# WHAT IS THE MINIMUM AREA NEEDED TO ESTIMATE THE BIODIVERSITY OF PTERIDOPHYTES IN NATURAL AND MAN-MADE LOWLAND FORESTS IN MALAYSIA AND SINGAPORE?

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**ABSTRACT**

The present studies show that in man-made forests, six 10 m x 10 m quadrats are sufficient to give a good representation of the species diversity, as the comparatively uniform environment can provide a suitable habitat for only a limited number of species. Contrastingly, nine 10 m x 10 m quadrats are still not sufficient to capture the characteristic diversity of pteridophytes in natural forest habitats. This is due to the highly scattered distribution patterns of forest herbs, including the pteridophytes, along different gradients and microhabitats in the forest. In order to estimate the diversity of pteridophytes in natural forests more accurately, a minimal sample size of more than nine 10 m x 10 m quadrats needs to be established.