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An updated checklist of Mymaridae (Hymenoptera: Chalcidoidea) of India

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Abstract

Mymarids (fairyflies) are economically important, internal, primary egg parasitoids of achenorrhynchos hemipteran insects. They play a crucial role in managing cicadellids and delphacids in agricultural and horticultural ecosystems. An updated checklist of Indian Mymaridae is provided with 38 genera and 194 species that constitute 32.8 and 11.9 per cent of world genera and species respectively. Five genera viz., *Allanagrus*, *Dorya*, *Platystethynium*, *Schizophragma* and *Stephanocampa* were newly recorded, four genera viz., *Cosmocomoidea*, *Lymaenon*, *Tanyxiphium* and *Zeyanus* were added during reclassification of *Gonatocerus*, 56 new species were described and 12 first reports of species were made from India. Seven species viz., *Acmonoplynema shrawastianum*, *Erythmelus lygivorus*, *Gonatocerus sulphuripes*, *G. tarae*, *G. pahlgemensis*, *G. similis* and *Polynema huberi* were synonymized and one species misidentified.

Keywords: Fairyflies, oophagous, endoparasitoids, distribution, synonymies

1. Introduction

Fairyflies (Hymenoptera: Mymaridae) are exclusively internal, primary oophagous parasitoids [except *Stethynium ophelimi* and *S. breviovipositor* that are larval parasitoids^[49]] of achenorrhynchos Hemiptera. But eggs of Hemiptera (Coccoidea, Tingidae, Miridae, etc.), Coleoptera, Odonata, Psocoptera and Thysanoptera are also attacked. They generally parasitize concealed eggs^[44]. The key to Oriental Mymaridae with preliminary catalogue was given in 1983^[118]. Later checklist of Indian Mymaridae was published in 2013^[5, 64] that included 130 species under 29 genera updated up to 31st December, 2012. Presently it is known by 38 genera and 194 species updated up to May, 2018 that constitute 32.8 and 11.9 per cent of world genera and species respectively.

2. Materials and Methods

Mymarid collections were made mainly using yellow pan traps as described by Noyes^[78] in addition to malaise traps. Insects belonging to taxa described and reported from Annamalai University were deposited with Parasitoid Taxonomy and Biocontrol laboratory, Department of Entomology, Annamalai University, Chidambaram, Tamil Nadu, India. Literature pertaining to others' work from India was compiled and added to prepare the checklist of Indian Mymaridae.

3. Taxonomic section

Scrutiny of literature pertaining to Indian Mymaridae resulted in the following updated checklist.

