

A checklist of Odonata in and around Deulgaon Raja dist Buldana

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ABSTRACT

The preliminary study was conducted on the diversity of dragonflies (Odonata) in and around Deulgaon Raja Dist Buldana (M.S) as there is no adequate information pertaining on odonata diversity of this region. In the present study, a survey of college campus, Public Park, water bodies, fields etc has been carried out during December 2018 to October 2019. A total of 21 species of odonates belonging to 6 families were recorded. Although, study of this kind is a pioneer attempt, season wise study in future would throw more light on odonate biodiversity greater in detail.

Keywords: Odonata, Biodiversity, Checklist.

INTRODUCTION

Insects are the most successful of all the invertebrate organism belongs to the phylum Arthropoda. Insects have very wide distribution and world's most diverse group of animals on Earth, in terms of both taxonomic diversity and ecological function. They have adopted for almost every possible type of environment from the equator to the arctic and from sea level to the snowfield of highest mountains, on land, in air and water and almost everywhere. The insects are considerably estimated to comprise more than 75 percent of the known species of the animals. The insect fauna of India is vast. Insects play critical roles in ecosystem function. Dragonflies, belonging to the order Odonata: sub order Anisoptera, are robust flying insects that are marked by flexible head, slender abdomen, sub equal wings with distinct venations, large compound eyes and attractive body coloration. They are regarded as indicator of healthy ecosystem and thus diversity and distribution of dragonflies in an area shows the state of ecosystem of that area. About 6000 species of dragonflies were described all over the world (Subramanian, 2014), India has 474 species of Odonates (Subramanian, 2014). Out of 474 species 101 species of Odonates are known to occur in Maharashtra (Kulkarni *et al.*, 2012). These are among the most attractive and conspicuous insects mostly found around the vicinity of fresh water habitats like streams, marshes, rivers, lakes, temporary rain water puddles & even -

in rice fields. Odonates are economically important and act as an effective biocontrol agent since adult preys on mosquitoes, flies, moths, aphids, termites, small beetles etc, and larvae feed on the mosquito larvae and other soft bodied aquatic invertebrates. The present study is carried in and around the Deulgaon Raja city. The main objectives of the study were to determine the Odonates diversity and the relative abundance of the Odonates in this study area.

MATERIAL METHODS

Study Area: The present study was conducted in and around Deulgaon Raja city which is located at 20.0186° N and 76.0339° E respectively.

Methodology: The study involved field visits to the different places of Deulgaon Raja from December 2018 to October 2019. Odonates were collected from habitats like dams, river banks, college campus, parks and gardens, small temporary pools, rain water puddles,

lakes etc. of the city and its vicinity. The findings presented here are based on random survey and observations were made from morning 8am to evening 5.30pm. The odonates were collected by using sweeping net. The Insects encountered were identified using the key provided by Fraser (1933-1936), Subramanian (2009) and Nair (2011).

RESULTS & DISCUSSION

In the present study, a total of 21 species of odonates were recorded in and around Deulgaon Raja Dist Buldana (M.S) India. The sub-order Anisoptera consists of 11 species belonging to 10 genus and 3 families. From this sub-order, family Libellulidae is dominant by 8 species followed by Aeshnidae with 2 species and Gomphidae with 1 species. The sub-order Zygoptera consists of 10 species belonging to 6 genus and 3 families. Under this sub-order, family Coenagrionidae is dominant by 6 species followed by Calopterygidae and Lestidae with 2 species each.

Table No. 1 Checklist of dragonflies (Anisoptera) in and around Deulgaon Raja city.

SN	Family	Common Name	Scientific Name
1	Libellulidae	Ditch jewel	<i>Brachythemis contaminata</i>
2		Ruddy Marsh Hawk	<i>Crocothemis servilia</i>
3		Ground Skimmer	<i>Diplocodes trivialis</i>
4		Green Marsh Hawk	<i>Orthetrum sabina</i>
5		Yellow Tailed Ashy Skimmer	<i>Potamarcha congener</i>
6		Red Marsh Trotter	<i>Tramea barilaris</i>
7		Greater Crimson Glider	<i>Urothemis signata</i>
8		Brown dusk hawk	<i>Zyxomma petiolatum</i>
9	Gomphidae	Common clubtail	<i>Ictinogomphus rapax</i>
10	Aeshnidae	Blue tailed Green Darner	<i>Anax gattatus</i>
11		Blue Darner	<i>Anax immaculifrons</i>

Table No. 1 Checklist of damselflies (Zygoptera) in and around Deulgaon Raja city.

SN	Family	Common Name	Scientific Name
1	Coenagrionidae	Pigmy Dartlet	<i>Agriocnemis pygmaea</i>
2		Coromandal Marsh Dart	<i>Ceriagrion coromandelianum</i>
3		Golden Dartlet	<i>Ischnura aurora</i>
4		Senegal Golden Darlet	<i>Ischnura senegalensis</i>
5		Blue Darlet	<i>Pseudagrion decorum</i>
6		Saffron-faced Blue Dart	<i>Pseudagrion rubriceps</i>
7	Lestidae	Emerald Spreadwing	<i>Lestes elatus</i>
8		Brown Spreadwing	<i>Lestes umbrinus</i>
9	Platycnenididae	Yellow Bush Dart	<i>Copera marginipes</i>
10		Blue Bush Dart	<i>Copera vittata</i>

The existences of odonates diversity in and around Deulgaon Raja city seems to abundant from present study. Since, the study of this kind is a preliminary attempt, focused season wise studies in future would help access and understand the odonates biodiversity at this place greater in detail.

CONCLUSION

This preliminary study was an attempt to analyze some aspects of biodiversity of o donates in and around Deulgaon Raja Dist. Buldana (M.S.). Since it is a preliminary study, a lot of research is necessary in this regard and further collections are essential for getting a detailed record of the faunal diversity of odonates in this area.

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