Division of Natural System	Research field	Ecology and Conservation	Lab. ID NS02
Laboratory web site	http://natsys.w3.kanazawa-u.ac.jp/research/lab/bio_09.html http://ecology.s.kanazawa-u.ac.jp/lab3/ecologylab/ecologylab.html http://ecology.s.kanazawa-u.ac.jp/lab3/Ohkawara3/INDEX.html (Ohkawara's web site) http://www.usio24111.net (Nisikawa Usio's website)		

Research subjects

The scientific field of Ecology focusses on interactions between organisms and their environment. Mainly through field work, we aim to clarify ecological phenomena from individuals to populations, communities, ecosystems, landscapes through global scales. The scientific field of Conservation (or Conservation Biology) is an interdisciplinary study aiming to conserve or restore biodiversity and ecosystems by adopting various approaches of natural and social sciences. The knowledge of Ecology and Conservation is also used in practical fields such as developing techniques in agriculture, forestry, or fisheries, controlling pathogens, controlling water pollution, conserving endangered species, or managing protected areas. The foci and interests of research are different among faculty members. Major research themes include: behavioral and community ecology of ants and birds, interactions between fungi and animals, effects of environmental change on mosquito vectors and pathogens, conservation and restoration of biodiversity, social-ecological restoration of paddy-dominated landscapes through implementation of wildlife-friendly farming, and invasion risk assessment and management of non-native species.

Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

A joint seminar among the laboratories of Ecology and Conservation is conducted once a week during the semester period, and students are required to attend and present at the seminar. On some occasions, we invite guest speakers from other universities or institutes. In addition, graduate students are asked to organize students' seminar. The contents of the students' seminar are determined based on discussions by students. In Tuno lab, a laboratory meeting is held once a week to report research progress, study textbooks, or study papers that are relevant to students' research.

Daily life in the laboratory, etc.

From spring to autumn, many students perform field work of their study material, such as insects, crustaceans, amphibians, birds, or mamals. Therefore, not many students are found in the laboratory during the daytime, though some students perform laboratory experiments. In winter, students spend more time in the laboratory to analyze samples and data. The activity time or season may differ depending on the study organism. Students who study birds need to get up very early before sunrise while those who study crustaceans start working at night after sunset. Students who study mammals may need to go out to field in winter because it is much easier to find animal tracks on snow. Our students modify their life styles according to their study organism.

Message or comments by the laboratory faculty staffs

◎There are two kinds of people. Some prefer to perform useful studies, and others prefer to conduct useless but interesting studies. Both kinds of people contribute to development of science. Diversity supports sustainability (N. Tuno).

◎ It is very interesting to observe diverse and mysterious organisms in the natural world. If you feel that wildlife is interesting, you should go outside and observe directly by yourself. Such positive attitude will make you more exciting about the nature (K. Ohkawara).

◎ Biodiversity provides unmeasurable benefits to human society. Let's discuss about how to balance biodiversity conservation and human activities under global environmental deterioration (Nisikawa Usio).

Recent Master theses in these 3 years (+ more if appropriate)

year.month	Thesis title (including English translation of Japanese thesis title)
2016.3	Mating strategies of male in social parasitic ant *Vollenhovia nipponica*
2016.3	Evaluation of spore dispersal of ectomycorrhizal fungi by mycophagous dipteran larvae
2015.3	Factors affecting the distribution of the brackish water crab *Chiromantes dehaani*
2015.3	Studies on basidio-spore dispersal by mycophagous drosophilid flies
2015.3	Utilization of *Amanita* sporophores by dipteran insect assemblages
2014.3	Chirping behavior and reproduction of the meadow bunting *Emberiza cioides*
2014.3	Habitat characteristics of the Japanese serow, *Capricornis cripus*, in Ishikawa Prefecture.
2013.3	Production and development of first workers in the colony founding period in *Lasius niger*
2013.3	A comparative study of two *Rana* frogs in Ishikawa's satoyama with reference to their distribution, life history, and diets
2013.3	Population dynamics of mosquito larvae in rice fields

Recent Doctoral theses in these 3 years (+ more if appropriate)	
year.month	Thesis title (including English translation of Japanese thesis title)
2015.9	Production and dispersal of basidiospores of Ganoderma applanatum in Japan
2014.9	Diversity and structure of bee pollination system in different satoyama habitats
2014.9	Conservation study of reptiles and amphibians: the cases of the invasive green anole and the native forest green tree frog
2012.9	Diversity of spiders and insects in restored terraced rice fields in satoyama
2012.9	Vector incrimination in malaria endemic hilly area in Bangladesh
2011.9	Effects of temperature and diet on development and interspecies competition of *Aedes aegypti* and *Aedes albopictus* (Diptera: Culicidae)
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