

## **Biographies of Phasmatologists – 7. James Wood-Mason.**

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### **Abstract**

James Wood-Mason was a British zoologist who worked in the Indian Museum at Calcutta from 1877 to 1893. He started as an assistant to Professor John Anderson and later succeeded him as Director of the Museum. He made many collections of marine animals and Lepidoptera. He is best known in the entomological world for his work on mantids and phasmids. His life and phasmid work is outlined. He described 24 new species of phasmids and named three new genera.

### **Key words**

Phasmida, Phasmatologist, Biography, Indian Museum, Calcutta, James Wood-Mason.

### **James Wood-Mason** (December 1846- 6<sup>th</sup> May 1893)

James Wood-Mason was born in Gloucestershire in December 1846. His father was a medical doctor. James attended Charterhouse School and then Queen's College Oxford where he was a pupil of J.O. Westwood. He was interested in Natural History and Geology and in 1869 he went to India to become Assistant Curator at the Indian Museum in Calcutta. He was a Fellow of the Royal Entomological Society of London and remained a great admirer of Westwood's work.

Perhaps because he spent most of his adult life in India, it has been difficult to find information about Wood-Mason's private life. There were two brief anonymous obituaries in British entomological publications when he died (Anon, 1893a, 1893b), and a more detailed mention of his work in an obituary by his successor Alfred Alcock (1893) in the Proceedings of the Asiatic Society of Bengal that was subsequently reproduced in a book about the Indian Museum (Annandale, 1914). One obituary (Anon, 1893b) mentions that he was married and had "several children". None of the sources give his date of birth, and only one refers to his month of birth (Alcock, 1893). I have been unable to trace a picture of him. He died before celluloid photographic film was invented, so cameras were still rare, particularly outside Europe and the USA, and it is possible that he was never photographed or painted.

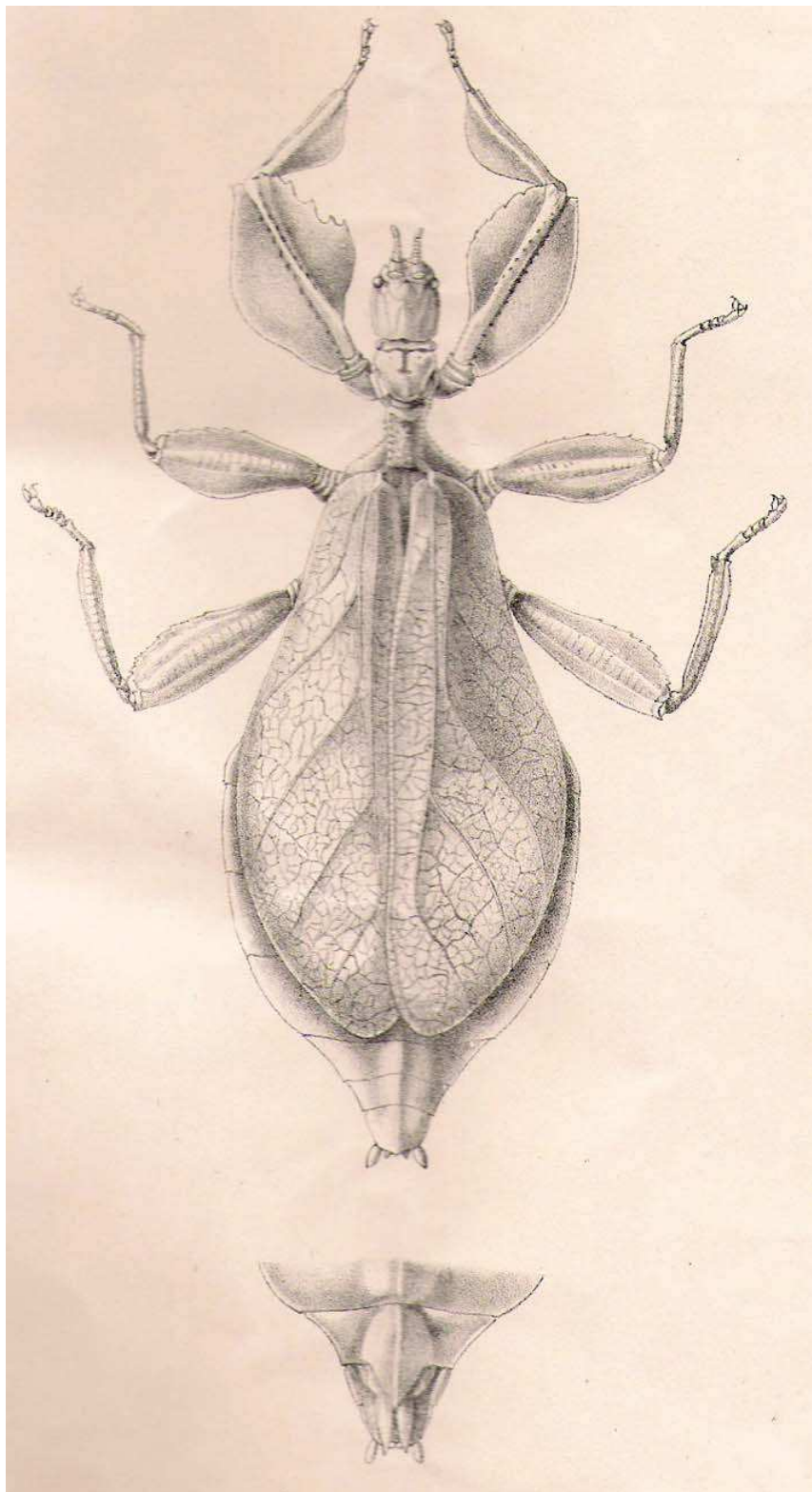
Shortly after his arrival in India, Wood-Mason joined the Asiatic Society of Bengal, the leading scientific society in India. He was a regular contributor to the Society's journal until he became ill toward the end of his life. In 1873 he became the society's Natural History Secretary and edited the Natural History section of the journal for most of the following 16 years. In 1887 he was elected vice-president of the society. He became Professor of Zoology and Comparative Anatomy in the Medical College of Bengal and in 1888 he was made a Fellow of the University of Calcutta.

