The Sepsidae from Sri Lanka, with description of a new species (Diptera)*

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Abstract: Twelve species belonging to five genera of Sepsidae including a new species, *Dicranosepsis prominula*, and four newly recorded species are described and recorded from Sri Lanka. An identification key to the genera and species of Sri Lanka is given.

INTRODUCTION

The flies of the family Sepsidae of the Southwest Asia have been reported from India (Brunetti, 1909; Duda, 1926; Zуска, 1974, 1977; Iwasa, 1982; Iwasa and Tewari, 1990), Nepal (Zуска, 1968; Iwasa, 1984), Pakistan (Iwasa, 1989) and Bangladesh (Iwasa *et al.*, 1991). Those of Sri Lanka were recorded as distributional data by Zуска (1977) in the Oriental Catalog, but there has been virtually no work on the sepsid fauna of Sri Lanka.

Recently, I had a chance to examine the sepsid specimens of Sri Lanka collected by

myself and other members of the "Zoo-geographical Studies on the Medically Important Diptera in Southwest Asia (1987-1988)." As a result of the examination, twelve species of five genera were determined. In the present paper, I describe one new species and give the records of eleven species including four newly recorded species with a key to the species occurring in Sri Lanka.

Key to the genera and species

1. Thorax and abdomen wholly black and dully shiny; middle femur bent on middle part; large species, body length about 6 mm *Toxopoda* Macquart 2
Thorax and abdomen black, red or yellow and shiny; middle femur not bent on middle part; medium or small species, body length less than 5 mm 3
2. Male epandrial processes slender and pointed
.... *T. mordax* Iwasa, Zуска et Ozerov
Male epandrial processes not slender ..
..... *T. contracta* (Walker)
3. Humeral setae absent
Decachaetophora aeneipes (De Meijere)

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- Humeral setae present 4
4. Fronto-orbital setae developed
 Meroplus fasciculatus (Brunetti)
 Fronto-orbital setae vestigial or absent
 5
5. First and second basal cells united
 Australosepsis Malloch 6
 First and second basal cells separated ..
 7
6. Wing with a diffused dark spot at the
 end of vein R_{2+3}
 A. niveipennis (Becker)
 Wing without a diffused dark spot at the
 end of vein R_{2+3}
 A. frontalis (Walker)
7. Abdomen in both sexes without distinct
 macrochaetae; male epandrial processes
 bifurcate at the tip
 Dicranosepsis Duda 8
 Abdomen in male, and often in female
 also, with distinct macrochaetae; male
 epandrial processes not bifurcate at the
 tip *Sepsis* Fallén 9
8. Male epandrial processes with triangular
 projection on upper one
 D. prominula n. sp.
 Male epandrial processes without a tri-
 angular projection
 D. bicolor (Wiedemann)
9. Wing with a dark spot at the end of vein
 R_{2+3} 10
 Wing without a dark spot at the end of
 vein R_{2+3} 11
10. Sternopleuron almost shiny, only postero-
 dorsal margin thinly pruinose; male fore
 femur with anterobasal patch of long
 hairs *S. albopunctata* Lamb
 Sternopleuron posterodorsally pruinose;
 male fore femur without anterobasal
 patch of long hairs
 S. thoracica Robineau-Desvoidy
11. Sternopleuron posterodorsally pruinose .
 S. lateralis Wiedemann
 Sternopleuron wholly pruinose 12
12. Pteropleuron pruinose
 S. indica Wiedemann
 Pteropleuron shiny 13
13. Male epandrial processes short and slen-
 der *S. nitens* Wiedemann
 Male epandrial processes long and stout

..... *S. coprophila* de Meijere

1. *Toxopoda mordax* Iwasa, Zuska et Ozerov, 1991

Toxopoda mordax Iwasa, Zuska et Ozerov,
1991, Jpn. J. Sanit. Zool., 42: 232.

Specimens examined. 2, Nuwara Eliya,
27 Sep. 1987, M. Iwasa; 3♂, 24 Jul. 1989,
K. Kanmiya.

Distribution. Bangladesh and Sri Lanka.
New record from Sri Lanka.

2. *Meroplus fasciculatus* (Brunetti, 1909)

Sepsis fasciculatus Brunetti, 1909, Rec. Ind.
Mus., 3: 365.

Specimens examined. 2♂, 1♀, Ratnapura,
1 Oct. 1987, M. Iwasa; 4♂, 2♀, Ella, 24 Jul.
1989, T. Hayashi; 3♂, Ella, 24 Jul. 1989,
K. Kanmiya.

