

SARCOPHAGID FLIES (DIPTERA : SARCOPHAGIDAE)
FROM SIKKIM, INDIA.

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INTRODUCTION

This paper presents the result of the study of the Sarcophagid flies from Sikkim collected by the authors in 1977. Ten species under five genera are reported here. Out of these nine species are being recorded for the first time from Sikkim.

SYSTEMATIC ACCOUNT

1. *Bercaea haemorrhoidalis* (Fallén)

1816. *Musca haemorrhoidalis* Fallén, *Sevensk vet. Akad. Handle*, p. 236.

1975. *Bercaea haemorrhoidalis* : Rohdendorf, *Steenstrupia*, 3 : 202.

Material : 7 ♂♂, Sikkim : Mangan, 1, 189 m., 23. x. 1977 ; 11 ♂♂, Swistik Camp, 1,650 m., 21. x. 1977 ; 14 ♂♂, Dentam, 1,372 m., 2. xi. 1977 ; 3 ♂♂, Gangtok Hospital Campus, 1,677 m., 27. xi. 1977 ; 9 ♂♂, Phensang, 1,484 m., 19. x. 1977 ; 4 ♂♂, Gezing, 1,586 m., 6.xi. 1977 ; 3 ♂♂, Kabi, 1,644 m., 19. x. 1977 ; 4 ♂♂, Gangtok Palace Campus, 1,688 m., 17. x. 1977 ; 3 ♂♂, Chungthang, 1,647 m., 25. x. 1977 ; 1 ♂, Jorethang, 305 m., 20. x. 1977 ; 4 ♂♂, Kabi Chulung, 1,644 m., 20. x. 1977 ; 2 ♂♂, Lachung, 2,896 m., 26. x. 1977.

Distribution : West Bengal, Himachal Pradesh, Uttar Pradesh. This species is being recorded for the first time from Sikkim.

Bionomics : This species is mainly attracted to human excrement and is responsible for causing myiasis in man and animals. Larvae of this species can be reared in human faeces and animal carcasses.

2. *Boettcherisca (s. str.) peregrina* (Bobineau—Desvoidy)

1880. *Myophora peregrina* Robineau—Desvoidy, *Essai Myodaires*, 1 : 356.

1987. *Boettcherisca (s. str.) peregrina* : Rohdendorf, *Fauna de l' U R S S.*, 19 (1) : 271.

Material : 1 ♂, Sikkim : Mangan, 1,189 m., 23. x. 1977 ; 1 ♂, Gezing, 1,586 m., 6. xi. 1977 ; 1 ♂, Dentam, 1,372 m., 2. xi. 1977,

Distribution : West Bengal, Maharashtra, Tamil Nadu, Bihar, Andaman Islands. This is the first record of this species from Sikkim.

Bionomics : This species is attracted to animal carcasses, animal dung and human faeces and is responsible for causing human tissue myiasis. The larvae of this species mainly breed in dead animals, garbages and other decomposing animal matter.

3. **Boettcherisca (Coeisca) khasiensis** (Senoir—White)

1924. *Sarcophaga khasiensis* Senior—White, *Rec. Indian Mus.*, **26** : 246.
 1966. *Boettcherisca (Coeisca) khasiensis* : Rohdendorf, *Bull. Brit. Mus. (nat. Hist.) Ent.*, **17** (10) : 469.

Material : 2♂♂, Sikkim : Gangtok Palace Campus, 1,688 m., 17. xi, 1977 ; 1♂, Gangtok Hospital Campus, 1,677 m., 27. x. 1977 ; 1♂, Kabi Chulung, 1,644 m., 20. x. 1977 ; 1♂, Swistik Camp, 1,650 m., 24. x. 1977.

Distribution : Meghalaya. This species is recorded for the first time from Sikkim.

Bionomics : Nothing is known about the bionomics of this species. The present specimens have been collected from bush-sweeping.

4. **Parasarcophaga (s. str.) orchidea** (Böettcher)

1913. *Sarcophaga orchidea* Böettcher, *Ann. Hist. Mus. Nat. Hung.*, **11** : 375.
 1967. *Parasarcophaga (s. str.) orchidea* : Lopes, *Ent. Meddl.*, **35** : 170.

Material . 2♂♂, Sikkim : Gezing, 1,586 m., 30. x. 1977.

Distribution : West Bengal, Maharashtra, Bihar, Assam, Andaman Islands. This is the first record of this species from Sikkim.

Bionomics : Occasionally this species causes intestinal myiasis in man. The larvae of this species can be reared in human faeces and dead animals.

5. **Parasarcophaga (s. str.) knabi** (Parker)

1917. *Sarcophaga knabi* Parker, *Proc. U. S. natn. Mus.*, **54** : 96.
 1967. *Parasarcophaga (s. str.) knabi* : Lopes, *Ent. Meddl.*, **35** : 170.

Material : 4♂♂, Sikkim : Gezing, 1,586 m., 30. x. 1977 ; 2♂♂, Dentam, Bongtong Busty, 1,385 m., 5. xi. 1977.

Distribution : West Bengal, Uttar Pradesh, Haryana, Gujarat, Maharashtra, Tamil Nadu, Orissa, Assam, Andaman Islands. This species is recorded for the first time from Sikkim.

Bionomics : This species is attracted to human faeces and dead animals. This can be reared in meat in the laboratory.

6. *Parasarcophaga (s. str.) albiceps* (Meigen)

1825. *Sarcophaga albiceps* Meigen, *System. Beschr.*, 5 : 22.

1967. *Parasarcophaga (s. str.) albiceps* : Lopes, *Ent. Meddl.* 35 : 169.

