Field survey on Mt. Bukhansan, Naejangsan, and Wolchulsan National Parks in Korea

Dr. En-Bi CHOI conducted field surveys at three national parks in Korea. From November 3rd to 7th, 2025, surveys were conducted on trees inhabiting research sites reported as old-growth forests in three national pars based on ecological research (photo 1).

The primary objective of this field survey is to develop tree-ring data for regions in Korea where dendrochronological research has not been conducted, and to clarify the relationship between Korea and Japan through future data comparison, ultimately utilizing the results for paleoclimate reconstruction in East Asia. Research sites in each national park were selected targeting natural forests with reference to ecological survey reports, scientific papers, and historical satellite images.

Bukhansan National Park is located in the northernmost part of Korea's inland national parks, situated north of Seoul. Seoul has historically been a major center of Korea and has served as the capital for a long period, making it the most suitable research site for conducting studies related to Korean and Japanese paleoclimate reconstruction data and historical documents, as documentary records of past climate are relatively abundant. The survey focused intensively on the ridgeline areas and forests extending from temples in Bukhansan National Park. At the sites, investigations centered on pine (*Pinus densiflora*) and oak species (*Quercus* spp.) distributed throughout Korea, and ultimately, increment cores were collected only from pine in the field (photo 2).

Mt. Nejangsan and Wolchulsan national parks are located in the southern part of Korea's in land national parks. And together with Jeju island, they are known as the only places in Korea where Japanese Torreya trees grow naturally. At Wolchulsan, contrary to the literature, the site was confirmed to be Erman's birch (*Betula ermanii*) cluster rather than a Torreya (*Torreya nucifera*) cluster suitable for research. Cypress trees (*Chamaecyparis obtusa*) were also considered as another suitable target, and field examination through increment core collection showed that most trees were approximately 60 years old with excellent growth rates compared to their large diameters. Additionally, based on the uniform spacing pattern of tree distribution, the site was judged to have been artificially planted or thinned and was therefore excluded from the study. At Mt. Nejangsan, tree-ring samples were successfully collected from Torreya tree clusters (photo 3).

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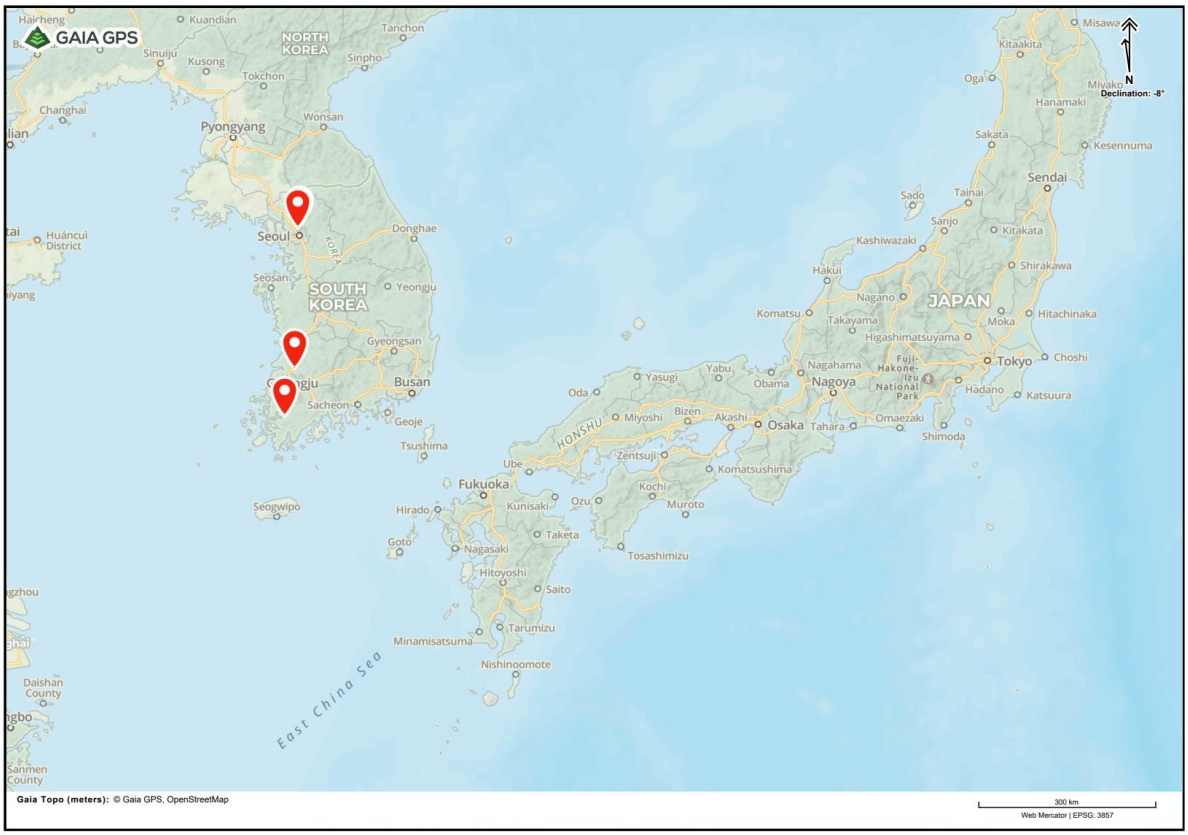

Photo 1. Research site in Korean national parks (top: Mt. Bukhansan, middle: Mt. Naejangsan, bottom: Mt. Wolchulsan).

Photo 2. Overview of the research site in Mt. Bukhansan National Park.

Photo 3. Sampling increment core from Torreya tree in Mt. Naejangsan