

A Checklist of Odonates (Dragonflies & Damselflies) of Upper Brahmaputra Valley Zone of Assam, India

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Abstract:- A checklist of the odonates (dragonflies and damselflies) occurring in the upper Brahmaputra Valley Zone of the state Assam from gathered published work is presented in this paper. The scientific name, common name, distribution and the conservation status of the species were compiled in tabular form. Odonates diversity in the upper Brahmaputra Valley zone of Assam comprised of 101 species under 11 families. In the region, Anisoptera (Dragonflies) were dominant with 55 species over Zygoptera (Damselflies) with 46 species.

Keywords:- Checklist; Damselflies; Dragonflies; IUCN; Odonates; Upper Brahmaputra valley zone.

I. INTRODUCTION

Odonates, called জিঞা (ziā), বিঞা (zhiā) in Assamese are first known flying creatures to appear on earth during Permian period, about 250 million year ago. Odonates are divided into two suborders viz., Zygoptera (Damselflies) and Anisoptera (Dragonflies). They are found near ponds, lakes, rivers, swamps, bogs, streams and marshes. The body of odonates are divided into three parts – head, thorax and abdomen. Their wings are long, large and transparent which makes them most accomplished fliers of the animal kingdom. Approximately 498 species of odonates occur in India, with approx. 186 species being endemic. (Joshi et al., 2022)

Odonates are one of the most important predators. They play an important role as bio indicator of the good health of the ecosystem and pollution in an area. Theoretically, Odonata surveys can be used widely by resource managers and conservationists to assess site

quality, monitor restoration, and mark incremental benchmarks of ecological quality. (Bora, 2019) They are also useful for climate change impact studies by studying the alternation in distribution pattern of odonates (Brookes et al., 2007). Moreover they are biocontrol agents; many species of odonates inhabiting agro ecosystems play a crucial role in controlling pest populations (Tiple et al., 2008).

A global assessment of more than 6000 species of odonate species showed that 16% of the odonates are at risk of extinction (Raman S., 2022). This is mainly due to the habitat destruction by human activities. The larvae and wandering adults needs proper wetlands for growth and development. Destruction in the wetlands is resulting in habitat loss for various dragonflies and damselflies. Chemical pollution and eutrophication in wetlands are also harmful for the odonates. Besides these, climate change, heavy rainfall, drought, damming, channeling, soil mining etc. also alters diversity and density of odonate species (Andrew et al., 2008).

The Upper Brahmaputra valley zone of the state Assam which is home to a large no. of odonate species includes seven districts i.e., Charaideo, Dibrugarh, Golaghat, Majuli, Jorhat, Sivasagar and Tinsukia. This checklist was assembled by collecting data from the published articles available online about odonate diversity in the seven mentioned districts. Data published between 2016 to till date in English language were only included in the checklist. However, data provided in some of the published work were found to be inexact and hence not considered while preparing the checklist.

