

***SOSIBIA MOHAMEDSAIDI*, A NEW SPECIES
OF STICK INSECT, AND A NEW RECORD OF
MALE *SOSIBIA AURITA* FROM MALAYSIA
(PHASMOPTERA: HETERONEMIIDAE:
NECROSCIINAE)**

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ABSTRACT

Sosibia mohamedsaidi, a new species of stick insect from Malaysia, is described and illustrated. The recently discovered male of *Sosibia aurita* is also described and illustrated.

ABSTRAK

Sosibia mohamedsaidi, satu spesies baru serangga ranting dari Malaysia, diperihal dan dilustrasikan. Penjumpaan terkini serangga jantan *Sosibia aurita* juga diperihal dan dilustrasikan.

INTRODUCTION

The stick insects of the genus *Sosibia* Stal species are distinguished from other genera in the subfamily Necrosiinae (Phasmatoptera: Heteronemiidae) by a rather elongated

mesothorax and unusually flattened and expanded fore femora. All species possess wings in both males and females and eggs are glued to bark of trees as far as is known. Ocelli are not present in the males. Spines may or may not be present on the head and thorax. The genus has been reviewed recently by Brock(1999) and Seow-Choen (2000), where it is represented by seven species in Peninsular Malaysia. In this paper, a new species, *Sosibia mohamedsaidi*, and a recently discovered male of *Sosibia aurita* (Fabricius) are described and illustrated.

***Sosibia mohamedsaidi* Seow-Choen, new species.
(Figs. 1-2)**

Female. A short robust looking winged insect 65 mm in body length with shortened front legs. The insect is generally mottled brown. The antennae are longer than the fore legs. The hind legs exceed the end of the hind wings which extends down the abdomen to the middle of the 6th abdominal segment. All femora lack subapical spines. The front femora are very short and greatly expanded. The mid and hind femora are thin and stick like. The front femora and tibiae are noticeably setose on the inferior surface. The head and prothorax are not spined. The head, prothorax and mesothorax bear coarse granulations, with the ones on the head looking pointed. The operculum is short and the end of the abdominal segment is definitely triangular. The cerci are not visible from above. The end of the 6th, 7th, 8th, 9th and 10th abdominal segments are slightly raised; with the 9th one being actually beaked. The forewing has a coarse crumpled lateral mid-portion. The coastal part of the hind wings has brownish, greyish mottled pattern. The base of the coastal part of the hind wing has a bright pinkish patch with a black spot further lateral. The membranous hind wings have a brown and transparent mottled pattern.

Male. The male is a thin winged insect of body length 41.5 mm. Ocelli are not present on the head. The head and mesothorax has numerous granulations but no spines. The prothorax has

minimal granulations. All legs are long and thin. Only the front femora are slightly expanded but not to extend of the female. The front femora and tibiae are noticeably setose. The antennae are much longer than the front legs. None of the femora bear subapical spines. The hind legs reach almost to the end of the abdomen and exceed the hind wings which reach the middle of the 6th abdominal segment. The middle part of the fore wings has a slightly crumpled looking segment laterally. The coastal part of the hind wing is mottled light and dark brown. The membranous hind wing is uniformly light brown. The base of the coastal part of the hind wing has a bright pink patch with a small black spot laterally. The anal segment is sharp and triangular. The long cerci are visible from above.

Eggs. A row of 13 eggs were laid on the surface of the collecting container. Each egg is dark brown, with the operculum facing upwards. Each egg measures about 2 mm long by 1 mm wide and 1 mm in height.