Phylum: Arthropoda

Subphylum: Uniramia

Class: Insecta

Order: Hymenoptera

Suborder: Parasitica

Superfamily: Chalcidoidea

Family: Mymaridae

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No	Genus and Species	Distribution and References
G1	<i>Acmoplynema</i> Ogloblin, 1946	
1	<i>Acmoplynema bimaculatum</i> Subba Rao, 1989	Karnataka, Kerala [36], Andhra Pradesh, Tamil Nadu [69], Uttarakhand [53].
2	<i>Acmoplynema indochinense</i> (Soyka), 1956 (Note: <i>Acmoplynema shrawastanianum</i> Hayat & Anis in [39] was synonymized under this species by [70])	Uttar Pradesh [36], Karnataka, Uttar Pradesh [130], Bihar, Nagaland, Tamil Nadu [69], Kerala [98].
3	<i>Acmoplynema incognitum</i> (Narayanan, Subba Rao & Kaur, 1960)	Delhi, Karnataka & Uttar Pradesh [36].
4	<i>Acmoplynema malabaricum</i> Subba Rao, 1989	Kerala [36], Tamil Nadu [98].
5	<i>Acmoplynema orchidea</i> Triapitsyn & Berezovskiy, 2007	Taiwan [130], India (new record) Tamil Nadu, Salem, Yercaud [70].
6	<i>Acmoplynema orientale</i> (Narayanan, Subba Rao & Kaur), 1960	Delhi, Uttar Pradesh [36], Kerala, Puducherry [95 & 96].
7	<i>Acmoplynema problema</i> Triapitsyn & Berezovskiy, 2007	Karnataka [130], Kerala [98], Tamil Nadu [69].
8	<i>Acmoplynema pseudotachikawai</i> Manickavasagam & Palanivel, in [70]	Tamil Nadu, Selam, Yercaud [70].
9	<i>Acmoplynema pteron</i> Manickavasagam & Palanivel, in [70]	Tamil Nadu, Salem, Yercaud [70].
10	<i>Acmoplynema tachikawai</i> Taguchi, 1971	Karnataka [130], Meghalaya [99], Tamil Nadu [70].
11	<i>Acmoplynema campylurum</i> Xu & Lin, 2002	China [139], Thailand [130], India (New record), Meghalaya [100], Andaman and Nicobar Islands, Bihar, Tamil Nadu [69].
G2	<i>Alaptus</i> Westwood, 1839	
12	<i>Alaptus deccanensis</i> Anwar & Zeya, 2014	Karnataka [9].
13	<i>Alaptus delhiensis</i> Mani, 1942	Delhi [56].
14	<i>Alaptus indicus</i> Anwar & Zeya, in [10]	Andhra Pradesh [10].
15	<i>Alaptus jowainus</i> Rehmat & Anis, 2014	Uttarakhand and Meghalaya [102].
16	<i>Alaptus magnanimus</i> Annandale, 1909	West Bengal [6].
17	<i>Alaptus pyronus</i> Anwar & Zeya, 2014	Uttarakhand [9].
18	<i>Alaptus ramakrishnai</i> Mani, 1942	Tamil Nadu [56].
19	<i>Alaptus ramamurthyi</i> Anwar & Zeya, 2014	Uttarakhand [9].
G3	<i>Allanagrus</i> Noyes & Valentine, 1989	
20	<i>Allanagrus montanus</i> Manickavasagam & Palanivel, in [88]	Tamil Nadu [88].
21	<i>Allanagrus orientalis</i> Manickavasagam & Palanivel, in [88]	Tamil Nadu [88].
G4	<i>Anagroidea</i> Girault, 1915	
22	<i>Anagroidea himalayana</i> (Mani & Saraswat), 1973	Himachal Pradesh [59], West Bengal [117].
G5	<i>Anagrus</i> Haliday, 1833	
23	<i>Anagrus armatus</i> (Ashmead), 1887	Andhra Pradesh [14].
24	<i>Anagrus columbi</i> Perkins, 1905	Andhra Pradesh [118].
25	<i>Anagrus dalhousieanus</i> Mani & Saraswat, 1973	Himachal Pradesh [118].
26	<i>Anagrus elegans</i> Chiappini, 2002	Odisha (= Orissa) [15].
27	<i>Anagrus empoascae</i> Dozier, 1932	Delhi [118].
28	<i>Anagrus flaviapex</i> Chiappini & Lin, 1998	Delhi, Karnataka, Tamil Nadu [123 & 124].
29	<i>Anagrus flaveolus</i> Waterhouse, 1913	Andhra Pradesh, Odisha [118].
30	<i>Anagrus nilaparvatae</i> Pang & Wang, 1985	India [17] [as mentioned by [129], but doubtful, reported from South China, Oriental region [90].
31	<i>Anagrus optabilis</i> (Perkins), 1905	Andhra Pradesh, Odisha [118], Tamil Nadu [109], Uttarakhand [53].
32	<i>Anagrus perforator</i> (Perkins), 1905	Odisha [118].
G6	<i>Anaphes</i> Haliday, 1833	
33	<i>Anaphes pallipes</i> (Ashmead), 1887	Tamil Nadu [60].
34	<i>Anaphes pullicrurus</i> (Girault), 1910	Karnataka and Tamil Nadu [60].
35	<i>Anaphes quinquearticulatus</i> Huber & Triapitsyn, 2017	Congo [51], India, Tamil Nadu [71].
G7	<i>Arescon</i> Walker, 1846	
36	<i>Arescon enocki</i> (Subba Rao & Kaur), 1959	Bihar, Delhi, Gujarat, Himachal Pradesh, Karnataka and Maharashtra [118].
37	<i>Arescon mudigerensis</i> Subba Rao, 1989	Karnataka [117].
G8	<i>Australomyrmecia</i> Girault, 1929	
38	<i>Australomyrmecia formosum</i> Narendran & Hayat, in [76]	Karnataka [76].
G9	<i>Calldicopus</i> Ogloblin, 1955	
39	<i>Calldicopus narendrani</i> Manickavasagam & Palanivel, in [86]	Tamil Nadu [86].
G10	<i>Camptoptera</i> Foerster, 1856	
40	<i>Camptoptera assamensis</i> Rehmat and Anis, 2014a	Assam [102].
41	<i>Camptoptera ambrae</i> Viggiani, 1978	Tamil Nadu [118].
42	<i>Camptoptera brevifuniculata</i> Subba Rao, 1989	Tamil Nadu [117].
43	<i>Camptoptera dravida</i> Subba Rao, 1989	Karnataka & Tamil Nadu [117].
44	<i>Camptoptera kannada</i> Subba Rao, 1989	Karnataka [117], Andhra Pradesh and Tamil Nadu [66], Andaman and Nicobar Islands [97].
45	<i>Camptoptera longifuniculata</i> Viggiani, 1978	Tamil Nadu [118].
46	<i>Camptoptera matcheta</i> Subba Rao, 1989	Karnataka [117], Uttarakhand [8], Meghalaya [99], Tamil Nadu [98], Andaman and Nicobar Islands [97].
47	<i>Camptoptera muiri</i> (Perkins), 1912	Tamil Nadu [66].
G11	<i>Cleruchus</i> Enock, 1909	