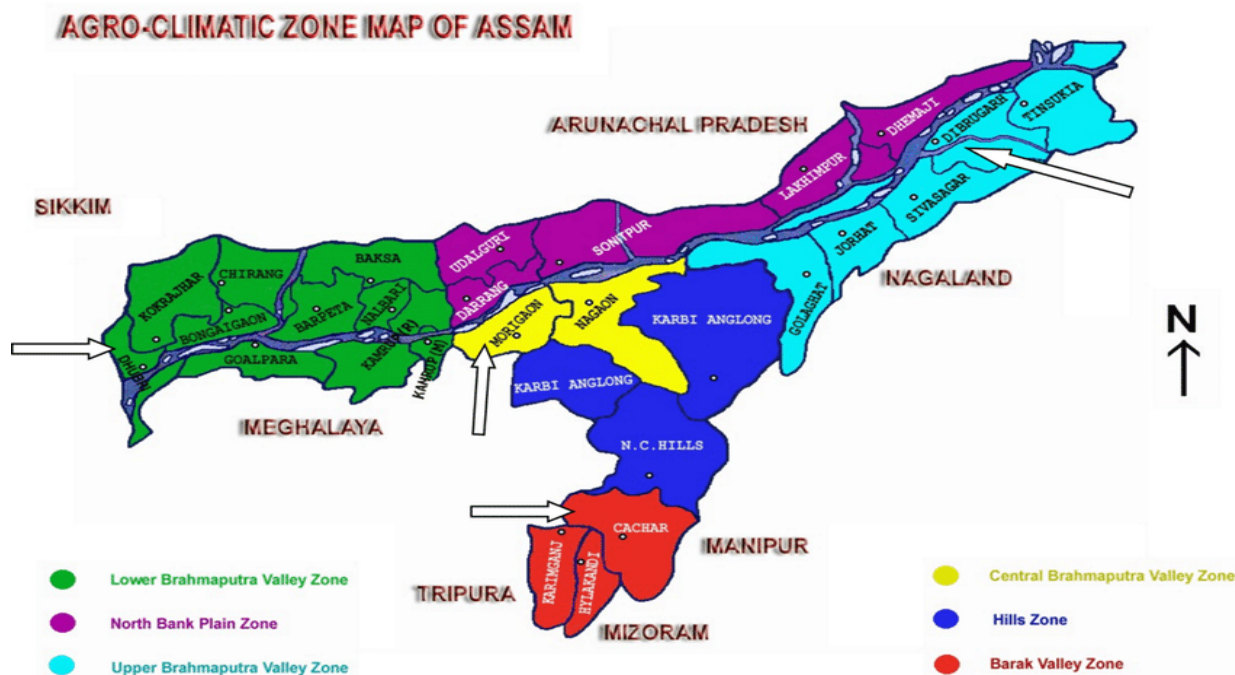


Fig. 1: Map of Agro-climatic zones of Assam showing the Upper Brahmaputra Valley Zone. (Mandal,2014)

II. CHECKLIST

This Checklist was prepared by assembling data from only the available published work in this region on internet. Odonata in Upper Brahmaputra Valley of Assam, India comprised of 101 species under 11 families (Table 1). Comparatively, Anisoptera were dominant (55 species under 5 families) than Zygoptera (46 species under 7 families).

The family Libellulidae had the highest number of species (45 species) followed by Coenagrionidae (27 species). The least representation was that of synlestidae and macromiidae with 1 species each. Conservation status of the species indicates that 87 species were under the category of Least Concern (LC), 8 species were Data Deficient (DD) and 2 species was Not Evaluated (NE).

Sl No.	Suborder/Family/Scientific name	Common name	Distribution	References	IUCN
	Anisoptera (Dragonflies)				
1	Macromiidae				
	<i>Macromia sp</i>		Dibrugarh district	Das et al. (2022)	
2	Aeshnidae				
	1. <i>Gynacantha khasiaca</i> MacLachlan, 1896		Deo Pahar, Golaghat	Payra et al. (2017)	DD
	2. <i>Gynacantha dravida</i> Lieftinck, 1960	Brown Darner	AAU campus, Jorhat	Rahman et al. (2017)	DD
			Jorhat district	Thangjam et al. (2016)	
			Dibrugarh district	Das et al. (2022)	
	3. <i>Gynacantha bayadera</i> Selys, 1891	Parakeet Darner or Small Duskhawker	Margherita, Tinsukia district	Das(2016)	LC
	4. <i>Anax guttatus</i> Burmeister 1839	Lesser Green Emperor Blue-tailed Green Darner	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Dibrugarh district	Das et al. (2022)	
			Margherita, Tinsukia district	Das(2016)	
	5. <i>Anaciaeschna jaspidea</i> (Burmeister, 1839)	Rusty Darner	Dibrugarh district	Das et al. (2022)	LC
	6. <i>Gynacantha bainbriggei</i> Fraser, 1922		Dibrugarh district	Das et al. (2022)	DD

