

Diversity and abundance of dragonfly and damselflies fly in the region of Amaravati river and Tapi river near Dondaicha town (M.S.), India

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Abstract: In this study, two different area were studied to compare the diversity of odonata. In study area 'A' the record showed 23 species, 17 genera and 5 families. In study area 'B', 13 odonata species belonging to 10 genera and 4 families were recorded. The most abundant and commonly occurring species were *Aethriamanta revipennis*, *Brachythemis contaminate*, *Crocothemis servilia*, *Orthetrum chrysis*, *Pantala flavescens*, *Trithemis festiva*, *Agriocnemis pygmaea*, *Ischnura aurora* and *Pseudagrion rubriceps*.

Key words: Odonata, Dondaicha town, Amravati river, Tapi river

Introduction :

The order Odonata includes dragonflies belongs to suborder Anisoptera and damselflies belongs to suborder Zygoptera. There are 6000 species are present all over the world and India contributes more than 500 known species⁽²⁾⁽³⁾.

Odonata are aquatic or semi-aquatic insects. In the early stages of their life-cycle they inhabit aquatic habitat and act as dominant predators. At the same larval stage they also serve as food for fishes, birds etc. In adult stages, they inhabits terrestrial habitat and often seen near the bodies of water. Adult odonates feed on mosquitos, blackflies and other blood-sucking flies and act as an biocontrol agent of these harmful insects².

Odonata acts as good indicators of environment health and water quality⁽⁴⁾. The pond with good water quality shows highest number of odonata species⁽⁷⁾.

Methods and Material:

The present study has been carried out for the period of two years July 2016- June 2017 and July 2017- July 2018. During this time , observations are made on two days of every week in morning and evening hours. The pictures are taken by digital camera Sony..... .

Identification was carried out by the literature of K.A. Subramanian (2005, 2008)

The present study is carried out in two different area separately by two observers and finally comparative study has been carried out.

Study area:

- (A)Amaravati River
- (B)Tapi River

(A) Amaravati river region which is 0.5 km from Dondaicha town is studied (21.316420, 74.556137)