48	<i>Cleruchus funiculatus</i> Manickavasgam & Palanivel, in [71]	Karnataka, Tamil Nadu [71].
49	<i>Cleruchus indicus</i> Manickavasgam & Palanivel, in [71]	Tamil Nadu [71].
50	<i>Cleruchus orientalis</i> Manickavasgam & Palanivel, in [71]	Manipur [71].
G12	<i>Cosmocomoidea</i> Howard, 1908	
51	<i>Cosmocomoidea atra</i> (Förster), 1841	Andhra Pradesh, Assam, Bihar, Delhi, Kerala, Punjab, Uttar Pradesh [145], Odisha, Sikkim, Uttarakhand [8], West Bengal [146], Karnataka [148], Meghalaya [99].
52	<i>Cosmocomoidea garyi</i> (Manickavasagam & Rameshkumar), 2013	Karnataka [65].
53	<i>Cosmocomoidea gunathilagaraji</i> (Manickavasagam & Rameshkumar), 2013	Karnataka [65], Maharashtra [142].
54	<i>Cosmocomoidea hayati</i> (Zeya & Khan), 2012	West Bengal [146], Karnataka, Uttarakhand [142].
55	<i>Cosmocomoidea heratyi</i> (Manickavasagam & Rameshkumar), 2013	Karnataka [65].
56	<i>Cosmocomoidea kashipurensis</i> (Zeya & Khan), 2012	Uttarakhand [146], Meghalaya [142], Uttarakhand [53].
57	<i>Cosmocomoidea kodaiana</i> (Mani & Saraswat), 1973	Tamil Nadu [59], Kerala [95], Karnataka [66], Himachal Pradesh [146], Meghalaya [99], Uttarakhand [53].
58	<i>Cosmocomoidea monticola</i> (Zeya) in [145]	Uttar Pradesh [145], Himachal Pradesh, Karnataka, Sikkim, Uttarakhand [142], Karnataka [148], Meghalaya [99], Kerala [98], Uttarakhand [53].
59	<i>Cosmocomoidea sahadevani</i> (Subba Rao & Kaur), 1959	Bihar, Delhi, Kerala, Uttara Pradesh [145], Punjab, Uttar Pradesh, Uttarakhand [8], West Bengal, Punjab [146], Karnataka [148].
60	<i>Cosmocomoidea trialbifuniculatus</i> (Subba Rao), 1989	Karnataka [117], West Bengal, Uttarakhand [8], Kerala [98], Meghalaya [99].
61	<i>Cosmocomoidea udakamanda</i> (Mani & Saraswat), 1973	Tamil Nadu [59], Meghalaya [99].
G13	<i>Dicopomorpha</i> Ogloblin, 1955	
62	<i>Dicopomorpha albithorax</i> Rameshkumar & Manickavasagam, 2016	Andaman and Nicobar Island [94].
63	<i>Dicopomorpha funiculata</i> Rameshkumar & Manickavasagam, 2016	Andaman and Nicobar Island [94].
64	<i>Dicopomorpha indica</i> (Subba Rao), 1989	Karnataka [117].
65	<i>Dicopomorpha longiscapa</i> Rameshkumar & Manickavasagam, 2016	Kerala [94].
66	<i>Dicopomorpha minuta</i> Rameshkumar & Manickavasagam, 2016	Tamil Nadu [94].
67	<i>Dicopomorpha zebra</i> Huber, 2009	West Africa, Nigeria, Gabon, Ivory Coast [46], Andaman and Nicobar Island [97].
G14	<i>Dicopus</i> Enock, 1909	
68	<i>Dicopus kamrani</i> Anwar & Zeya, 2018	Uttar Pradesh [9a]
69	<i>Dicopus longipes</i> (Subba Rao), 1984	Malaysia [116], India, Kerala [98], Manipur, Tamil Nadu [69].
70	<i>Dicopus noyesi</i> Manickavasagam, in [61]	Andhra Pradesh & Tamil Nadu [61], Kerala [98], Karnataka [9a]
71	<i>Dicopus obesus</i> Anwar & Zeya, 2018	Uttar Pradesh [9a]
G15	<i>Dorya</i> Noyes & Valentine, 1989	
72	<i>Dorya noyesi</i> Manickavasagam & Palanivel, in [87]	Tamil Nadu [87].
G16	<i>Efoersteria</i> Mathot, 1966	
73	<i>Efoersteria manipurensis</i> Rehmat & Anis, 2014b	Manipur [103], Nagaland [69].
74	<i>Efoersteria secunda</i> Viggiani, 1978	Tamil Nadu [118].
G17	<i>Erythmelus</i> Enock, 1909	
75	<i>Erythmelus (E.) flavovarius</i> (Walker), 1846	Delhi [118], Tamil Nadu [66], Kerala and Pudhucherry [95 & 96], Uttarakhand, Uttar Pradesh [8], Meghalaya [99], Andaman and Nicobar Islands [97].
76	<i>Erythmelus (E.) helopeltidis</i> Gahan, 1949	Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Uttar Pradesh [119].
77	<i>Erythmelus (E.) dichromocnemus</i> Novicky, 1953 (Note: <i>Erythmelus lygivorus</i> Viggiani & Jesu [133] was synonymized under this species by [131]).	Kerala [95], Uttar Pradesh [8].
78	<i>Erythmelus (E.) nuinu</i> Triapitsyn, 2003	Kerala and Pudhucherry [95 & 96].
79	<i>Erythmelus (P.) panis</i> (Enock), 1909	Tamil Nadu [117], Pudhucherry [66].
80	<i>Erythmelus (P.) teleonemiae</i> Subba Rao, 1984	Karnataka, Tamil Nadu [116].
G18	<i>Eubroncus</i> Yoshimoto, Kozlov & Trjapitzin, 1972	
81	<i>Eubroncus indicus</i> Hayat & Khan, 2009	West Bengal [41].
82	<i>Eubroncus scutatus</i> Manickavasagam & Palanivel, in [85]	Karnataka and Tamil Nadu [85].
83	<i>Eubroncus vertexus</i> Jin & Li, 2014	China [52], India, Meghalaya [10].
G19	<i>Gonatocerus</i> Nees, 1834	
84	<i>Gonatocerus aegyptiacus</i> Soyka, 1950 (Note: <i>Gonatocerus tarae</i> (Narayanan & Subba Rao) was synonymised with this species by [127])	Assam, Andhra Pradesh, Bihar, Jammu and Kashmir, Karnataka, Maharashtra, Meghalaya, Tamil Nadu, Uttar Pradesh [145], Delhi, Himachal Pradesh, Odisha, Pudhucherry, Punjab, Uttarakhand, West Bengal [8], Andaman and Nicobar Islands [148], Meghalaya [99].
85	<i>Gonatocerus edentulus</i> Zeya, in [145]	Bihar [145].
86	<i>Gonatocerus fuscicornis</i> (Walker), 1846 (Note: <i>G. sulphuripes</i> (Foerster) was synonymized with this species [127])	Himachal Pradesh [145].
87	<i>Gonatocerus huberi</i> Zeya, in [145]	Kerala [145].

