

**7th International Symposium on Integrated Field Science**

**Biological Interactions in Arable land-  
Grassland-Forest Continuums and their  
Impact on the Ecosystem Functions**

**October 10-12, 2009, Sendai, JAPAN**

**Organized by**  
**Field Science Center, Tohoku University**  
**Ecosystem adaptability Global COE, Tohoku University**

## **Program**

### **October 10 (Saturday)**

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10:00	Y. Nakai M. Saito		Opening address Scope of the workshop
10:15	P. M. Kotanen	Tronto Univ Canada	Habitat-specific effects of soil pathogens on seed germination.
10:55	K. Seiwa	Tohoku Univ	Is Janzen-Connell hypothesis valid in temperate forests?
11:15	M. Yamazaki	Tohoku Univ	Distance- and density-dependent seedling mortality and host specific differentiation of the fungal pathogen near the conspecific adult trees in a temperate forest.
11:30	A. Imaji	Tohoku Univ	Carbon allocation to defense, storage, and growth in seedlings of two temperate broad-leaved tree species
11:45	T. Shimada	FFPRI	Effects of seed size and chemical variation on seed fates in a deciduous oak species <i>Quercus serrata</i> .

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12:05	LUNCH		
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13:20	M. K. Lau	North Arizona Univ	Addressing complexity of biological interactions in natural systems with community genetics
14:00	K. Saito	Shinshu Univ	Arbuscular mycorrhizal communities in semi-natural grasslands
14:20	M. Saito	Tohoku Univ	Significance of AM fungi in revegetation process in a N-limited degraded ecosystem

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14:40	POSTER SESSION		
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15:40	X. L. Li	China Agric. Univ China	Arbuscular mycorrhizal fungi diversity and contribution to crop growth in agricultural fields
16:20	T. Ito	Tohoku Univ	Impact of Tubifex on dynamics of rice field ecosystem with empahsis on organic farming
16:40	M. Utomo	Lampung Univ Indonesia	Earthworm and Soil Carbon after Twenty One Years of Continuous No-tillage Corn- Legume Rotation in Sumatra, Indonesia
17:20			

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19:00	Welcome Reception (Hotel JAL City, Sendai)		
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**October 11 (Sunday)**

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9:30 POSTER SESSION

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10:00	W. T. Baisden	GNS Science, New Zealand	Evidence for contrasting soil carbon dynamics in volcanic and non-volcanic soils: towards implications for climate change mitigation through land-use and management
10:45	H. Kanno	Tohoku Univ	Organic Carbon Accumulation in Andosols: (1) Unaccounted Andosols in Japanese forest soil
11:00	T. Takahashi	Tohoku Univ	Organic Carbon Accumulation in Andosols: (2) Contribution of aluminum-humus complexes to carbon accumulation in non-allophanic Andosols
11:15	M. Nanzyo	Tohoku Univ	Organic Carbon Accumulation in Andosols: (3) Occurrence of apatite and biotite in young and matured volcanic ash soils, and discussions on nutrient supply for ecosystems
11:30	General discussion		
	Closing remarks		
12:00			

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**October 12 (Monday)**

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Field excursion to Field Science Center (Naruko-Onsen, Osaki city)

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## POSTER SESSION

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| 1  | K. Akita     | Tohoku Univ  | Effects of winter-flooding on soil nutrients and rice yield in paddy field with organic farming  |
| 2  | M. Ichihara  | Sizuoka Univ | Increased agricultural landscape diversity enhances post-dispersal weed seed predation   |
| 3  | K. Ono       | FFPRI        | Comparisons of early humification process between coniferous and hardwood forest: Effects of litter species on the compositional quality of soil organic matter in temperate forests in Japan. |
| 4  | K. Hirai     | FFPRI        | Importance of asymbiotic nitrogen fixation to nitrogen immobilization in decomposing green needles of Japanese cedar ( <i>Cryptomeria japonica</i> )   |
| 5  | A. Matsuo    | Tohoku Univ  | The relationship between reproductive success and clonal structure in a simultaneous flowering population of the monocarpic dwarf bamboo, <i>Sasa veitchii</i> var. <i>hirsuta</i> .           |
| 6  | Y. Sato      | Tohoku Univ  | Evaluation of PorySilicate-Iron Sludge from Water Purification Plants as Paddy Soil Amendments   |
| 7  | J. Shinagawa | Tohoku Univ  | Effect of allophonic water treatment residual on paddy rice cultivation  |
| 8  | K. Sugawara  | NILGS        | Clavicipitaceous endophytes in grass species; guardians against herbivores evolved from plant pathogen.  |
| 9  | C. Tada      | Tohoku Univ  | Chemical and microbial characteristics of forest soil by the difference of forest management   |
| 10 | R. Tajima    | Tohoku Univ  | Nitrogen cycle of agricultural system in Field Science Center, Tohoku University   |
| 11 | T. Tateishi  | Iwate Univ   | Effects of periodic application of cattle slurry on soil microbial biomass in an Andisol grassland   |
| 12 | M. Ueno      | Tohoku Univ  | Higher mortality of conspecific compared to heterospecific seedling beneath the adult for three hardwood species (仮)   |
| 13 | R. Wagai     | NIAES        | Comparison of allophanic soils of contrasting carbon contents induced by agricultural management: organo-mineral interaction, carbon mineralization, and its temperature sensitivity           |
| 14 | H. Yaginuma  | Tohoku Univ  | Influence of pH on soil washing and phytoextraction of Cd from soil, a case study using the paddy-field soil with a high pH  |
| 15 | K. Yamada    | Tohoku Univ  | Aluminum bioavailability of aluminum-humus complexes in Andosols   |
| 16 | T. Yamanaka  | FFPRI        | Actinorhizal plants and Frankia in Japan   |
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