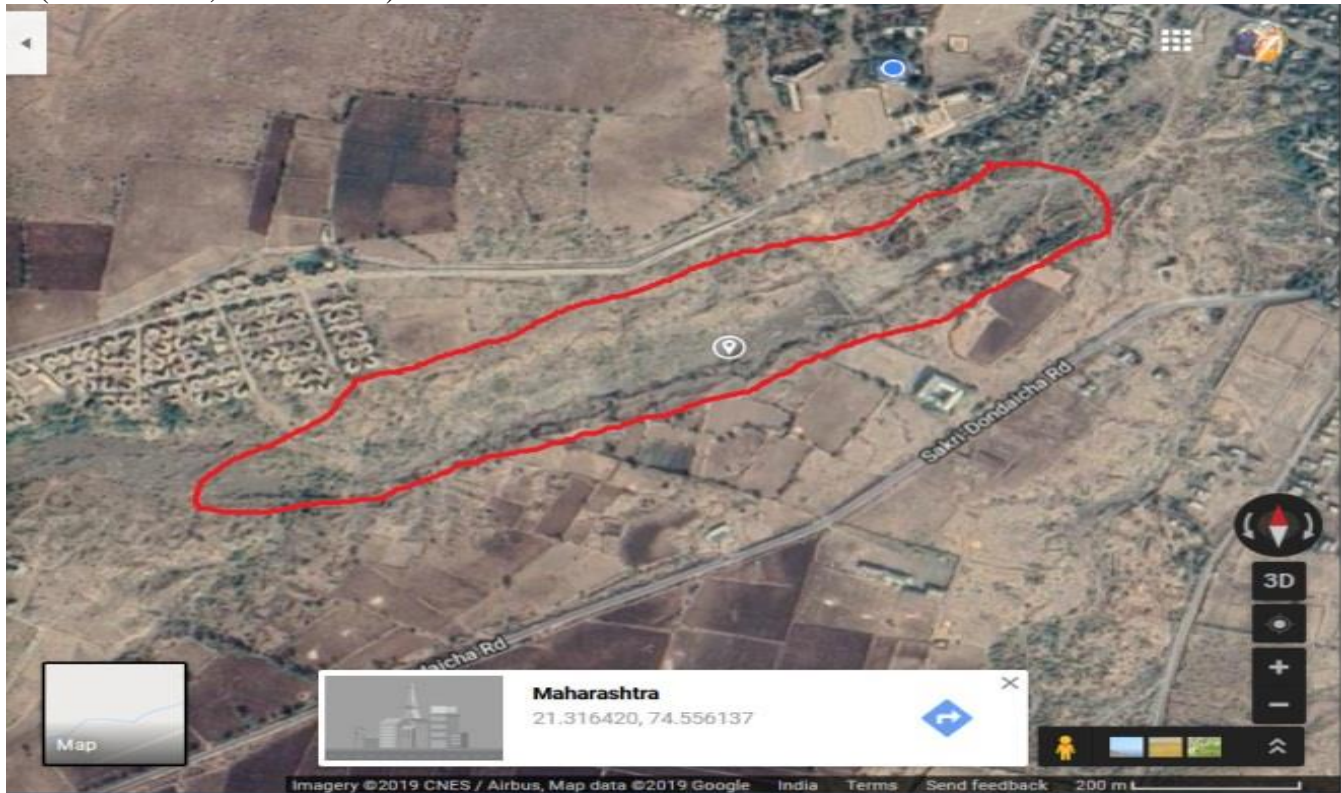


Fig. 1: Amaravati river

(B) Tapi river region which is 10 km far from study area A (21.399112,74.591704)

