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● First record of *Valanga* from China (Acrididae: Cyrtacanthacridinae), with a key to Chinese genera of Cyrtacanthacridinae

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Abstract: The first record of the grasshopper genus *Valanga* Uvarov, 1923 in China is reported. Diagnostic and biological characteristics of the subspecies *Valanga nigricornis nigricornis* are provided, along with a key to genera of Cyrtacanthacridinae from China.

Keywords: China, Cyrtacanthacridinae, new records, taxonomy

● 瓦兰蝗属在中国的首次记录（蝗科：刺胸蝗亚科）及中国刺胸蝗亚科分属检索表

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摘要: 本文报道了瓦兰蝗属 *Valanga* 在中国的首次记录, 提供了黑角瓦兰蝗指名亚种 *V. n. nigricornis* 的鉴别与生物学特征以及中国已知刺胸蝗亚科的分属检索表。

关键词: 中国, 刺胸蝗亚科, 新记录, 分类学

● Introduction

Valanga, large body grasshoppers in subfamily Cyrtacanthacridinae (Kirby, 1910), which was established by Uvarov (1923), with *V. nigricornis* (Burmeister, 1838) as type species, currently known 31 species worldwide (Cigliano *et al.* 2025). *Valanga* distribution spans low-latitude regions across Malaysia, Singapore and neighboring areas (Yin *et al.* 1996) but no recorded in China (Yin *et al.* 1996; Li *et al.* 2006; Mao *et al.* 2011). We report the first record of *Valanga* in China and provide biological of *V. n. nigricornis*. In addition, a distribution map of *Valanga* and a key to known genera of Cyrtacanthacridinae in China are provided. This new discovery contributes to an improved understanding of Orthoptera biodiversity in Hainan Province.

