Methods of Vegetation Survey (VegSurvey)

植群調查方法與實作



Sorry, the class had to be cancelled. I apologize for any inconvenience it may have caused you. David

EEB5084 (B44U1960), ~~semester 112-2~~, in English

Instructors: **David Zelený (澤大衛)**

TA: Chu Hsun-Hung (朱訓宏)

When & where: ~~Thursdays, 14:20-17:20 in R1217~~

NTU COOL: https://cool.ntu.edu.tw/courses/34434

About the class

This course is focused on the introduction to methods used in vegetation survey: sampling of forest and non-forest vegetation, measuring and estimating habitat environmental conditions, and vegetation mapping. The course is composed of three equally important parts: theoretical part, field survey and lab work.

Students will learn the theoretical background of field vegetation survey, apply it in practice, collect real data in the field, process them in the lab and discuss the results.

Teaching schedule

The class is **NOT held every week, but only on selected weeks** (usually before and after the weekend excursion, with the exception of the first class). Excursions will be held on **selected Saturdays or Sundays** (three during the semester), and the theoretical class will be the week before, while the practical lab the week after given weekend's excursion. See the Calendar for exact dates of each excursion (this will be agreed upon in the first class).

Field excursions

Visited areas for the field trips will be in **places accessible by public transportation** (bus, train) - we will usually start to hike to the mountains from the bus or train station. **You need to pay for the transport and accommodation by yourself**.

Important: you need to have accident insurance for each trip (意外險)! This is not negotiable: no insurance = no trip. One day insurance (~40 NT) is enough and can be easily issued few days before the excursion.

Structure of the class

The class consists of three parts:

1. Theoretical part: an overview of methods for sampling vegetation and measuring environmental variables, introduction to visited areas, and safety instructions.
2. Field trips: three whole-day field trips (around Taipei and some more distant regions), practising the sampling methods, collecting field data and environmental measurements.
3. Lab module: processing and analysing collected data, discussion of results.

Theoretical part (4 x 3 hours):

- Introduction, safety instructions for fieldwork
- Theory of sampling methods (DBH and cover-based)
- Theory behind measuring environmental variables
- Theory behind vegetation mapping

Field trips (3 whole-day trips):

- Practical introduction to the field survey, safety in the field, operating basic hiking equipment (reading map, operating compass and GPS), and choosing the locality for sampling.
- Sampling forest vegetation (DBH measuring, cover estimation, plot and plot-less sampling methods)
- Sampling non-forest vegetation (grassland or dune vegetation)
- Field measurements (topography, soil properties, microclimatic measurements, forest canopy structure)

Lab analysis (3 x 3 hours):

- Determining collected specimens.
- Practicing sampling habits indoors (estimating cover, using the measuring equipment).
- Retyping collected species and header data into the computer using dedicated software (Turboveg and JUICE).
- Analysis of soil samples (pH and conductivity).
- Presenting and discussing results.

Evaluation

Attending the class (theory, field trips & lab)	55%
Homework assignments (2-3 per semester)	20%
Activity in the class (group and individual work)	25%

Note that you need to attend all whole-day excursions unless you have a serious reason why you can't (e.g. health issues). We also strongly suggest that you attend all the theoretical parts and labs. During the semester there will be 3-4 homework assignments and several of group and individual tasks.

References

- Kent, M. (2011) Vegetation Description and Data Analysis: A Practical Approach, 2nd Edition. Wiley-Blackwell, 428 pp.
- Mueller-Dombois, D. & Ellenberg, H. (1974) Aims and Methods of Vegetation Ecology. John Wiley & Sons.
- Stohlgren T.J. (2006) Measuring Plant Diversity: Lessons from the Field. Oxford University Press.





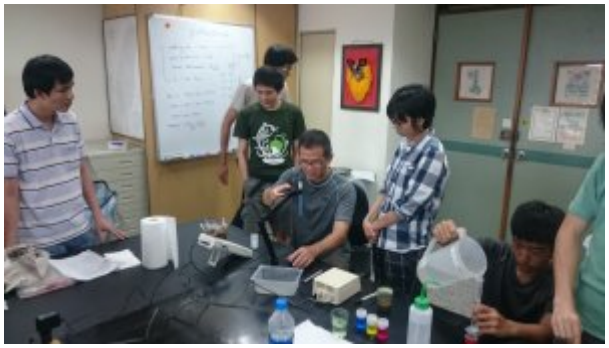

















15:35



