

"Sexual selection and speciation"

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Dolichopodid flies exhibit numerous primary and secondary sexual characters. E.g. the marine genus *Cymatopus* has no less than 33 male primary and secondary sexual characters. The evolution of these numerous sexual characters can be explained by intra-sexual (competition) and inter-sexual (female choice) selection. The numerous characters might be explained by Fisher's runaway hypothesis (1930) which suggests females develop a preference for some male trait without regard to fitness. The offspring of these matings will have genes for both the trait and the preference for the trait. Elaborate male secondary sexual characters (MSSC's) would appear to be a disadvantage for survival. However, males might attract the attention of females by having a ³handicap² (Zahavi, 1975) - the traits mark stronger males who have survived despite the handicaps they bear. If MSSC's can be considered as an advertisement of good quality, they might play a major role in quick radiation in a new environment, thus accelerating speciation.

About the speaker

Dr Patrick Grootaert is the Head of the department of Entomology at the Royal Belgian Institute of Natural Sciences. His main research interests include taxonomy and ecology of flies (Dipteran fauna of Belgium, Southeast Asia and New Guinea), urban pest control, and chemical communication in house-dust mites. His research on diversity of flies makes him a regular visitor to this part of the world, where he has several ongoing studies. He has published more than 150 scientific papers in various journals, including over 40 papers on dipterans of Southeast Asia and New Guinea.

**Department of Biological Sciences
Seminar Announcement**
(Biodiversity and Ecology Journal Club)

Friday 12th December 2003

11.00am – 12.00 noon

Seminar room 1

Blk S2 Level 4, Department of Biological Sciences, The National University of Singapore, Science Drive 4

Hosted by Dr Darren Yeo

Visitors may park at Carpark 10

All are welcome



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