



## A checklist of robber flies (Diptera, Asilidae) of Kerala, India

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**ABSTRACT:** A checklist of robber fly species reported in Kerala, India based on literature survey is provided. In this list, 87 species of robber flies representing 25 genera and eight subfamilies are enumerated. The diversity of robber flies in Kerala was highlighted. Most of the species were reported from the protected forest areas of Kerala such as Ponmudi, Anamalai hills, Idamalayar, Thekkadi, Valparai, Chembra peak, Nilambur, Peermade, Walayar, Tenmalai and Silent Valley of the Western Ghats.

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**KEYWORDS:** Assassin flies, biodiversity, taxonomy, Western Ghats

### INTRODUCTION

The Western Ghats is regarded as one of the eight biodiversity hotspots in the world and as a vulnerable ecological region. With its tall, dense tropical rain forests, Kerala, at the southernmost tip of India, boasts the most diverse vegetation of the region (Reddy *et al.*, 2016). Asilidae is the third most diverse family in the order Diptera and is commonly known as robber flies or assassin flies (Pape *et al.*, 2011; Brown *et al.*, 2018). They are a significant group of predators in all zoogeographical zones and contain 7531 species in 556 genera scattered throughout the world (Pape *et al.*, 2011; Dikow, 2020). Currently a comprehensive information on the Asilidae of Kerala is not available. As a foundation on this fauna, a checklist of the asilid species previously recorded from Kerala was worked out.

### MATERIALS AND METHODS

The checklist was prepared entirely based on a literature. Asilidae generic classification *sensu* Dikow (2009) is followed in this study. Reported details regarding the robber fly diversity of Kerala were collected from various sources in the literature. When the exact distribution of a taxon is unknown, it is recorded simply as Kerala.

### RESULTS AND DISCUSSION

#### Subfamily Asilinae Latreille, 1802

##### Genus *Astochia* Becker, 1913

The genus *Astochia* Becker has a vast distribution in the Oriental region, which includes China, India, Indonesia (Java, Sumatra), Philippines, and Thailand (Scarborough and Biglow, 2004).

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1. *Astochia pseudoguptai* Joseph and Parui, 1987  
Distribution: Nilambur (Malappuram)

Source: Roy *et al.* (2020)

**Genus *Clephydroneura* Becker, 1925**

Robber flies of the genus *Clephydroneura* are primarily found in tropical Asia.

2. *Clephydroneura anambrevipennis* Oldroyd, 1938

Distribution: Thekkady (Idukki)

Source: Mathew (2004)

3. *Clephydroneura apicalis* Oldroyd, 1938

Distribution: Kerala

Source: Parui and Joseph (1994), Joseph and Parui (1995)

4. *Clephydroneura brevipennis* Oldroyd, 1938

Distribution: Nelliampathy (Palakkad), Thekkady (Idukki)

Source: Joseph and Parui (1990b, 1997), KFRI (1999), Mathew (2004)

5. *Clephydroneura exilis* Oldroyd, 1938

Distribution: Thekkady (Idukki)

Source: Joseph and Parui (1984c)

6. *Clephydroneura oldroydi* Joseph and Parui, 1995

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1995)

**Remarks:** *Clephydroneura anamalaiensis* Joseph and Parui, 1979 has been reported from Cinchona hills according to Joseph and Parui (1990b) and Mathew (2004). But Cinchona hills is a part of the Anaimalai hills of Tamil Nadu side, and not in Kerala as wrongly stated by Joseph and Parui (1981: 216) in their original description, but correctly cited by Joseph and Parui for the holotype of *Laphria nathani* Joseph and Parui (1981: 217) in this same paper.

**Genus *Heligmoneura* Bigot, 1858**

The range of the genus is primarily limited to the

Oriental and Afrotropical regions. The genus contains 34 species in the Oriental region, with the Philippines having the most with 26 species and India having 19 species placing it in second place (Joseph and Parui 1980; Scarbrough and Duncan 2004).

