

Bug Ball

Invertebrate Conservation & Information Network of South Asia (ICINSA)

Newsletter of the

DRAGONFLIES

Additions to the Odonata (Insecta) Fauna of Varadoor, Kannur, Kerala, South India

Varadoor is a small village about 24 km east from Kannur city, near Sir Syed College Taliparamba, belonging to Kurumathur gramapanchayath of Kannur district (latitude 12^o.2'N & longitude 75^o.24'E), Kerala. The village has an area of 50 acres and has agricultural fields, rubber plantations, scrub jungles, home gardens, ponds etc.

Fourty four species of odonates have been reported from Varadoor, Kannur, South India (Nair, 2014). Further surveys indicated the presence of 24 more species at Varadoor, Kerala. This raises the total species of odonates at Varadoor to sixty eight.

In order to avoid collection and killing, most of the species which could be visually identified were photo documented and cross checked with field guides. Difficult species were collected with insect net, photographed and released after studying the characters. Certain odonates which resisted capture were photographed and identified upto generic level. The surveys were made during 2012 -2016 in all three seasons viz. summer (March to May), monsoons (June to October) and winter (November to February). Collected odonates were identified with the help of standard field guides, Fraser (1933, 1934, 1936), Kiran & Raju (2013), Emiliyamma et. al., (2005, 2007) and Subramanian (2009). Nomenclature and classification followed is after Schorr et. al., (2013). Common name followed is after Kiran & Raju (2013). Odonates were categorized into four groups depending upon their occurrence during the study period. Accordingly species observed 75-100% of survey days were categorized as very common (VC), 50-75% as common (CO), 25-50% as occasional (OC) and below 25% as rare (RA). Species observed only once or twice in any one season is considered as very rare (VR). Of the 24 species observed additionally at Varadoor, three are endemic to Western Ghats. A systematic list of all the odonates reported so far has been given below with figures showing species richness of the suborders.

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Newsletter of the
Invertebrate Conservation & Information Network of South Asia (ICINSA)

Table 1: Systematic list

Sl. No.	Family	Scientific name	Common name	Occurrence
1	Chlorociphidae	<i>Libellago indica</i> * (Fraser, 1928)	Southern Heliodor	VC
2		<i>Heliocypha bisignata</i> * Hagen in Selys, 1853	Stream ruby	OC
3	Coenagrionidae	<i>Aciagrion occidentale</i> * Laidlaw, 1919	Green striped slender dartlet	RA
4		<i>Agriocnemis keralensis</i> * Peters, 1981	Kerala Dartlet	RA
5		<i>Agriocnemis pieris</i> * Laidlaw, 1919	White Dartlet	RA
6		<i>Agriocnemis pygmaea</i> (Rambur, 1842)	Pigmy dartlet	VC
7		<i>Agriocnemis splendidissima</i> Laidlaw, 1919	Splendid dartlet	CO
8		<i>Archibasis oscillans</i> * (Selys, 1887)	Blue Banded Longtail	CO
9		<i>Ceriagrion cerinorubellum</i> (Brauer, 1865)	Orange tailed marsh dart	VC
10		<i>Ceriagrion coromandelianum</i> (Fabricius, 1798)	Coromandel marsh dart	VC
11		<i>Ceriagrion olivaceum</i> Laidlaw, 1914	Rusty marsh dart	CO
12		<i>Ceriagrion rubiae</i> Laidlaw, 1916	Orange marsh dart	CO
13		<i>Ischnura aurora</i> (Brauer, 1865)	Golden dartlet	CO
14		<i>Ischnura senegalensis</i> * (Rambur, 1842)	Senegal golden dartlet	RA
15		<i>Paracercion calamorum</i> * (Ris, 1916)	Dusky Lilly Squatter	VR
16		<i>Pseudagrion decorum</i> * (Rambur, 1842)	Green striped grass dart	OC
17		<i>Pseudagrion indicum</i> * Fraser, 1924 †	Yellow striped grass dart	OC
18		<i>Pseudagrion malabaricum</i> Fraser, 1924	Jungle grass dart	VC
19		<i>Pseudagrion microcephalum</i> * (Rambur, 1842)	Blue grass dart	CO
20		<i>Pseudagrion rubriceps</i> * Selys, 1876	Saffron faced grass dart	CO
21	Euphaeidae	<i>Euphaea fraseri</i> * (Laidlaw, 1920) †	Malabar Torrent Dart	OC
22	Platycnemididae	<i>Copera marginipes</i> (Rambur, 1842)	Yellow bush dart	OC
23		<i>Copera vittata</i> * Selys, 1863	Blue bush dart	OC
24	Protoneuridae	<i>Prodasineura verticalis</i> * (Selys, 1860)	Black bambootail	OC
25		<i>Elatoneura tetrica</i> (Laidlaw, 1917) ?*	Black and Yellow bambootail	RA
26	Lestidae	<i>Lestes elatus</i> * (Hagen in Selys, 1862)	Emerald spreadwing	RA
27		<i>Lestes praemorsus</i> (Hagen in Selys, 1862)	Sapphire eyed spreadwing	RA
28	Calopterygidae	<i>Neurobasis chinensis</i> (Linnaeus, 1758)	Stream glory	RA