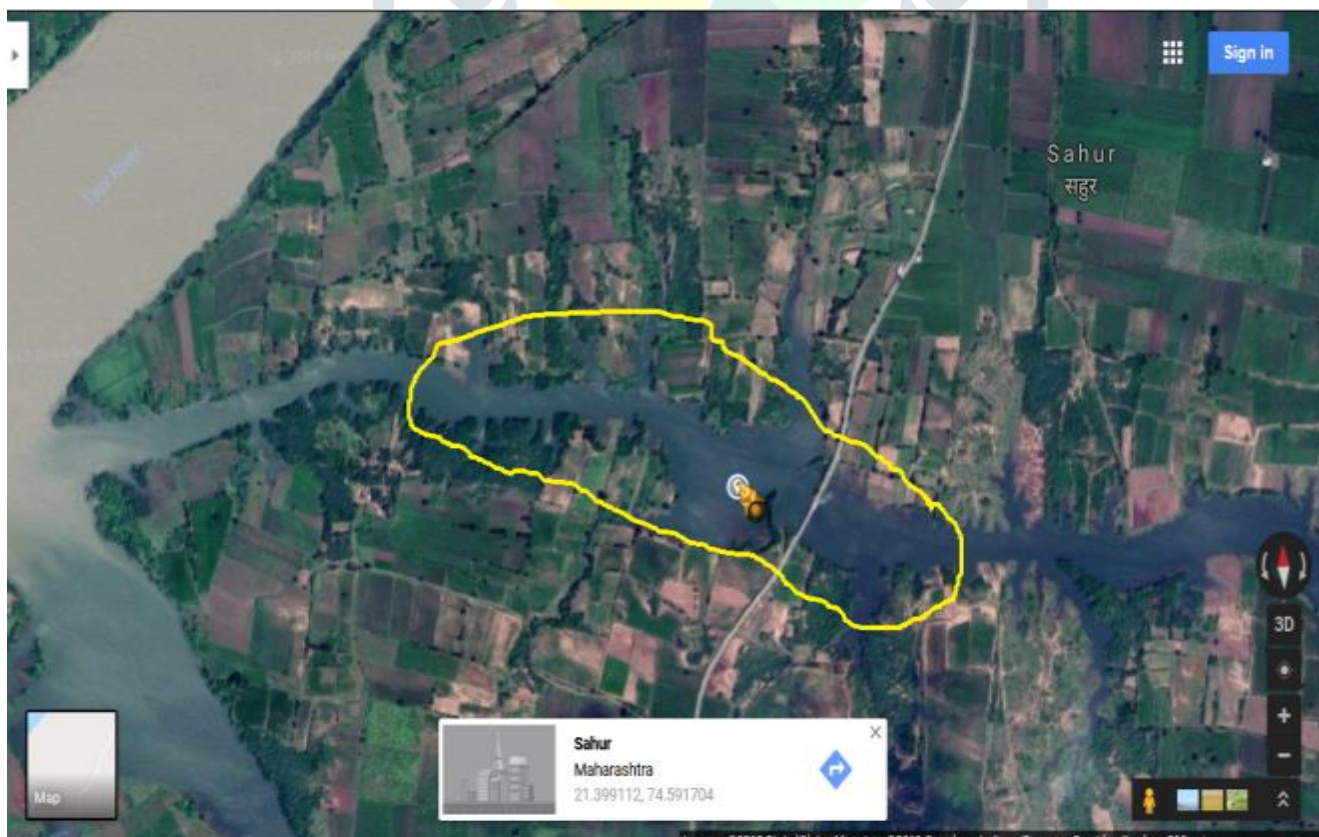


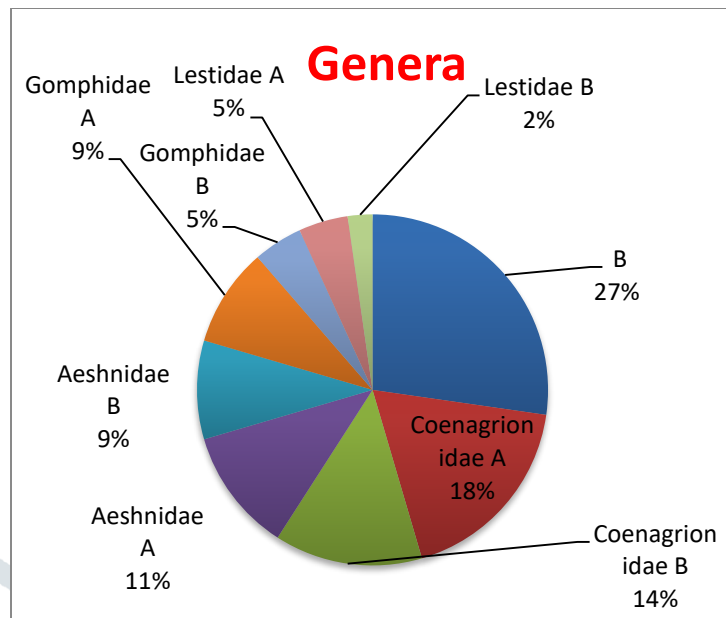
Fig. 2: Tapi river

Result and Discussion:

1. Study area (A) Amaravati river :

This area shows much number of vegetation from the month of July to March. During this period abundant odonates are found which includes 30 species, 24 genera and 5 families were recorded.

Among them family Libellulidae is the largest which includes 12 genera and 14 species followed by Coenagrionidae including 6 genera and 9 species followed by Aeshnidae includes 4 genera and 5 species followed by Gomphidae includes 2 genera and 2 species and Lestidae include 1 genera and 1 species each [Table. 1].



2. Study area (B) Tapi river :

The study area B is 10 km far from Dondaicha city (21.399112, 74.591704). Much number of vegetation is present on the bank of river. This area shows great amount of vegetation throughout the year. During the time of two years it shows abundant number of odonates belongs to 4 families, 10 genera and 13 species.

Among them family Libellulidae include largest number of individuals belongs to 6 genera and 7 species followed by family Coenagrionidae include 4 genera and 4 species then family Gomphidae and Aeshnidae including 1 genera and 1 species each.