7. *Heligmoneura cheriyani* (Joseph and Parui, 1980)

Distribution: Anamalai hills

Source: Joseph and Parui (1990a, 1997), Mathew (2004)

8. *Heligmoneura indirae* (Joseph and Parui, 1997)

Distribution: Dhoni (Palakkad)

Source: Joseph and Parui (1997)

9. *Heligmoneura poonmudiensis* (Joseph and Parui, 1980)

Distribution: Ponmudi (Thiruvananthapuram), Idamalayar (Ernakulam)

Source: Joseph and Parui (1987b, 1990b), Mathew (2004)

**Genus *Machimus* Loew, 1849**

Most species are native to the Palearctic ecozone and Southern Asia. The genus is distributed in the Oriental, Palearctic, Nearctic and Afrotropical regions (Geller-Grimm, 2004).

10. *Machimus calicutensis* Joseph and Parui, 1986

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1986a)

11. *Machimus hirtipes* Ricardo, 1919

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1991, 1995)

12. *Machimus keralaensis* Joseph and Parui, 1986

Distribution: Anamalai hills

Source: Joseph and Parui (1990b), Mathew (2004)

13. *Machimus parvus* Ricardo, 1919

Distribution: Kerala

Source: Parui and Joseph (1994), Joseph and Parui (1997)

14. *Machimus smithi* Joseph and Parui, 1986

Distribution: Anamalai hills, Chembra peak (Kozhikode)

Source: Joseph and Parui (1990a)

**Genus *Philodicus* Loew, 1848**

The genus is well distributed in the Afrotropical region (Oldroyd, 1980) and in the Oriental region (Oldroyd, 1975).

15. *Philodicus ceylanicus* Schiner, 1868

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1990a, 1995, 1997)

16. *Philodicus chinensis* Schiner, 1868

Distribution: Kozhikode

Source: Joseph and Parui (1997)

17. *Philodicus femoralis* Ricardo, 1921

Distribution: Chalakudy (Thrissur), Nilgiri hills

Source: Joseph and Parui (1987b), Parui and Joseph (1994)

18. *Philodicus indicus* Joseph and Parui, 1991

Distribution: Kozhikode

Source: Joseph and Parui (1997)

19. *Philodicus londti* Joseph and Parui, 1991

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1991)

20. *Philodicus propinquus* Bromley, 1938

Distribution: Chavakkad (Thrissur)

Source: Bromley (1938)

21. *Philodicus pruthii* Bromley, 1935

Distribution: Kerala

Source: Parui and Joseph (1994), Joseph and Parui (1997)

**Genus *Promachus* Loew, 1848**

The genus is distributed in all zoogeographical regions (Geller-Grimm, 2004).

22. *Promachus heteropterus* (Macquart, 1838)

Distribution: Malappuram

Source: KFRI (1999), Mathew (2004)

23. *Promachus leucotrichodes* Bigot, 1892

Distribution: Kannur

Source: KFRI (1999), Mathew (2004)

24. *Promachus maculatus* (Fabricius, 1775)

Distribution: Kerala

Source: Naskar *et al.* (2019)

25. *Promachus nedungaduensis* Tomasovic, 2013

Distribution: Nedungadu (Ernakulam)

Source: Tomasovic (2013)

26. *Promachus ramakrishnai* (Bromley, 1939)

Distribution: Taliparamba (Kannur)

Source: Joseph and Parui (1997), KFRI (1999), Mathew (2004)

27. *Promachus tristis* Bigot, 1892

Distribution: Kannur

Source: KFRI (1999), Mathew (2004)

28. *Promachus yerburiensis* Ricardo, 1920

Distribution: Kerala

Source: Menon (1976), Joseph and Parui (1981a, 1984a, 1995), Mathew (2004)

**Subfamily Dasypogoninae Macquart, 1838**

**Genus *Pegesimallus* Loew, 1858**

The genus is well distributed in the Afrotropical region and also in the Oriental region (Londt, 1980).

29. *Pegesimallus volcatus* (Walker, 1849)

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1991)

**Genus *Saropogon* Loew, 1847**

Members of the genus are found in regions with temperate and tropical climates in the Palearctic and Nearctic regions. In addition, some species are known to exist in the Oriental, Australian, Neotropical and Afrotropical regions (Hull, 1962; Lehr, 1988).

