

CHECKLIST OF INDIAN BLACKFLIES (INSECTA: DIPTERA: SIMULIIDAE)

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INTRODUCTION

The adult Simuliidae or ‘blackflies’ as they are commonly known are small insects that measure 1 to 5 mm in length and possess shiny thorax that ranges in colour from black to various shades of grey and yellow. The female in the majority of species requires a blood meal for egg maturation and therefore this requirement makes the members of this family important as biting pests, transmitters of blood and skin parasites in both man and warm blooded animals (Crosskey, 1990). Apart from their medical importance, the Simuliids are economically important in terms of environmental monitoring of fresh water contamination as they breed in water and their immature stages are highly susceptible to both organic and inorganic pollutants. They play a key role in aquatic ecosystem as food source to vertebrate and invertebrate animals (Currie & Adler, 2008).

Altogether 2101 formally named extant species of 26 genera of blackflies are known from world of which, Indian fauna belongs to **67** species under **six** subgenera of a **single** genus *Simulium* (Adler and Crosskey, 2010, Datta, 1983).

ORDER :DIPTERA Linnaeus

SUBORDER :NEMATOCERA Berthold

FAMILY :SIMULIIDAE Newamn

SUBFAMILY: SIMULIINAE Newamn

TRIBE: SIMULIINI Newamn

Genus: *Simulium* Latreille

1. Subgenus: *Eusimulium* Roubaud, 1906

1. *Simulium (Eusimulium) aureum* Fries, 1824

India (?)

2. *Simulium (Eusimulium) weiningense* Chen & Zhang, 1997 India (West Bengal)

2. Subgenus: *Gomphostilbia* Enderlein, 1921

Batoense Species-Group

3. *Simulium (Gomphostilbia) bucolicum* Datta, 1975 India (Assam)
4. *Simulium (Gomphostilbia) fidum* Datta, 1975 India (Assam)
5. *Simulium (Gomphostilbia) litoreum* Datta, 1975 India (Assam)
6. *Simulium (Gomphostilbia) pattoni* Senior-White, 1922 India (Tamil Nadu)
7. *Simulium (Gomphostilbia) unum* Datta, 1975 India (Assam)

Ceylonicum Species-Group

8. *Simulium (Gomphostilbia) darjeelingense* Datta, 1973 India (West Bengal)
9. *Simulium (Gomphostilbia) metatarsale*, Brunetti, 1911 India (West Bengal, Sikkim)
10. *Simulium (Gomphostilbia) tenuistylum* Datta, 1973 India (West Bengal, Sikkim)

***Gomphostilbia* species unplaced to group**

11. *Simulium (Gomphostilbia) sp.* Lewis, 1974 India (Assam)
12. *Simulium (Gomphostilbia) sp.* Lewis, 1974 India (Assam)

3. Subgenus: *Montisimulium* Rubtsov, 1974

13. *Simulium (Montisimulium) dasguptai* Datta, 1974 India (West Bengal)
14. *Simulium (Montisimulium) dattai* Takaoka & Somboon, 2008 India (West Bengal)
15. *Simulium (Montisimulium) ghoomense* Datta, 1973 India (West Bengal)
16. *Simulium (Montisimulium) nemorivagum* Datta, 1973 India (West Bengal)
17. *Simulium (Montisimulium) yuntaiense* Chen, Wen & Wei, 2006
India (West Bengal)

26. *Simulium (Simulium) stevensoni* Edwards, 1927 India (Kashmir)

Ephemerophilum Species –Group

27. *Simulium (Simulium) ephemerophilum* Rubtsov, 1947 India (Himachal Pradesh)

28. *Simulium (Simulium) rashidi* Lewis, 1973 India (Himachal Pradesh)

Griseifrons Species –Group

29. *Simulium (Simulium) graveleyi* Puri, 1933 India (Tamil Nadu)

30. *Simulium (Simulium) griseifrons* Brunetti, 1911
India (Himachal Pradesh, Kashmir and Uttar Pradesh)

31. *Simulium (Simulium) indicum* Becher, 1885 (1884)
India (Assam, Arunachal Pradesh, Himachal Pradesh, Karnataka,
Maharashtra, Meghalaya, Nagaland, Sikkim, Uttar Pradesh and West Bengal)