Distribution. Oriental region and New
Guinea.

3. *Sepsis albopunctata* Lamb, 1914

Sepsis albopunctata Lamb, 1914, Trans. Linn.
Soc. Lond., 2: 323.

Specimens examined. 3♂, Nuwara Eliya,
28 Sep. 1987, M. Iwasa; 4♂, Ella, 29 Sep.
1987, M. Iwasa; 22♂, Ratnapura, 30 Sep.-2
Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the
Oriental, Afrotropical and Australasian re-
gions. New record from Sri Lanka.

4. *Sepsis thoracica* (Robineau-Desvoidy, 1830)

Micropeza thoracica Robineau-Desvoidy,
1830, Essai Myodaires, p. 742.

Specimens examined. 5♂, Mt. Piduluta-
gala, Nuwara Eliya, 25 Sep. 1987, M. Iwasa;
13♂, Nuwara Eliya, 27, 28 Sep. 1987, M.
Iwasa.

Distribution. Widely distributed in the
Oriental, Palaearctic and Afrotropical re-
gions.

5. *Sepsis lateralis* Wiedemann, 1830

Sepsis lateralis Wiedemann, 1830, Auss. zweifl. Insekt., 2: 468.

Specimens examined. 22♂, Nuwara Eliya, 26–28 Sep. 1987, M. Iwasa; 4♂, Adam's peak, Ratnapura, 2 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental, Afrotropical regions, Mediterranean subregion and New Guinea.

6. *Sepsis indica* Wiedemann, 1824

Sepsis indica Wiedemann, 1824, Analecta Ent., p. 57.

Specimens examined. 19♂, Mt. Pidulutagala, Nuwara Eliya, 25 Sep. 1987, M. Iwasa; 38♂, Nuwara Eliya, 26–28 Sep. 1987, M. Iwasa; 8♂, Ratnapura, 1 Oct. 1987, M. Iwasa; 2♂, Adam's peak, Ratnapura, 2 Oct. 1987, M. Iwasa; 8♂, Sinharaja Fore., Ratnapura, 3 Oct. 1987, M. Iwasa and S. Inaoka; 2♂, Gilimale, Ratnapura, 4 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental region.

7. *Sepsis nitens* Wiedemann, 1824

Sepsis nitens Wiedemann, 1824, Analecta Ent., p. 58.

Specimens examined. 1♂, Nuwara Eliya, 28 Sep. 1987, M. Iwasa; 10♂, Ella, 29 Sep. 1987, M. Iwasa; 2♂, Ratnapura, 1 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental and Australasian regions.

8. *Sepsis coprophila* de Meijere, 1906

Sepsis coprophila de Meijere, 1906, Ann. Mus. Nat. Hung., 4: 176.

Specimens examined. 13♂, Ratnapura, 1 Oct. 1987, M. Iwasa; 1♂, Adam's peak, Ratnapura, 1987, M. Iwasa; 2♂, Sinharaja Fore., Ratnapura, 3 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental and Australasian regions.

9. *Australosepsis niveipennis* (Becker, 1903)

Sepsis niveipennis Becker, 1903, Mitt. zool. Mus. Berl., 2: 143.

Specimens examined. 2♂, Nuwara Eliya, 28 Sep. 1987, M. Iwasa; 3♂, Ella, 29 Sep. 1987, M. Iwasa; 1♂, Ratnapura, 1 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental, Afrotropical and Australasian regions. New record from Sri Lanka.

10. *Australosepsis frontalis* (Walker, 1860)

Sepsis frontalis Walker, 1860, J. Proc. Linn. Lond. Zool., 4: 163.

Specimens examined. 13♂, 5♀, Ella, 29 Sep. 1987, M. Iwasa; 19♂, 2♀, Sinharaja Fore., Ratnapura, 30 Sep. 1987, M. Iwasa; 5♂, Ratnapura, 1 Oct. 1987, M. Iwasa; 3♂, 2♀, Gilimale, Ratnapura, 4 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental Region and New Caledonia.

11. *Dicranosepsis prominula* Iwasa n. sp. (Figs. 1–6)

Male. Head: frons black and shiny; face brown and pruinose; gena and occiput black and thinly pruinose; all antennal segments dark brown; arista black and bare; vibrissal angle with 3 moderately developed setae; genal lower margin with 10–12 peristomal setae in a line; 1 *oc*, 1 *vti*, 1 *vte*, 1 *put*; or absent.

