COURSE DETAIL

EVOLUTION OF LIFE HISTORIES

Country
Taiwan

Host Institution
National Taiwan University

Program(s)
National Taiwan University

UCEAP Course Level
Graduate

UCEAP Subject Area(s)
Environmental Studies Biological Sciences

UCEAP Course Number
217

UCEAP Course Suffix

UCEAP Official Title
EVOLUTION OF LIFE HISTORIES

UCEAP Transcript Title
EVOLUTION HISTORY

UCEAP Quarter Units
3.00

UCEAP Semester Units
2.00

Course Description

Life history traits, e.g., growth rates, maturation schedules, and offspring size and number, are influenced by environmental and anthropogenic factors and in turn determine individual fitness and influence population growth rates. Because life history traits are heritable, variation in these traits tends to involve both evolutionary (genetic) and ecological (plastic) processes. Exploring life history variation provides an opportunity not only to understand the eco-evolutionary interactions that shape the observed patterns, but also to forecast population dynamics in changing environments. In this course, we design lectures to guide students to understand the concepts and theories of adaptive life history variation. In addition, the course project involves field sampling and laboratory experiments with mosquitofish Gambusia affinis, to gain hands-on experience on life history research. The objectives of this course are to understand the theoretical background of life history variation, and explore empirical variation in growth rates, maturation schedules, and offspring size and number based on the model species, mosquitofish.

Language(s) of Instruction
English

Host Institution Course Number
Ocean7177

Host Institution Course Title
EVOLUTION OF LIFE HISTORIES: THEORY AND PRACTICES

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Oceanography

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