題目：Community structure and seasonal changes of soil fungi in seasonal tropical forests of northeast Thailand under different fire regimes
（タイ東北部の異なる火災体制下の熱帯季節林における土壌菌類の群集構造と季節的変異）

Sarasa Amma（安間更紗）

Description of the soil fungal community structure is expected to contribute to the prediction of nutrient cycling and responses of above-/underground organisms in anthropologic disturbance and climate change. Limited information is, however, currently available on soil microorganisms in seasonal tropical forests of the region, which are strongly influenced by forest fires in the dry season. I elucidated the diversity of soil fungal communities in two major types of seasonal forests in Northeast Thailand: dry evergreen forest (DEF) and dry deciduous forest (DDF; alternatively dry dipterocarp forest or deciduous dipterocarp forest) using the soil samples collected in the rainy season and the dry season. In Chapter 2, the composition and diversity of soil fungi of tropical seasonal forests were examined during the rainy season. DNA metabarcoding was applied using the 454 sequencing platform Roche GS Junior; the relationship between aboveground vegetation and soil biomes was examined. In Chapter 3, the seasonal changes in diversity and floristic composition of soil fungi were elucidated by using the sequencing platform Illumina MiSeq. The soil fungal community variation occurred mostly between forest plots or forest types and little seasonal changes were detected. In Chapter 4, co-occurrence network analysis was applied to the soil fungi community to detect soil fungus groups in the tropical seasonal forest. The OTUs which linked modules in each season were saprotrophic fungi, which universally exist in soil. The results of this thesis are summarized in Chapter 5. My results highlight the significance of soil fungi in forests and demonstrate how soil fungi respond to environmental change; I provide suggestions for the conservation of soil and forest management.