

IX. VEGETATION TYPES ON MOUNT AKIKI, NORTHERN LUZON, PHILIPPINES

I.E. BUOT Jr.

Institute of Biological Sciences, College of Arts and Sciences,
University of the Philippines, Los Baños, College, 4031 Laguna, The Philippines
(e-mail: iebj@mudspring.uplb.edu.ph)

INTRODUCTION

Mount Akiki (16° 37' N, 120° 53' E, c. 2760 m alt.) is one of the highest mountain peaks in the Cordillera mountain range, Luzon Island, Philippines. It is situated in the municipality of Benguet, north-east of Baguio City (a world famous tourist city in the region) and is north-west of Mt Pulog, Luzon Island's highest mountain peak and the second in the entire Philippines next to Mt Apo in Mindanao (Schoenig et al., 1975; Buot & Okitsu, 1997a; Buot, 1999). Locally the mountain is known as 'Pulag', internationally as 'Pulog'.

Knowledge about the vegetation types on Mt Akiki (similar to that of many of the Philippine mountains), is quite wanting despite its importance in biodiversity studies, zonation and sustainable forest conservation plans, wise utilisation of forest resources, and bioprospecting possibilities (PAWB-DENR, 1998).

This has to be addressed especially in the mountains of the Cordillera mountain range where the vegetation is quite different from that of the other regions of the archipelago (Buot & Okitsu, 1998).

METHODS

An intensive field survey on Mt Akiki using point centred quarter method (Mueller-Dombois & Ellenberg, 1974) was done along altitudinal gradients from 1600 to 2760 m altitude. Prominent vegetation types with their corresponding sets of species composition were noted.

RESULTS

Preliminary investigations reveal four vegetation types: 1. pine forest (1600–2200 m alt.); 2. mossy forest (2200–2745 m alt.); 3. savanna (2600–2740 m alt.); and 4. dwarf bamboo grassland (2740–2760 m alt.).

1. Pine forest type (1600–2200 m)

The pine forest vegetation is similar to that of Mt Pulog (Merrill & Merritt, 1910; Buot & Okitsu, 1997a, b, 1998), where a pure stand of *Pinus kesiya* Royle ex Gordon on precipitous slopes constitute an extensive zone. No other woody species grow with pine except for some herbs and a few shrubs underneath the pine stands. Anthropogenic activities had been observed in the vicinities of the pine forest vegetation type. Small farms and houses of indigenous peoples are located in this zone.

2. Mossy forest type (2200–2745 m)

This vegetation type boasts of its diverse species with untold potentials. Some prominent genera in this zone are: *Clethra*, *Cyathea*, *Dacrycarpus*, *Decaspermum*, *Dendrobium*, *Drimys*, *Euodia*, *Eurya*, *Hydrangea*, *Lithocarpus*, *Macaranga*, *Medinilla*, *Meliosma*, *Neolitsea*, *Pinus*, *Schefflera*, *Vaccinium*, and *Viburnum*. Visual observations would indicate *Clethra*, *Cyathea*, *Eurya*, *Lithocarpus*, and *Rhododendron* to be dominant.

3. Savanna vegetation type (2600–2740 m)

A typical savanna occupies the whole length from 2600–2740 m altitude. This vegetation type is quite unique in the Cordillera. Scattered woody plants such as *Cyathea*, *Pinus*, and *Rhododendron*, break the otherwise monotonous community of *Cyperus*, *Sinarundinaria* (*Yushania*) *niitakayamensis* (Hayata) Keng f. dwarf bamboo and various fern species.

4. Dwarf bamboo grassland vegetation type (2740–2760 m)

Mt Akiki has dwarf bamboo grassland as well. This paper would disprove all other reports that only Mt Pulog and Mt Halcon have the *Sinarundinaria* dwarf bamboo on its summit. Similar to Mt Pulog and in the alpine and subalpine regions of Taiwan, *Sinarundinaria* is the most dominant of all the grasses. In some patches, at first sight, no other species seem to be present. However, upon closer observation you will discover some small herbaceous dicots and monocots such as *Cyperus* and others. The seeds might survive under the *Sinarundinaria* shade. Some dwarf bamboo species of *Vietnamosasa* form similar savannahs in at least Thailand, Laos, and Vietnam ('pek' savannahs: Dransfield, 2000).

DISCUSSION

The vegetation of Mt Akiki is related to that of Mt Pulog (Buot, 1998, 1999, 2001a, b, c; Buot & Okitsu, 1997a, b, 1998, 1999). The species compositions are almost similar. This is however expected as the two mountains are near to each other.

A striking similarity is the occurrence of the *Sinarundinaria* grassland. Interestingly, the local people call the zone 'pulag' ('bald' in Ibaloi) just like the *Sinarundinaria* plateau on Mt Pulog due to its bald appearance from a distance.

The only difference is the occurrence of a savanna on Mt Akiki which is unique to the mountain and an interesting vegetation type. Its origin is not clear, but at present it seems to persist through fire and other disturbances.

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