

# 不同地区库蚊复组群体的同工酶遗传多样性研究 Genetic Diversity of Isoenzyme in Culex pipiens complex Field Populations Sampling from Distinct Area of China

张柯, 叶镇清, 乔传令 ZHANG Ke, YE Zhen-qing, QIAO Chuan-ling

中国科学院动物研究所, 农业虫鼠害综合治理研究国家重点实验室, 北京 100080 State Key Laboratory of Integrated Management of Pest Insects & Rodents, Institute of Zoology, The Chinese Academy of Sciences, Beijing 100080, China

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** 采用水平切片淀粉凝胶电泳的方法, 对分布于我国5省的8个库蚊复组 (Culex pipiens complex) 野生群体的遗传多样性进行研究, 分析了4个酶系统7个基因座 (ME、MDH-1、MDH-2、MDH-3、GPD、EST-2、EST-3) 的酶谱资料。结果显示: (1) 群体内存在不同程度的遗传变异 ( $H_e$ 为0.098~0.41); (2) 较低的基因流水平 ( $N_m=0.64$ ) 使遗传漂变起主要作用, 造成群体之间的遗传分化 ( $G_{st}=0.303$ ), 而总群体的遗传多样性相对富集于群体之内 ( $H_s/D_{st}=2$ )。 (3) 库蚊群体的遗传结构属于距离隔离模式。 (4) 群体间的遗传一致性 (或遗传距离) 反映出群体间的遗传分化程度, 也表明与地理位置存在对应关系。Abstract: Eight field populations of Culex pipiens complex collected from five provinces (Guangdong, Henan, Shandong, Beijing and Yunnan) in 2001 were used to study genetic diversity by starch gel electrophoresis. Data from seven loci (ME, MDH-1, MDH-2, MDH-3, GPD, EST-2, EST-3) of four isozymes were analyzed by software Biosys2.0 and FSTAT (Version 2.9.3). The results were as follows: (1) The values of  $H_e$  (from 0.098 to 0.41) indicated genetic variabilities of different degree in populations. (2) The low level of gene flow ( $N_m=0.64$ ) could not prevent genetic drift to cause the gene differentiation between populations. The genetic diversity between populations attributed to the genetic diversity of total populations is small ( $G_{st}=0.303$ ), and the great part is accumulated within populations ( $H_s/D_{st}=2$ ). (3) The genetic structure of Culex pipiens complex population was the isolation-by-distance model. (4) The genetic identity (or genetic distance) revealed the scale of genetic differentiation between populations which related to the collection sites.

**关键词** [库蚊复组](#) [遗传多样性](#) [同工酶](#) **Key word** [Culex pipiens complex](#) [genetic diversity](#) [isozyme](#)

分类号

## 扩展功能

### 本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

### 相关信息

- ▶ [本刊中 包含“库蚊复组” 的相关文章](#)
- ▶ [本文作者相关文章](#)

- [张柯](#)
- [叶镇清](#)
- [乔传令ZHANG Ke](#)
- [YE Zhen-qing](#)
- [QIAO Chuan-ling](#)

## Abstract

## Key words

DOI:

通讯作者