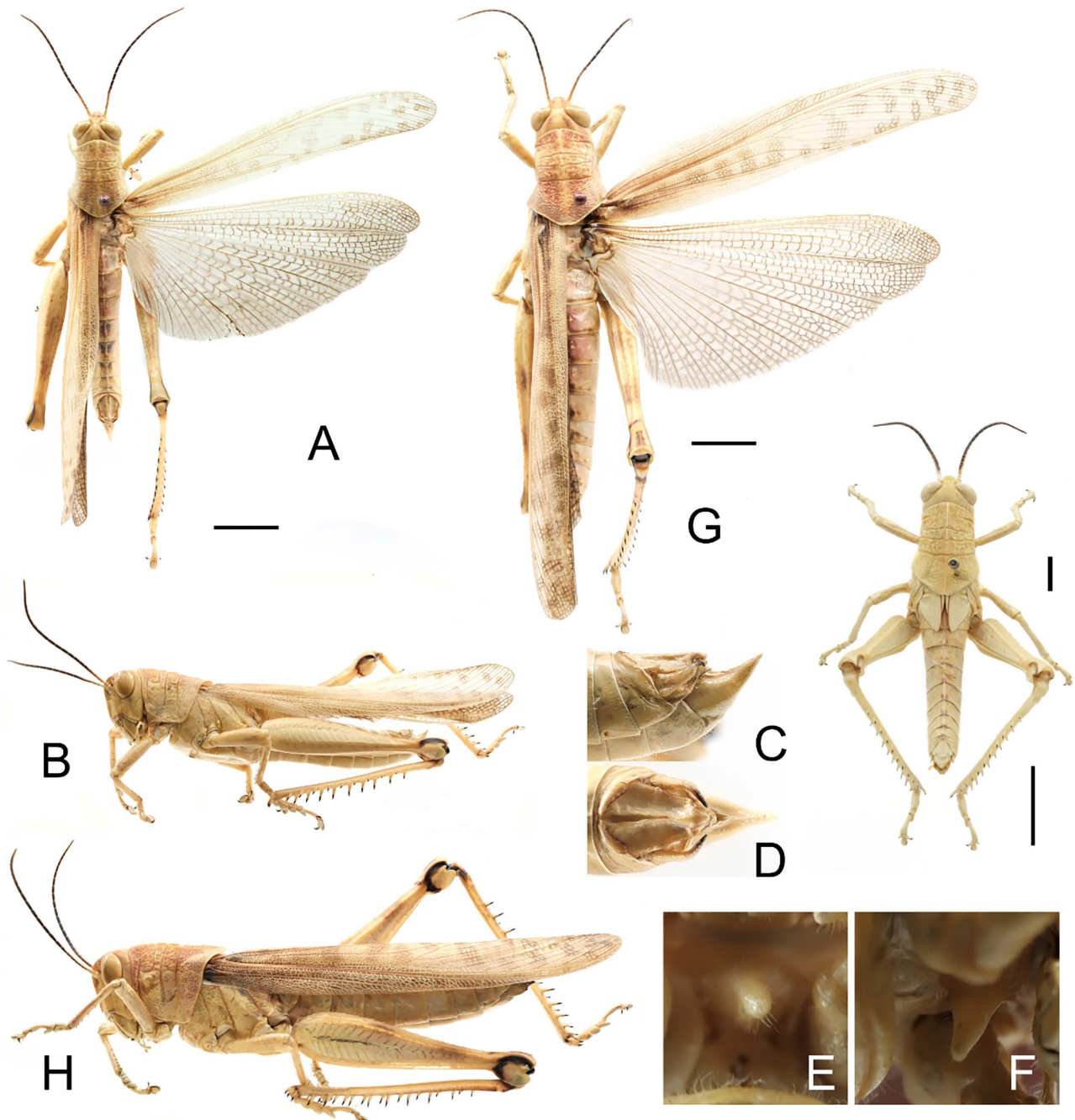


FIGURE 1. *Valanga nigricornis nigricornis*, male: **A** dorsal view **B** lateral view **C–D** dorsal view, terminal of abdomen **E–F** ventral view, prosternal process. Female: **G** dorsal view **H** lateral view. Nymph: **I** dorsal view. (Scales: 1 cm)



FIGURE 2. *Valanga nigricornis nigricornis*: A habitat environment B mating C–D male E female, lateral view.

● Material and methods

Specimens examined are deposited in College of Life Sciences, Hebei University, Baoding, China (HBU). Images were taken with a XF 30 mm macro lens on a Fujifilm XH2 camera. Measurements were made with MATO software (Liu *et al.* 2023) from pictures in the following ways:

Body length – Dorsally from the fastigium vertex to the distal end of abdomen.

Pronotum length – Dorsally along the median carina.

Hind femur length – Laterally, maximum possible measurement of the hind femur.