In 1808 the Asiatic Society formed the first museum in India. In 1866 the British government turned the Asiatic Society Museum into the Imperial Museum by an Act of Parliament and soon it was renamed the Indian Museum. It moved to new buildings in 1875. The task of re-organising it as a multipurpose museum was entrusted to the Superintendent Dr. John Anderson and his assistant, James Wood-Mason. Having started as Assistant Curator in 1869, he became Deputy Superintendent, and when Dr. John Anderson retired in 1887, he became Superintendent of the Indian Museum, a position he held until his death.

James Wood-Mason became ill with Bright's disease, a kidney disease which causes back pain, vomiting, fever and oedema. Over a period of several years the effects on Wood-Mason became more severe and incapacitating, and on 5<sup>th</sup> April 1893, in a critical state of health, he left Calcutta to return to England. On the journey back to England, he died at sea on 6<sup>th</sup> May 1893 at the age of 47.

Wood-Mason was involved in several explorations. In 1872 he went to the Andaman Islands, working mainly on marine fauna, but he also collected at least two species of phasmids which he described the following year: *Bacillus hispidulus* and *Bacillus westwoodii*.

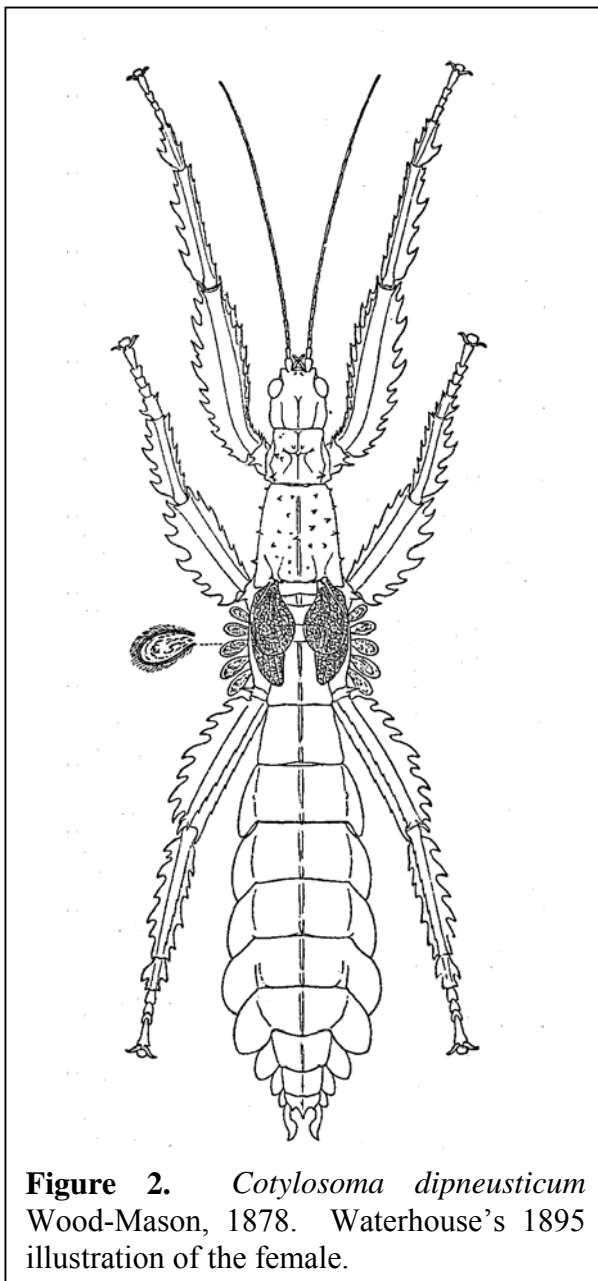
In March 1873 he set out to the Nicobars and other islands in the Bay of Bengal with the famous ornithologist Allan Octavian Hume, and with the geologists Dr. Ferdinand Stoliczka and Dr. Dougall.



**Figure 1.** *Phyllium westwoodii* Wood-Mason, 1875; plate 17 from Wood-Mason's original description.

Wood-Mason travelled on Her Majesty's Indian Marine Survey Steamer *Investigator* in 1888, and worked on Crustacea in the latter part of his life. He described some new species of Crustaceans collected by the *Investigator*, some of which were not published until after his death. At least ten marine organisms have been named after Wood-Mason, many posthumously: *Bathybembyx woodmasoni* Smith, 1895, *Erugosquilla woodmasoni* (Kemp, 1911), *Scalpellum woodmasoni* Annandale, 1906, *Verum woodmasoni* (Annandale), *Rectopalicus woodmasoni* (Alcock, 1900), *Heterocarpus woodmasoni* Alcock, 1901, *Coryphaenoides woodmasoni* (Alcock, 1890), *Ichnopus woodmasoni* (Giles, 1890), *Bopyrione woodmasoni* (Chopra, 1923), *Thalamita woodmasoni* Alcock, 1899.

In addition to his work on phasmids, Wood-Mason published at least 20 papers on mantids, one of which also contained work on phasmids (Wood-Mason, 1877b). His last publication on phasmids was in 1879, but he continued publishing work on mantids almost until he died; his catalogue of mantids in the Indian Museum (Wood-Mason, 1889 & 1891) was his last mantis publication. He described at least 60 species and 14 genera of mantids, and created the valid family Eremiaphilidae.



