

## **BIOLOGY and ENVIRONMENTAL STUDIES FIELDWORK OPTIONS**

The centre has been offering fieldwork at junior, GCSE, AS and A levels; and I.B. for 14 years. All fieldwork is planned to meet the needs of the different syllabuses and all written materials and necessary equipment is provided by the centre.

There are two air-conditioned classrooms with projector and screens for planning and follow-up work. Examples of field notes are available for inspection.

TYPE OF FIELDWORK	AIM AND NATURE OF FIELDWORK
Abundance studies in sub-tropical and degraded forests	The aim of this work is to study the characteristics of an area of primary forest (abundance, as well as physical structures, species and abiotic factors and compare this to an area of degraded secondary forest where annually the ground cover is burned by local hill tribes.
Population ecology of the June beetle	The capture-recapture technique is used and the Lincoln Index applied to estimate the population of this beetle over small area. Depending on the season, it may be possible to compare the population in two different environments in the same area.
A study of Mimosa	This study will look at the prevalence of Mimosa on the exposed 'beach' on the inside bend of the Maekok River. In the rainy season the area is covered with water, but in October, the beginning of the dry season, the water level starts to drop, exposing the river 'beach'. In general therefore, the further away from the river's edge, the longer the beach has been exposed. The study will consider soil moisture as a factor in determining the frequency of Mimosa (or another chosen species)  And to consider if Mimosa is the most common species of 'pioneer' plant on the exposed river beach and to understand the impact of this invasive species.
A study of benthic macro-invertebrates	This study can be divided into two sections. Firstly, assessing the biodiversity of aquatic macro-invertebrates in various habitats in the same section of steam, considering the influence of bed type and stream velocity. Secondly, using macro-invertebrates as indicator species to study the changing water quality between sites on the same river to assess the influence of agricultural practices on the river.
Application of statistics	A couple of simpler studies are available to illustrate the application of statistical tests such as Chi Square and Student T Test.