Material : 4♂♂, Sikkim : Mangan, 1,189 m., 21-24. x. 1977 ; 2♂♂, Naya Bazar, 310 m., 29. x. 1977 ; 2♂♂, Dentam, Bongtong Busty, 1,385 m., 5. xi. 1977 ; 3♂♂, Gangtok Hospital Campus, 1,677 m., 27. x. 1977 ; 8♂♂, Gangtok Palace Campus, 1,688 m., 17. x. 1977 ; 4♂♂, Jorethang, 305 m., 29. x. 1977 ; 4♂♂, Kabi, 1,644 m., 10. x. 1977 ; 1♂, Swistik Camp, 1,650 m., 21. x. 1977 ; 2♂♂, Phensang, 1,484 m., 19. x. 1977 ; 34♂♂, Dentam, 1,372 m., 1. xi. 1977 ; 31♂♂, Gezing, 1,586 m., 6. xi. 1977 ; 3♂♂, Kabi Chulung, 1,644 m., 20. x. 1977.

Distribution : West Bengal, Haryana, Gujarat, Maharashtra, Tamil Nadu, Bihar, Assam, Meghalaya, Sikkim.

Bionomics : This species causes myiasis in bull and the larvae can be reared in human excrement, dead animals and other decomposing animal matter.

7. *Parasarcophaga (s. str.) macroauriculata* (Ho)

1932. *Sarcophaga macroauriculata* Ho, *Bull. Fam. Mem. Inst. Biol.*, 3 : 347.

1966. *Parasarcophaga (s. str.) macroauriculata* : Rohdendorf, *Bull. Brit. Mus. (nat. Hist.) Ent.*, 17 (10) : 458.

Material : 3♂♂, Sikkim : Swistik Camp, 1,650 m., 21. x. 1977 ; 2♂♂, Phensang, 1,484 m., 19. x. 1977 ; 4♂♂, Kabi Chulung, 1,644 m., 20. x. 1977 ; 2♂♂, Dentam, 1,372 m., 2. xi. 1977 ; 1♂, Gangtok Palace Campus, 1,688 m., 2. xi. 1977.

Distribution : West Bengal. This is the first record of this species from Sikkim.

Bionomics : This species causes intestinal myiasis in man and other domestic animals and can be reared in meat. This species was collected from bush-sweeping near human excrement.

8. *Parasarcophaga (Curranea) kalimpongensis* Nandi

1978. *Parasarcophaga (Curranea) kalimpongensis* Nandi, *Rev. Brasil Biol.*, [39 (2) 457].

Material : 1♂, Sikkim : Mangan, 1,189 m., 24. x. 1977.

Distribution : West Bengal. This is the first record of this species from Sikkim.

Bionomics: Nothing is known about the bionomics of this species. The present specimen was collected from bush-sweeping.

9. *Robineauella (Jantiella) coei* Rohdendorf

1966. *Robineauella (Jantiella) coei* Rohdendorf, Bull. Brit. Mus. (nat. Hist.) Ent., 17 (10) : 458.

Material: 3♂♂, Sikkim : Gangtok Palace Campus, 1,698 m., 17. x. 1977 ; 1♂, Kabi Chulung, 1,644 m., 20. x. 1977.

Distribution: This species is being recorded for the first time from Sikkim.

Bionomics: Nothing is known about the bionomics of this species. This species has been collected near human excreta.

10. *Seniorwhitea krameri* (Böettcher)

1912. *Sarcophaga krameri* Böettcher, Ent. Mitt. 1 : 166.

1964. *Seniorwhitea krameri* : Lopes, Mem. Inst. Oswaldo Cruz., 62 : 162.

Material: 2♂♂, Sikkim : Gezing, 1,586 m., 30. x. 1977 ; 1♂, Dentam, Bongtong Busty, 1,385 m., 5. xi. 1977.

Distribution: West Bengal, Uttar Pradesh, Maharashtra, Tamil Nadu, Bihar, Assam, Orissa. This is the first record of this species from Sikkim.

Bionomics: This species is parasitic on other insects and have records of breeding from different insects.

SUMMARY

This paper deals with a systematic account of the Sarcophagid flies collected from different parts of Sikkim. Ten species are dealt with under five genera. Nine species are being recorded for the first time from Sikkim. Distributional records of the species from India along with notes on bionomics are also included.

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REFERENCES

- HO, C. 1932. Notes on Sarcophagid flies with description of new species. I : *albiceps* group. *Bull. Fam. Mem. Inst. Biol.*, 3 : 345-360.
- LOPES, H. DE SOUZA. 1964. Contribution to the knowledge of the genus *Seniorwhitea* Rohdendorf 1937, (Diptera : Sarcophagidae). *Mem. Inst. Oswaldo Cruz.*, 62 : 161-168.
- LOPES, H. DE SOUZA. 1967. Some Sarcophagidae (Diptera) from the Bismarck Islands and the Philippines. *Ent. Meddl.*, 35 : 143-176.
- NANDI, B. C. 1978. Subgenus *Curranea* Rohdendorf from India with the description of a new species. *Rev. Brasil Biol.*, [39 (2) : 457-461].
- ROHDENDORF, B. B. 1937. *Faune de l' U R S S., Insects, Dipteres* 19 (1) : Sarcophagidae, Part I : 1-500.
- ROHDENDORF, B. B. 1966. Diptera from Nepal, Sarcophagidae. *Bull. Brit. Mus. (nat. Hist.) Ent.*, 17 (10) : 457-464.
- ROHDENDORF, B. B. 1975. Some Sarcophagidae from Southern Spain. *Steenstrupia*, 3 : 197-204.
- SENIOR-WHITE, R. 1924. Revision of the subfamily Sarcophaginae in the Oriental Region. *Rec. Indian Mus.*, 26 (3) : 193-283.