Measurements of *Sosibia mohamedsaidi* (mm)

	Female	Male
Total body length	65	41.5
Antennae	36	26
Head	4	3
Pronotum	4	2.5
Mesonotum	11	7
Metanotum	5	3
Median segment	1	1
Wings : fore	1	1
: hind	34	21
Fore legs : femur	10	8
: tibia	8	6.5
: tarsus	8	6.3
Mid-legs : femur	8	6
: tibia	6.5	5
: tarsus	5	4

Hind-legs : femur	17	10
: tibia	13	9
: tarsus	5	5

HOLOTYPE. Female. MALAYSIA, Melaka, Forest Recreation Park, March 2001. F Seow-Choen [to be deposited in the collection of the Centre for Insect Systematics, Universiti Kebangsaan Malaysia, Bangi (UKM)].

PARATYPE. Male, same data as female (in my collection, later it will be deposited in UKM).

REMARKS. The new species, *S. mohamedsaidi*, differs from *S. esacus* (Westwood) in having the base of hind wings with a black spot laterally and the abdominal segments 6th and 7th not expanded in female.

ETYMOLOGY. This species is named after Professor Mohamed Salleh Mohamedsaid, previous Chief Editor of *Serangga*, in recognition of his very significant contributions to entomology in Malaysia and South East Asia.

Description of the male of *Sosibia aurita* (Fabricius) [Fig. 3]

The female has been recently redescribed by Brock (1999) and will not be described again here. The male redescribed here was caught by the author in Tapah Hills, Pahang in November 2002. It is a very attractively marked insect with a body length of 81 mm and antennae of 51 mm length. The insect is generally mottled greenish brown. The legs are greenish with brown/black bands. All apices are darker in colour than the rest of the leg. The antennae are longer than the fore legs, and have more than 10 whitish bands especially prominent nearer the tip. The eyes are large. The back of the head bears many pointed orange spines and two large black spines. The prothorax has only two small spines near the back edge. The mesothorax has many short conical orange spines. The posterior edge of the forewing has a light greenish border. The coastal part of the hind wing is mottled greenish brown and has a prominent greenish white patch near

the tip. There is a hint of a pinkish patch near the origin of the hind wing. The membranous hind wings are smoky brownish. The end of the 6th and 7th abdominal segments rises up to a prominent ridge, the 8th and 9th ridges are less prominent. The cerci are large and visible from the top. The hind legs do not reach beyond the 7th abdominal segment.

Measurements of the male of *Sosibia aurita* (mm)

Total body length	81
Antennae	51
Head	5
Pronotum	4
Mesonotum	13
Metanotum	5
Median segment	2
Wings	
: fore	6
: hind	45
Fore-legs	
: femur	14
: tibia	13
: tarsus	9
Mid-legs	
: femur	10
: tibia	7.5
: tarsus	6
Hind-legs	
: femur	18
: tibia	16.5
: tarsus	7.5

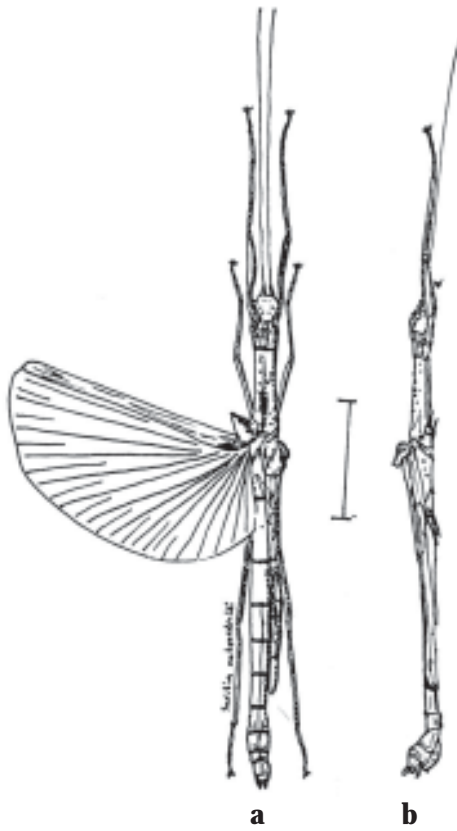
Key to Peninsular Malaysia *Sosibia* species

