

# 中国四节蜉属一新种 (蜉蝣目: 四节蜉科)

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**摘要** 报道了采自江苏省南京紫金山麓四节蜉属一新种逸仙四节蜉 *Baetis yixiani* sp. nov. (成虫、稚虫), 该新种稚虫近似于 *B. laetificus*, 主要区别为前者腹部第1~7节有7对鳃, 而后者腹部第2~7节只有6对鳃。模式标本保存于南京师范大学生物系。

**关键词** 蜉蝣目, 四节蜉科, 四节蜉属, 新种

四节蜉科 (Baetidae) 是蜉蝣目中常见的种类, 广泛分布于除新西兰以外的世界各地。最早研究我国四节蜉属的是英国人 Eaton, 他于 1872 年报道了安徽九华山阿尔卑四节蜉 *Baetis alpinus* (Pictet) 的成熟稚虫<sup>[1]</sup>。1931 年西班牙人 Navas 报道了帆兰四节蜉 *Baetis villanti* 一新种<sup>[2]</sup>。其后, 德国人 Ulmer 于 1935~1936 年报道了中国四节蜉 *Baetis chinensis* 和北京四节蜉 *Baetis pekingensis* 两新种<sup>[3]</sup>; Müller 于 1984、1985 年报道了云南芒市的艾德四节蜉 *Baetis ideii* 及台湾的台湾四节蜉 *Baetis taiwanensis*、大图四节蜉 *Baetis tatuensis* 和非常四节蜉 *Baetis pseudofrequentus* 等 4 新种<sup>[4,5]</sup>。直至 1995 年余书生、归鸿、尤大寿等报道了海南四节蜉 *Baetis hainanensis* 一新种<sup>[6]</sup>及康世昌、张先正报道台湾四节蜉属 9 新种外<sup>[7]</sup>, 未见其它任何报道。作者在南京紫金山麓采到的四节蜉属标本中, 经鉴定发现 1 新种, 模式标本保存于南京师范大学生物系。

## 逸仙四节蜉 *Baetis yixiani* 新种 (图 1~13)

雄成虫 (酒精保存): 体长 6.0 mm, 前翅长 5.8 mm; 尾丝长 10.5 mm。头部紫红色; 上部复眼紫红色, 下部复眼降紫色; 单眼无色。胸部绛紫色。足淡黄色; 前足跗节略短于胫节, 跗节各节长度的排列顺序由长到短为 1, 2, 3, 4; 后足跗节长于胫节, 跗节各节长度的排列顺序由长到短为 1, 4, 2, 3; 爪相似, 1 尖 1 钝。翅透明, 前翅有成对的缘闰脉; 后翅极小, 前缘突尖且靠近基部, 有纵脉 3 条。腹部第 1~6 节背板淡紫色, 略透明, 中央有“八”字形花纹, 第 7~10 节有“||”形花纹, 花纹均呈紫红色。外生殖器尾铗 3 节, 第 2 节最长。

成熟稚虫 (酒精保存): 体长 6.5 mm; 尾丝长 5 mm。右上颚切齿基部有一列细绒毛, 基部有 1 突起, 上有 2 根长的羽状刚毛; 下唇须细长, 耳垂突较小; 侧唇舌前端较宽; 中唇舌

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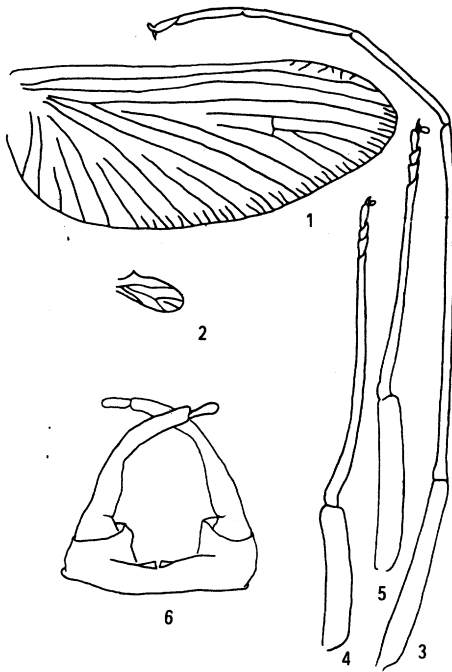


图 1~6 逸仙四节蜉 *Baetis yixiani* sp. nov. 成虫  
Figs. 1~6 Adult of *Baetis yixiani* sp. nov.

