

<b>Thisis Title</b>	Diversity of Native Vegetation for Conservation Planning in Mae Tuen Forest, Tak Province	
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<b>M.S.</b>	Geography	
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### Abstract

The three objectives of this study "Diversity of Native Vegetation for Conservation Planning in Mae Tuen Forest ,Tak Province are : 1) to study distribution of plant diversity influenced by physical characteristics; 2) to study plant geographical features and forest community structure; and 3) to set up guideline in designating native vegetation preserved area as a habitat conservation zone. In term of plant communities and forest structure, this study has applied quantitative technique by gathering data from field survey. The three selected forest types are Dry Dipterocarp Forest (DDF) at elevation of 400,600 and 800 m. above mean sea level (M.S.L.), Mixed Deciduous Forest (MDF) at 400,600 and 800 m., Dry Evergreen Forest (DEF) at elevation of 700, 900 and 1,100 m. and Hill Evergreen Forest (HEF) at 1,200 , 1,400 and 1,600 m. above M.S.L. Three sampling plots with the size of 20 x 50 m<sup>2</sup> (0.10 ha) are selected for each plant communities.

Analysis of plant communities in these forests are conducted in order to find a relationship between plant species diversity and their ecology parameters such as frequency, density, dominance, importance value index (IVI) and index of species diversity (SWI).

The result shows that, the most important value index (IVI) of DDF plant community at elevation of 400 m. on of are Teng (*Shorea siamensis*) and Rang Khon (*Shorea siamensis* var. *tomentosa*) with values of 161.3670, 34.9744 respectively, with an index of species diversity (SWI) of 2.088. At elevation of 600 m., the IVI are Rang Khon (*shorea siamensis* var. *tomentosa*) and Teng (*Shorea obtusa*) with values of 92.2281,83.8333 respectively, with SWI of 2.320. At elevation of 800 m, the IVI are Rang Khon (*Shorea siamensis* var. *tomentosa*) and Teng (*Shorea obtusa*) with values of 113.9499, 72.8004 respectively and with SWI of 2.220.

The IVI of MDF plant communities at elevation of 400 m. are Sak (*Tectona grandis*), Daeng (*Xylia xylocarpa* var. *kerrii*) with values of 149.0870, 72.6758 respectively, with SWI of 1.939. At 600 m, the IVI are Daeng (*Xylia xylocarpa*) and Sak (*Tectona grandis*) with values of 113.4153, 108.3994

respectively, with SWI of 2.196. At 800 m. the IVI are Sak (*Tectona grandis*) and Rok Fha (*Terminalia alata*) with values of 60.9058, 43.9686 respectively and with SWI of 3.622.

The IVI of DEF plant communities at elevation of 700 m. are Yaang daeng (*Dipterocarpus turbinatus*) and Koh deuy (*Castanopsis acuminatissima*) with values of 130.4616, 38.0829 respectively, with SWI of 3.002. At 900 m., the IVI are Yaang pai (*Dipterocarpus costatus*) and Koh deuy (*Castanopsis acuminatissima*) with values of 152.2977, 28.3399 respectively, with SWI of 2.760. at 1,100 m., the IVI are Yaang daeng (*Dipterocarpus turbinatus*) and Pha sien (*Vitex canescens*) with value of 124.5151, 25.3051 respectively and with SWI of 3.444.

The IVI of HEF plant communities at elevation of 1,200 m. are Khanun pah (*Artocarpus gomezianus*) and Hmee men (*Litsea glutinosa*) with value of 108.9409, 35.3377 respectively, with SWI of 3.552. At 1,400 m., The IVI are Koh rien (*Sloanea sigun*) and Mah khang dong (*Ostodes paniculata*) with value of 94.9355, 28.1600 respectively, with SWI of 3.318. At 1,600 m., are Koh yum (*Castanopsis argyrophylla*) and Koh taa moo (*Castanopsis* sp.) with value of 127.1722, 72.3583 respectively and with SWI of 2.499.

Environmental factors which have influences on native vegetation are topography, climate, soil-geology, and human and other living organisms including their disturbances from agriculture activities and forest fire.