3	Gomphidae				
	1. <i>Burmagomphus sp.</i>		Dibrugarh district	Das et al. (2022)	
	2. <i>Ictinogomphus rapax</i> (Rambur, 1842)	Common Clubtail	AAU campus, Jorhat	Rahman et al. (2017)	LC
			Jorhat district	Thangjam et al. (2016)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Dibrugarh district	Das et al. (2022)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia district	Das (2016)	
	3. <i>Paragomphus lineatus</i> (Selys, 1850)	Common Hooktail	Dibrugarh district	Das et al. (2022)	LC
4	Libellulidae				
	1. <i>Acisoma panorpoides</i> Rambur, 1842	Trumpet Tail	Dibrugarh district	Das et al. (2022)	LC
			Majuli river island	Borkataki et al. (2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia district	Das (2016)	
	2. <i>Aethriamanta brevipennis</i> (Rambur, 1842)	Scarlet Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			Majuli river island	Borkataki et al. (2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Margherita, Tinsukia district		
	3. <i>Amphithemis vacillans</i> Selys, 1891		Dibrugarh district	Das et al. (2022)	DD
	4. <i>Bradinopyga geminate</i> (Rambur, 1842)	Granite Ghost	Dibrugarh district	Das et al. (2022)	LC
			Jorhat district	Thokchom et al. (2018)	
			Nimatighat, Jorhat district	Bakalial (2021)	
	5. <i>Brachydiplax chalybea</i> Brauer, 1868	Rufous-backed Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			AAU campus, Jorhat	Rahman et al. (2017)	
			Jorhat district	Thangjam et al. (2016)	
			Majuli river island	Borkataki et al. (2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia district	Das (2016)	
	6. <i>Brachydiplax farinosa</i> Kruger, 1902	Blue-tailed Dasher	Dibrugarh district	Das et al. (2022)	LC
			Margherita, Tinsukia district	Das (2016)	
	7. <i>Brachydiplax sobrina</i> (Rambur, 1842)	Little Blue Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia	Das (2016)	

			district		
8. <i>Brachythemis contaminata</i> (Fabricius, 1793)	Ditch Jewel		Dibrugarh district	Das et al. (2022)	LC
			AAU campus, Jorhat	Rahman et al. (2017)	
			Jorhat district	Thangjam et al. (2016)	
			Jorhat district	Thokchom et al. (2018)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Majuli river island	Borkataki et al. (2021)	
			Sivasagar district	Bora (2019)	
			Titabar, Jorhat district	Saikia et al. (2016)	
			Margherita, Tinsukia district	Das (2016)	
	9. <i>Cratilla lineata</i> (Brauer, 1878)	Emerald-banded Skimmer	Dibrugarh district	Das et al. (2022)	LC
			Sivasagar district	Bora (2019)	
	10. <i>Crocothemis servilia</i> (Drury, 1773)	Ruddy Marsh Skimmer	Dibrugarh district	Das et al. (2022)	LC
			AAU campus, Jorhat	Rahman et al. (2017)	
			Jorhat district	Thangjam et al. (2016)	
			Jorhat district	Thokchom et al. (2018)	
			Majuli river island	Borkataki et al. (2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar, Jorhat district	Saikia et al. (2016)	
			Margherita, Tinsukia district	Das (2016)	
	11. <i>Camacina gigantea</i> Brauer, 1867	Giant Forest Skimmer	Nimatighat, Jorhat district	Bokolial (2021)	LC
			Sivasagar district	Bora (2019)	
	12. <i>Diplacodes lefebvrii</i> Rambur, 1842	Black Ground Skimmer	Dibrugarh district	Das et al. (2022)	LC
	13. <i>Diplacodes nebulosa</i> Fabricius, 1793	Black-tipped Ground Skimmer	Dibrugarh district	Das et al. (2022)	LC
			AAU campus, Jorhat	Rahman et al. (2017)	
			Jorhat district	Thangjam et al. (2016)	
			Majuli river island	Borkataki et al. (2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar, Jorhat district	Saikia et al. (2016)	
	14. <i>Diplacodes trivialis</i> (Rambur, 1842)	Ground Skimmer	Dibrugarh district	Das et al. (2022)	LC
			AAU campus, Jorhat	Rahman et al. (2017)	

