Institute of Biodiversity Science at Fudan University
Founded in 1996, Institute of Biodiversity Science at Fudan University (IBSFU) is China’s first research institute focusing on biodiversity sciences. In 2000, IBSFU with Beijing Normal University established its joint Ministry of Education (MOE) Key Laboratory for Biodiversity Science and Ecological Engineering, which was well received by the MOE review panel in 2010. In 2004, China’s first Department of Ecology and Evolutionary Biology was founded by the institute at Fudan University.

Currently, IBSFU has 24 faculty members and staff, including 14 professors, 5 associate professors, 2 lecturers and 3 technicians. Well-equipped field research stations, facilities and laboratories have been set up in IBSFU. Modernized laboratories facilitate our research in the areas of ecosystem ecology, invasion ecology, genetic diversity and evolution, resource biology, soil biology, remote sensing and geographical information system and chemical ecology. Two field bases have been established for scientific research and undergraduate education, i.e., Coastal Ecosystems Research Station of the Yangtze River Estuary on Chongming Island and MOE Chongming Dongtan Field Education Base for Estuarine Biodiversity and Ecosystems.

The Institute’s mission is to conduct basic research in biodiversity science and related disciplines to understand the origin of biodiversity, and the mechanisms maintaining biodiversity, to predict the consequences of human impacts upon biodiversity, to show how this knowledge can be applied to the rational conservation of biodiversity, with benefits for the quality of life and economic sustainability. Over the last decade, IBSFU has made much progress in the mechanisms of biodiversity loss and maintenance, invasion mechanisms and control measures of exotic species, crop wild relatives and the sustainable utilization of gene diversity, ecological risks of transgenic crops, ecosystem structure and functions of coastal wetlands, ecosystem consequences of environmental changes and regional eco-safety. Since 1990s, IBSFU has successfully conducted many research projects such as National Basic Research Program of China (973 Program) and Key Projects of the National Science & Technology Pillar Program, and published research results in various top journals like Nature, Science, PNAS and Ecology. Our research performance is ranked in ISI/Thomson's Essential Science Indicators (ESI).
1. **Biodiversity and Environmental Changes**
   - Biodiversity and ecosystem functioning
   - Maintenance of biodiversity and its underlying mechanisms
   - Environmental changes and species adaptive evolution
   - Biodiversity conservation under changing environments

2. **Biological Invasions and the Consequences**
   - Mechanism, consequences and management of biological invasions
   - Interactions of biological invasions and global changes
   - Ecological risks of transgenetic organisms and biosafety

3. **Principles and Applications of Ecological Engineering**
   - Endangering mechanism of species and rejuvenation
   - Restoration of degraded ecosystems
   - Biodiversity and nature reserve planning
   - Bioinformatics and functional genomics
CHEN Jiakuan  
Professor  
jkchen@fudan.edu.cn  
Tel +86-21-65642468

Research interests
(1) maintenance of biodiversity and underlying mechanisms;
(2) conservation biology and nature reserve planning;
(3) watershed ecology.

FANG Changming  
Professor  
cmfang@fudan.edu.cn  
Tel +86-21-55664990

Research interests
(1) terrestrial ecosystem processes and underlying mechanisms under global climate change;
(2) soil organic carbon decomposition and its response to environmental change;
(3) carbon and nitrogen processes and green-house gases emissions in agricultural and wetland ecosystems;
(4) principles and techniques of agricultural mitigation.

FU Cuizhang  
Professor  
czfu@fudan.edu.cn  
Tel +86-21-65643032

Research interests
(1) fish ecology of salt marshes, mangroves and streams;
(2) spatial patterns and processes of animal diversity;
(3) roles of tectonics and climate in diversification of fishes and amphibians;
(4) fish systematics and phylogeography.
LI Bo
Professor
bool@fudan.edu.cn
Tel +86-21-65642178
Head, MOE Key Laboratory for Biodiversity Science and Ecological Engineering

Research interests
(1) the mechanisms of successful invasions by exotic plants;
(2) the community- and ecosystem-level and evolutionary consequences of plant invasions;
(3) the interactions between invasive plants and global change and their consequences.

