

行政院農業委員會林務局委託辦理計畫系列(契約編號：1031A026)

雪霸自然保護區植物資源調查(三)

雪山溪流域植相及植群調查

Plant Resources in the Syue-ba Forest Reserve (III)

The flora and vegetation surveys in the Xueshan River basin



執行單位：國立屏東科技大學 森林系

計畫主持人：王志強 副教授

行政院農業委員會林務局東勢林區管理處委託辦理計畫

中華民國一〇五年五月

摘要

本研究針對涵蓋雪山溪流流域之雪山北稜沿線及分屬大安溪事業區之 61、62 林班的雪山-雪山北峰-大霸尖山沿線進行植相及植群調查，並蒐集整理雪霸自然保護區歷年維管束植物資源調查研究成果紀錄，自 2014 年 8 月至目前為止，共計設置及調查了 73 個樣區，其中樣區內之維管束植物物種清單，總計 54 科 113 屬 152 種，其中特有種 92 種，佔樣區內維管束植物之 61%，其中稀有植物 25 種(雪霸自然保護區全區則達 83 種)，依據 IUCN 等級進行整理共計有瀕臨絕滅(EN) 2 種，易受害者(VU)12 種、接近威脅者(NT)8 種、缺乏資料(DD)3 種。47 個木本和 26 個草本植物社會樣區，以矩陣群團分析將其劃分為玉山圓柏林型、玉山杜鵑型、臺灣冷杉林型、臺灣鐵杉林型、華山松林型等 5 個木本植群型與 2 個亞型及細葉山艾-玉山薄雪草型、川上氏忍冬-虎杖型、羊茅-高山白珠樹型、髮草-曲芒髮草型、玉山箭竹-玉山針蘭型、高山芒-臺灣地楊梅型等 6 種草本植群型。降趨對應分析結果顯示木本植物社會組成與海拔高、全天光空域與直射光空域呈顯著正相關。而草本植物社會環境因子亦是如此，並受土壤 pH 值影響。已完成雪山溪流流域植群之調查分析、植物解說手冊編輯及珍貴稀有植物評估列表等工作。本研究並彙整志樂溪及雪山溪在內之雪霸自然保護區全區之維管束植物計達 144 科 468 屬 918 種，其中特有種 292 種，稀有植物計有 42 科 83 種，其中極危(CR)1 種、瀕臨絕滅(EN) 有 5 種、易受害(VU)有 36 種、接近威脅(NT)有 38 種。全區共計區分出 10 個喬木植群型、5 個灌木植群型。

關鍵字：雪霸自然保護區、維管束植物、珍貴稀有植物、雪山溪。

ABSTRACT

This study investigated the flora and vegetation along the north ridge of Mt. Xue and the line of Mt. Xue-North Peak of Mt. Xue-Mt. Dabajian. The range covered the basin of Xueshan River and the Compartment 61 and 62 of Daan Working Circle. The research results over the years of the vascular plant resources in Syuei-ba Forest Reserve were collected and compared as well. From August of 2014 until now, there were 73 plots set and investigated, and 152 species, 113 genera, and 54 families of vascular plants in the plots were recorded. 92 species of them were endemic, accounting for 61% of the vascular plants in the plots. Among the endemic species, 25 species were Rare Plants (totally 83 species of Rare Plants in Syuei-ba Forest Reserve). According to IUCN, they were 2 EN species, 12 VU species, 8 NT species, and 3 DD species. The matrix cluster analysis classified 47 tree vegetation plots and 26 herb vegetation plots into 5 tree vegetation types as *Juniperus squamata* var. *morrisonicola* Type, *Rhododendron pseudochrysanthum* Type, *Abies kawakamii* Type, *Tsuga chinensis* var. *formosana* Type, and *Pinus armandi* Type, and 2 subtypes, and 6 herb vegetaiotn types as *Artemisia morrisonensis-Leontopodium microphyllum* Type, *Lonicera kawakamii-Polygonum cuspidatum* Type, *Festuca ovina-Gaultheria itoana* Type, *Deschampsia cespitosa* var. *festucifolia-Deschampsia flexuosa* Type, *Yushania niitakayamensis-Trichophorum subcapitatum* Type, and *Miscanthus transmorrisonensis-Luzula taiwaniana* Type, respectively. It showed the composition of tree vegetation was significantly positive correlative to altitude, whole light sky space, and direct light sky space based on Detrended Correspondence Analysis. So was the herb vegetation, and it was also correlative to the pH of soil. The investigation and analysis of the vegetation in the basin of Xueshan River, the compilation of the plant narration handbook, and evaluating and listing the Rare and Valuable Plant Species have been completed. After compiled, there were 918 species, 468 genera, and 144 families of vascular plants recorded and 10 tree vegetation types, and 5 shrub vegetation types in the whole Syue-ba Forest Reserve.

Key words: Syue-ba Forest Reserve, vascular plant, Rare and Valuable Plant Species, Xueshan River