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Sl. No.	Family	Scientific name	Common name	Occurrence
29		<i>Vestalis apicalis</i> Selys, 1873	Black tipped forest glory	CO
30		<i>Vestalis gracilis</i> (Rambur, 1842)	Clear winged forest glory	RA
31	Gomphidae	<i>Merogomphus longistigma</i> (Fraser, 1922)	Long legged clubtail	RA
32		<i>Microgomphus souteri</i> Fraser, 1924 †	Pigmy clubtail	RA
33		<i>Ictinogomphus rapax</i> (Rambur, 1842)	Common clubtail	CO
34		<i>Paragomphus lineatus</i> (Selys, 1850)	Common hooktail	RA
35	Aeshnidae	<i>Anax guttatus</i> (Burmeister, 1839)	Blue tailed green darner	OC
36		<i>Gynacantha dravida</i> Leiftnick, 1960	Brown darner	OC
37		<i>Gynacantha bayadera</i> Selys, 1854	Parakeet darner	VR
38	Libellulidae	<i>Brachydiplax chalybea</i> Brauer, 1868	Rufous backed marsh hawk	OC
39		<i>Brachydiplax sobrina</i> (Rambur, 1842)	Little blue marsh hawk	CO
40		<i>Cratilla lineata</i> Foerster, 1903	Emerald banded skimmer	CO
41		<i>Lathrecista asiatica</i> (Fabricius, 1798)	Asiatic blood tail	VC
42		<i>Onychothemis testacea</i> Laidlaw, 1902	Stellate River Hawk	OC
43		<i>Orthetrum chrysis</i> (Selys, 1891)	Brown backed red marsh hawk	VC
44		<i>Orthetrum glaucum</i> (Brauer, 1865)	Blue marsh hawk	OC
45		<i>Orthetrum luzonicum</i> (Brauer, 1868)	Tricoloured marsh hawk	CO
46		<i>Orthetrum pruinosum</i> (Rambur, 1842)	Crimson tailed marsh hawk	VC
47		<i>Orthetrum sabina</i> (Drury, 1770)	Green Marsh hawk	VC
48		<i>Potamarcha congener</i> (Rambur, 1842)	Yellow tailed ashy skimmer	OC
49		<i>Acisoma panorpoides</i> (Rambur, 1842)	Trumpet tail	CO
50		<i>Brachythemis contaminata</i> (Fabricius, 1793)	Ditch jewel	OC
51		<i>Bradinopyga geminata</i> (Rambur, 1842)	Granite ghost	OC
52		<i>Crocothemis servilia</i> (Drury, 1770)	Ruddy marsh skimmer	CO
53		<i>Diplacodes trivialis</i> (Rambur, 1842)	Ground Skimmer	VC
54		<i>Diplacodes nebulosa</i> (Fabricius, 1793)	Black tipped Ground Skimmer	RA
55		<i>Neurothemis fulvia</i> (Drury, 1773)	Fulvous forest skimmer	VC
56		<i>Neurothemis tullia</i> (Drury, 1773)	Pied paddy skimmer	VC
57		<i>Rhodothermis rufa</i> (Rambur, 1842)	Rufous marsh glider	CO
58		<i>Trithemis aurora</i> (Burmeister, 1839)	Crimson marsh glider	VC
59		<i>Trithemis festiva</i> (Rambur, 1842)	Black stream glider	CO
60		<i>Trithemis pallidinervis</i> (Kirby, 1889)	Long legged marsh glider	CO
61		<i>Rhyothemis variegata</i> (Linnaeus, 1763)	Common picturewing	VC
62		<i>Rhyothemis triangularis</i> Kirby, 1889	Lesser blue wing	CO

