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Genetic Models of Sexual Selection

PETER O'DONALD

This book shows how sexual selection occurs in populations of animals and gives rise to the evolution of particular characteristics such as the red throat of the male stickleback. Some females respond more readily to the courtship of males possessing such characteristics and prefer to mate with them rather than other males.

The author uses particular examples of mating behaviour and mate selection in insects and birds to construct general models giving probabilities that males with different sexual characteristics are chosen as mates. These models are then analysed in genetical terms and their evolutionary consequences deduced. In many of the models the rarer type of male gains an overall advantage. This selection for rare males results in a stable evolutionary state in which the different types of male remain in the population. The book contains many original models and analyses of data and will be of interest to students and research workers in ecological, evolutionary and population genetics. **£15.00 net**

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