88	<i>Gonatocerus longicornis</i> Nees, 1834	Assam, Delhi, Jammu and Kashmir, Kerala, Madhya Pradesh, Odisha, TamilNadu, Uttar Pradesh [145], Jharkhand, Uttarakhand, West Bengal [8], Andaman and Nicobar Islands [148].
89	<i>Gonatocerus longicrus</i> Kieffer, 1913	Odisha [54]. (Name considered as <i>incertae sedis</i>)
90	<i>Gonatocerus mandyanus</i> Zeya & Usman in [148]	Karnataka [148].
91	<i>Gonatocerus meghalayanus</i> Zeya, 2011	Andhra Pradesh, Meghalaya, Puducherry, Tamil Nadu [145].
92	<i>Gonatocerus shamimi</i> Subba Rao & Hayat, 1986	Andhra Pradesh [93], Bihar, Uttar Pradesh [145], Odisha, Jharkhand, West Bengal [8], Meghalaya [142].
93	<i>Gonatocerus utkalensis</i> Subba Rao, 1989	Assam, Odisha [145].
G20	<i>Himoplynema Taguchi, 1977</i>	
94	<i>Himoplynema haflongum</i> Hayat & Singh in [40]	Assam [40], Meghalaya [99].
95	<i>Himoplynema hexatricha</i> Hayat & Basha, in [40]	Assam [40].
96	<i>Himoplynema hishimonus</i> Taguchi, 1977	Andhra Pradesh, Assam, Bihar, West Bengal [37 & 42].
97	<i>Himoplynema indicum</i> Hayat & Basha, in [40]	Assam [40], Andaman and Nicobar Islands [62].
98	<i>Himoplynema longiclavatum</i> Hayat & Anis, 1999b	Kerala, Karnataka [37], Tamil Nadu [66].
G21	<i>Kikiki Huber & Beardsley, 2000</i>	
99	<i>Kikiki huna</i> Huber, in [48]	Costa Rica, Hawaiian Islands, Trinidad and Tobago [50], Argentina [128], Tamil Nadu [100], Andaman and Nicobar Islands [97].
G22	<i>Litus Haliday, 1833</i>	
100	<i>Litus assamensis</i> Rehmat & Anis, 2016	Assam [106].
101	<i>Litus cynipseus</i> Haliday, 1833	India, Meghalaya [100].
102	<i>Litus huberi</i> Rehmat & Anis, in [107]	Assam [107], Uttarakhand [53].
103	<i>Litus sutil</i> Triapitsyn & Berezovskiy, 2004	Tamil Nadu [98].
104	<i>Litus triapitsyni</i> Rehmat & Hayat, in [107]	Assam [107], Tamil Nadu [98].
G23	<i>Lymaenon Walker, 1846</i>	
105	<i>Lymaenon aureus</i> (Girault), 1911 (Note: <i>G. pahlgamensis</i> Narayanan was synonymized under this species [127])	Andhra Pradesh, Assam, Bihar, Jammu & Kashmir, Jharkhand, Kerala, Maharashtra, Odisha, Tamil Nadu, Uttar Pradesh [145], Puducherry [96], Karnataka, Sikkim [148], Meghalaya [99].
106	<i>Lymaenon bakrotus</i> (Mani & Saraswat), 1973	Himachal Pradesh [59].
107	<i>Lymaenon bashai</i> (Zeya), in [145]	Assam [145].
108	<i>Lymaenon berijamus</i> (Mani & Saraswat), 1973	Tamil Nadu [59].
109	<i>Lymaenon bicoloriventris</i> (Zeya), in [145]	Bihar, Karnataka, Uttar Pradesh [145], West Bengal [8].
110	<i>Lymaenon bouceki</i> (Zeya), in [145]	Bihar, Uttar Pradesh [145].
