ASPECTS OF DIVERSITY AND ECOLOGY OF BUTTERFLIES IN MINNERIYA NATIONAL PARK OF SRI LANKA

A PROJECT REPORT PRESENTED BY

E.P.ANURADHA

to the Board of Study in Environmental Science of the

POSTGRADUATE INSTITUTE OF SCIENCE

in partial fulfillment of the requirement
for the award of the degree of

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE

of the

UNIVERSITY OF PERADENIYA
SRI LANKA
2008

ASPECTS OF DIVERSITY AND ECOLOGY OF BUTTERFLIES IN MINNERIYA NATIONAL PARK OF SRI LANKA

E.P Anuradha
Department of Wildlife Conservation
Minneriya National Park, Sri Lanka

ABSTRACT

There is a dearth of information on the ecology of butterfly fauna in Sri Lanka, particularly in the Minneriya National Park (MNP). Therefore, an attempt was made to study, along with the diversity of the butterflies, some aspects of their ecology such as life cycles, food plants, vertical stratification, diurnal activity pattern of some species in the MNP.

The study showed a high diversity of butterflies in MNP, and this diversity included one hundred and seven butterfly species belonging to eight families. Two endangered species (*Junonia orithya, Doleschallia bisaltide*), four vulnerable species (*Colotis fausta, Rapala manea, Hasora chromus* and *Telicota ancilla*), two critically endangered species (*Cepora nadina* and *Virachola perse*), and four data deficient species (*Spindasis schistacea, Rapala varuna, Catochrysops panormus* and *Actyolepis lilacea*) were identified.

The most dominant group of butterflies in MNP is Family Lycaenidae, which includes 31 species, while Family Nymphalidae included 21 species. Family Danaidae is the rarest group of butterflies having only seven species.

The activity pattern studied during daytime revealed that the common butterfly species were most active from 1000 hrs to1300 hrs. If the day begins with a higher

temperature (>27°C) the highest activity was shown during 1000-1100 hrs, while if the day begins with a low temperature (< 25°C) then the highest number of individuals was seen around 1300 hrs. The number of butterflies decreased during a prolonged drought, but their number increased soon after heavy rains.

Various stages of life cycle, particularly the caterpillar stage, were studied in detail. Also, unique observations on predator -prey relationships, cannibalism, camouflaging, and metamorphosing were observed and photographed.

Furthermore, the threats prevailing in MNP to butterflies were studied and appropriate recommendations were made so that the authorities concerned could take appropriate conservative measures.