

Department of Environmental Bioscience

Laboratory of Plant Conservation Science



Professor
Guang-Xi Wang



Associate Professor
Noriyuki OSADA

STAFF	Professor	Associate Professor Noriyuki OSADA
TEACHING	Conservation Plant Science Plant Reproductive Ecology Advanced Plant Conservation Science (MC)	Plant Taxonomy Plant Adaptation to Variable Environments Advance Plant Conservation Science (MC)

Focusing on plant species diversity and their environmental adaptabilities for conservation purpose

Aichi Prefecture, Japan, has a markedly diverse natural environment, with remote mountains, alluvial plains, wetlands and moors, rivers, lakes, marshes and coastal areas, which are home to many species of wild plants. Many of these species are now threatened with extinction due mainly to human activities. We see this varied environment with its plant species, as a precious and irreplaceable resource, the protection and conservation of which is our responsibility. Our laboratory explores the relationships between the diversity of wild plant species and environmental changes, focusing on threatened plant species, using taxonomical, ecological and genetic methods. Additionally, we also study plants in agricultural and urban ecosystems, scaled from plant genes, to individuals, populations, communities and ecosystems, in order to contribute to their conservation through promoting research of plant diversity.

Reproductive ecology of *Monochoria korsakowii*, an endangered species



Note the position of the white pistil and dark purple anther. This “mirror-image dimorphism” in the flowers of *Monochoria korsakowii* promote outcrossing. It should have an effect on the spreading of a herbicide-resistant gene that has developed in this species in the recent years.

Effects of global warming of leaf phenology of temperate woody species

Recent climate change will affect forest ecosystems primary by changing growing season in temperate trees. Distinct effects of warming is arising in the timings of budburst and leaf out, with advancing the timings in many temperate woody plants in Europe, America, and Asia. We are now investigating the leaf phenology of coexisting tree species in a number of forests in Japan to evaluate the warming effects on forest trees.