**Figure 2.** *Cotylosoma dipneusticum* Wood-Mason, 1878. Waterhouse's 1895 illustration of the female.

### Phasmids of Wood-Mason

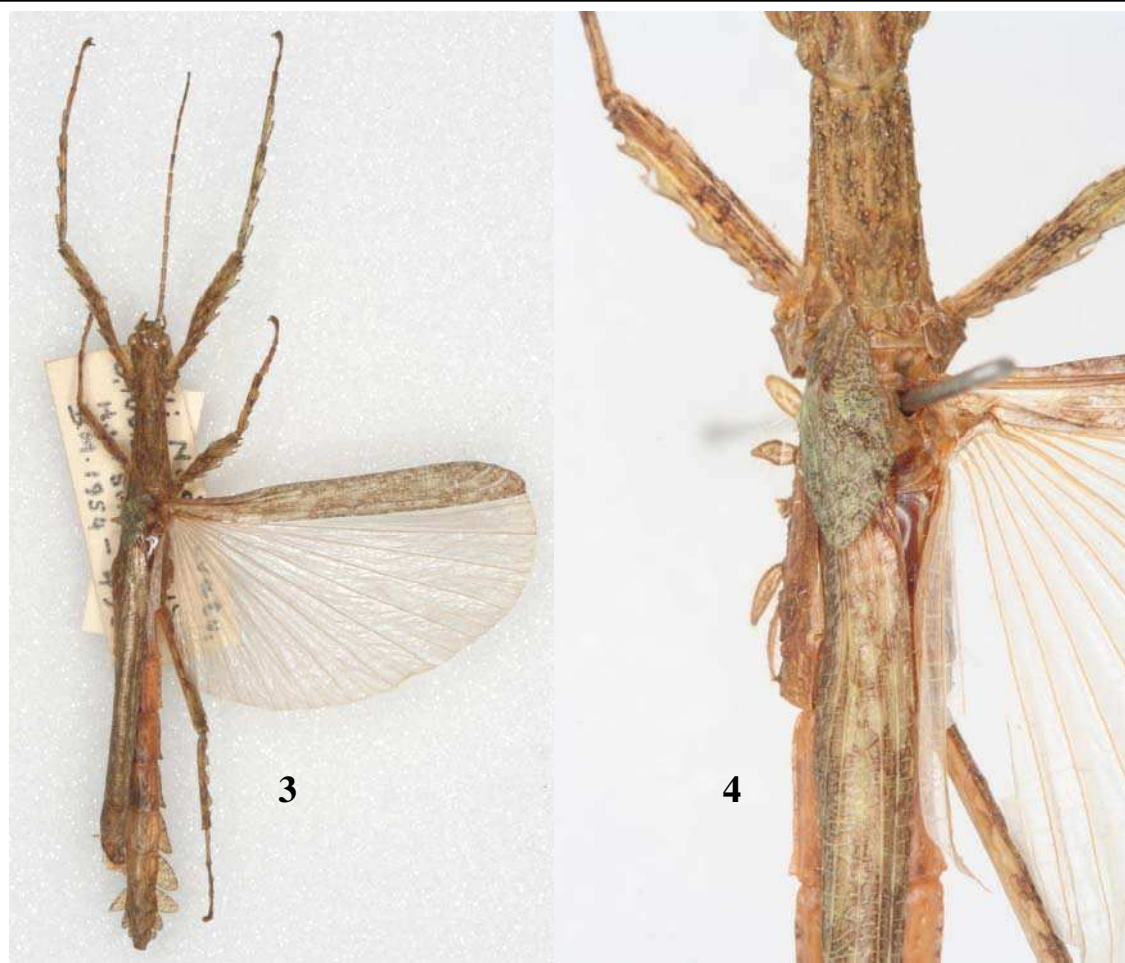
Wood-Mason described a total of 24 species and 3 genera of phasmids. Three of the new species that he described were named after J.O. Westwood. The majority of Wood-Mason's new species were from India and the neighbouring region, but he also described species from Australia (1), New Britain (2), Madagascar (2), Peninsular Malaysia (1) and "Borneo" (in error, actually Fiji). Almost all his species were illustrated until 1876, after 1876 only one paper was illustrated (Wood-Mason, 1877e) and the illustrations were not of new species.

All but three of Wood-Mason's phasmid publications described new species. Two of his papers (1873b & 1873c) just described the male of what is now known as *Cuniculina insignis* (Wood-Mason, 1873): he had described the female earlier in the same year. The third publication (1877f) is an announcement of the discovery of stridulating organs in phasmids.

*Cotylosoma dipneusticum* Wood-Mason, 1878 is an interesting species in several respects. Firstly, the name of this species is credited to Wood-Mason, but he did not formally describe it; secondly, it was for many years reputed to be semi-aquatic; thirdly, it was described with what is probably the least precise measurement ever used for a phasmid; and finally, the locality he gave was completely wrong. Wood-Mason gave it the

name but made no more than a brief mention of the insect, and said that it was in the British Museum and came from Borneo.

