

# Observations on Sexual Behaviour in some Australian Platystomatidae (Diptera, Schizophora)

By DAVID K. MCALPINE

The Australian Museum, Sydney

Figures 1-3

Manuscript received 31st July, 1972

## SYNOPSIS

Sexual behaviour is described in four species of platystomatid flies, viz. *Euprosopia subula*, *E. tenuicornis*, *E. anostigma*, and *Pogonortalis doclea*. The role of specific recognition marks is discussed, especially in relation to certain structural modifications.

## INTRODUCTION

The comparative study of sexual behaviour in animals is important for providing information on the degree of isolation between populations and the action of natural selection on factors which affect the ability of individuals to select mates of their own species.

In the genus *Euprosopia* it has been found that many of the most useful taxonomic characters take the form of structural modifications which are restricted to one sex only. Assuming that these modifications have been evolved by natural selection acting through the phenotype on the genotype, it should be possible to ascribe a specific function or functions to each of them. Modifications possessed by one sex only are most likely to perform a role relating to sexual processes, except for certain modifications of the female, which may be connected with oviposition. Study of sexual behaviour in *Euprosopia* gives promise of providing information on the function of these taxonomic characters and their role as specific recognition marks.