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A comparative study on karyotypes of four long-horned beetles (Coleoptera: Cerambycidae)

SU Li-Juan¹, ZHANG Hong-Fei¹, XU Wei², YIN Xin-Ming^{3,*}, LI Jing³, GAO Xin-Hao¹ (1. College of Life Sciences, Henan Agricultural University; Zhengzhou 450002, China; 2. Hainan Enter-exit Inspection and Quarantine Bureau, Haikou 570311, China; 3. College of Plant Protection, Henan Agricultural University, Zhengzhou 450002, China)

To make clear the characteristics of karyotypes of long-horned beetles, supplement the chromosome classification feature and fill up the basic research vacancy of cytotaxonomy about long-horned beetles, the tissues with exuberant differentiation (testis, ovary and midgut) of four species of Lamiinae beetles were chosen for preparing slides of chromosomes under different conditions. The results showed that their chromosomal number is $2n=20$ and the sex-determining mechanism is Xyp. The karyotype of *Batocera lineolata* is composed of 4 pairs of large autosomes, 5 pairs of medium sized autosomes and 1 pair of small sex-chromosome, and the karyotype formula is $4L+5M+Xyp$. For *Apriona germari*, *Olenecamptus cretaceus marginatus* and *Olenecamptus octopustulatus chinensis*, their karyotypes are all composed of 5 pairs of large autosomes, 4 pairs of medium sized autosomes and 1 pair of medium sized sex-chromosome, and the karyotype formula is $5L+4M+Xyp$. The two long-horned beetles of *Olenecamptus* have very similar karyotype index. The chromosome size and the centromere location among *A. germari*, *B. lineolata* and *Olenecamptus* are obviously different.

【Key Words】 : **Long-horned beetles chromosome karyotype sex-determining mechanism centromere index**

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