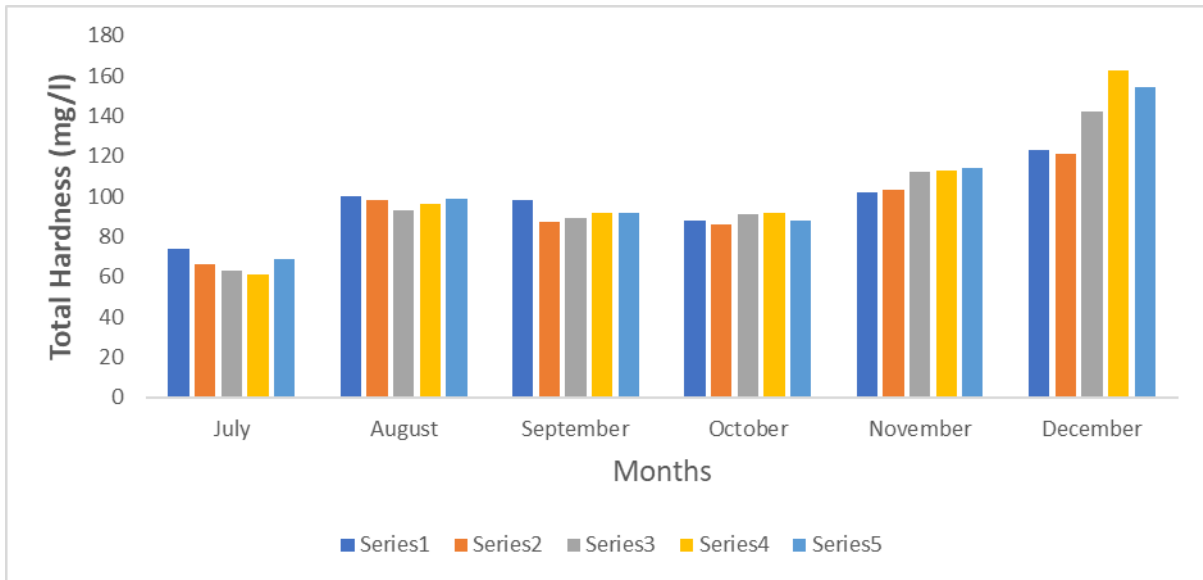


Fig: Monthly Variation of Total Hardness of River Doyang from July, 2019 to December, 2019

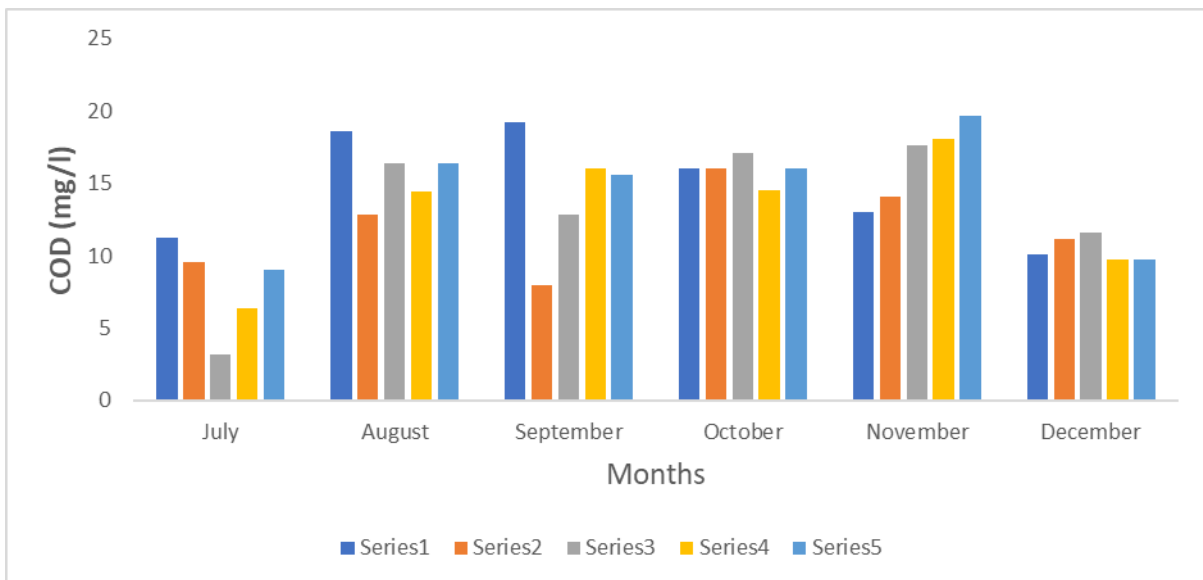


Fig: Monthly Variation of Chemical Oxygen Demand of River Doyang from July, 2019 to December, 2019

