

9 Sep.  
2025

10:00-15:00

ESI Workshop 2025

# Science for a Changing World

Advancing Research and Innovation in Invasive Species Control,  
Protected Area Design, and Biodiversity Monitoring

In recent years, the need for science and technology to work together has become increasingly urgent as we face the combined challenges of climate change, ecosystem transformation, and socioeconomic uncertainty. This workshop highlights three key and practice-oriented research domains—invasive species control, protected area design, and biodiversity monitoring—and introduces the latest developments in research and technological innovation that support these fields.

Venue: Room B250,  
Center Building, OIST

## Schedule

### Invasive Species Management

#### Session 1 10:00-11:10

**Using cutting-edge science to fight invasive species such as red imported fire ants**

/ Kazuki Tsuji (University of the Ryukyus)

**Tracking and forecasting the spread of alien ants around the globe**

/ Evan P Economo (OIST, University of Maryland)

**Chemical Control Strategies for Invasive Insects: Case Studies of Invasive Ants and the Yellow-legged hornet (*Vespa velutina*)** / Koichi Goka (National Institute for Environmental Studies)

### Designing Protected Areas

#### Session 2 11:10-11:50

**Designing Protected Areas to Maximize Conservation Impact: A Modeling Approach**

/ Nao Takashina (The University of Tokyo)

**Protected Areas in Japan**

/ Yoshiki Wakamatsu (Okinawa Amami Nature Conservation Office of the Ministry of the Environment)

### Biodiversity Monitoring

#### Session 3 13:30-14:40

**Outline of OKEON Churamori Project** / Masako Ogasawara (OIST)

**Acoustic monitoring of Okinawan biodiversity** / Samuel RPJ Ross

**Investigating effects of land-use change on insect community seasonality with high-frequency biodiversity monitoring data** / Jamie M Kass (Tohoku University)

**Acoustic Monitoring and Detection of Anuran Species** / Kosmas Deligkaris (OIST)

**Camera Trap and AI-Based Species Identification for Biodiversity Monitoring**

/ Takumi Akasaka (Obihiro University of Agriculture and Veterinary Medicine)

**Beyond biodiversity: OKEON as a model for next-generation ecology/** David W Armitage (OIST)

**Date:** Tuesday, September 9, 2025. 10:00-15:00

**Participation fee:** Free

**Language:** Japanese and English (Simultaneous interpretation provided)

**Organizer:** Environmental Science and Informatics Section (ESI), Okinawa Institute of Science and Technology (OIST)