

## 伯氏嗜木螨各发育阶段的外部形态扫描电镜观察

李朝品<sup>1,2,\*</sup>, 姜玉新<sup>2</sup>, 刘婷<sup>2</sup>, 郭伟<sup>2</sup>, 王少圣<sup>2</sup>, 陈琪<sup>2</sup>

(1. 安徽理工大学医学院, 安徽淮南232001; 2. 皖南医学院医学寄生虫学教研室, 安徽芜湖241002)

SEM observation on external morphology of *Caloglyphus berlesei* (Acari: Astigmata: Acaridae) at different developmental stagesLI Chao-Pin<sup>1,2,\*</sup>, JIANG Yu-Xin<sup>2</sup>, LIU Ting<sup>2</sup>, GUO Wei<sup>2</sup>, WANG Shao-Sheng<sup>2</sup>, CHEN Qi<sup>2</sup>

(1. School of Medicine, Anhui University of Science and Technology, Huainan, Anhui 232001, China; 2. Department of Medical Parasitology, Wannan Medical College, Wuhu, Anhui 241002, China)

- [摘要](#)
- [参考文献](#)
- [相关文章](#)

全文: [PDF \(3977 KB\)](#) [HTML \(1 KB\)](#) 输出: [BibTeX](#) | [EndNote \(RIS\)](#) [背景资料](#)

**摘要** 【目的】观察伯氏嗜木螨*Caloglyphus berlesei*生活史各发育阶段外部形态和超微形态特征。【方法】采集中华地鳖*Eupolyphaga sinensis*培养床上的培养料, 分离伯氏嗜木螨。将分离获得的伯氏嗜木螨双蒸水洗涤后, 一部分用于制备常规玻片标本, 光镜下直接观察; 另一部分用2.5%戊二醛溶液固定, 70%酒精再次洗涤, 临界点干燥, 置于扫描电镜下观察不同发育阶段(包括卵、幼螨、若螨及成螨)的超微形态特征。【结果】电镜下伯氏嗜木螨各发育阶段的足、刚毛和外生殖器及其附属结构的形态均清晰可辨。幼螨足3对, 足上无叶状刚毛, 基节干发达; 若螨足4对, 出现第4背毛, 生殖区发育不全; 休眠体足爪和前跗节发达, 出现叶状毛、胫节毛及膝节毛等结构, 生殖板骨化明显, 其两侧有吸盘和刚毛各1对。吸盘板上共有4对成对的吸盘、1个单吸盘和2对类圆形微凸。成螨生殖感觉器骨化且呈心形, 雄雌成螨生殖感觉器的刚毛数量上有明显差异。【结论】对伯氏嗜木螨形态和超微形态特征的观察有助于对其进一步科学分类和进行生活史研究, 并可为控制伯氏嗜木螨及其引起的过敏性疾病提供参考。

**关键词:** 伯氏嗜木螨 形态学 超微形态 休眠体 吸盘板 扫描电镜

**Abstract:** 【Aim】To observe the morphological changes of the live *Caloglyphus berlesei* and the ultra-structure under scanning electron microscope (SEM) at different developmental stages. 【Methods】*C. berlesei* specimens were isolated from the bed feedsduff in an *Eupolyphaga sinensis* breeding farm, and rinsed with double distilled water. One portion of the isolations were used for slide preparation in the conventional manner and immediately observed under light microscope, and the other was fixed with 2.5% glutaraldehyde solution and washed once again with 75% alcohol. By critical-point drying, the specimens were observed under SEM for the ultrastructure characteristics at different developmental stages including egg, larva, nymph and adult.

【Results】Morphological variations of *C. berlesei*, including its legs, setae, external genitalia and accessories, are clearly identified under SEM. The larva has three pairs of legs, without leaf-like setae, yet its coxal rod is well-developed. By nymphal stage, four pairs of legs and the 4th dorsal seta arise, whereas the genital area looks still under-developed. At hypopus, the claws and tarsules are well-built, and leaf-like setae, setae of tibia and setae of genu are seen. One pair of suckers and setas are located on both sides of the genital plates which are ossified obviously. There are 4 pairs of suckers, single sucker and 2 pairs of round-like bulge in sucker plate. The genital sense organ of adults exhibits itself with cordiform external aspect and typical ossification texture, whereas the male is dissimilar with the female regarding seta number on the genital sense organ. 【Conclusion】Description of the morphology and ultrastructure of *C. berlesei* provides important information for the taxonomy and further study of its life history as well as basis for controlling the allergic disorders due to infection of this pest.