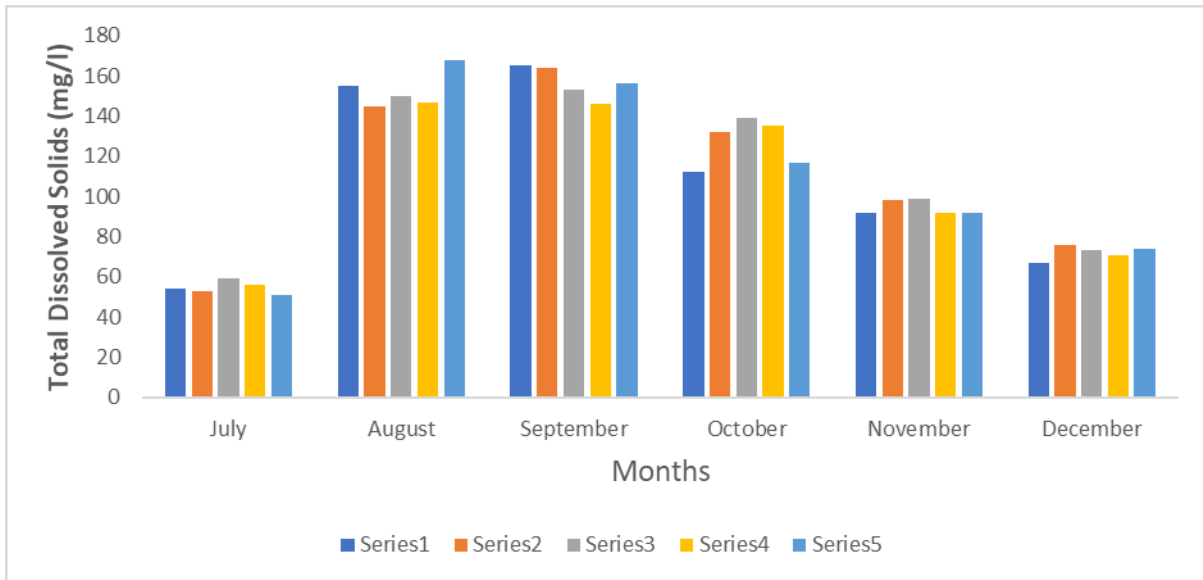


Fig: Monthly Variation of Total Dissolved Solids of River Doyang from July, 2019 to December, 2019

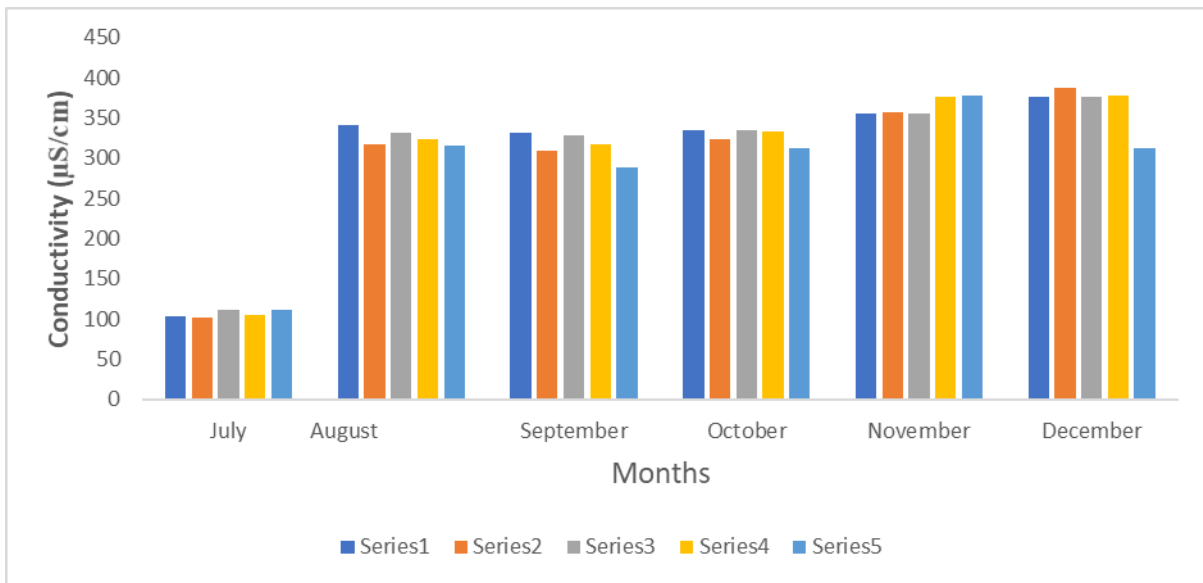








Fig: Monthly Variation of Electrical Conductivity of River Doyang from July, 2019 to December, 2019

Details of fish species selected from the river.