111	<i>Lymaenon brevifuniculatus</i> (Subba Rao), 1970	Maharashtra, Punjab, Rajasthan, Tamil Nadu [145].
112	<i>Lymaenon breviterebratus</i> (Subba Rao), 1989	Karnataka [117].
113	<i>Lymaenon coimbatorensis</i> (Zeya, Manickavasagam & Rameshkumar), 2012	Tamil Nadu [147].
114	<i>Lymaenon delhiensis</i> Narayanan & Subba Rao, 1961	Andhra Pradesh [93], Bihar, Delhi, Himachal Pradesh, Karnataka, Kerala, Tamil Nadu, Uttar Pradesh [145], Karnataka [148], Meghalaya [99], Uttarakhand [53].
115	<i>Lymaenon devitatakus</i> (Mani & Saraswat), 1973	Tamil Nadu [59].
116	<i>Lymaenon farmani</i> (Zeya & Anwar), 2013	Meghalaya [144].
117	<i>Lymaenon khalidi</i> Amer & Zeya, in [3]	Uttarakhand [3].
118	<i>Lymaenon lakhimpuriensis</i> Amer & Zeya, 2016	Uttar Pradesh [1].
119	<i>Lymaenon litoralis</i> (Haliday), 1833	Kerala, Punjab, Uttar Pradesh, Uttarakhand [1].
120	<i>Lymaenon longior</i> (Soyka), 1946	Uttar Pradesh [145].
121	<i>Lymaenon maculatus</i> (Zeya), in [145]	Uttar Pradesh [145].
122	<i>Lymaenon malanadensis</i> (Subba Rao), 1989	Karnataka [117], Meghalaya [99].
123	<i>Lymaenon manaliensis</i> (Zeya & Anwar), 2013	Himachal Pradesh [144].
124	<i>Lymaenon munnarus</i> (Mani & Saraswat), 1973	Andhra Pradesh, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu [145], Odisha, Jharkhand, West Bengal [8], Karnataka [148].
125	<i>Lymaenon narayani</i> Subba Rao & Kaur, 1959	Andhra Pradesh, Bihar, Himachal Pradesh, Kerala, Tamil Nadu, Uttar Pradesh [145], Delhi [119], Karnataka [148].
126	<i>Lymaenon ramakrishnai</i> Subba Rao & Kaur, 1959	Delhi [120].
127	<i>Lymaenon ramamurthyi</i> (Zeya & Anwar), 2013	Uttarakhand [144], Himachal Pradesh [1].
128	<i>Lymaenon solanus</i> Amer and Zeya, 2016	Karnataka, Himachal Pradesh [1].
129	<i>Lymaenon spectabilis</i> (Zeya), in [145]	Uttar Pradesh [145].
130	<i>Lymaenon sundus</i> (Zeya & Anwar), 2013	West Bengal [144].
131	<i>Lymaenon tamilanus</i> (Mani & Saraswat), 1973	Kerala, Tamil Nadu, Uttar Pradesh [145], Karnataka [148].
132	<i>Lymaenon triapitsyni</i> (Zeya, Manickavasagam & Rameshkumar), 2012	Uttar Pradesh [147].
133	<i>Lymaenon venustus</i> (Zeya), in [145]	Andhra Pradesh [93], Bihar, Kerala, Meghalaya, Tamil Nadu [145], Meghalaya [99].
G24	<i>Mymar Curtis, 1829</i>	
134	<i>Mymar andamanus</i> Amer & Zeya, in [4]	Andaman and Nicobar Island [4].
135	<i>Mymar dobo</i> Amer & Zeya, in [4]	Karnataka [4].
136	<i>Mymar erphae</i> Amer & Zeya, in [4]	Maharashtra [4].
137	<i>Mymar imlikana</i> Amer & Zeya, in [4]	Karnataka [4].

