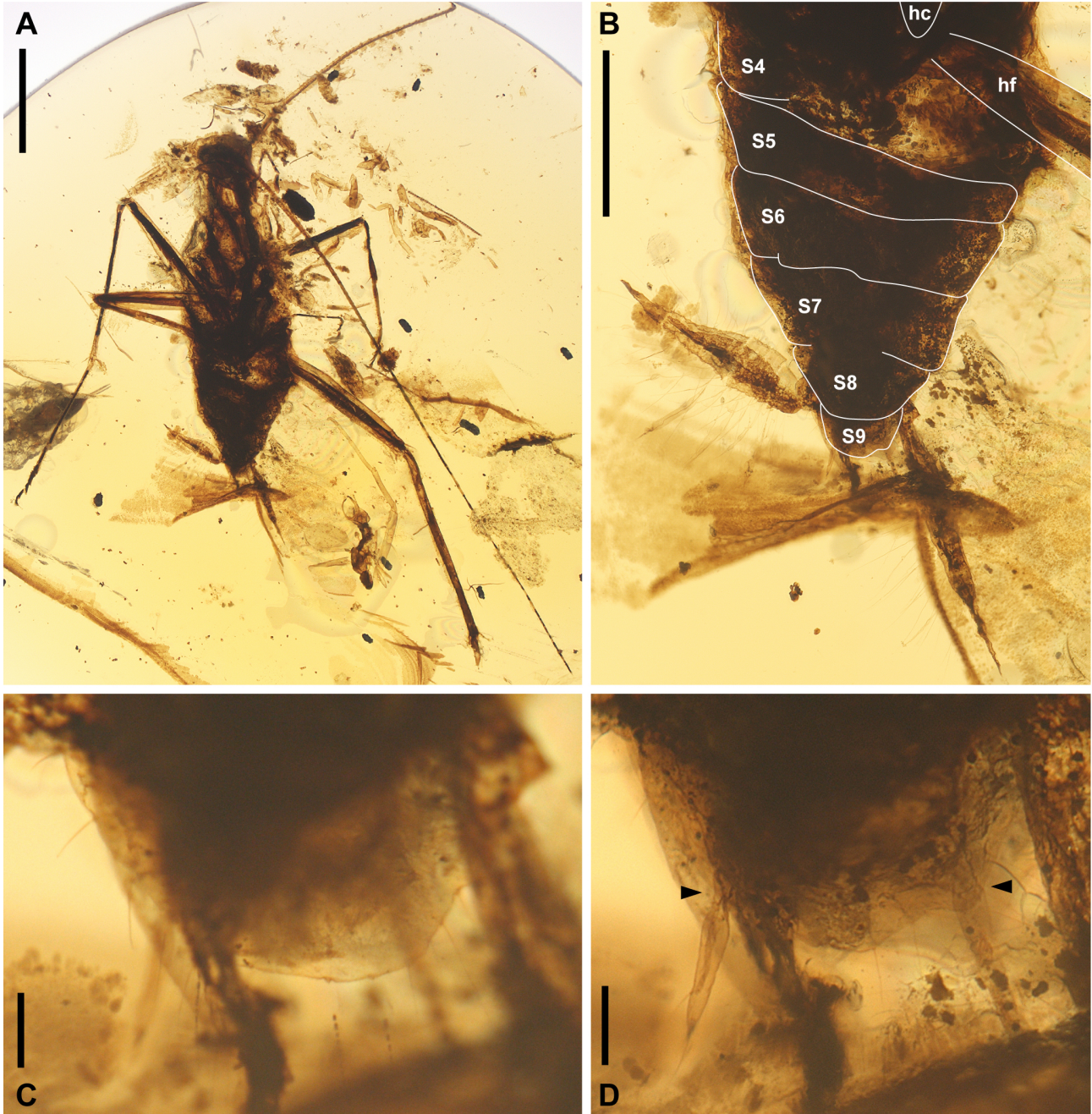


1 Supplemental Information for  
2 *Atypical 'long-tailed' cockroaches arose during Cretaceous in response to angiosperm terrestrial revolution*  
3 by  
4 Xin-Ran Li and Di-Ying Huang  
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6  
7 **Figure S1.** An undetermined male nymph, NIGP200824, possibly *Ensiferoblatta* sp. **A.** Ventral view. **B.** Ventral view of  
8 the abdomen, with white lines emphasizing the margins of sterna and of the leg. **C.** Tergum X (supra-anal plate) in  
9 ventral view. **D.** Sternum IX (subgenital plate) in ventral view, with black arrowhead indicating the insertions of styli.  
10 Abbreviations: hc, hindcoxa; hf, hindfemur; S4–S9, sternum IV through IX. Scale bars: A, 2 mm; B, 1 mm; C,D, 100  
11  $\mu\text{m}$ .

12 **Text S1**

13 **Description of the male nymph, NIGP200824**

14 Specimen badly decayed. Body fusiform, length 6.6 mm, with the abdomen accounting more than a half (ca. 3.5 mm).  
15 Head almost completely exposed, not covered by the elongate trapezoid pronotum; antennae much longer than body.  
16 Legs long, length of segments (femur/tibia//tarsomere 1/2/3/4/5): foreleg 1.9–2.2/1.2//0.9/0.3/0.1/0.1/0.2, midleg  
17 2.5/2.2//?, hindleg 3.4–3.6/3.2–3.8//1.8/0.6/0.2/0.1/0.3. Hind margin of tergum X (supra-anal plate) arcuate. Cerci  
18 fusiform, acuminate, with long hairs, length ca. 1.4–1.7. Sternum IX (subgenital plate) small, nearly symmetric  
19 (appearing asymmetric in Fig. S1D due to preservation condition). Two similar styli far apart, not specialized. Possible  
20 hook-like phallomere on the right.

21 **Remarks.** This specimen accords with the general morphology of *Ensiferoblatta* and *Proceroblatta*, and more similar to  
22 the former in the smaller size, shorter maxillary palpi, and shorter cerci. It is possibly an *Ensiferoblatta* sp., or at least a  
23 closely related genus. This male nymph bears some resemblance to *Raphidiomimula burmitica* Grimaldi and Ross,  
24 2004, at least in the fusiform body, slightly elongate maxillary palpi, elongate pronotum, and long, fusiform cerci.  
25 However, key characters such as ocelli and fine details of terminalia are indiscernible in both specimens, and a nymph  
26 bears too limited information for comparison and taxonomy. Therefore, the relationship between these specimens is not  
27 clear and both specimens are not determined with confidence to a specific higher taxon. *Raphidiomimula burmitica* was  
28 originally placed in Raphidiomimidae (Grimaldi and Ross, 2004), but subsequently excluded (Gorokhov, 2007; Liang et  
29 al., 2009). The opisthognathous head of *R. burmitica* is too distinct from the prognathous head of Raphidiomimidae,  
30 and the comparatively short foretibiae are also unusual for Raphidiomimidae. On the other hand, the resemblance  
31 between *R. burmitica* and NIGP200824 might suggest a close relationship between *Raphidiomimula* and *Ensiferoblatta*.

32  
33 **References**

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