			Jorhat district	Thangjam et al.(2016)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar,Jorhat district	Saikia et al.(2016)	
			Margherita,Tinsukia district	Das(2016)	
15. <i>Hydrobasileus croceus</i> (Brauer, 1867)	Amber-winged Marsh Glider		Dibrugarh district	Das et al. (2022)	LC
			Sivasagar district	Bora (2019)	
			Margherita,Tinsukia district	Das(2016)	
16. <i>Hydrobasileus fulus</i>			Nimatighat,Jorhat district	Bakalial (2021)	NE
17. <i>Indothemis carnatica</i> (Fabricius,1798)	Light-tipped Demon		Jeypore Reserve Forest,Dibrugarh	Payra et al.(2021)	LC
			Dibrugarh district	Das et al. (2022)	
18. <i>Lathrecista asiatica</i> (Fabricius,1798)	Asiatic Bloodtail		Dibrugarh district	Das et al. (2022)	LC
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita,Tinsukia district	Das(2016)	
19. <i>Lyriothemis acigastra</i> (Selys,1878)	Little Bloodtail		Dibrugarh district	Das et al. (2022)	DD
			Nimatighat,Jorhat district	Bakalial (2021)	
20. <i>Macrodiplax cora</i> (Kaup, 1867)			AAU campus,Jorhat	Rahman et al.(2017)	LC
21. <i>Neurothemis fulvia</i> (Drury, 1773)	Fulvous Forest Skimmer		Dibrugarh district	Das et al. (2022)	LC
			AAU campus,Jorhat	Rahman et al.(2017)	
			Jorhat district	Thangjam et al.(2016)	
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar,Jorhat district	Saikia et al.(2016)	
			Margherita,Tinsukia district	Das(2016)	
22. <i>Neurothemis intermedia</i> (Rambur, 1842)	Ruddy Meadow Skimmer		Dibrugarh district	Das et al. (2022)	LC
			Nimatighat,Jorhat district	Bakalial (2021)	
			Margherita,Tinsukia district	Das(2016)	
23. <i>Neurothemis tullia</i> (Drury, 1773)	Pied Paddy		Dibrugarh district	Das et al. (2022)	LC

		Skimmer	AAU campus,Jorhat	Rahman et al.(2017)	
			Jorhat district	Thangjam et al.(2016)	
			Jorhat district	Thokchom et al.(2018)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Margherita,Tinsukia district	Das(2016	
	24. <i>Onychothemis testacea</i> Laidlaw,1902	Stellate River Hawk	Dibrugarh district	Das et al. (2022)	LC
	25. <i>Orthetrum chrysis</i> (Selys,1891)	Brown-backed Red Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			Margherita,Tinsukia district		
	26. <i>Orthetrum glaucum</i> (Brauer, 1865)	Blue Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita,Tinsukia district	Das(2016	
	27. <i>Orthetrum luzonicum</i> (Brauer, 1868)	Tri-coloured Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			Sivasagar district	Bora (2019)	
	28. <i>Orthetrum pruinsum</i> (Burmeister,1839)	Crimson-tailed Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			AAU campus,Jorhat	Rahman et al.(2017)	
			Jorhat district	Thangjam et al.(2016)	
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita,Tinsukia district	Das(2016	
	29. <i>Orthetrum sabina</i> (Drury, 1773)	Green Marsh Hawk	Dibrugarh district	Das et al. (2022)	LC
			AAU campus,Jorhat	Rahman et al.(2017)	
			Jorhat district	Thangjam et al.(2016)	
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar,Jorhat district	Saikia et al.(2016)	
			Margherita,Tinsukia district	Das(2016	
	30. <i>Orthetrum triangulare</i> (Selys,1878)	Blue-tailed Forest Hawk	Nimatighat,Jorhat district	Bakalial (2021)	LC