The actual descriptive content of Wood-Mason's mention of this species consists of only one full sentence and part of two others: "The insect in question is closely related to the *Prisopi*", "From each side of the body, in fact, along the lower margins of the sides of the metathorax, there stand straight out five equal small but conspicuous ciliated oval plates", the sentence goes on to speculate about their function as gills, and "The insect, which is a female with rudimentary organs of flight, is between three and four inches in length." Nowadays such a description would not be valid – the description has to be sufficient to distinguish it from other known species – but for names created prior to 1931 the rules are not as strict so Wood-Mason's description is acceptable.



**Figures 3-5.**  
*Cotylosoma dipneusticum*  
**3 & 4.** Male.  
**5.** Female holotype (right side of metathorax ).

The specimen was only really described by Waterhouse (1895) – 17 years later – and even that was an illustration (see figure 2, above), not a written description. Waterhouse corrected the locality of the specimen: it is from Taviuni in the Fiji Islands. Waterhouse also cast doubt on the semi-aquatic nature of the insect. The first written description of the female was published by Redtenbacher (1908), thirty years after Wood-Mason's few words. The male (figs 3 & 4) remained unknown until it was described by Ragge in 1956. Wood-Mason's original specimen is in the Natural History Museum, London; all other specimens of phasmids described by Wood-Mason were originally in the Indian Museum, Calcutta. Unfortunately, getting information about the collection is difficult and has led to the erroneous assumption that all the type material had been lost. Recently, however, I have been able to confirm that some of Wood-Mason's original specimens are still present in the museum; work to trace other specimens is on-going.

Wood-Mason's last published work on phasmids was in 1879; from 1880 to 1883 he worked almost exclusively on Lepidoptera (Alcock, 1893).

Although no new species of phasmid has ever been named after Wood-Mason, he does have a genus named after him: *Woodmasonia* Brunner, 1907, with the type species *Bacillus oxytenes* Wood-Mason, 1873.

### Genera of phasmids described by Wood-Mason

*Cotylosoma* Wood-Mason, 1878: 102.

*Menaka* Wood-Mason, 1877e: 342.

*Parectatosoma* Wood-Mason, 1879:117.

*Menaka* is considered to be a synonym of *Medaura* Stål, 1875; *Cotylosoma* and *Parectatosoma* are both valid genera. It is interesting to note that Wood-Mason's valid genera are not from India.

### Lists of Wood-Mason's 24 species grouped alphabetically within each year

#### 1873

<i>furcillatus</i> ( <i>Baculum</i> ) .....	1873: 54, pl. 5.6 & 5.6a (♀).
<i>fuscolineatus</i> ( <i>Bacillus</i> ).....	1873a: 46, pl. 5.7, 5.7a-b (♂).
<i>hispidulus</i> ( <i>Bacillus</i> ) .....	1873a: 47, pl. 7.2, 7.2a-c (♂) & 7.3(♀).
<i>insignis</i> ( <i>Bacillus</i> ( <i>Baculum</i> )) .....	1873a: 51, pl. 5.1, 5.1a-b (♀) & 5.2 (♀).
<i>laevigatus</i> ( <i>Bacillus</i> ) .....	1873a: 49, pl. 5.4, 5.4a-c (♀ nymph).
<i>oxytenes</i> ( <i>Bacillus</i> ) .....	1873a: 48, pl. 5.3 & 5.3a (♀).
<i>penthesilea</i> ( <i>Bacillus</i> ( <i>Baculum</i> )) .....	1873a: 52, pl. 5.5 & 5.5a (♀).
<i>scabriusculus</i> ( <i>Bacillus</i> ) .....	1873: 55, pl. 7.1 & 7.1a (♀).
<i>westwoodii</i> ( <i>Bacillus</i> ) .....	1873a: 50, pl. 6.3, 6.3a-b (♀).

#### 1875

<i>austeni</i> ( <i>Lonchodes</i> ) .....	1875: 261.
<i>westwoodii</i> ( <i>Phibalosoma</i> ) .....	1875: 216.
<i>westwoodii</i> ( <i>Phyllium</i> ) .....	1875: 218, pl. 17 (♀).