30. *Saropogon hulli* Joseph and Parui, 1981

Distribution: Ponmudi (Thiruvananthapuram), Idamalayar (Ernakulam)

Source: Joseph and Parui (1981a, 1987b, 1990a, 1990b, 1991), Parui and Joseph (1994), Debabrata *et al.* (2016)

31. *Saropogon londti* Parui, 1999

Distribution: Nilgiri hills

Source: Parui (1999)

**Subfamily Laphriinae** Loew, 1847**Genus *Hyperechia* Schiner, 1866**

The members of this genus are predominately distributed in the Afrotropical region, with only two species reported from the Oriental region (Joseph and Parui, 1998).

32. *Hyperechia xylocopiformis* (Walker, 1849)

Distribution: Vellayani (Thiruvananthapuram)

Source: Prathapan and Sankararaman (2022)

Genus *Laphria* Meigen, 1803

With more than 150 species the genus is widely distributed in all zoogeographical regions (Geller-Grimm, 2010).

33. *Laphria alternans* Wiedemann, 1828

Distribution: Valparai:Chalakydy (Thrissur)

Source: Joseph and Parui (1997, 1998), Chandra *et al.* (2020)

34. *Laphria fuscata* (Joseph and Parui, 1997)

Distribution: Munnar (Idukki)

Source: Joseph and Parui (1997, 1998)

35. *Laphria indica* Joseph and Parui, 1981

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1981c, 1990b, 1995, 1998), Mathew (2004)

36. *Laphria keralaensis* Joseph and Parui, 1981

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1981c, 1990b, 1995, 1998), Mathew (2004)

37. *Laphria nathani* Joseph and Parui, 1981

Distribution: Chembra peak (Kozhikode), Peermade (Kottayam), Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1981c, 1986b, 1990b, 1991, 1995, 1997, 1998), Parui and Joseph (1994), Mathew (2004), Debabrata *et al.* (2016), Chandra *et al.* (2020)

38. *Laphria valparaiensis* Joseph and Parui, 1997

Distribution: Valparai-Chalakydy (Thrissur)

Source: Joseph and Parui(1997)

**Genus *Maira* Schiner, 1866**

The genus is predominantly distributed in the Oriental and the Australian region (Joseph and Parui, 1998).

39. *Maira pseudoindiana* Joseph and Parui, 1995

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1995, 1998)

**Genus *Nusa* Walker, 1851**

The genus is widely distributed in the Afrotropical and Oriental regions (Joseph and Parui, 1998).

40. *Nusa pseudoalbibasis* Joseph and Parui, 1987

Distribution: Tenmalai (Kollam)

Source: Joseph and Parui (1987c, 1990b, 1998), Debabrata *et al.* (2016), Chandra *et al.* (2020)

41. *Nusa sahai* (Joseph and Parui, 1997)

Distribution: Valparai: Chalakydy (Thrissur), Nilambur (Malappuram)

Source: Joseph and Parui (1997), Chandra *et al.* (2020)

**Subfamily Leptogastrinae** Schiner, 1868**Genus *Leptogaster* Meigen, 1803**

A common genus distributed in all the zoogeographical regions of the world (Joseph and Parui, 1998).

42. *Leptogaster albimana* Walker, 1859

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1991, 1998), Chandra *et al.* (2020)

**Genus *Lobus* Martin, 1972**

The genus is mainly distributed in Afrotropical region and Oriental region (Naskar *et al.* 2018).