Bugsnail

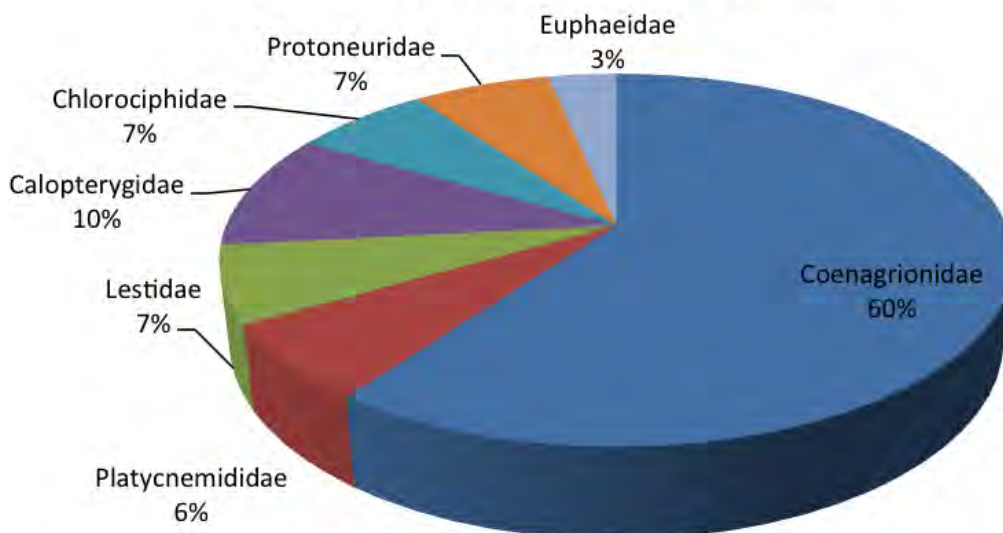
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 Newsletter of the

Sl. No.	Family	Scientific name	Common name	Occurrence
63		<i>Hydrobasileus croceus</i> (Brauer, 1867)	Amberwinged marsh glider	RA
64		<i>Pantala flavescens</i> (Fabricius, 1798)	Wandering glider	VC
65		<i>Tramea limbata</i> (Rambur, 1842)	Black marsh trotter	CO
66		<i>Tholymis tillarga</i> (Fabricius, 1798)	Coral tailed cloud wing	OC
67		<i>Urothemis signata</i> (Rambur, 1842)	Greater crimson glider	CO
68	Macromiidae	<i>Epophthalmia vittata</i> Burmeister, 1839	Common Torrent Hawk	CO