LU Baorong
Professor
brlu@fudan.edu.cn
Tel +86-21-65643668
Chair, the Department of Ecology and Evolutionary Biology, Fudan University

Research interests
(1) biosystematics and evolutionary biology, population genetics, conservation genetic, and molecular ecology of wild relatives of crop species, particularly wild wheat, wild soybean, and wild rice;
(2) biosafety of GM crops, particularly the issue of transgene flow/introgression and its ecological consequences.

MA Zhijun
Professor
zhijunm@fudan.edu.cn
Tel +86-21-65643912
Vice Director, Institute of Biodiversity Science, Fudan University

Research interests
(1) stopover ecology of migratory shore-birds;
(2) spatial and temporal patterns of stopover sites;
(3) effects of landuse change and plant invasion on birds.
SONG Zhiping  
Professor  
songzp@fudan.edu.cn  
Tel +86-21-55664989

Research interests
(1) the mechanisms underlying population genetic diversity, the possible impacts of human activities on population genetic dynamics and evolutionary potentials, and the implications for conservations of important but endangered plant species, such as wild rice;
(2) the evolution of plant mating systems and tradeoffs of reproductive strategies under changing environmental conditions, and local adaptation of plant population to habitat heterogeneity.

WU Jihua  
Professor  
jihuawu@fudan.edu.cn  
Tel +86-21-65642939-802

Director, Institute of Biodiversity Science, Fudan University

Research interests
(1) aboveground-belowground biological linkages;
(2) soil food web and ecosystem responses to global changes;
(3) distribution patterns and processes of coastal wetland biodiversity;
(4) nematode phylogeny, biogeography and ecology.
YANG Ji
Professor
jiyang@fudan.edu.cn
Tel +86-21-65643494

Vice Dean, School of Life Sciences, Fudan University

**Research interests**

1. The molecular basis of the major innovations that occurred during land plant evolution by studying the duplication, diversification and co-option of key developmental regulator genes;
2. Correlations between environmental stimuli, epigenetic modification and phenotypic variation to approach the molecular mechanisms underlying phenotypic plasticity, using *Alternanthera philoxeroides* as a research model.

ZHONG Yang
Professor
yangzhong@fudan.edu.cn
Tel +86-21-55664436

Dean, Graduate School, Fudan University

**Research interests**

1. Molecular ecology, particularly on plants of Qinghai-Tibet Plateau;
2. Collection and preservation of wild plant germplasm resources;
3. Bioinformatics;
4. Systems biological analysis and computer simulation.

ZHAO Bin
Professor
zhaobin@fudan.edu.cn
Tel +86-21-65642263

Director, Coastal Ecosystems Research Station of the Yangtze River Estuary on Chongming Island
Director, MOE Chongming Dongtan Field Education Base for Estuarine Biodiversity and Ecosystems

**Research interests**

1. Carbon flux monitoring and global change;
2. Remote sensing application in wetland and ecosystems;
3. Biodiversity information management;
4. Synergistic study of remote sensing imagery processing and vegetation monitoring, GIS and spatial analysis, and hydro-chemical measurement.
Research interests

(1) using both theoretical and empirical approaches to investigate mechanisms of species coexistence and community assembly;
(2) dynamics of mutualistic webs and the underlying mechanisms.