43. *Lobus jairami* Joseph and Parui, 1984

Distribution: Edapaliyam (Kottayam)

Source: Joseph and Parui (1984b, 1990b, 1998), Mathew (2004), Debabrata *et al.* (2016), Naskar *et al.* (2018), Chandra *et al.* (2020)

44. *Lobus keralae* Martin, 1972

Distribution: Walayar (Palakkad)

Source: Joseph and Parui (1990b, 1998), Mathew (2004), Naskar *et al.* (2018), Chandra *et al.* (2020)

45. *Lobus martini* Joseph and Parui, 1983

Distribution: Konnakuzhi (Thrissur), Kanimangalam (Eranakulam), Malayattoor (Eranakulam), Idamalaya (Eranakulam)

Source: Joseph and Parui (1983, 1990b, 1998), Mathew (2004), Debabrata *et al.* (2016), Naskar *et al.* (2018), Chandra *et al.* (2020)

**Subfamily Ommatiinae Hardy, 1927****Genus *Cophinopoda* Hull, 1958**

The genus is distributed in the Oriental, Australian, Palaeartic and Afrotropical regions (Geller-Grimm, 2004).

46. *Cophinopoda chinensis* (Fabricius, 1794)

Distribution: Kerala

Source: Joseph and Parui (1987b, 1998), Chandra *et al.* (2020)

**Genus *Emphysomera* Schiner, 1866**

Dark, small to medium-sized robber flies distributed in Oriental, Australian and Afrotropical regions (Scarborough and Marascia, 1999).

47. *Emphysomera tectura* Scarborough and Marascia, 1999

Distribution: Ponmudi (Thiruvananthapuram), Chembra peak (Kozhikode), Walayar (Palakkad)

Source: Scarborough and Marascia (1999)

**Genus *Michotamia* Macquart, 1838**

The genus is distributed in Oriental, Australian and Afrotropical regions (Geller-Grimm, 2004).

48. *Michotamia aurata* (Fabricius, 1794)

Distribution: Thekkady (Idukki), Chembra peak (Kozhikode)

Source: Joseph and Parui (1984a, 1984c, 1991, 1997, 1998), Parui and Joseph (1994), Mathew (2004), Chandra *et al.* (2020)

49. *Michotamia fuscifemorata* Joseph and Parui, 1984

Distribution: Walayar (Palakkad), Thekkady (Idukki), Tenmalai (Thiruvananthapuram), Kumili (Idukki), Chalakudy (Thrissur)

Source: Joseph and Parui (1984c, 1986b, 1987b, 1990b, 1995, 1997, 1998), Mathew (2004), Debabrata *et al.* (2016), Chandra *et al.* (2020)

50. *Michotamia indiana* Joseph and Parui, 1981

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1981b, 1990b, 1997, 1998), Mathew (2004), Debabrata *et al.* (2016), Chandra *et al.* (2020)

**Genus *Ommatius* Wiedemann, 1821**

A common genus distributed in all the zoogeographical regions of the world (Geller-Grimm, 2004).

51. *Ommatius disparis* Scarborough, 2007

Distribution: Kerala

Source: Chandra *et al.* (2020)

52. *Ommatius dravidicus* Joseph and Parui, 1983

Distribution: Anamalai hills

Source: Parui and Joseph (1983), Joseph and Parui (1995, 1998), Debabrata *et al.* (2016), Chandra *et al.* (2020)

53. *Ommatius hulli* Joseph and Parui, 1983

Distribution: Anamalai hills, Ponmudi (Thiruvananthapuram), Silent Valley (Palakkad)

Source: Parui and Joseph (1983), Joseph and Parui (1984a, 1984c, 1998), Mathew (2004), Debabrata *et al.* (2016), Chandra *et al.* (2020)

54. *Ommatius indicus* Joseph and Parui, 1983

Distribution: Ponmudi (Thiruvananthapuram), Peermade (Kottayam), Munnar, Periyar (Idukki), Malayatur, Pandupara, Idamalayar (Ernakulam), Konnakuzhi, Poringalkuth (Thrissur), Nilambur (Malappuram), Kozhikode, Dhoni (Palakkad), Ranni (Pathanamthitta)

Source: Parui and Joseph (1983), Joseph and Parui (1987b, 1989, 1995, 1997, 1998), Debabrata *et al.* (2016), Chandra *et al.* (2020)

55. *Ommatius kodaikanalensis* Joseph and Parui, 1994

Distribution: Munnar (Idukki)

