现场研究

洱海周边地带社鼠体表寄生虫的多样性调查

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摘要

目的 调查云南省洱海周边地带社鼠体表寄生虫的多样性。 方法 2003年8月~2004年8月,选取洱海周边的不同地理方位的12个野外调查点,用鼠笼加食饵诱捕小兽,每天晨检捕获情况并更换诱饵。根据体型、大小、颜色,以及体长、耳长和后足长等测量指标鉴定小兽。收集小兽体表寄生虫,进行分类和鉴定。用染虫率和虫指数反映体表寄生虫的流行和密度状况,用统计分析中的非参数检验中的U检验分析雌雄小兽宿主间寄生虫数量(丰富度)差异,用Spearman相关分析研究体表寄生虫物种数及其数量与宿主身体参数的关系。 结果 捕获89只社鼠,其中70只有体表寄生虫,侵染率为79%。采集到体表寄生虫51种,包括31种恙螨、13种革螨、4种蚤及3种吸虱。攸氏无前恙螨为优势恙螨种,占恙螨总数的66.2%(710/1 072);土尔克厉螨为优势革螨种,占革螨总数的38.5%(396/1 029);绒鼠怪蚤为优势蚤种,占蚤总数的42.9%(9/21);太平洋甲胁虱为优势吸虱种,占吸虱总数的80.1%(217/271)。U检验表明,体表寄生虫、恙螨、吸虱、蚤类和革螨的数量和物种数在雌雄宿主体表间的差异无统计学意义。Spearman相关分析表明,体表寄生虫、恙螨、吸虱、蚤类和革螨的数量与宿主身体参数(体重)之间无相关性。 结论 社鼠的体表寄生虫多样性高,主要为恙螨、革螨、蚤和吸虱。

关键词 社鼠:体表寄生虫:多样性:洱海

分类号

Diversity of Ectoparasites on *Niviventer confucianus* in the Surrounding Areas of Erhai Lake

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Abstract

Objective To understand the species diversity of ectoparasites on *Niviventer confucianus* in the surrounding areas of Erhai Lake. Methods Small mammals were randomly captured in 12 investigated sites surrounding Erhai Lake with baited mouse cages. The cage-traps were examined and re-baited each morning. Trapped small mammals were brought to the laboratory for identification according to color, body length, ear length, hind foot length. All ectoparasites on the surface of the hosts were collected and identified. The constituent ratio (C), prevalence (P) and average ectoparasite abundance (A) were used to evaluate the prevalence and density of ectoparasites. Non-parametric Mann-Whitney U-test was used to test differences in the abundance and richness of ectoparasites between female and male hosts. Spearman correlation analysis was used to analyze the relationship between ectoparasites and the body parameters of hosts. Results Eighty-nine individuals of N. confucianus were captured, of which 79% were found infested with 51 species of ectoparasites, including 31 species of chigger mites, 13 species of mesostigmatid (gamasid) mites, 4 species of fleas and 3 species of sucking lice. Walchia ewingi Fuller (66.2%), Laelaps turkestanicus Lange (38.5%), Paradoxopsyllus custodies Jordan (42.9%) and Hoplopleura pacifica (80.1%) were the most predominant species of chigger mites, gamasid mites, fleas, and sucking lice, respectively. Non-parametric Mann-Whitney U-test showed that there was no significant difference between male and female hosts on the species richness and abundance of total ectoparasites, chigger mites, sucking lice, fleas or gamasid mites. Spearman correlation analysis showed that the abundance and species of total ectoparasites, chigger mites, sucking lice, fleas or gamasid mites were not correlated with the body weight of hosts. Conclusion There is a high speices diversity of ectoparasites on N. confucianus. Sucking lice, fleas, chiggers and gamasid mites are the main ectoparasites.

Key words Niviventer confucianus; Ectoparasites; Diversity; Erhai Lake

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