

Description of male and egg of *Sosibia truncata* Chen & Chen, 2000 (Phasmida: Diapheromeridae: Necrosiinae).

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ABSTRACT

Male and egg of *Sosibia truncata* Chen & Chen, 2000 are described and illustrated for the first time.

Key Words: Necrosiinae, *Sosibia truncata*, male, egg, Hong Kong, China

INTRODUCTION

The genus *Sosibia* Stål, 1875 contains 33 valid species and is restricted to the Oriental region (Brock, Phasmida Species File online). In China, six species are recognized and most of the species are solely described from one male or one female (Hennemann *et al.*, 2008; Chen & He, 2008). The Chinese representatives of the genus are still poorly known and require further research.

In southern China, *Sosibia truncata* Chen & Chen, 2000 is distributed over Hong Kong and Guangdong Province, China (Chen and Chen, 2000; Hennemann *et al.*, 2008; Chen and He, 2008) and only females are known so far. The author recently conducted a survey to research the phasmid fauna of Hong Kong, and males of *Sosibia truncata* were found. In the recent monograph by Chen and He (2008), a key to the males of *Sosibia* Stål is provided including the male of *Sosibia truncata*, however, it has never been formally described. Therefore, to enrich our knowledge of the species, I describe and illustrate here for the first time males of *Sosibia truncata* along with eggs obtained from a reared female.

METHOD

The male description is based on the materials collected from Hong Kong (New Territories, Hong Kong Island and Lantau Island) and Guangdong Province (Heishiding, located at the northwestern part of Guangdong), China. The egg description is based on the eggs laid by an adult female reared in captivity and was collected from Sunset Peak, Lantau North Country Park, Hong Kong (300–400 meters above sea level). Measurements are given in mm.

The examined holotype of *Sosibia truncata* is deposited in the Institute of Entomology, Sun Yat-sen University (Zhongshan University), Guangzhou, Guangdong, China (ZSU). The non-type materials mentioned in this study are deposited in Kadoorie Farm and Botanic Garden, Hong Kong (KFBG), Institute of Entomology, Sun Yat-sen University (Zhongshan University), Guangzhou, Guangdong, China (ZSU) and the private collection of George, W.C. Ho, Hong Kong (GH).

RESULTS

Sosibia truncata Chen & Chen, 2000

Sosibia truncata, Chen & Chen, 2000: 121, figs. 2a–b. Holotype: Female, Dadongshan, Lianzhou, Guangdong Province, China, 14.VII.1992, Zhuang Meibao (ZSU).

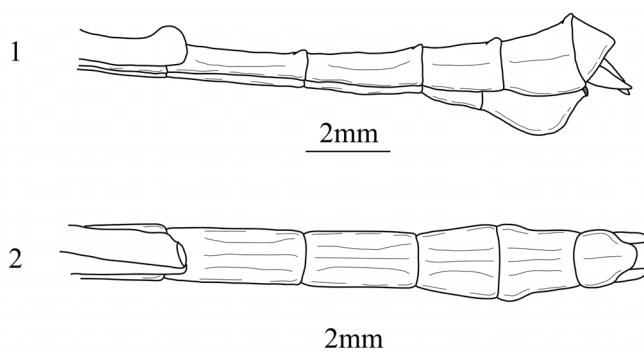
Otte & Brock, 2005: 324.

Hennemann, Conle & Zhang, 2008: 40.

Chen & He, 2008: 195, figs. 160a–c.

Other material examined: Female, Tai Po Kau, Hong Kong, China, 2007, Ho, G.W.C (GH); Female, Tai Tung Shan, Hong Kong, China, 2008, Ho, G.W.C (GH); Female, Tai Po Kau, Hong Kong, China, 19.VI.2008, Ho, G.W.C (GH); 3B&, Mt. Paker, Hong Kong, China, 27.VI.2008, Ho, G.W.C (GH & ZSU); Female & Male & 20 eggs, Sunset Peak, Lantau North Country Park, Hong Kong, 30.VI.2008, Ho, G.W.C (GH & ZSU); Male, Ng Tung Chai, Hong Kong, China, 20.IX.2008, Ho, G.W.C (GH); Female, Kap Lung, Hong Kong, China, 25.IX.2008, Ho, G.W.C (GH); Female & Male, Kowloon Peak, Hong Kong, China, 31.X.2008, Ho, G.W.C (GH); Female, Mui Sze Lam, Hong Kong, China, 31.X.2008, Ho, G.W.C (GH); Male, Pat Sin Leng, Hong Kong, China, 18.VI.2009, Ho, G.W.C (KFBG); Male, Kai Kung Shan, Sai Kung, Hong Kong, China, 25.VI.2009, Ho, G.W.C (GH); Male, Tei Tong Chai, Lantau Island, Hong Kong, China, 4.VII.2009, Ho, G.W.C (GH); 2 males & females, Heishiding, Fengkai, Guangdong Province, China, 25–27.VII.2011, Ho, G.W.C. (GH).

