

## The Abundance and Distribution of Locally Important Species Along Different Altitude: The Case of Mountain Damota, Wolaita South Ethiopia

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**Abstract :** This study was conducted on the mountain Damota of Wolaita to assess the abundance and spatial distribution of two locally important indigenous medicinal plants on the mountain landscape. A total of 130 plots measuring 20x20m were established along eight systematically laid transect lines. In each plot, the abundance and distribution of *Hagenia abyssinica* (tree) and *Pentas schiperiana* Vatke (shrub) were evaluated. The abundance and distribution of *H. abyssinica* were evaluated by measuring height and DBH for mature trees and counting seedlings and saplings, whereas the *P. schiperiana* Vatke was assessed for its abundance and distribution by counting in each plot. In the entire study plots, a total of 485 *H. abyssinica* and 760 *P. schiperiana* vatake were recorded. It was observed that the distribution of the species increased while the altitude increased and the highest abundance of the species was recorded at an altitude range between 2332 and 2661m.a.s.l. However, at the altitudes below 2320 m.a.s.l., the species distributions and abundance was decreased, indicating either the ecological preference of the species or the extraction of the local community surrounding the mountain influenced the species. On average, only 28 seedlings/ha of *H. abyssinica* and 146/ha of *P. schiperiana* vatke were recorded in the study areas showing the tendency of decline in the abundance and distribution of both species. Finally, we recommend management intervention for the socially important species which are under threat on the mountain landscape.

**Keywords :** indigenous medicinal plants, *H.abyssinic*, *P. schiperiana*, distribution, abundance, socio-economic importance

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