32. *Simulium (Simulium) tenuitarsus* Puri, 1933 India (West Bengal)

Malyschevi Species –Group

33. *Simulium (Simulium) hirtipannus* Puri, 1932 India (Assam, West Bengal)

Multistriatum Species –Group

34. *Simulium (Simulium) barraudi* Puri, 1932 India (Himachal Pradesh, Kashmir)

35. *Simulium (Simulium) dentatum* Puri, 1932
India (Assam, Meghalaya, Sikkim and West Bengal)

36. *Simulium (Simulium) digitatum* Puri, 1932 India (Himachal Pradesh, Punjab)

37. *Simulium (Simulium) lineothorax* Puri, 1932 India (Assam, Tamil Nadu)

38. *Simulium (Simulium) novolineatum* Puri, 1933 (substitute name)

India (Arunachal Pradesh, Karnataka, Uttar Pradesh and West Bengal)

Nobile Species –Group

39. *Simulium (Simulium) asishi* Datta, 1988 India (West Bengal)

40. *Simulium (Simulium) nodosum* Puri, 1933 India (Assam, Karnataka, West Bengal)

Ornatum Species –Group

41. *Simulium (Simulium) adventicium* Datta, 1985 India (Himachal Pradesh)

Striatum Species –Group

42. *Simulium (Simulium) consimile* Puri, 1932 India (Himachal Pradesh, Punjab)

43. *Simulium (Simulium) grisescens* Brunetti, 1911

India (Assam, Arunachal Pradesh, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Meghalaya, Manipur, Mizoram Nagaland, Punjab and Tamil Nadu)

44. *Simulium (Simulium) kapuri* Datta, 1975 India (Assam, West Bengal)

45. *Simulium (Simulium) pallidum* Puri, 1932 India (Himachal Pradesh, Punjab)

46. *Simulium (Simulium) palmatum* Puri, 1932 India (Karnataka, Kerala Maharashtra,)

47. *Simulium (Simulium) striatum* Brunetti, 1912

India (Karnataka, Kerala Maharashtra and Tamil Nadu)

Tuberosum Species –Group

48. *Simulium (Simulium) biforniferum* Datta, 1974 India (West Bengal)

49. *Simulium (Simulium) nigrifacies* Datta, 1974 India (West Bengal)

50. *Simulium (Simulium) nitidithorax* Puri, 1932

India (Arunachal Pradesh, West Bengal)

51. *Simulium (Simulium) ramosum* Puri, 1932 India (Himachal Pradesh, West Bengal)

52. *Simulium (Simulium) rufibasis* Brunetti, 1911

India (Arunachal Pradesh, Himachal Pradesh, Meghalaya, Manipur,
Sikkim and West Bengal)

Variegatum Species –Group

53. *Simulium (Simulium) gurneyae* Senior-White, 1922

India (Karnataka, Maharashtra, Tamil Nadu)

54. *Simulium (Simulium) himalayense* Puri, 1932

India (Arunachal Pradesh, Bihar, Himachal Pradesh, Manipur, Sikkim and
West Bengal)

55. *Simulium (Simulium) nilgircum* Puri, 1932

India (Tamil Nadu)

Simulium s.str. Species unplaced to group

56. *Simulium (Simulium) christophersi* Puri, 1932 India (Himachal Pradesh, Kashmir)

57. *Simulium (Simulium) howletti* Puri, 1932 India (Bihar)

58. *Simulium (Simulium) palniense* Puri, 1933 India (Tamil Nadu)

59. *Simulium (Simulium) singtamense* Datta & Pal, 1975 India (West Bengal)

60. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam)

61. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam, Uttar Pradesh)

62. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam)

63. *Simulium (Simulium) sp.* Lewis, 1974 India (Uttar Pradesh)

64. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam)

65. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam)

66. *Simulium (Simulium) sp.* Lewis, 1974 India (Assam, Uttar Pradesh)

6. Subgenus: *Wilhelmia* Enderlien, 1921

Equinum Species-Group

- 67. *Simulium (Wilhelmia) pseudequinum* Séguy, 1921 (= *mediterraneum* Puri, 1925)**
India (Kashmir, Punjab)

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