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# 關刀溪森林集水區蒸發量推估之探討

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## 摘　要

本研究以關刀溪森林集水區為對象，就長期蒐集之氣象資料進行分析，探討森林集水區蒸發量與各氣象因子之關係。其結果得知，本試區林下由於林冠之遮蔽且因植物蒸散作用旺盛，使得林下相對濕度全年皆維持於 90%以上；林上全年平均相對濕度為 79.3%；林冠上下層間水汽壓差約在3.3 到 7.9mb。本試區林下之年平均氣溫為 16.9℃，林冠上層之年平均氣溫為 17.9℃，林外空地之年平均氣溫為 19.8℃。本試區林下風速由於鄰近山谷而受地形之效應影響，使得林冠層下方風速高於冠層上方之風速。本試區林下日射量為林外日射量之 48.9%。而林內淨輻射變化之趨勢大致與日射之變化趨勢一致。林內下方蒸發量於夏季採用風速推估較為接近。而在冬季則因林內風速變異甚大，蒸發量推值誤差相對較大，但推估值之變化趨勢仍與實測值之變化趨勢一致。

**關鍵詞**：蒸發、相對濕度、氣溫、風速、日射

# Study on the Estimation for Evaporation in Guandaushi Forest Watershed

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## ABSTRACT

The Long-term meteorological data in Guandaushi Forest Watershed were used to analyze the relationships among meteorological factors in this study. And analyzed the influence to evaporation in the forest watershed from the variation of the value among meteorological factors. The study results were that, because of the shelter of canopy and the violent transpiration of vegetation, the average of

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