1. 前翅 fore wing; 2. 后翅 hind wing; 3. 前足 fore leg;  
4. 中足 median leg; 5. 后足 hind leg;  
6. 雄性外生殖器 male genitalia

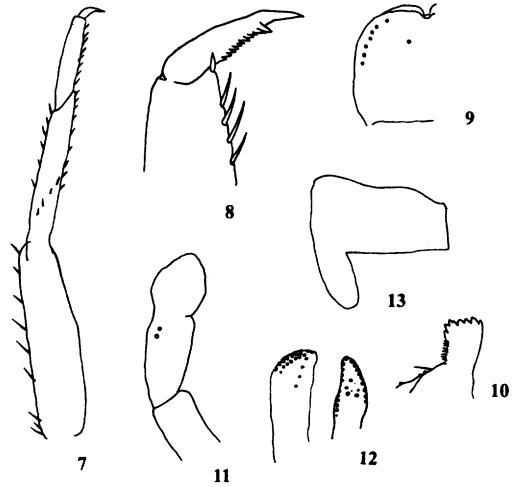


图 7~13 逸仙四节蜉 *Baetis yixiani* sp. nov. 稚虫  
Figs. 7~13 Nymph of *Baetis yixiani* sp. nov.

7. 足 leg; 8. 爪 claw; 9. 上唇 labrum;  
10. 右上颚 right mandible; 11. 下唇须 labial palpus;  
12. 中唇舌和侧唇舌 glossa and paraglossa;  
13. 后胸背板和后翅芽 metanotum with hind wing pads

前缘背面有一丛绒毛。后翅芽发达。腿节外侧有一列稀疏刚毛，略扁；跗节内侧有一列长刺；爪内侧密排一列尖齿。鳃 7 对，位于腹部第 1~7 节。中尾丝发达，密被缘毛。

正模：♂ 成虫；配模：♀ 成虫；副模：3 ♂ 成虫，9 ♀ 成虫，7 ♂ 成熟稚虫。南京紫金山山麓。V. 3, 1992 鲁亮采。

本新种成熟稚虫腹部背板色斑、形状以及口器特点和 *Baetis laetificus* Müller 相似，但后者只有 6 对鳃，位于腹部第 2~6 节，新种则有 7 对鳃，位于腹部第 1~7 节，能明显区别。

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## A NEW SPECIES OF THE GENUS *BAETIS* FROM CHINA (EPHEMEROPTERA: BAETIDAE)

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**Abstract**      The present paper deals with a new species, *Baetis yixiani* sp. nov. (imago, nymph), which was collected from Mt. Zijin, Nanjing. The new species is allied to *B. laetificus* Müller, but distinguishable from the latter by the number of gills. *B. yixiani* has 7 pairs of gill in abdomen 1~7; *B. laetificus* has 6 pairs of gill in abdomen 2~7. Types are deposited in the Department of Biology, Nanjing Normal University.

### *Baetis yixiani* sp. nov.

Male imago (in alcohol): Body length 6.5 mm, fore wing 5.8 mm, caudal filaments 10.5 mm. General color of head purple red. Compound eyes with upper portion purple red and lower portion dark reddish purple; ocelli colorless. Thorax dark reddish purple. Legs light yellow, fore leg, tarsus shorter than tibia, the length of tarsal arrangement is 1, 2, 3, 4; hind leg tarsus longer than tibia, the length of tarsal arrangement is 1, 4, 2, 3. Claws asymmetrical, one blunt and another acute. Fore wing having a couple of marginal veins, hind wing very small with three longitudinal veins, costal projection acute. Abdomanal (1~6 terga light purple, slight transparent, with two unparallel white stripes in central, which approach each other at anterior. and 7~10 terga with two parallel white stripes. Genital forceps 3-segmented.

Mature nymph (in alcohol): Body length 6.5 mm, caudal filaments 5 mm. Base of incisor in right mandible with lepto villi, tabial palpus slight long, auricle small, anterior part of paraglossa broad, dorsal part of anterior margin of glossa with thick villi, hind wing well developed. Femora flat, with a series of sparse setae on outer-lateral portion and a series of long spine on inner-lateral part of the tarsal. Inner lateral margin of claw with a row of sharp dentes. 7 pairs of gill in abdomen 1~7.

Holotype ♂ imago, allotype ♀ imago, paratype 3 ♂♂ imagos, 9 ♀♀ imagos, 7 ♂♂ mature nymphs. Mt. Zijin, Nanjing, May 3, 1992, coll. by Lu Liang.

**Key words** Ephemeroptera, Baetidae, genus *Baetis*, new species