1. Head with spines2
Head without spines4
2. Two head spines are noticeably larger and spade-like
..... *aurita* (Fabricius)
All head spines are about equal size3
3. Head spines orange or brown; prothorax, mesothorax
spiny..... *curtipes* (Westwood)

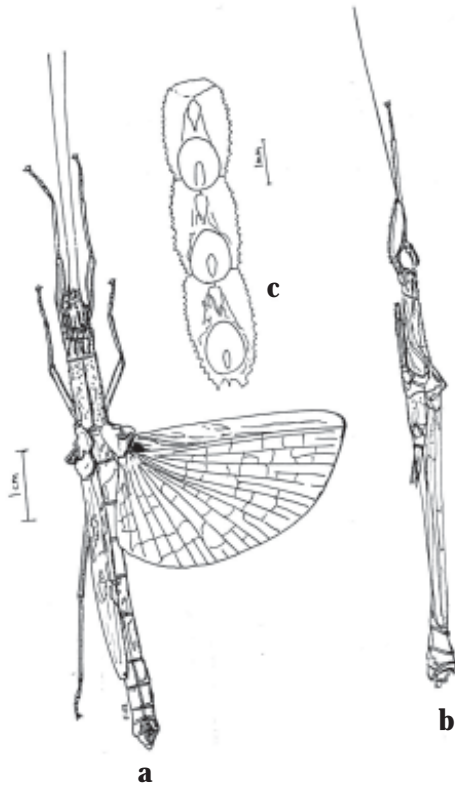
- Head spines black; prothorax and front of mesothorax with numerous tubercles or small spines *nigrispina* Stal
4. Front of mesothorax with spines; femora without subapical spines *brocki* Seow-Choen
Mesothorax with granulations or tubercles, but not spines 5
5. Base of hind wing pink with a black spot laterally 6
Base of hind wing without black spot 7
6. Shorter species; femora without subapical spines; membranous hind wings mottled brown in female *mohamedsaidi* sp. nov.
Longer species; femora with subapical spines; membranous hind wings brown in female.....*macera* Redtenbacher
7. Shorter species; abdominal segments 6th and 7th expanded in female; femora without subapical spines *esacus* (Westwood)
8. Larger species; abdominal segments elongate in female; femora with subapical spines *solida* (Redtenbacher)

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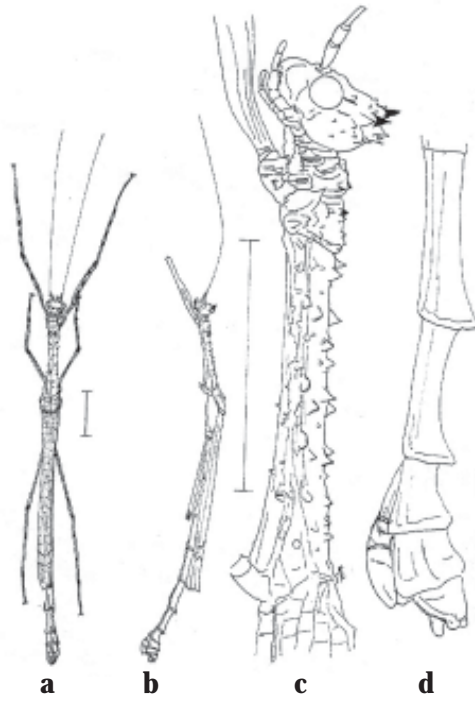
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- Seow-Choen, F. 2000. An illustrated guide to the stick and leaf insects of Peninsular Malaysia and Singapore. Natural History Publications (Borneo). Kota Kinabalu.



Figs. 1a-b. Male *Sosibia mohamedsaidi*, new species. a, dorsal view; b, lateral view.



Figs. 2a-c. . Female *Sosibia mohamedsai*, new species. a, dorsal view; b, lateral view; c, three eggs



Figs. 3a-d. Male *Sosibia aurita*. a, dorsal view; b, lateral view; c, closed up views of the head; d, end of abdominal segments.