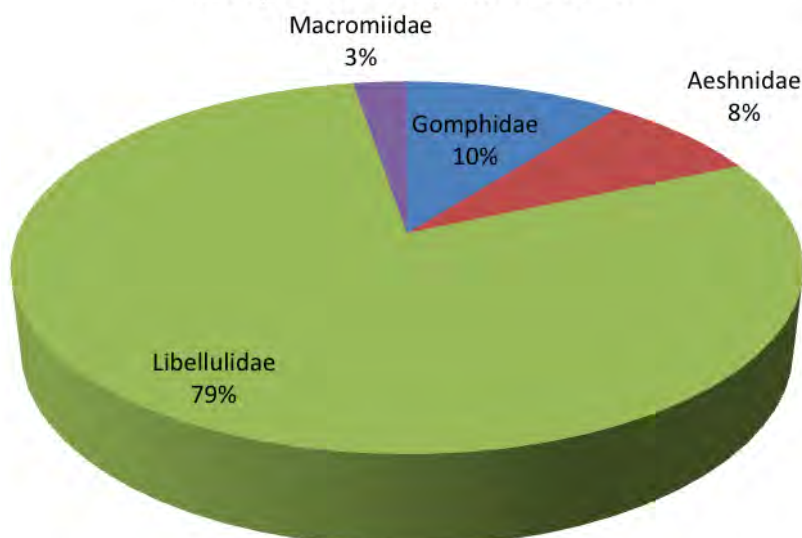
† Endemic to Western Ghats

‡ Additions to the odonata of Varadoor, Kannur, Kerala

Zygoptera : family wise richness



Anisoptera : family wise richness



Bugzilla

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Plates



Libellago indica (Fraser, 1928)



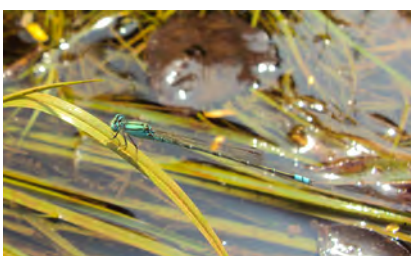
Heliocypha bisignata Hagen in Selys, 1853



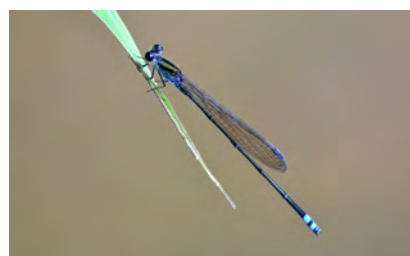
Agriocnemis keralensis Peters, 1981



Ischnura senegalensis (Rambur, 1842)



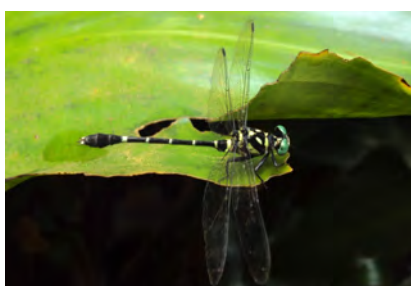
Pseudagrion decorum (Rambur, 1842)



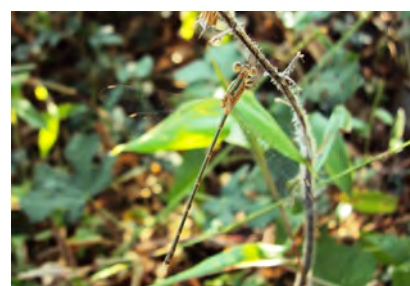
Pseudagrion indicum Fraser, 1924



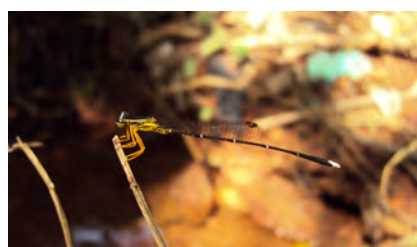
Pseudagrion microcephalum (Rambur, 1842)