Description of male (Figs. 1–3): Similar to female but smaller. Body slender and slim, brown, covered with setae particularly dense on legs, less on thorax and abdomen.



Figs. 1 & 2: Male *Sosibia truncata*. 1. End of abdomen, lateral view. 2. End of abdomen, dorsal view. (Drawings by author).



Fig.3: Adult male *Sosibia truncata* (Photo by author).

Head: Flat and small, oblong, longer than wide. Eyes oval, protruding, about as long as the length of first antennal segment. Occiput flat with granules. Median furrow distinct. Antennae light brown, longer than fore legs, reaching to the sixth abdominal tergum; the first segment broader and flatter than the second segment; the second segment cylindrical, shorter than the first segment; the third to sixth segments equal in length; seventh segment and subsequent segments are slender and indistinct.

Thorax: Pronotum two times longer than wide, anterior margin curved inward, with a transversal and longitudinal sulcus, the longitudinal sulcus projecting to the end of hind margin of pronotum, with granules. Mesonotum with distinct median longitudinal carina, as long as the profemora, covered with irregular sized granules, expanded behind. Combined length of metanotum and median segment longer than head and pronotum together.

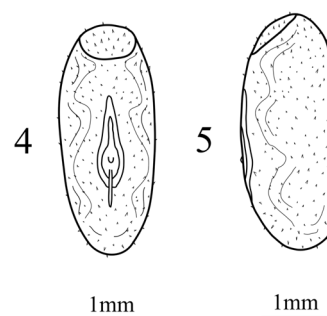
Abdomen: Rather slender, longer than the head and thorax together. Median segment nearly as long as metanotum. The longest segment being the second tergum, the third to sixth tergites are similar in length, the seventh tergum shorter than the proceeding tergites, the eighth tergum widened posteriorly, the shortest segments being the ninth and anal segments. The seventh, eighth and ninth tergites with obvious median longitudinal and lateral carinae but smooth from second to sixth tergites. Sixth to ninth tergites with a small hump medio-posteriorly. The hind margin of the anal segment protruding and rounded. Poculum projecting beyond the hind margin of ninth tergum. Cerci long and straight with setae, exceeding the anal segment, broader at base, apex acute and slightly curved inward.

Legs: Brown, same as thorax, with black markings and dense setae. Hind legs longer than fore legs and longer than mid legs, nearly reaching to the tip of abdomen. Mid legs obviously longer than head, pronotum and mesonotum together. Profemora curved basally.

Wings: Tegmina short and brown, as long as pronotum,

the elevated portion is black and blunt. Alae long, projecting beyond the sixth tergum, red at base, costal region brown and anal region uniformly gray. Apex of alae rolled up and black.

Description of egg (Figs. 4–5): The capsule is oval and light brown with white marks. Densely covered with spine-like bristles. Ventral surface grey and smooth. Operculum flat, also sparsely covered with spine-like bristles. Micropylar plate oblong, rounded at posterior end and slightly pointed at anterior end. Median line about one-third of the length of micropylar plate. Micropylar cup white and placed near the anterior end of the median line. The eggs were randomly glued to the rearing cage and on leaves of food plants. Length 3.2 mm, width 1.7 mm, height 2 mm. The measurement of the male is given in Table 1.



Figs. 4 & 5: Egg of *Sosibia truncata*. 4. Dorsal view. 5. Lateral view. (Drawing by author).

Distribution: In Hong Kong, *Sosibia truncata* is uncommonly found in mature woodland in New Territories, Hong Kong Island and Lantau Island. In China, it is only known from Guangdong Province.

Body part	Length, mm	Mean, mm	n =
Body	48–52	50.8	6
Head	2.5–2.7	2.5	6
Antennae	31–33	32	5
Pronotum	2.5–3.1	2.9	6
Mesonotum	9–10	9.6	6
Metanotum including median segment	6–7	6.25	6
Profemora	9–11	9.7	6
Mesofemora	7.5–8	7.7	6
Metafemora	11–13	11.7	6
Protibiae	8–9	8.25	6
Mesotibiae	5.5–7	6.2	6
Metatibiae	10.5–12	11.3	6
Tegmina	2–3	2.5	6
Alae	21.5–24	22.1	6

Table 1. Measurements of male *Sosibia truncata* Chen & Chen, 2000

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