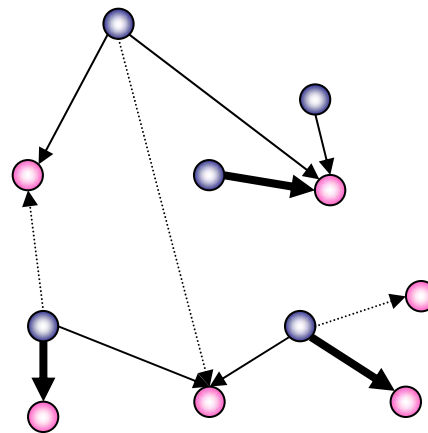


The evolutionary ecology of sexual networks

An exciting opportunity to develop a novel approach to study sexual selection.



In collaboration with Prof. Tom Snijders (Department of Statistics, University of Oxford), this project will apply network approaches commonly used in sociology and ecology to characterize the architecture of sexual interactions in sexually promiscuous, socially structured experimental populations of junglefowl.

The project will:

- (1) develop network analytical tools to complement traditional sexual selection analysis and predict patterns of paternity skew
- (2) resolve the causal relationship between node position within the network and male phenotype (e.g. status, personality, ejaculate traits) through experimental node removals and phenotypic manipulation
- (3) explore the impact of genetic compatibility and relatedness on network structure, by testing experimentally the extent to which 'affinity' or 'repulsion' between certain nodes results in network modularity, and the consequences of such modularity for paternity skews
- (4) determine the influence of abiotic and social environments on variation in network structure, through experimental manipulations of group size, sex ratio and abiotic environmental complexity.

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To apply please access the online application system at: www.ox.ac.uk/graduate/. Please remember to quote the advertised reference code DTG17. Any queries please contact **graduate.office@zoo.ox.ac.uk**.

The closing date is Monday 1st February 2010.