Source: Joseph and Parui (1997)

56. *Ommatius malabaricus* Joseph and Parui, 1985

Distribution: Taliparamba (Kannur)

Source: Joseph and Parui (1984a, 1990b, 1998), KFRI (1999), Mathew (2004), Debabrata *et al.* (2016), Chandra *et al.* (2020)

57. *Ommatius minor* Doleschall, 1857

Distribution: Anamalai hills, Chembra Peak (Kozhikode)

Source: Joseph and Parui (1984a, 1990a, 1991, 1997, 1998), Mathew (2004), Chandra *et al.* (2020)

58. *Ommatius pillaii* Joseph and Parui, 1986

Distribution: Silent Valley (Palakkad)

Source: Joseph and Parui (1986c, 1990b, 1998), Debabrata *et al.* (2016), Chandra *et al.* (2020)

59. *Ommatius tuberculatus* Joseph and Parui, 1983

Distribution: Ponmudi (Thiruvananthapuram), Chembra Peak (Kozhikode), Anamalai hills, Peermade, Periyar (Idukki)

Source: Parui and Joseph (1983), Joseph and Parui (1987b, 1990a, 1990b, 1991, 1995, 1997, 1998), Chandra *et al.* (2020)

**Genus *Pseudomerodontina* Joseph and Parui, 1976**

The genus is reported only from the Oriental region (Geller-Grimm, 2004).

60. *Pseudomerodontina indica* Joseph and Parui, 1979

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1997, 1998), Chandra *et al.* (2020)

61. *Pseudomerodontina jayaraji* Joseph, 1976

Distribution: Maddathoray (Thiruvananthapuram)

Source: Joseph and Parui (1997, 1998), Chandra *et al.* (2020)

**Subfamily Stenopogoninae Hull, 1962****Genus *Microstylum* Macquart, 1838**

The members of this genus are distributed in Palearctic, Nearctic, Afrotropical and Oriental regions (Geller-Grimm, 2004).

62. *Microstylum ananthakrishnani* Joseph and Parui, 1984

Distribution: Ponmudi (Thiruvananthapuram), Silent valley (Palakkad)

Source: Joseph and Parui (1986c, 1987d, 1991), Parui and Joseph (1994), Mathew (2004), Debabrata *et al.* (2016)

63. *Microstylum bhattacharyai* Joseph and Parui, 1984

Distribution: Mudutailam (Thrissur)

Source: Joseph and Parui (1984c, 1989, 1990a, 1995), Mathew (2004)

64. *Microstylum varshneyi* Joseph and Parui, 1984

Distribution: Walayar (Palakkad)

Source: Joseph and Parui (1987a, 1989)

**Genus *Scylaticus* Loew, 1858**

The members of this genus are distributed in Palaeartic, Neotropical, Afrotropical and Oriental regions (Geller-Grimm, 2004).

65. *Scylaticus indicus* Bromley, 1939

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1991)

**Genus *Stenopogon* Loew, 1847**

The genus is distributed in the Palearctic, Nearctic,

Afrotropical and Oriental regions (Geller-Grimm, 2004).

66. *Stenopogon cinchonaensis* Joseph and Parui, 1981

Distribution: Anamalai hills

Source: Joseph and Parui (1990b), Mathew (2004), Debabrata *et al.* (2016)

67. *Stenopogon hulli* Joseph and Parui, 1981

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1987d)

68. *Stenopogon kherai* Joseph and Parui, 1976

Distribution: Anamalai hills

Source: Joseph and Parui (1990a, 1991)

69. *Stenopogon manii* Joseph and Parui, 1981

Distribution: Anamalai hills, Thenmala (Kollam), Peermade (Kottayam), Walayar (Palakkad)

Source: Joseph and Parui (1981b, 1984a, 1990a, 1990b, 1995), Parui and Joseph (1994), Mathew (2004), Debabrata *et al.* (2016)

70. *Stenopogon raven* (Bromley, 1938)

Distribution: Walayar (Palakkad)

Source: Parui and Joseph (1994), Joseph and Parui (1995)

### **Subfamily Stichopogoninae Hardy, 1930**

#### **Genus *Stichopogon* Loew, 1847**

The genus is distributed in almost all zoogeographical regions (Geller-Grimm, 2004).

