

PARASITOLOGY

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Identification and distribution of *Acanthamoeba* species genotypes associated with keratitis infections in Taiwan watersheds**Bing-Mu Hsu**

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Acanthamoeba is one kind of free-living amoebae (FLA) which is ubiquitous in various aquatic environments. Several *Acanthamoeba* species are pathogenic and host to other pathogens such as *Legionella*, but the presence of *Acanthamoeba* and its parasites as well as the related infection risk are not well known. In this study, the surveillance and evaluation of the infection risk of *Acanthamoeba* in different aquatic environments was investigated. Water samples were collected from a river, intake areas of drinking water treatment plants and recreational hot spring complexes in Taiwan. A total of 140 water samples were tested for the presence of *Acanthamoeba* spp. In addition, phylogenetic characteristics and water quality parameters were also assessed. The pathogenic genotypes of *Acanthamoeba* T4 were abundant in the hot spring water. Taken together, *Acanthamoeba* contamination in recreational hot springs and drinking water source warrants more attention on potential legionellosis and amoebae infections.

Biography

Bing-Mu Hsu has received his PhD degree in Environmental Engineering from National Chiao Tung University. He is the Faculty of National Chung Cheng University in the Department of Earth and Environmental Sciences. He has published more than 65 original papers in SCI journals. His current research interests include environmental microbiology, environmental biotechnology, environmental pathogen analysis, environmental sampling technique and environmental risk assessment.

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