

Eupolyphaga seu Steleophaga versus Opisthoplatia



1 cm



1 cm

Source

*Eupolyphaga seu Steleophaga

is the dried body of
female *Eupolyphaga sinensis* Walker or
Steleophaga plancyi (Boleny)[^]
in the family Corydiidae

Opisthoplatia

is the dried body of
Opisthoplatia orientalis Burm.
in the family Blaberidae

Overview

Eupolyphaga seu Steleophaga is listed in both Schedule 2 of the Chinese Medicine Ordinance and Chinese Pharmacopoeia (2020); on the other hand, Opisthoplatia has only been recorded in the *Chinese Materia Medica Standards in Guangdong Province*. According to the *Chinese Materia Medica Standards in Guangdong Province*, it has been a traditional practice in the Guangdong Province to use both the female and male bodies of *Opisthoplatia orientalis* as “Tu bie chong” for medicinal use; while *Eupolyphaga sinensis* which is recorded in the Chinese Pharmacopoeia is widely distributed across the country, and is occasionally used in the Guangdong province, known as “Su tu bie”. According to the Chinese Pharmacopoeia and the *Chinese Materia Medica Standards in Guangdong Province*, these two CMM are originated from different sources and thus should be used accordingly.

Note:

*Its name in Chinese Pharmacopoeia (2020) is “Eupolyphaga Steleophaga”.

[^]Only *Eupolyphaga sinensis* is included in this study as currently it is the main species of Eupolyphaga seu Steleophaga in the market.

Key identification features

Macroscopic features of Eupolyphaga seu Steleophaga



- ◆ Ovate and flat. Narrower at the anterior and broader at the posterior. Wingless.

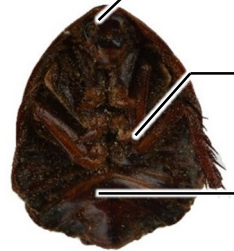


1 cm



Brownish-black dorsal side with luster and 12 transverse segments arranged in imbricate

The first segment is relatively broad and slightly transverse rhombic. The second and third segments appear long strip-shaped with both ends curved naturally towards the posterior



Reddish-brown or brown ventral side with relatively small head and 1 pair of filiform antennae frequently fallen off

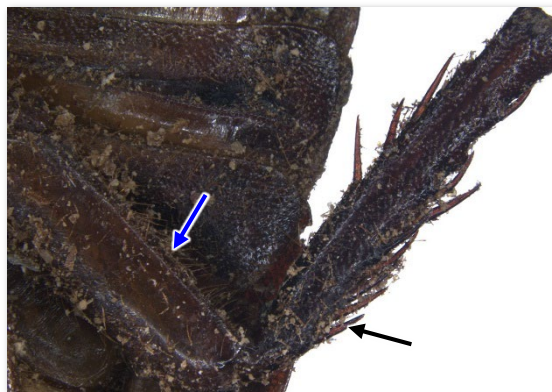
With 3 pairs of legs at the thorax and the third segment of legs frequently fallen off

Abdomen swelled and with curved segments arranged in imbricate. Last segment is relatively broad and slightly pointed

1 cm

Micro-morphological feature

A: With thick and long spines(→) and numerous short and thin hairs(→) observable at the leg



(Ventral side)

1 mm

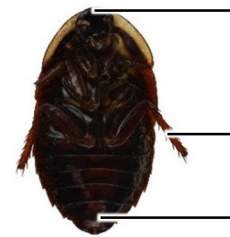
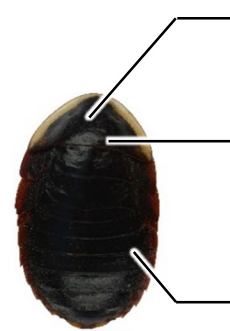
Macroscopic features of Opisthoplatia



◆ Ovate or elliptical and flat



1 cm



1 cm

Blackish-brown dorsal side is smooth and lustrous. With 10-11 transverse segments arranged in imbricate

The first segment is relatively broad and with narrow yellow lining at the margin, customarily named as “*Jin bian*” (Golden lining)

