

S Y N O P S I S

The work on the black flies (Simuliidae:Diptera) of Darjeeling and its neighbourhood incorporated in this thesis is broadly divided into two parts:

Part I deals with the taxonomic account of seven proposed new species, namely, Simulium (Eusimulium) praelargum, S.(E.) gracilis, S.(E.) purii, S.(E.) nemorivagum, Simulium (Simulium) nigrifacies, Simulium (Gomphostilbia) tenuistylum and S.(G.) darjeelingense, four unnamed species; and of previously undescribed larval stages of four species, namely, S.(S.) himalayense Puri, S.(S.) rufibasis Brunetti, S.(S.) dentatum Puri and S.(S.) griseescens Brunetti. Diagnoses of the genus Simulium Latreille s.l. and the three subgenera Eusimulium Roubaud, Simulium Latreille s.str. and Gomphostilbia Enderlein along with keys to the species of this region are also given in this part. A new species-group in the subgenus Eusimulium Roub. is the special attraction of this part.

Part II deals with the assessment of the efficacy of a simple light trap device in sampling black flies in

Darjeeling; and with the determination of the relative abundance, seasonal incidence and succession, sex-ratio, internal conditions of females, host preferences of females, nocturnal periodicity, photophilic behaviour and a few other related aspects of bionomics of six major species of Darjeeling, namely, S.(E.) praelargum n.sp., S.(E.) gracilis n.sp., S.(S.) himalayense Puri, S.(S.) grisescens Brunetti, S.(S.) rufibasis Brunetti and S.(G.) tenuistylum n.sp.