Thorax: wholly black; mesonotum and scutellum thinly pruinose; propleuron pruinose; mesopleuron shiny; sternopleuron anteroventrally shiny and posterodorsally pruinose; pteropleuron, hypopleuron and metapleuron entirely pruinose; postscutellum partly shiny; metanotum shiny; 1 *h*, 2 *n*, 2 *dc*, 1 *sa*, 1 *pa*, 1 *m*, 1 *ap sc*; 1 *b sc* (small).

Wings: hyaline, slightly tinged with brown; veins dark brown; humeral cell and basal part of costal cell light brown; alula without distinct posterodistal lobe, and with micro-

Figs. 1-6 *Dicranosepsis prominula* n. sp.

1: male fore femur and tibia, anterior view (left). 2: male fore femur, posterior view (left). 3: male middle tibia, anterior view (left). 4: male hind metatarsus, dorsal view (left). 5: male epandrium, lateral view (left). 6: male epandrium, posterior view. Scales: 0.25 mm.

trichia marginally; halteres whitish, darkened basally.

Legs: all coxae, femora and tibiae yellow; fore trochanter without a sharp triangular projection ventrally; fore femur (Figs. 1, 2)

medianly with a ventral process which is accompanied with one long and two short spines; middle and hind femora without any distinct setae or spines; fore tibia ventrally hollowed at middle part (Fig. 1); middle

tibia with black ring in distal end (Fig. 3); 1st to 3rd tarsal segments yellow and 4th to 5th segments dark brown in all tarsi; hind metatarsus with a row of long bristles anteriorly (Fig. 4).

Abdomen: black and shiny; tergites sparsely clothed with bristles; 3rd segment slightly constricted basally; 4th to genital segments somewhat compressed; anteroventral part of epandrium perpendicular (Fig. 5; arrow); a pair of dorsal setae on epandrium longer than length of epandrium (Figs. 5, 6); upper part of bifurcate process with a triangular projection (Fig. 6; arrows).

Body length: 2.5–3.0 mm.

Female. Unknown.

Holotype: ♂, Ratnapura, Sri Lanka, 1 Oct. 1987, M. Iwasa (preserved in Obihiro University of Agriculture and Veterinary Medicine). Paratypes: 12♂, same data as holotype; 5♂, Gilimale, Ratnapura, 4 Oct. 1987, M. Iwasa; 3♂, Ratnapura-Colombo, 5 Oct. 1987, M. Iwasa; 1♂, Wellawaya, 26 Jul. 1989, K. Kanmiya.

Distribution. Sri Lanka.

Remarks. This species is closely related to *Dicranosepsis tibialis* Iwasa et Tewari, but differs from it in making a perpendicular angle on anteroventral part of epandrium (arrow in Fig. 5), and in having a triangular projection on upper part of bifurcate epandrial process (arrows in Fig. 6) and a row of long bristles on anterior surface of hind metatarsus in male (Fig. 4).

12. *Dicranosepsis bicolor* (Wiedemann, 1830)

Sepsis bicolor Wiedemann, 1830, Auss. zweifl. Insekt., 2: 468.

Specimens examined. 4♂, Nuwara Eliya, 25–28 Sep. 1987, M. Iwasa; 4♂, Sinharaja Fore., Ratnapura, 1 Oct. 1987, M. Iwasa; 5♂, Ratnapura, 1 Oct. 1987, M. Iwasa; 1♂, Adam's peak, Ratnapura, 2 Oct. 1987, M. Iwasa; 17♂, Gilimale, Ratnapura, 4 Oct. 1987, M. Iwasa.

Distribution. Widely distributed in the Oriental region.

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摘 要

スリランカのツヤホソバエ類および
1新種の記載(双翅目)

スリランカのツヤホソバエ類については、これまで断片的な報告しかなかった。1987年に行われた文部省海外学術調査「南西アジアにおける人畜有害双翅類昆虫の動物地理学的研究」のスリランカでの調査におい

て採集されたツヤホソバエ科ハエ類を調べた結果、5 属12種を同定した。これらのうち、1 種を新種として記載し、4 新記録種を含む11種を記録した。また、従来知られていた1 属2 種を加え、計6 属14種の検索表を付した。新種の *Dicranosepsis prominula* は、イン

ドから記載された *D. tibialis* Iwasa et Tewari に類似しているが、雄の交尾器の epandrium の先端部（二又の上部）に三角状の突起を有すること、epandrium の腹面基部が直角を成すこと、および雄の後脚第一跗節に長い剛毛列を有することなどにより区別できる。