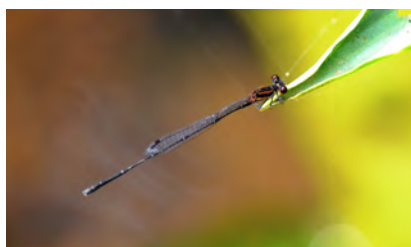
Microgomphus souteri Fraser, 1924



Lestes elatus (Hagen in Selys, 1862)



Copera vittata Selys, 1863



Prodasineura verticalis (Selys, 1860)



Elatoneura tetrica

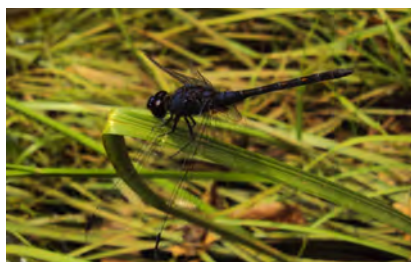
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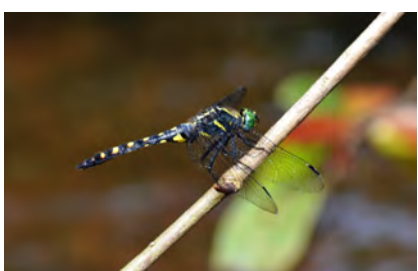
Paragomphus lineatus (Selys, 1850)



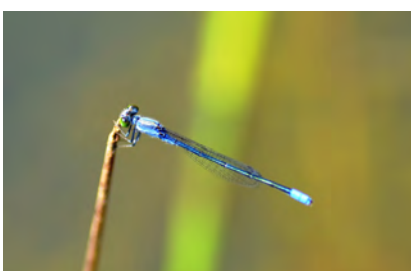
Trithemis festiva (Rambur, 1842)



Pseudagrion rubriceps Selys, 1876



Onychothemis testacea
Laidlaw, 1902



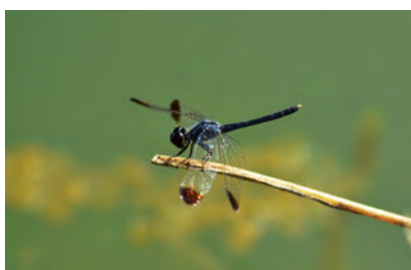
Paracercion calamorum (Ris, 1916)



Archibasis oscillans (Selys, 1887)



Euphaea fraseri (Laidlaw, 1920)



Diplacodes nebulosa (Fabricius, 1793)

Discussion

With the addition of 24 species, the odonate diversity of Varadoor reaches 68 species. Three new families viz, Euphaeidae, Chlorociphidae and Protoneuridae have been added under sub order Zygoptera and one family Macromiidae under Anisoptera. *Pseudagrion decorum* (Rambur, 1842), *Ischnura senegalensis* (Rambur, 1842), *Agriocnemis keralensis* Peters, 1981, *Prodasineura verticalis* (Selys, 1860), *Elattonaura tetrica* (Laidlaw, 1917), *Onychothemis testacea* Laidlaw, 1902 and *Epophthalmia vittata* Burmeister, 1839 has not been reported from Kannur as per Emiliyamma et. al., (2007). So they are new records from Kannur. *Paracercion calamorum* (Ris, 1916) is a very rare odonate of Kerala. It has been recorded for the first time from North Kerala in this study. *Pseudagrion indicum*



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Newsletter of the

Fraser, 1924, *Euphaea fraseri* (Laidlaw, 1920) and *Microgomphus souteri* Fraser, 1924 are endemic to Western Ghats. Apart from diversity studies, abundance studies and long term monitoring in this area may reveal interesting results. Majority of the odonates were found associated with the stream passing through the area. Urbanisation and water pollution are major threats to the wetlands of this area. Public attentiveness and involvement of local self government is required to conserve the habitat of these odonates.

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