			Dibrugarh district	Das et al. (2022)	
31. <i>Potamarcha congener</i> (Rambur, 1842)	Yellow-tailed Ashy Skimmer	Dibrugarh district	Das et al. (2022)	LC	
		Nimatighat, Jorhat district	Bakalial (2021)		
32. <i>Palpopleura sexmaculata</i> (Fabricius, 1787)	Blue-tailed Yellow Skimmer	Dibrugarh district	Das et al. (2022)	LC	
		Sivasagar district	Bora (2019)		
		Margherita, Tinsukia district	Das (2016)		
33. <i>Pantala flavescens</i> (Fabricius, 1798)	Wandering Glider	Dibrugarh district	Das et al. (2022)	LC	
		Jorhat district	Thokchom et al. (2018)		
		Majuli river island	Borkataki et al. (2021)		
		Nimatighat, Jorhat district	Bakalial (2021)		
		Titabar, Jorhat district	Saikia et al. (2016)		
		Sivasagar district	Bora (2019)		
		Margherita, Tinsukia district	Das (2016)		
34. <i>Rhodothermis rufa</i> (Rambur, 1842)	Rufous Marsh Glider	Dibrugarh district	Das et al. (2022)	LC	
		Sivasagar district	Bora (2019)		
		Margherita, Tinsukia district	Das (2016)		
35. <i>Rhyothemis plutonia</i> Selys, 1883	Great Blue Wing	Dibrugarh district	Das et al. (2022)	LC	
		Margherita, Tinsukia district	Das (2016)		
36. <i>Rhyothemis variegata</i> (Linnaeus, 1763)	Common Picture Wing	Dibrugarh district	Das et al. (2022)	LC	
		Jorhat district	Thangjam et al. (2016)		
		Majuli river island	Borkataki et al. (2021)		
		Nimatighat, Jorhat district	Bakalial (2021)		
		Sivasagar district	Bora (2019)		
		Margherita, Tinsukia district	Das (2016)		
37. <i>Sympetrum fonscolombii</i> Selys, 1840	Red-veined Darter	AAU campus, Jorhat	Rahman et al. (2017)	LC	
38. <i>Tetrathemis platyptera</i> Selys, 1878	Pigmy Skimmer	Dibrugarh district	Das et al. (2022)	LC	
		AAU campus, Jorhat	Rahman et al. (2017)		
		Jorhat district	Thangjam et al. (2016)		
39. <i>Tholymis tillarga</i> (Fabricius, 1798)	Coral-tailed Cloud Wing	Dibrugarh district	Das et al. (2022)	LC	
		AAU campus, Jorhat	Rahman et al. (2017)		
		Jorhat district	Thangjam et al. (2016)		

			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia district	Das(2016)	
	40. <i>Tramea basilaris</i> (Palisot de Beauvois, 1817)	Red Marsh Trotter	Dibrugarh district	Das et al. (2022)	LC
	41. <i>Trithemis aurora</i> (Burmeister, 1839)	Crimson Marsh Glider	Dibrugarh district	Das et al. (2022)	LC
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Margherita, Tinsukia district	Das(2016)	
	42. <i>Trithemis festiva</i>	Indigo Dropwing	AAU campus, Jorhat	Rahman et al.(2017)	LC
	43. <i>Trithemis pallidinervis</i> (Kirby, 1889)	Long-legged Marsh Glider	Dibrugarh district	Das et al. (2022)	LC
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
	44. <i>Urothemis signata</i> (Rambur, 1842)	Great Crimson Glider	Dibrugarh district	Das et al. (2022)	LC
			Nimatighat, Jorhat district	Bakalial (2021)	
	45. <i>Zyxomma petiolatum</i> Rambur, 1842	Brown Dusk Hawk	Dibrugarh district	Das et al. (2022)	LC
			Margherita, Tinsukia district	Das(2016)	
	Zygoptera (Damselflies)				
1	Coenagrionidae				
	1. <i>Agriocnemis pygmaea</i> (Rambur, 1842)	Pigmy Dartlet	AAU campus, Jorhat	Rahman et al.(2017)	LC
			Jorhat district	Thangjam et al.(2016)	
			Jorhat district	Thokchom et al.(2018)	
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Titabar, Jorhat district	Saikia et al.(2016)	
			Dibrugarh district	Das et al. (2022)	
			Margherita, Tinsukia district	Das(2016)	
	2. <i>Agriocnemis spendidissima</i> Laidlaw, 1919	Splendid Dartlet	Margherita, Tinsukia district	Das(2016)	LC
	3. <i>Agriocnemis femina</i> Brauer, 1868	Pruinosed Dartlet	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Sivasagar district	Bora (2019)	
			Dibrugarh district	Das et al. (2022)	
	4. <i>Agriocnemis kalinga</i> Nair &	Indian Hooded	Nimatighat, Jorhat	Bakalial (2021)	LC

