

**B507** Succession on Fire-disturbed Forests for 3 Years

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We investigated vegetation succession in fire-disturbed areas, which are divided by vegetation and fire intensity. Our study on vegetation succession was focused on the changes of importance value and growth of major tree species, species composition, and population structure. Fire-disturbed areas were, firstly, divided into pine forest and broad-leaved forest. The former is made up of surface fire I, surface fire II and crown fire areas. The latter is mostly composed of surface fire I area. Pine trees in surface fire II and crown fire areas were dead, while oak species became the dominant species. From this result we could predict that vegetation succession was processing rapidly. Pine trees in surface fire I area were survived, but their importance value decreased and that of oak trees increased. We could therefore know that succession was also accelerated in surface fire I area. Species composition of fire-disturbed pine forests exhibited a tendency becoming changed similarly to that of oak forest as time passes. Succession facilitating effects were also confirmed in results on growth and population structure of major species. On the other hand, the importance value of oaks in broad-leaved forest some declined after fire but showed a possibility to be restored. From the results on population structure of major species, we could also estimate that oak forest could be maintained continuously after fire.

**B508** Isolate and Patho-Biology of Entomopathogenic Nematodes in the Soil of South Korea

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Entomopathogenic nematodes investigated by silkworm trap through the cropland, orchards, flower garden, coast, and forest habitats in Korea. More than 100 soil samples represented the existence of nematodes. The prevalence of entomopathogenic nematodes confirmed from all the samples found to be ecologically interesting phenomenon . We selected more than 30 nematode strains with pathogenic(high virulence, multiplication), morphological specific, and other characters of host range, survival time at storage condition. We also studied phylogeny, morphological character, and RAPD of nematode on the Heterorhabditidae, Steinernematidae, and Rhabditidae. This study will clarify the ecological problem of natural soil environment and provide a way for the development of effective biological control agents for pest insects.