The holotype of *Lonchodes austeni* was illustrated by Wood-Mason, 1977e, pl. 3.4, 3.4a-b (♂).

#### 1876

<i>Lonchodes verrucifer</i> .....	1876b: 47, pl.11.1-4 (♂) 11.5-6 (♀).
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**1877**

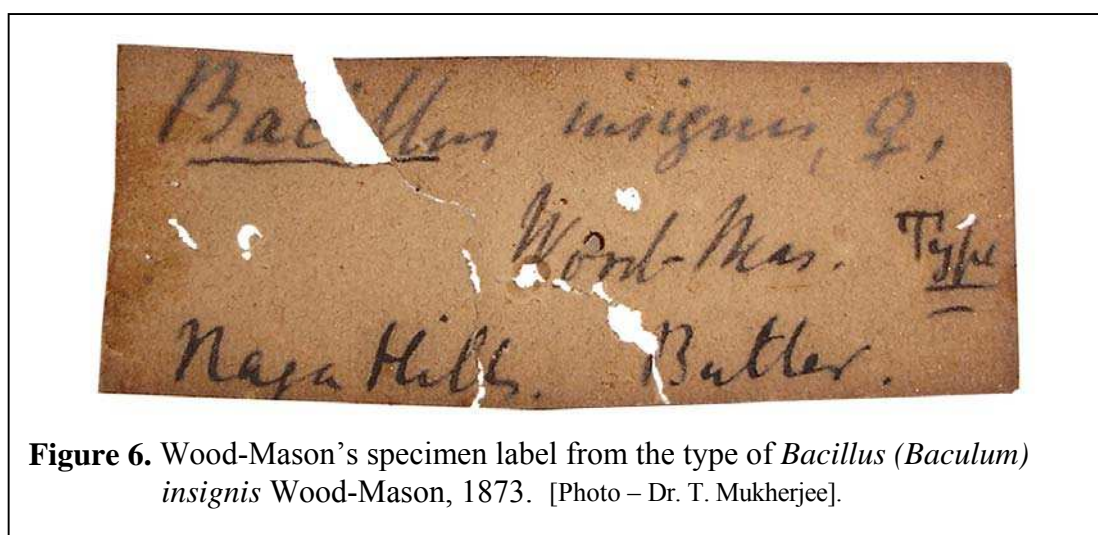
<i>annamallayanum</i> ( <i>Phibalosoma</i> ) .....	1877d: 161.
<i>frenchi</i> ( <i>Bacteria</i> ) .....	1877b: 74.
<i>godama</i> ( <i>Lonchodes</i> ) .....	1877d: 162.
<i>menaka</i> ( <i>Necroscia</i> ) .....	1877c: 130.
<i>novae-britanniae</i> ( <i>Phibalosoma</i> ) .....	1877b: 75.
<i>novae-britanniae</i> ( <i>Phyllium</i> ) .....	1877b: 75.
<i>valgus</i> ( <i>Lonchodes</i> ) .....	1877a: 487.
<i>sinkiebensis</i> ( <i>Bacteria</i> ) .....	1877e: 343.

**1878**

<i>dipneusticum</i> ( <i>Cotylosoma</i> ) .....	1878: 101.
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**1879**

<i>echinus</i> ( <i>Parectatosoma</i> ) .....	1879: 118.
<i>hystrix</i> ( <i>Parectatosoma</i> ) .....	1879: 117.



**Figure 6.** Wood-Mason's specimen label from the type of *Bacillus* (*Baculum*) *insignis* Wood-Mason, 1873. [Photo – Dr. T. Mukherjee].

**Acknowledgements**

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**References**

- Alcock, A.W. (1893)** Obituary of James Wood-Mason. *Proceedings of the Asiatic Society of Bengal*, p. 110-113.
- Annandale, N. (1914)** *The Indian Museum 1814-1914*. The Trustees of the Indian Museum, Calcutta.
- Anon (1893a)** [Obituary of Professor Wood-Mason]. *Proceedings of the Entomological Society of London*, 1893: lvi.
- Anon (1893b)** Obituary, Professor James Wood-Mason. *Entomologists' Monthly Magazine*, **29**: 145-146.
- Ragge, D.R. (1956)** The male of *Cotylosoma dipneusticum* Wood-Mason, 1878 (Phasmida: Phylliidae). *Proceedings of the Royal Entomological Society of London*, (B)**25**: 1-2 & pl. 1.

