

A SURVEY OF BACTERIAL DIVERSITY IN LICE AND OTHER ECTOPARASITES FROM AUSTRALIA

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We isolated bacteria from lice and other ectoparasites. Partial SSU rRNA sequences were obtained for each isolate and the closest matches in the FastA database were determined. These bacteria were mostly gram positive (Firmicutes) although representatives from the Proteobacteria (α , β and γ subdivisions) and CFB group were also isolated. Most of the isolates we found were from genera that were present in most of the ectoparasites studied but a few genera were restricted to one species of ectoparasite. The most common bacterial genera isolated from lice were *Bacillus* and *Staphylococcus*, and these genera were also isolated from ticks and fleas.

The genera *Corynebacterium*, *Kocuria*, *Micrococcus*, *Terre bacter* and *Paracraurococcus* were only isolated from lice, however, the genera *Stenotrophomonas*, *Pseudomonas* and *Acinetobacter* were isolated from ticks and fleas, but never lice. Species of *Bacillus* and *Proteus*, which have biopesticide potential, were found in some lice. Overall the communities of bacteria were similar to those found in other studies of lice or other parasitic arthropods.