	Subramanian 2015	Dartlet	district		
			Sivasagar district	Bora (2019)	
			Dibrugarh district	Das et al. (2022)	
	5. <i>Agriocnemis lacteola</i> Selys, 1877	Milky Dartlet	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Sivasagar district	Bora (2019)	
			Dibrugarh district	Das et al. (2022)	
	6. <i>Agriocnemis pieris</i> Laidlaw, 1919	White Dartlet	Majuli river island	Borkataki et al.(2021)	LC
			Titabar, Jorhat district	Saikia et al.(2016)	
			Dibrugarh district	Das et al. (2022)	
			Margherita, Tinsukia district	Das(2016)	
	7. <i>Aciagrion hisopa</i> (Selys, 1876)	Slim Blue	Jorhat district	Thokchom et al.(2018)	LC
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Titabar, Jorhat district	Saikia et al.(2016)	
	8. <i>Aciagrion occidentale</i> Laidlaw, 1919	Green-striped Slender Dartlet	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Sivasagar district	Bora (2019)	
			Dibrugarh district	Das et al. (2022)	
	9. <i>Aciagrion pallidum</i> Selys, 1891	Pale Slender Dartlet	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Dibrugarh district	Das et al. (2022)	
	10. <i>Ceriagrion coromandelianum</i> (Fabricius, 1798)	Coromandel Marsh Dart	AAU campus, Jorhat	Rahman et al.(2017)	LC
			Jorhat district	Thangjam et al.(2016)	
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat, Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar, Jorhat district	Saikia et al.(2016)	
			Dibrugarh district	Das et al. (2022)	
			Margherita, Tinsukia district	Das(2016)	
	11. <i>Ceriagrion cerinorubellum</i> Brauer, 1865	Orange-tailed Marsh Dart	Nimatighat, Jorhat district	Bakalial (2021)	LC
			Sivasagar district	Bora (2019)	
			Dibrugarh district	Das et al. (2022)	
			Margherita, Tinsukia district	Das(2016)	
	12. <i>Ceriagrion olivaceum</i> Laidlaw, 1914	Rusty Marsh Dart	Nimatighat, Jorhat district	Bakalial (2021)	LC

			Sivasagar district	Bora (2019)	
			Titabar,Jorhat district	Saikia et al.(2016)	
			Dibrugarh district	Das et al. (2022)	
			Margherita,Tinsukia district	Das(2016)	
13. <i>Ceriagrion rubiae</i> Laidlaw, 1916	Orange Marsh Dart		Nimatighat,Jorhat district	Bokolial (2021)	LC
			Dibrugarh district	Das et al. (2022)	
14. <i>Ceriagrion fallax</i> Ris,1914	Black-tailed Marsh Dart		Margherita,Tinsukia district	Das(2016)	LC
15. <i>Ceriagrion calamineum</i> Lieftinck, 1951			Majuli river island	Borkataki et al.(2021)	LC
			Titabar,Jorhat district	Saikia et al.(2016)	
16. <i>Enallagma parvum</i> Selys,1876	Little Blue or Azure Dartlet		Nimatighat,Jorhat district	Bakalial (2021)	LC
17. <i>Ischnura aurora</i> Brauer, 1865	Golden Dartlet		Jorhat district	Thangjam et al.(2016)	LC
			Majuli river island	Borkataki et al.(2021)	
			Nimatighat,Jorhat district	Bakalial (2021)	
			Sivasagar district	Bora (2019)	
			Titabar,Jorhat district	Saikia et al.(2016)	
			Margherita,Tinsukia district	Das(2016)	
18. <i>Ischnura elegans</i> Vander Linden, 1820	Common Bluetail		Majuli river island	Borkataki et al.(2021)	LC
19. <i>Ischnura senegalensis</i> (Rambur, 1842)	Tropical Bluetail		Nimatighat,Jorhat district	Bakalial (2021)	LC
20. <i>Ischnura rubilio</i> Selys,1876	Western Golden Dartlet		Dibrugarh district	Das et al. (2022)	NE
21. <i>.Ischnura rufostigma</i> Selys,1876			Dibrugarh district	Das et al. (2022)	LC
22. <i>Mortonagrion aborens</i> (Laidlaw, 1914)			Dibrugarh district	Das et al. (2022)	LC
23. <i>Onychargia atrocyana</i> Selys, 1865	Black Marsh Dart		Sivasagar district	Bora (2019)	LC
			Margherita,Tinsukia district	Das(2016)	
24. <i>Paracercion malayanum</i> Selys, 1876			Nimatighat,Jorhat district	Bakalial (2021)	LC
25. <i>Pseudagrion decorum</i> Rambur, 1842	Three-lined Dartlet		Nimatighat,Jorhat district	Bakalial (2021)	LC
			Dibrugarh district	Das et al. (2022)	
26. <i>Pseudagrion microcephalum</i> Rambur, 1842			Nimatighat,Jorhat district	Bakalial (2021)	LC