- Redtenbacher, J. (1908)** *Die Insektenfamilie der Phasmiden*. Vol. 3. Wilhelm Engelmann, Leipzig.
- Waterhouse, C.O. (1895)** Observations on the supposed semiaquatic phasmid, *Cotylosoma dipneusticum*, W.-M. *Annals and Magazine of Natural History*, (6)**15**: 498-499.
- Wood-Mason, J. (1873a)** On new or little known species of Phasmidae. Part 1. - Genus *Bacillus*. *Journal of the Asiatic Society of Bengal*, **42**(2): 45-56. pl. 5-7.
- Wood-Mason, J. (1873b)** Note on certain species of Phasmidae hitherto referred to the genus *Bacillus*. *Annals and Magazine of Natural History*, (4)**12**: 347-348.
- Wood-Mason, J. (1873c)** Note on certain species of Phasmidae hitherto referred to the Genus *Bacillus*. *Proceedings of the Asiatic Society of Bengal*, [July 1873] p. 148-150.
- Wood-Mason, J. (1875)** On new or little-known species of Phasmidae, with a brief preliminary notice of the occurrence of a clasping apparatus in the males throughout the family. *Journal of the Asiatic Society of Bengal*, **44**(3): 215-220, pl. 16 & 17.
- Wood-Mason, J. (1876a)** Description of a new Phasmideous insect from the Andamans. *Proceedings of the Asiatic Society of Bengal*, [May 1876] p. 95.
- Wood-Mason, J. (1876b)** Description of a new species of Phasmidae. *Journal of the Asiatic Society of Bengal*, **45**(1): 47-49, pl. 11.
- Wood-Mason, J. (1877a)** Description of a new species of Phasmidae from the Malay peninsula. *Annals and Magazine of Natural History*, (4)**19**: 487-488.
- Wood-Mason, J. (1877b)** On a small collection of Orthopterous insects of the families Phasmidae & Mantidae from Australia & New Britain, with descriptions of four new species. *Annals and Magazine of Natural History*, (4)**20**: 74-77.
- Wood-Mason, J. (1877c)** Description of a new species of Phasmidae from India. *Annals and Magazine of Natural History*, (4)**20**: 130-131.
- Wood-Mason, J. (1877d)** New and little known insects collected in Upper Tenasserim. Orthoptera, Phasmidae. Orthoptera. Fam. Phasmidae. *Proceedings of the Asiatic Society of Bengal*, [July 1877] pp. 160-163.
- Wood-Mason, J. (1877e)** Notes on Phasmidae. *Journal of the Asiatic Society of Bengal*, **46**(4): 342-352, pl. 2-3.
- Wood-Mason, J. (1877f)** [Untitled note on the discovery of stridulating organs in a species of *Pterinoxylus*]. *Transactions of the Entomological Society of London*, 1877, p. xxviii-xxix.
- Wood-Mason, J. (1878)** Preliminary notice of a species of Phasmidae apparently possessing all the structural arrangements needed both for aerial and aquatic respiration. *Annals and Magazine of Natural History*, (5)**1**: 101-102.
- Wood-Mason, J. (1879)** Preliminary notice of a new genus (*Parectatosoma*) of Phasmidae from Madagascar, with brief descriptions of its two species. *Journal of the Asiatic Society of Bengal*, **48**(2): 117-118.
- Wood-Mason, J. (1889)** Catalogue of Mantodea, with descriptions of new genera and species, and an enumeration of the specimens, in the collection of the Indian Museum, Calcutta. 1: 1-48. Indian Museum, Calcutta.
- Wood-Mason, J. (1891)** Catalogue of Mantodea, with descriptions of new genera and species, and an enumeration of the specimens, in the collection of the Indian Museum, Calcutta. 2: 49-66. Indian Museum, Calcutta.