138	<i>Mymar roopum</i> Hayat & Khan, in [39]	Uttar Pradesh [39], Kerala, Karnataka [66].
139	<i>Mymar taprobanicum</i> Ward, 1875	Delhi, Rajasthan, Tamil Nadu [34], Madhya Pradesh [35], Himachal Pradesh, Uttar Pradesh, Uttarakhand, Odisha [39], Karnataka [66], Kerala, Pudhucherry [95 & 96], Meghalaya [99], Uttarakhand [53].
140	<i>Mymar pulchellum</i> Curtis, 1832 (Note: <i>M. schwanni</i> [27] reported so far in India was a misidentification and it belongs to <i>M. pulchellum</i> [4].)	Andaman and Nicobar Islands [62]
141	<i>Mymar venustum</i> , Girault, 1911	Andaman and Nicobar Islands [4].
G25	<i>Narayanella SubbaRao, 1976</i>	
142	<i>Narayanella pilipes</i> (SubbaRao), 1976	West Bengal [35], Andhra Pradesh, Tamil Nadu [61], Andaman and Nicobar Islands [97], Uttarakhand [53].
143	<i>Narayanella thornypoda</i> (Narayanan & Subba Rao), 1961	Andhra Pradesh [93], Maharashtra, Uttar Pradesh [74], Odisha [148].
G26	<i>Omyomymar Schauff, 1983</i>	
144	<i>Omyomymar silvanum</i> (Ogloblin), 1935	Tamil Nadu [66].
145	<i>Omyomymar huberi</i> Manickavasagam & Gowripakash, in [31]	Tamil Nadu [31].
146	<i>Omyomymar noyesi</i> Manickavasagam & Gowripakash, in [31]	Tamil Nadu and Andhra Pradesh [31].
147	<i>Omyomymar insulanum</i> Zeya & Anwar, in [11]	Andaman and Nicobar Islands [11].
148	<i>Omyomymar yousifi</i> Anwar & Zeya, in [11]	Andaman and Nicobar Island [11].
149	<i>Omyomymar glabrum</i> Lin & Chiappini, 1996	China [55], India, Meghalaya [100].
G27	<i>Ooconus Haliday, 1833</i>	
150	<i>Ooconus himalayus</i> Subba Rao, 1989	Himachal Pradesh [117], Uttarakhand [53].
151	<i>Ooconus nigrotestaceus</i> Subba Rao, 1989	Tamil Nadu [117], Kerala [98].
G28	<i>Palaeoneura Waterhouse, 1915</i>	
152	<i>Palaeoneura bagicha</i> (Narayanan, SubbaRao & Kaur), 1960	Delhi [75], Karnataka, Tamil Nadu [117], Uttar Pradesh [35], Himachal Pradesh, Maharashtra, Punjab [39], Kerala [66], Meghalaya [99], Uttarakhand [53], Arunachal Pradesh [2].
153	<i>Palaeoneura farmani</i> Amer & Zeya, 2018	Kerala [2]
154	<i>Palaeoneura indopeninsularis</i> (Mani & Saraswat), 1973	Karnataka [58], Tamil Nadu [59], Uttar Pradesh [45], Kerala [66].
155	<i>Palaeoneura sophoniae</i> (Huber), 2003	Uttar Pradesh [45], Delhi, Himachal Pradesh, Maharashtra, Odisha [2].
156	<i>Palaeoneura unimaculatum</i> Hayat & Anis, in [37]	Kerala [37], Tamil Nadu [66], Jammu & Kashmir, Karnataka [79].
157	<i>Palaeoneura vegis</i> Amer & Zeya, 2018	Uttar Pradesh [2]
G29	<i>Platystethynium Ogloblin, 1946</i>	This genus was first reported from India, by [100]. No species level diagnosis reported. Distribution: Indonesia (Java) [82], India –Meghalaya [100].
G30	<i>Polynema Haliday, 1833</i>	