YONEZAWA Takahiro
Associate Researcher
yonezawa@fudan.edu.cn
Tel +86-21-55665264

Research interests

(1) phylogenetic tree and divergence time inference of the vertebrate animals, particularly eutherian mammals;
(2) domestication event of the animals and plants;
(3) adaptive evolution of the protein coding genes.
NAN Peng
Associate Professor
nanpeng@fudan.edu.cn
Tel +86-21-65642957
Vice Director, Institute of Biodiversity Science, Fudan University

Research interests
(1) biological activities and functions of natural products;
(2) molecular regulatory mechanisms of the biosynthetic enzymes;
(3) influence of ecological factors on plant secondary metabolic pathways;
(4) screen of the mutations of disease gene

ZHANG Wenju
Associate Professor
wjzhang@fudan.edu.cn
Tel +86-21-65642819

Research interests
(1) adaptations of the plants (alpine plants living in areas about 5000 m above sea level and marsh plants living in the estuary) extreme habitats by revealing their genetic structure and reproductive strategies;
(2) taxonomy and phylogeny of *Camellia* (Theaceae) and the phylogeography of some species of *Hippophae* (Elaeagnaceae) in Qinghai-Tibet Plateau;
(3) genetic diversity, local extinction, and conservation strategy of *Camellia* species and *Panax* species.

PAN Xiaoyun
Associate Professor
xypan@fudan.edu.cn
Tel +86-21-65642939-804

Research interests
(1) interactive effects of release from specialist natural enemies and increases in resource availability on the post-introduction evolution of defense strategies, such as both constitutive and induced defense traits and tolerance, of invasive *Alternanthera philoxeroides* (alligator weed);
(2) applications of the defense syndrome concept to generalize the evolutionary pattern of invasive plants;
(3) invasion mechanisms of invasive aquatic plants into riparian communities.
ZHOU Tongshui  
Associate Professor  
tszhou@fudan.edu.cn  
Tel +86-21-65642206

Research interests
(1) physiological and ecological functions, biosynthesis and regulating mechanisms of secondary metabolites of plants;
(2) bioactive components of traditional Chinese medicine (TCM);
(3) development of high quality TCM and their medicinal products.

YIN Mingbo  
Lecturer  
yin.mingbo@gmail.com  
Tel +86-21-55664314

Director Assistant, Institute of Biodiversity Science, Fudan University

Research interests
(1) hybridization;
(2) population genetics;
(3) host-parasite coevolution;
(4) tradeoffs of inducible defense. Although these themes are interdisciplinary and varied, they are connected by the important role of pathogen and by globally changing environmental conditions, by using a cross-disciplinary approach, combing field work, experimental and molecular techniques.

WANG Yuguo  
Lecturer  
wangyg@fudan.edu.cn  
Tel +86-21-65642809

Research interests
(1) the relationships among natural hybridization, polyploidization and speciation in plants;
(2) horizontal gene transfer (HGT) between parasite plants and their hosts;
(3) phylogeny and biogeography of flowering plant genera such as Symplocos, Actinidia, Aspidistra, Rhododendron and parasite plants;
(4) phylogeography and conservation biology of Asian plants.
CAI Xingxing
Technician
xxcai@fudan.edu.cn
Tel +86-21-65642809
Responsibility
Molecular ecology research platform management

JANG Rumin
Technician
rmjiang@fudan.edu.cn
Tel +86-21-65642468
Responsibility
Macroscopic ecology research platform management

ZHAO Jiayuan
Technician
zhaojiayuan@fudan.edu.cn
Tel +86-21-65642957
Responsibility
Chemical ecology research platform management
The National Key Program in Ecology, Fudan University

Chair LI Bo

Institute of Biodiversity Science at Fudan University

Director WU Jihua
Vice Director MA Zhijun
Assistant NAN Peng
Assistant YIN Mingbo

MOE Key Laboratory for Biodiversity Science and Ecological Engineering

Head LI Bo

Department of Ecology and Evolutionary Biology, Fudan University

Chair LU Baorong

Coastal Ecosystems Research Station of the Yangtze River Estuary on Chongming Island

Director ZHAO Bin

MOE Chongming Dongtan Field Education Base for Estuarine Biodiversity and Ecosystems.

Director ZHAO Bin