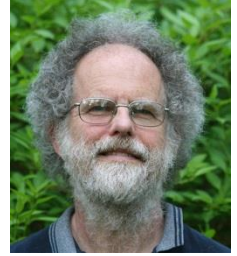


DBEM Lab Talk



Tuesday 21 February

11:00-12:00

PRC Room 6203

Speaker

Jeremy B. Searle is Professor in the Department of Ecology and Evolutionary Biology, Cornell University, USA.

He focusses on the evolutionary biology of small mammals for understanding how species evolve, colonize new areas, and adapt to the environment, as well as using them as trackers of human history and models for conservation.

For more information see:

<http://ecologyandevolution.cornell.edu/jeremy-b-searle>

<http://blogs.cornell.edu/searlelaboratory/>

Title

Stories from unwanted travellers: the history of the world according to stowaway mice

Abstract

The species *Mus musculus* has a natural distribution in the northern part of the Indian subcontinent and the Near East. However, it is also found throughout the rest of the world courtesy of humans. The English vernacular name for the species is 'house mouse' and it is because the species is able to utilise the food of humans and their livestock, and live in man-made dwellings, that they are able to live in all parts of the world. But it is of course their ability to get onto boats as stowaways that has transported house mice everywhere. This transport of mice has been going on for the past 12,000 years. By comparing the DNA sequences of house mice from different parts of the species distribution, it is possible to infer the history of transportation of the house mice. Mice from the source area of a particular colonisation will have similar DNA sequences to mice from the colonised location. Judging by these DNA comparisons many of the house mouse colonisations are just as would be predicted from our knowledge of the human history of the world. But sometimes DNA sequences reveal unexpected house mouse colonisations. And unexpected house mouse colonisations must reflect unexpected human movements. In this way mice may tell us a few things about human history that we didn't know!

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