158	<i>Polynema (Doricytus) alalata</i> Rehmat & Anis, 2015	Uttarakhand [105].
159	<i>Polynema (Doricytus) bicolorigastra</i> Rehmat & Anis, 2015	West Bengal [105].
160	<i>Polynema (Doricytus) dunense</i> Hayat & Anis (Note: Earlier this species was under <i>Polynema</i> subgenus, now transferred to <i>Doricytus</i> subgenus by [105].)	Uttar Pradesh [38], Meghalaya [99], Uttarakhand [53].
161	<i>Polynema (Dorypolynema) mendeli</i> Girault, 1913	Assam, Bihar, Kerala, Pudhucherry, West Bengal [38], Tamil Nadu [61], Odisha [8], Karnataka [148].
162	<i>Polynema (Polynema) anamalaiense</i> Mani & Saraswat, 1973	Kerala [59], Tamil Nadu [119].
163	<i>Polynema (Polynema) anantanagana</i> Narayanan, 1961	Jammu & Kashmir [73].
164	<i>Polynema (Polynema) assamense</i> Hayat & Singh, 2001	Assam [42].
165	<i>Polynema (Polynema) bengalense</i> Rehmat & Anis, 2015	West Bengal [105].
166	<i>Polynema (Polynema) brevicarinae</i> Annecke & Doutt, 1961 (Note: <i>Polynema huberi</i> Manickavasagam & Rameshkumar was synonymized under this species [105].)	Andhra Pradesh [93], Bihar, Delhi, Karnataka, Kerala, Maharashtra, Odisha, Pudhucherry, Tamil Nadu, Uttar Pradesh [38], Andaman and Nicobar Islands [148], Meghalaya [99].
167	<i>Polynema (Polynema) crassa</i> Mani & Saraswat, 1973	Himachal Pradesh [59].
168	<i>Polynema (Polynema) dhenkunde</i> Mani & Saraswat, 1973	Himachal Pradesh [59], Kerala [95], Meghalaya [99].
169	<i>Polynema (Polynema) hayati</i> Rehmat & Anis, 2015	West Bengal [105].
170	<i>Polynema (Polynema) kalatopense</i> Mani & Saraswat, 1973	Himachal Pradesh [59].
171	<i>Polynema (Polynema) kamathi</i> Mani & Saraswat, 1973	Himachal Pradesh [59].
172	<i>Polynema (Polynema) manaliense</i> Hayat & Anis, in [38]	Himachal Pradesh [38].
G31	<i>Pseudanaphes Noyes & Valentine, 1989</i>	
173	<i>Pseudanaphes sikkimianus</i> Rehmat & Anis, 2011	Sikkim [101].
G32	<i>Ptilomymar Annecke&Doutt, 1961</i>	
174	<i>Ptilomymar dictyon</i> Hayat & Anis, in [37]	Tamil Nadu [37], Kerala [95], Andaman and Nicobar Islands [97].
175	<i>Ptilomymar heptafuniculata</i> Manickavasagam & Palanivel, 2014	Tamil Nadu [68].
176	<i>Ptilomymar terebratus</i> Manickavasagam & Palanivel, 2015	Tamil Nadu [69].
177	<i>Ptilomymar dianensis</i> Jin & Li, 2014	China [52], India- Chhattisgarh, Tamil Nadu [69], Andaman and Nicobar Islands [97].
G33	<i>Schizophragma Ogloblin, 1949</i>	
178	<i>Schizophragma indica</i> Rehmat & Anis, in [104]	Uttar Pradesh [104].
G34	<i>Stephanocampa Mathot, 1966</i>	
179	<i>Stephanocampa andamanensis</i> Manickavasagam & Palanivel, in [89]	Andaman and Nicobar Island [89].
180	<i>Stephanocampa huberi</i> Manickavasagam & Palanivel, in [89]	Manipur [89].

