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论著

我国昆明按蚊与凉山按蚊rDNA-ITS2序列和形态比较及分类地位的探讨

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摘要

[目的]论证昆明按蚊 (Anopheles kunmingensis)和凉山按蚊 (An. liangshanensis)的分类地位。 [方法]比较两种按蚊 r DNA- ITS2序列差异和主要形态特征的变化幅度。 [结果]两种按蚊 8个样本 r DNA- ITS2序列同源性为 97.1%～ 99.8%。昆明按蚊雌蚊翅 V5 .2缘缨白斑、后跗 基白环(斑)及幼虫头毛 2 - C具叉枝等特征出现率分别为 43% (9/ 2 1)、 89% (17/ 19)及 40 % (4/ 10),而凉山按蚊则分别为 79% (34 / 43)、 44 % (17/ 39)及 2 0 % (4/ 2 0) ;如以不同群体作统计分析 ,各特征出现率波动幅度很大 ,交叉重叠 ;表明两蚊种间缺乏明确与稳定的鉴别特征 ,缺乏实质性的形态差异。 [结论]两种按蚊形态特征和分子序列差异极小 ,应属种内变异范围 ,可以确认两者是同一蚊种 ,昆明按蚊为凉山按蚊的同物异名。

关键词 昆明按蚊 凉山按蚊 形态学 分子序列 分类地位

分类号

COMPARISON OF rDNA-ITS2 SEQUENCES AND MORPHOLOGICAL CHARACTERS OF ANOPHELES KUNMINGENSIS AND ANOPHELES LANGSHANENSIS IN CHINA, WITH DISCUSSION ON TAXONOMIC STATUS

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Abstract

Objective] To determine the taxonomic status of Anopheles kunmingensis (AK) and An.liangshanensis (AL) from China. [Methods] Sequence differences of rDNA ITS2 and main morphological \{characters\} variability between different sources of AK and AL were compared. [Results] The level of rDNA ITS2 sequence differences among eight samples was under 2 9%. The total occurrence rates of main morphological characters examined in the female mosquitoes with pale fringe spot on V5 2, white basal band (or spot) on hind tarsomere Ⅳ, and larvae with bifurcated head hair 2 C were 43%(9/21), 89%(17/19), 40(4/10) in AK, and 79%(34/43), 44%(17/39), 20%(4/20) in AL, respectively. These rates calculated from separate colonies fluctuated within a wide range and overlapped, suggesting that there was no definite, stable morphological difference between AK and AL. [Conclusion] The morphological and molecular variations between AK and AL were small and belong to intraspecific level. The AK and AL may be considered as the same species, and that the An.kunmingensis may be recognized as the synonym of An.liangshanensis.

Key words Anopheles kunmingensis Anopheles liangshanensis morphology molecular sequence taxonomic status.

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