	27. <i>Pseudagrion rubriceps</i> (Selys, 1876)	Saffron-faced Blue Dart	Nimatighat, Jorhat district Dibrugarh district	Bakalial (2021) Das et al. (2022)	LC
2	Calopterygidae				
	1. <i>Vestalis gracilis</i> (Rambur, 1842)		Jorhat district Dibrugarh district Margherita, Tinsukia district	Thangjam et al. (2016) Das et al. (2022) Das (2016)	LC
	2. <i>Neurobasis chinensis</i> (Linnaeus, 1758)	Stream Glory	Nimatighat, Jorhat district Sivasagar district Dibrugarh district	Bakalial (2021) Bora (2019) Das et al. (2022)	LC
3	Platycnemididae				
	1. <i>Copera ciliate</i> Selys, 1863	Pied Bush Dart	Nimatighat, Jorhat district	Bakalial (2021)	LC
	2. <i>Copera vittata</i> (Selys, 1863)	Blue Bush Dart	Nimatighat, Jorhat district Dibrugarh district	Bakalial (2021) Das et al. (2022)	LC
	3. <i>Coelicia chromothorax</i> (Selys, 1891)		Dibrugarh district	Das et al. (2022)	LC
	4. <i>Coelicia schmidtii</i> Asahina 1984		Dibrugarh district	Das et al. (2022)	DD
	5. <i>Copera marginipes</i> (Rambur, 1842)	Yellow Bush Dart	Dibrugarh district	Das et al. (2022)	LC
	6. <i>Onychargia atrocyana</i> Selys, 1865	Black Marsh Dart	Nimatighat, Jorhat district Dibrugarh district	Bakalial (2021) Das et al. (2022)	LC
4	Lestidae				
	1. <i>Lestes praemorsus</i> Hagen in Selys, 1862		Dibrugarh district Margherita, Tinsukia district	Das et al. (2022) Das (2016)	LC
	2. <i>Lestes viridulus</i> Rambur, 1842	Emerald-striped Spreadwing	Nimatighat, Jorhat district	Bakalial (2021)	LC
5	Chlorocyphidae				
	1. <i>Aristocypha hilaryae</i> (Fraser, 1927)		Dibrugarh district	Das et al. (2022)	DD
	2. <i>Aristocypha quadrimaculata</i> (Selys, 1853)		Dibrugarh district	Das et al. (2022)	LC
	3. <i>Heliocypha perforata</i> (Percheron, 1835)	Stream Sapphire	Dibrugarh district	Das et al. (2022)	LC
	4. <i>Libellago lineata</i> (Burmeister, 1839)	River Heliodor	Nimatighat, Jorhat district Dibrugarh district	Bokolial (2021) Das et al. (2022)	LC
	5. <i>Rhinocypha bifurcata</i> Selys, 1859		Nimatighat, Jorhat district	Bokolial (2021)	LC
	6. <i>Rhinocypha</i> sp.		Dibrugarh district	Das et al. (2022)	
6	Synlestidae				
	<i>Megalestes</i> sp.		Dibrugarh district	Das et al. (2022)	
7	Euphaeidae				
	1. <i>Dysphaea walli</i> Fraser, 1927	Sapphire	Dibrugarh district	Das et al. (2022)	DD

		Torrent Dart			
	2. <i>Euphaea ochracea</i> Selys, 1859		Dibrugarh district	Das et al. (2022)	LC

Table 1: Checklist of Dragonflies(sub-order: Anisoptera) and Damselflies (sub-order: Zygoptera) of Upper Brahmaputra valley of Assam, India.