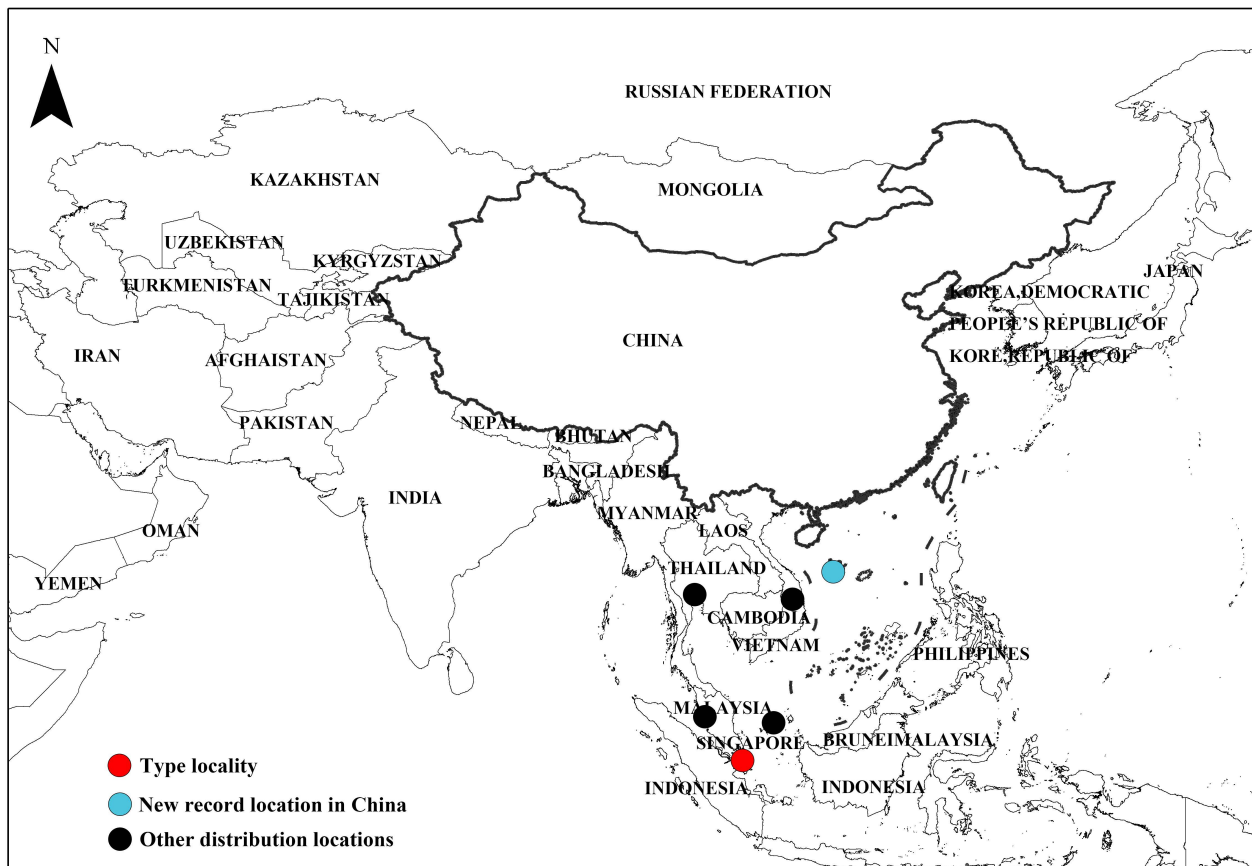


FIGURE 3. Distribution map of *Valanga nigricornis nigricornis*.

● Taxonomy

Family Acrididae MacLeay, 1821 蝗科

Subfamily Cyrtacanthacridinae Kirby, 1910 刺胸蝗亚科

Tribe Cyrtacanthacridini Kirby, 1910 刺胸蝗族

Genus *Valanga* Uvarov, 1923 瓦兰蝗属

Valanga nigricornis nigricornis (Burmeister, 1838) 黑角瓦兰蝗指名亚种

Figs 1&2

Acridium nigricorne Burmeister, 1838: 629.

Cyrtacanthacris nigricornis Kirby, 1910: 446.

Valanga nigricornis nigricornis Uvarov, 1923: 347.

Material examined: 1♂1♀, (HBU), Sansha [三沙], Hainan [海南], China [中国], 28.VII.2024, leg. Hua-Yan Chen.



FIGURE 4. A–F Other species within the subfamily Cyraconcharidinae from China: **A** *Armatacris xishaensis* **B** *Cyrtacanthacris tatarica tatarica* **C** *Chondracris rosea* (©Zi-Xuan Yang) **D** *Schistocerca gregaria* (©Dong-Hui Shangguan) **E** *Patanga japonica* (©Tian-Jiao Wang) **F** *Pachyacris vinosa* (©Qian-Le Lu).

Other materials: Photo records: 3♂2♀, Sansha [三沙], Hainan [海南], China [中国], 28.VII.2024, Photo by Hua-Yan Chen (Fig. 3). **iNaturalist records:** 1♂1♀, 15-XI-2020, Indonesia, Lenny Romauli, photo#64986088; 1♂, 9-VI-2025, Thailand, Songkran Thongon, photo#290921525; 1♂, 24-VII-2025, Malaysia, Ruth Huckstepp, photo#300793915.

