

八卦山臺地次生林林分結構之研究
Stand Structure of Secondary Forest in Ba-Gua-Shan Tableland

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中文摘要

本研究以八卦山臺地之次生林為材料，採用兩個參數之 Weibull 機率密度函數模擬全林分之直徑分布，並以統計方法之相關及回歸分析，探討 Weibull 機率密度函數參數與林分性態值、環境因子、生態介量間之關係。結果兩個參數之 Weibull 機率密度函數可有效模擬試區內林分之直徑分布，且在環境因子中之坡度與坡向會影響直徑分布情形。就林分而言，地理因子中以坡度 $16^{\circ}\sim 30^{\circ}$ 殆叻直徑皆布較為明顯，坡向以 NE 及 SW 影響直徑分布較為明顯，而林分性態值及生態介量皆與 Weibull 函數參數具顯著相關。另在回歸模式所推導的 Weibull 函數參數值與影響林分結構因子間之關係，在本研究區內可獲得良好的效果。

關鍵字：八卦山臺地; 次生林; Weibull 機率密度函數; 環境因子; 生態介量

Abstract

We studied the natural secondary forest in Ba-Gua-Shan Tableland to investigate its diameter distribution and environmental factors. A model was made by two-parameter Weibull probability density function. The relationships among Weibull function parameter, stand characteristics, environmental factors and ecological parameters were well fitted with correlation and regression analyses. Therefore Weibull function can be applied to model the diameter distribution of the stand in this study site.

Key words : Ba-Gua-Shan tableland; Secondary forest; Weibull probability density function; Environmental factors; Ecological parameters