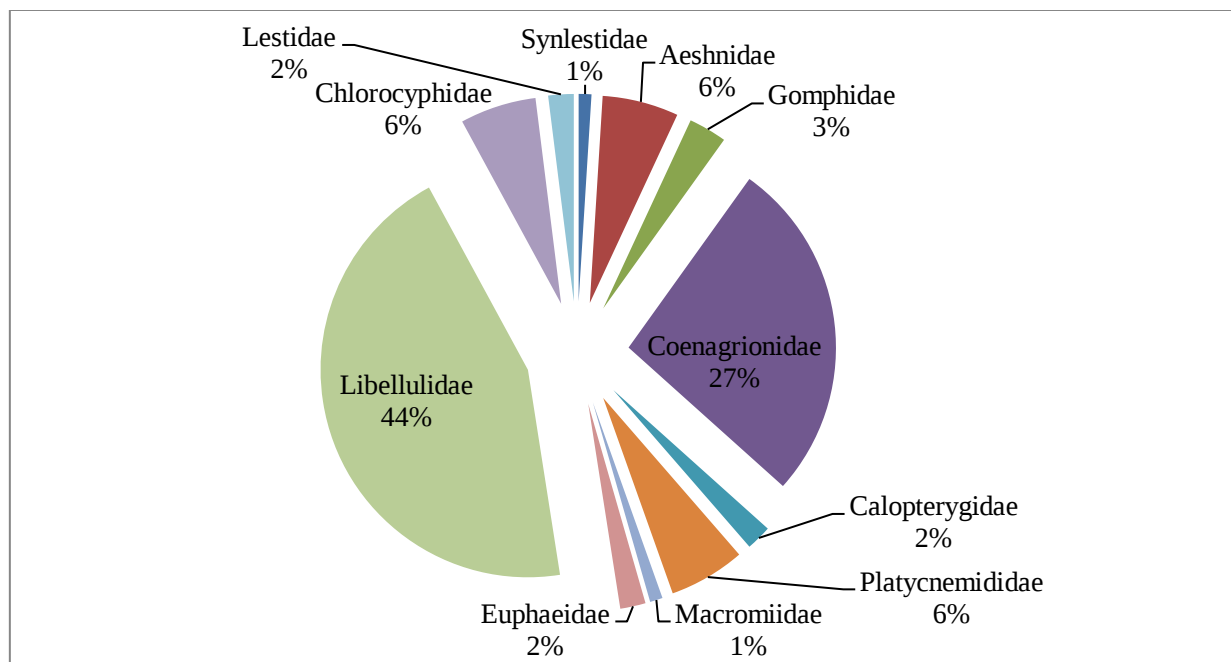


Fig. 2: Family-wise record of odonate species in Upper Brahmaputra Valley Zone of Assam, India

III. CONCLUSION

The odonate fauna of India have been studied in details by various workers but still the knowledge on local assemblage pattern is inadequate, especially in the upper Assam region of Northeast India. (Bakalial, 2021). There are a few works available on odonates fauna of Assam which are providing sporadic information regarding the present distribution of odonates in the state (Das et al, 2022). More surveys and studies are needed in the state Assam specially in the upper Brahmaputra valley zone as satisfactory amount of information is not available till now about odonates in this region. This compiled data will help in further investigation on odonates in the upper Brahmaputra valley zone of Assam and to filling the lack of information about them in many areas.

CONFLICTS OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

DD-Data deficient; NE-Not evaluated; LC- Least concern; AAU- Assam Agricultural University

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