71. *Stichopogon inequalis* (Loew, 1847)

Distribution: Kozhikode

Source: Joseph and Parui (1998), Chandra *et al.* (2020)

72. *Stichopogon meridionalis* Oldroyd, 1948

Distribution: Kozhikode

Source: Joseph and Parui (1998), Chandra *et al.* (2020)

### **Subfamily Trigonimini Enderlein, 1914**

#### **Genus *Damalis* Fabricius, 1805**

The genus is distributed in the Palearctic, Australasian, Afrotropical and Oriental regions (Geller-Grimm, 2004).

73. *Damalis artigasi* Joseph and Parui, 1984

Distribution: Idamalayar (Ernakulam), Peermade (Kottayam)

Source: Joseph and Parui (1984d, 1987b, 1995), Mathew (2004)

74. *Damalis anamaliensis* Scarbrough, 2007

Distribution: Kerala

Source: Chandra *et al.* (2020)

75. *Damalis calicutensis* Joseph and Parui, 1990

Distribution: Kozhikode

Source: Mathew (2004), Debabrata *et al.* (2016)

76. *Damalis cederholmi* Joseph and Parui, 1984

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1984d, 1990a, 1991, 1995), Mathew (2004)

77. *Damalis dimidiata* Joseph and Parui, 1990

Distribution: Kovalam beach (Thiruvananthapuram)

Source: Joseph and Parui (1997)

78. *Damalis dravidica* Joseph and Parui, 1984

Distribution: Ponmudi (Thiruvananthapuram), Kottayam

Source: Joseph and Parui (1984a, 1984d, 1986b, 1987d, 1995), Mathew (2004), Debabrata *et al.* (2016)

79. *Damalis dubia* Joseph and Parui, 1995

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1995)

80. *Damalis fusca* Walker, 1849

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1991, 1995), Parui and Joseph (1994)

81. *Damalis indica* Joseph and Parui, 1984

Distribution: Ponmudi (Thiruvananthapuram), Anamalai hills

Source: Joseph and Parui (1984d, 1990a, 1990b, 1995), Debabrata *et al.* (2016)

82. *Damalis keralaensis* Joseph and Parui, 1984

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1984d), Mathew (2004), Debabrata *et al.* (2016)

83. *Damalis kottayamensis* Joseph and Parui, 1995

Distribution: Peermade (Kottayam)

Source: Joseph and Parui (1995)

84. *Damalis mercaraensis* (Joseph and Parui, 1984)

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1995)

85. *Damalis pseudoartigasi* Joseph and Parui, 1989

Distribution: Ponmudi (Thiruvananthapuram)

Source: Joseph and Parui (1995)

86. *Damalis rufoabdominalis* Joseph and Parui, 1984

Distribution: Chembra peak (Kozhikode)

Source: Joseph and Parui (1984d, 1990b, 1995), Debabrata *et al.* (2016)

### **Genus *Trigonomima* Enderlein, 1914**

The genus is distributed only in the Oriental region (Geller-Grimm, 2004).

87. *Trigonomima anamaliensis* Joseph and Parui, 1980

Distribution: Anamalai hills

Source: Joseph and Parui (1990a)

The diversity of robber flies in Kerala was highlighted by this checklist, which was fully based on literature review and suggests the presence of at least 87 species of robber flies in 25 genera. Most of the species were reported from the protected forest areas of Kerala such as Ponmudi, Anamalai hills, Idamalayar, Thekkadi, Valparai, Chembra peak, Nilambur, Peermade, Walayar, Tenmalai and Silent Valley, which mainly consist of wet evergreen forests, semi-evergreen forests,

moist deciduous forests, dry deciduous forests and shola grassland complexes (Champion and Seth, 1968). A more thorough understanding of the robber fly diversity of Kerala will require extensive field surveys, examination of museum collections, and revisionary taxonomy.

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