SI. No	Family	Species	NCBI Accession No.
1.	Cyprinidae	<i>Schizothorax labiatus</i>	<i>On process</i>
2.		<i>Schizothorax</i> spp	<i>On process</i>
3.		<i>Schizothorax</i> spp	<i>On process</i>
4.		<i>Barilius barna</i>	<i>On process</i>
5.		<i>Barilius bandelisis</i>	<i>On process</i>
6.		<i>Devario aequipinnatus</i>	MN830286
7.		<i>Garra annandeli</i>	<i>On process</i>
8.		<i>Danio dangila</i>	<i>On process</i>
9.		<i>Garra lissorhynchus</i>	<i>On process</i>
10.		<i>Garra naganensis</i>	MN830289
11.		<i>Labeo calbasu</i>	<i>On process</i>
12.		<i>Tor putitora</i>	MN563577
13.		<i>Garra gotyla.</i>	<i>On process</i>
14.		<i>Puntius ticto</i>	<i>On process</i>
15.		<i>Garra</i> spp	<i>On process</i>
16.		<i>Crossochilus latius</i>	MN830285
17.		<i>Puntius conchonicus</i>	MN830291
18.	<u>Badidae</u>	<i>Badis assamensis.</i>	MN830288
19.	<u>Mastacembelidae</u>	<i>Mastacembalus armatus</i>	<i>On process</i>
20.	<u>Channidae</u>	<i>Channa aurantimaculatus</i>	MN830290
21.		<i>Channa striatus</i>	<i>On process</i>
22.	<u>Bagaridae</u>	<i>Olyra</i> spp	<i>On process</i>
23.	<u>Nemacheilidae</u>	<i>Schistura fasciata</i>	<i>On process</i>
24.		<i>Schistura maculosa</i>	<i>On process</i>
25.		<i>Schistura Khugae</i>	<i>On process</i>
26.	<u>Sisoridae</u>	<i>Glythothorax cavia</i>	<i>On process</i>
27.		<i>Glyptothorax trilineatus</i>	<i>On process</i>
28.		<i>Glyptothorax striatus</i>	MN830287
29.		<i>Glyptothorax burmanensis</i>	<i>On process</i>

Some Fish specimen collected.

 A lateral view of a fish specimen with a yellowish-brown body and a white belly. A ruler is placed below the fish for scale, showing a 30cm mark.	 A lateral view of a fish specimen with a dark, mottled pattern on its body. A ruler is placed below the fish for scale.
<p><i>Schizothorax labiatus</i></p>	<p><i>Barilius barna</i></p>
 A lateral view of a fish specimen with a light-colored body and a dark tail. A ruler is placed below the fish for scale.	 A lateral view of a fish specimen with a yellowish body and a dark tail. A ruler is placed below the fish for scale.
<p><i>Tor putitora</i></p>	<p><i>Puntius conchonicus</i></p>
 A lateral view of a fish specimen with a dark, mottled pattern on its body. A ruler is placed below the fish for scale.	 A lateral view of a fish specimen with a yellowish body and a dark tail. A ruler is placed below the fish for scale.
<p><i>Badis assamensis</i></p>	<p><i>Schistura fasciata</i></p>



Garra lissorhynchus



Danio dangila



Barilius bandelisis



Glyphothorax striatus



Devario aequipinnatus



Garra annandalei

Photographs:



Photograph of Station 1



Photograph of station 2



Photograph of station 3



Photograph of station 4



Photograph of station 5.



1	NAME OF WORK	CONSTRUCTION OF ROCKFILL DAM WITH IMPERVIOUS CORE ON RIVER DOYANG
2	NAME OF CLIENT	M/S NORTH EASTERN ELECTRIC POWER CORPORATION (GOVT. OF INDIA UNDERTAKING) HEAD OFFICE: SHILLONG
3	NAME OF CONTRACTING AGENCY	M/S BHAGHEERATHA ENGINEERING LTD. COCHIN (KERALA)
4	DURATION	54 MONTHS
5	LENGTH OF DAM	525 M
6	BASE WIDTH OF DAM	445 M
7	TOP WIDTH OF DAM	10 M
8	HEIGHT OF DAM	92 M
9	TOP ELEVATION OF DAM	338 M
10	FULL RESERVOIR LEVEL	333 M
11	MAXIMUM WATER LEVEL	336 M

Field survey in Doyang Reservoir



Fish specimen collected.