

Soil Nitrogen Characteristics of Native Oak Stands in Korea. (S07-son231210-Poster)

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Abstract:

We investigated soil nitrogen content, nitrogen mineralization and nitrogen availability for native oak stands at Kangwon and Jungbu regions in central Korea. In each region natural oak stands were dominated by two species (*Quercus variabilis* (QV) and *Q. mongolica* (QM)) depending on aspect, light, and soil moisture. There were significant differences in soil nitrogen concentration and content between two stand types, however, no differences between two regions. And annual soil nitrogen mineralization and nitrogen availability were different between two stand types. Annual soil nitrogen mineralization (kg/ha) for the same oak stand was significantly higher at Kangwon (98.7 for QV and 112.5 for QM) than at Jungbu (76.4 for QV and 108.0 for QM). Also annual total resin inorganic nitrogen concentration (mg/bag) was higher at Kangwon (21.8) than at Jungbu (17.5). It appeared that soil nitrogen mineralization and availability were influenced by the changes in vegetation type and microclimate derived from geographical features.

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