Diagnosis. Body large, 44.20–65.31 mm, yellowish or greenish brown. Median carina in pronotum distinct, cut by three transverse sulci deeply. Prosternal process conical, slightly acute at apex, curved backward in lateral view. Tegmina yellow brown, with few inconspicuous black spots. Hind wing darkish-brown, basal red. Hind femur yellowish-brown, with two or three dark bands on upper sides. Hind tibia with 10 spines on inner side and 8 spines on outer side, external apical spine absent (Fig. 1A–H).

Biology. *V. n. nigricornis* inhabits hilly environments and its main host plants are *Scaevola sericea* and *Vigna marina* (Fig. 2A). Mating peak period from August to October (Fig. 2B). Adult of male usually live with *Cyrtacanthacris tatarica tatarica* (Fig. 4B) and *Armatacris xishaensis* (Fig. 4A).

Distribution. China (Hainan); Vietnam; Malaysia; Thailand; Singapore; Indonesia (Fig. 3).

● Discussion

Kirby (1910) established subfamily Cyrtacanthacridinae, primarily characterized by prosternal process shape. According to Orthoptera Species File (Cigliano *et al.* 2025), Cyrtacanthacridinae included 37 extant genera, distributed across Asia, Africa, and Latin America. Seven genera of Cyrtacanthacridinae had been recorded in China: *Cyrtacanthacris* (Fig. 4B), *Armatacris* (Fig. 4A), *Chondracris* (Fig. 4C), *Schistocerca* (Fig. 4D), *Patanga* (Fig. 4E), *Pachyacris* (Fig. 4F), and *Parapachyacris*. We present revised identification key to known Chinese Cyrtacanthacridinae.

V. nigricornis mainly distributed in Mainland Southeast Asia. The type specimens may fade due to early preservation. There were different gradient changes among different individuals from the same place of origin (such as striae or not striae on the upper and outer sides of hind femur, pronotum). These variations represent intraspecific polymorphism rather than diagnostic characters (Fig. 2B–E).

Key to genera of Cyrtacanthacridinae in China

- 1 Prosternal process arc-shaped, strongly inclined backwards, with apex distinctly reaching mesosternal.....2
- Prosternal process straighter or slightly sloping backwards, with apex slightly reaching or not reaching mesosternal.....3
- 2 Median carina of pronotum flatter, not markedly elevated. Tegmina with dark spots.....*Cyrtacanthacris*
- Median carina of pronotum elevated, ridge shape. Tegmina without dark spots.....*Chondracris*
- 3 Frontal ridge distinctly expanded above median ocellus. Male subgenital plate with triangular emargination at apex.....*Schistocerca*
- Frontal ridge nearly parallel, not expanded above median ocellus. Male subgenital plate with pointed apex, without emargination.....4
- 4 Tegmina apex with oblique cross veins, inclined to longitudinal veins. Prosternal process short and straight.....*Pachyacris*
- Tegmina apex with vertical cross veins, almost perpendicular to the longitudinal veins. Prosternal process longer, slightly inclined backwards.....5
- 5 Hind tibia with 7–9 spines on inner side and 9–11 spines on outer side.....*Patanga*
- Hind tibia with 8–10 spines on inner side and 11–12 spines on outer side.....6
- 6 Median carina of pronotum not raised in prozona, and slightly cut by three transverse sulci.....*Armatacris*
- Median carina of pronotum slightly raised in prozona, and deeply cut by three transverse sulci.....7
- 7 Female body size large, body length 63.92–65.31 mm. Tegmina with few inconspicuous black spots....*Valanga*

- Female body size small, body length 58.2 mm. Tegmina without black spots.....*Parapachyacris*

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● Additional information

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