181	<i>Stephanocampta indica</i> Anwar & Zeya, in [12]	Karnataka [12], Manipur [89].
G35	<i>Stephanodes</i> Enock, 1909	
182	<i>Stephanodes reduvioli</i> (Perkins), 1905	Delhi [57], Uttar Pradesh [35], Bihar, Kerala, Karnataka, Tamil Nadu, Uttarakhand [38], Himachal Pradesh [39], Andhra Pradesh [93], Meghalaya [99].
G36	<i>Stethynium</i> Enock, 1909	
183	<i>Stethynium empoascae</i> SubbaRao, 1966	Delhi [113], Gujarat, Karnataka [125], Tamil Nadu [66].
184	<i>Stethynium triclavatum</i> Enock, 1909	Uttar Pradesh [35], Tamil Nadu [66].
G37	<i>Tanyxiphium</i> Huber, 2015	
185	<i>Tanyxiphium harriet</i> (Zeya), in [142]	Kerala, South Andaman, Mt. Harriet [142].
G38	<i>Zeyanus</i> Huber, 2015	
186	<i>Zeyanus asulcifrons</i> (Zeya), in [145]	Assam [145].
187	<i>Zeyanus bialbifuniculatus</i> (Subba Rao), 1989 (Note: <i>Gonatocerus similis</i> was synonymized under this species [47]).	Tamil Nadu [145], Karnataka [32], Uttarakhand [97].
188	<i>Zeyanus devikulamus</i> (Mani & Saraswat), 1973	Tamil Nadu [59]
189	<i>Zeyanus fulvipodus</i> (Subba Rao), 1989	Kerala [117]
190	<i>Zeyanus jaintiacus</i> (Zeya), in [143]	Meghalaya [143].
191	<i>Zeyanus longiterebratus</i> (Subba Rao), 1989	Kerala [117].
192	<i>Zeyanus rileyi</i> (Zeya), in [143]	Kerala [143].
193	<i>Zeyanus sergueii</i> (Manickavasagam & Rameshkumar), in [65]	Karnataka [65].
194	<i>Zeyanus unicolouratus</i> (Subba Rao), 1989	New Delhi [117].

4. Discussion

As per the checklist [5], 124 species under 27 genera were reported, but 130 species under 29 genera were reported in the same year [64]. Later, *Allanagrus* and *Dorya* [68] *Platystethynium* [100], *Schizophragma* [104] and *Stephanocampta* [12] were first reported from India. Further, four genera viz., *Cosmocomoidea*, *Lymaenon*, *Tanyxiphium* and *Zeyanus* were added during reclassification of *Gonatocerus* [47]. In addition, *Acmopolynema shrawastianum* [70], *Erythmelus lygivorus* [131], *Gonatocerus sulphuripes* [127], *G. tarae* [127], *G. pahlgamensis* [127], *G. similis* [47] and *Polynema huberi* [105] were synonymized. *Mymar schwanni* [4] reported by misidentity, 56 new species described and 12 first reports of species that resulted in 194 species under 38 genera. This updated checklist will be useful in understanding the biodiversity wealth of Indian Mymaridae and serve as a ready reckoner for future taxonomists and biocontrol workers in this field.

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