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**ECOLOGY AND DIVERSITY OF WOODY
VEGETATION
IN ORUPEELLA RAIN FOREST, KEGALLE DISTRICT,
SRI LANKA - A PRELIMINARY STUDY**

A PROJECT REPORT PRESENTED

BY

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to the

POSTGRADUATE INSTITUTE OF SCIENCE

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

MASTER OF SCIENCE

of the

UNIVERSITY OF PERADENIYA
SRI LANKA

OCTOBER 1999

ABSTRACT

Orupeella forest situated in the wet zone of Sri Lanka, was selected as the study site for this project.

The main objectives of the study were to examine the floristic diversity of this lowland wet zone forest and use the information obtained to teach biology at the secondary level.

Three plots, each 100 m x 10 m in size were demarcated randomly. The number of trees >2.5 cm dbh within the plots were counted and their diameters were measured. Twigs of leaves were collected from unknown species and identified to prepare a reference herbarium of woody species in the Orupeella forest. The data were analysed to gather information on density, frequency and basal area of individuals. The importance value Index of each species was calculated.

The results revealed the following:

A total of 825 individuals (dbh > 2.5 m) enumerated in the three plots sampled were identified into 84 species, 64 genera and 33 families. The number of endemic species found in the survey was 48. They belong to 36 genera and 20 families. Among the 84 species identified 13 species were used as food while 16 had a medicinal value. Also 25 species were used as timber and 12 had other economic uses.

The dominant species found in the study site were *Hopea jucunda*, *Cullenia zeylanica*, *Syzygium makul* and *Shorea stipularis*. Population size distribution of each plot showed that nearly 1/3 of the total species are represented by 1 or 2 individuals per species.