Other segments with reddish-brown margin and serrae on each segment

With 1 pair of characteristic wing-like structures on both sides of the second and third segments

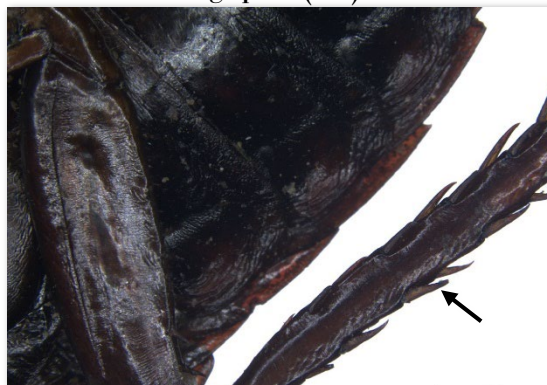
Reddish-brown ventral side with luster. Small head is observable with 1 pair of filiform antennae mostly fallen off

With 3 pairs of legs at the thorax and the third segment of legs fallen off frequently

Abdomen swelled and with curved segments arranged in imbricate. Last segment is relatively broad and slightly pointed

Micro-morphological feature

A: With thick and long spines(→) observable at the leg


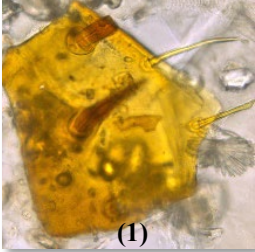


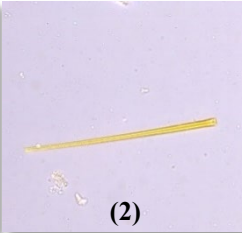

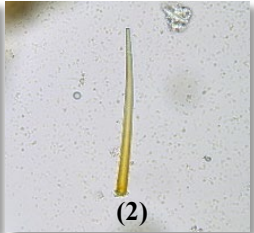
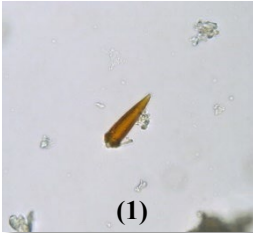


(Ventral side)

1 mm

Microscopic feature comparison of
Eupolyphaga seu Steleophaga and Opisthoplatia powder



	Eupolyphaga seu Steleophaga	Opisthoplatia
Fragment of integument	<div></div> <p>Deep brown or yellow, with irregular striations or protuberances on the surface, adhered by short and thick or slender setae(1), rounded alveoli(2) are frequently found after setae detached, relatively large in diameter</p>	<div></div> <p>Deep brown or yellow, with irregular striations or protuberances on the surface, adhered by short and thick or slender setae(1), rounded alveoli(2) are frequently found after setae detached, relatively small in diameter</p>
Seta	<div></div> <p>Two types, frequently found, relatively long. Stubby seta(1) frequently found, deeper in colour, brownish-yellow or brown, conical, with longitudinal and straight striations; thin seta(2) relatively barely found, lighter in colour, yellow or light brown, lanceolate</p>	<div></div> <p>Two types, barely found, relatively short. Stubby seta(1) deeper in colour, brownish-yellow or brown, conical, with longitudinal and straight striations; thin seta(2) lighter in colour, yellow or light brown, lanceolate</p>

50 μm

Summary

Major differences in the features between Eupolyphaga seu Steleophaga and Opisthoplatia:

		Eupolyphaga seu Steleophaga	Opisthoplatia
Macroscopic and micro-morphological features	Appearance	Ovate	Ovate or elliptical
	Dorsal side	Without narrow yellow lining at the margin of dorsal plate of the first segment	With narrow yellow lining, customarily named as “ <i>Jin bian</i> ” (Golden lining) at the margin of dorsal plate of the first segment
	Leg	With spines and hairs observable	With spines observable
Microscopic features	Fragment of integument	Alveolus relatively large in diameter	Alveolus relatively small in diameter
	Seta	Two types, frequently found, relatively long	Two types, barely found, relatively short



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