**Key words:** *Caloglyphus berlesei* morphology ultrastructure hypopus sucker plate scanning electron microscopy (SEM)

### 服务

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [E-mail Alert](#)
- ▶ [RSS](#)

### 作者相关文章

- ▶ [李朝品](#)
- ▶ [姜玉新](#)
- ▶ [刘婷](#)
- ▶ [郭伟](#)
- ▶ [王少圣](#)
- ▶ [陈琪](#)

### 引用本文:

李朝品, 姜玉新, 刘婷等. 伯氏嗜木螨各发育阶段的外部形态扫描电镜观察[J]. 昆虫学报, 2013, 56(2): 212-218.

链接本文:

<http://www.insect.org.cn/CN/> 或 <http://www.insect.org.cn/CN/Y2013/V56/I2/212>

- [1] null
- [1] 王多, 胡永红, 刘敬泽. 孤雌生殖长角血蜱的哈氏器超微结构与发育[J]. 昆虫学报, 2013, 56(3): 306-311.
- [2] 钟宝珠, 吕朝军, 王东明, 覃伟权, 李洪, 王智. 二疣犀甲室内生物学特性及形态观察[J]. 昆虫学报, 2013, 56(2): 167-172.
- [3] 黎万顺, 陈斌, 何正波. 葱蝇非滞育、冬滞育和夏滞育蛹发育和形态特征比较[J]. 昆虫学报, 2012, 55(7): 816-824.
- [4] 王娜, 魏劲松, 党露, 王建波, 花保祯. 三种夜蛾成虫口器感器的超微形态[J]. 昆虫学报, 2012, 55(7): 877-884.
- [5] 张晶, 胡冰冰, 李后魂, 王淑霞. 宽瓣头细蛾形态及生物学特性研究[J]. 昆虫学报, 2012, 55(5): 585-.
- [6] 李宗波, 杨培, 彭艳琼, 杨大荣. 木瓜榕传粉榕小蜂雌蜂触角传感器的分布和超微形态[J]. 昆虫学报, 2012, 55(11): 1272-1281.
- [7] 张艳梅, 谢映平, 薛皎亮, 刘卫敏. 油松毛虫受球孢白僵菌感染的组织病理学变化[J]. 昆虫学报, 2011, 54(5): 531-539.
- [8] 杨美红, 张金桐, 范丽华, 刘红霞, 骆有庆, 宗世祥, 曹川健. 榆木蠹蛾性信息素通讯系统的超微结构观察[J]. 昆虫学报, 2011, 54(5): 522-530.
- [9] 曹伟平, 王刚, 甄伟, 王容燕, 杜立新, 宋健, 王金耀, 冯书亮. 球孢白僵菌不同感染方式侵染棉铃虫幼虫的毒性比较及组织病理变化[J]. 昆虫学报, 2011, 54(4): 409-415.
- [10] 黄晶, 马继文, 刘歆然, 李美美, 花保祯. 中华蚊蝎蛉成虫口器感器的超微结构[J]. 昆虫学报, 2011, 54(1): 110-116.
- [11] 席玉强, 尹新明, 李学军, 朱朝东, 张彦周. 豆柄瘤蚜茧蜂触角感受器的扫描电镜观察(英文)[J]. 昆虫学报, 2010, 53(8): 936-942.
- [12] 辛星, 马子龙, 覃伟权. 椰心叶甲嗜小蜂复眼和触角在交配中的作用及其超微结构的扫描电镜观察[J]. 昆虫学报, 2010, 53(6): 626-633.
- [13] 路常宽, Peter Neerup BUHL, Carlo DUSO, 赵春明, 张巨山, 吉志新, 高素红, 余金泳, 温晓蕾. 外来入侵害虫刺槐叶瘿蚊的重要天敌——刺槐叶瘿蚊广腹细蜂[J]. 昆虫学报, 2010, 53(2): 233-237.
- [14] 王龙江, 吕利华, 何余容, 谢梅琼. 球孢白僵菌在红火蚁体表侵染的扫描电镜观察[J]. 昆虫学报, 2010, 53(1): 118-124.
- [15] 刘树森, 李克斌, 刘春琴, 王庆雷, 尹姣, 曹雅忠. 河北异小杆线虫一品系的分类鉴定及其对蛴螬致病力的测定[J]. 昆虫学报, 2009, 52(9): 959-966.

版权所有 © 2010 《昆虫学报》编辑部

地址: 北京市朝阳区北辰西路1号院5号中国科学院动物研究所 邮编: 100101

电话: 010-64807173 传真: 010-64807099 E-mail: kcxb@ioz.ac.cn 网址: <http://www.insect.org.cn>

本系统由北京玛格泰克科技发展有限公司设计开发 技术支持: [support@magtech.com.cn](mailto:support@magtech.com.cn)

京ICP备05064604号-14