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Research article**A Preliminary Study on Morphological Variations from Wet and Dry Microhabitats of *Hyophila involuta* (Pottiaceae, Bryophyta): A Case Study from Chiang Mai Province, Northern Thailand****Narin Printarakul* and Arunothai Jampeetong***Department of Biology, Faculty of Science, Chiang Mai University, Chiang Mai, 50200, Thailand*

Abstract The morphological variations of a cosmopolitan moss, *Hyophila involuta* (Hook.) A. Jaeger, are reported here using t-test to distinguish 2 distinct forms of ecotypes (humid and arid forms). Three replicates each from 145 collections from 27 places in Doi Inthanon National Park, Doi Suthep-Pui National Park, and Chiang Dao Wildlife Sanctuary, Chiang Mai province, northern Thailand were examined. Eleven gametophytic characters were measured such as stem height, branching, stem diameter, leaf size, leaf blade thickness, size of median and basal laminal cells, length of innermost perichaetial leaf, and length of archegonia. Of these, 10 characters, viz. stem height, leaf size, stem diameter, branching, length of basal laminal cells, length of innermost perichaetial leaf, and length of archegonia were significantly different among populations. Other additional features of the two different ecotypes of *H. involuta* were recorded and discussed including leaf apices, innermost perichaetial leaf apices, marginal teeth, hyaline nodules, and number of cortical and medullary central strand cells.

Keywords: Bryophytes, Chiang Mai, Morphometry, Pottiaceous moss, Wet and dry microhabitats

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