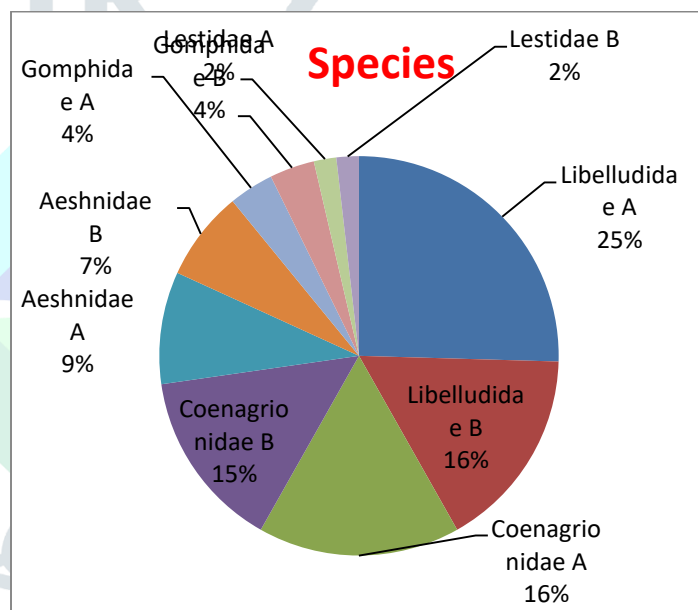


Table : 1

Sr. No.	Common Name	Family/Scientific names	Study Areas	
			Area A	Area B
		<u>Anisoptera</u>		
		<u>FAMILY: GOMPHIDAE</u>		
(I)				
1.	Common clubtail	<i>Ictinogomphus rapax</i>	+	+
2.	Common oartail	<i>Paragomphus lineatus</i>	+	+
(II)		<u>Family: AESHNIDAE</u>		
1.	Ochre-tailed Brown Darner	<i>Hemianax ephippiger</i>	+	+
2.	Blue tailed Green Darner	<i>Anax guttatus</i>	+	+
3.	Blue Darner	<i>Anax immaculifrons</i>	+	-
4.	Common Torrent Hawk	<i>Epophthalmia vittata</i>	+	+
5.	Rusty Darner	<i>Anaciaeschna jaspidea</i>	+	+
(III)		<u>FAMILY: LIBELLULIDAE</u>		
1.	Trumpet tail	<i>Acisoma panorpoides</i>	+	+
2.	Scarlet Marsh Hawk	<i>Aethriamanta brevipennis</i>	+	-
3.	Ditch Jewel	<i>Brachythemis contaminata</i>	+	+
4.	Granite Ghost	<i>Bradinopyga geminata</i>	+	+
5.	Ruddy Marsh Skimmer	<i>Crocothemis servilia</i>	+	+
6.	Ground Skimmer	<i>Diplocodes trivialis</i>	+	+
7.	Brown-backed Red Marsh Hawk	<i>Orthetrum chrysis</i>	+	+
8.	Blue Marsh Hawk	<i>Orthetrum glaucaum</i>	+	-
9.	Crimson-tailed Marsh Hawk	<i>Orthetrum pruinosum</i>	+	+
	Green Marsh Hawk			

10.	Wandering Glider	<i>Orthetrum sabina</i>	+	+
11.	Coral-tailed Cloud Wing	<i>Pantala flavescens</i>	+	-
12.	Crimson Marsh Skimmer	<i>Tholymis tillarga</i>	+	-
13.	Black Stream Skimmer	<i>Trithemis aurora</i>	+	-
14.	Brown Dusk Hawk	<i>Trithemis festiva</i>	-	+
15.	Blue-tailed Black Marsh Skimmer	<i>Zyxomma petiolatum</i>	+	+
16.		<i>Brachydiplax sobrina</i>		
		(ZYGOPTERA)		
(IV)		<u>Family : Coenagrionidea</u>		
	Pigmy Dartlet		+	+
1.		<i>Agriocnemis pygmaea</i>	+	+
	Pinhead Wisp			
2.		<i>Agriocnemis femina</i>	+	+
	Coromandel Marsh Dart			
3.		<i>Ceriagrion coromanandelian</i>	+	+
	Golden Dartlet			
4.		<i>Ischnura aurora</i>	+	+
	Senegal Golden Dartlet			
5.		<i>Ischnura senegalensis</i>	+	+
	Saffron-faced blue Dart			
6.		<i>Pseudagrion rubriceps</i>	+	+
	Blue Grass Dartlet			
7.		<i>Pseudagrion microcephalum</i>	+	+
	Rusty Dart			
8.		<i>Aciagrion pallidum</i>	+	-
	Brown Dartlet			
9.		<i>Mortonagrion varralli</i>		
(V)		Family : LESTIDAE		
	Brown Spreadwing		+	+
1.		<i>Lestes umbrinus</i>		

ACKNOWLEDGEMENTS

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