

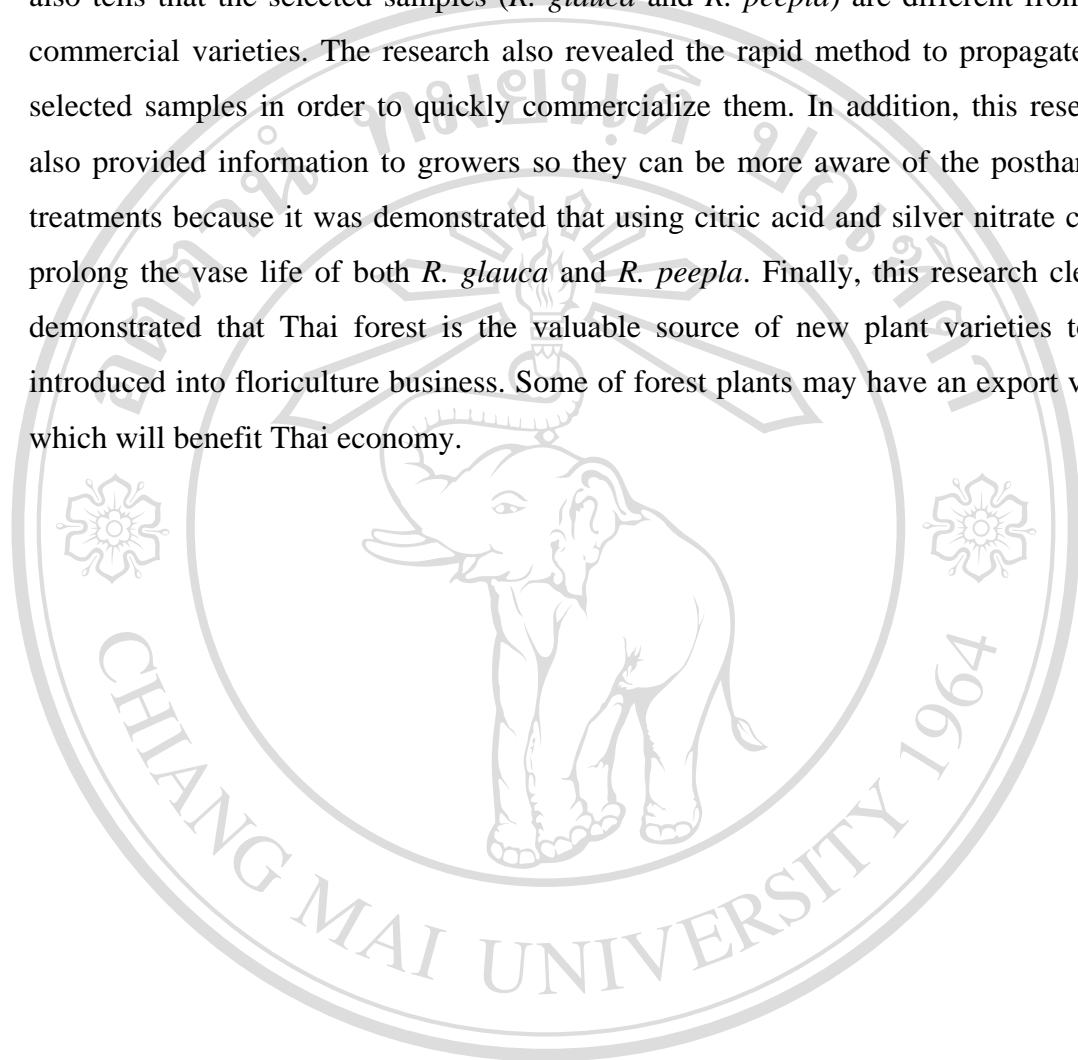
CHAPTER 6

CONCLUSIONS

The collection and taxonomical study of creepers collected from the wild at Khun Wang Royal Project, Chiangmai 1,200 m. MSL showed that twenty three samples survived at Chiangmai University 330 m. MLS. The plant samples were identified by comparing them with the reference samples in the herbarium of the Department of Biology, Faculty of Science, Chiang Mai University. They were classified into 16 families, 21 genus and 24 species i.e. Family Piperaceae, *Piper* sp.; Gesneriaceae, *Aschynanthus jarrettii*; Araceae, *Raphidophora glauca*, *R. peepla* and *Pothos* sp.; Asclepiadaceae, *Hoya* sp. and *Hoya thomsonii*; Menispermaceae, *Parabaena sagittata* and *Anamirta cocculus*; Smilacaceae, *Smilax* sp.; Selaginellaceae, *Selaginella siamensis*; Cucurbitaceae, *Gynostemma pentaphyllum* and *Solena amplexicaulis*; Apocynaceae, *Trachelospermum asiaticum* and *Parsonia grayana*; Campanulaceae, *Pratia nummularia*; Commelinaceae, *Streptolirion linear*; Lomariopsidaceae, *Bolbitis sinensis* and *Elaphoglossum angulatum*; Ericaceae, *Agapetes* sp. The other 3 plant species were Family Agavaceae, *Dracaena angustifolia*; Begoniaceae, *Begonia* sp. and *Begonia cathcartii* and Convallariaceae, *Aspidistra longifolia*. The collected samples were further studied on plant adaptation for one year. The eleven creepers i.e. *Piper* sp., *A. jarrettii*, *R. glauca*, *P. sagittata*, *S. siamensis*, *G. pentaphyllum*, *T. asiaticum*, *H. thomsoni*, *S. amplexicaulis*, *Pothos* sp. and *R. peepla* were studied on the response to temperature and light intensity. It was shown that the number of branching significantly responded to the culturing conditions. Plants grown under greenhouse condition performed better growth than those in the growth room. The research demonstrated that the highland-plant could be introduced to the lowland condition; however temperature and light intensity must be taken into consideration in order to propagate the collected samples by stem cutting. The application of IBA was beneficial at dose rates ranging from 4,000 – 8,000 mg/l.

DNA fingerprint is a useful technique to clarify plants having similar phenotype. It could show whether the plants are genetically identical or not. In this

research this technique was used to tell that RPF-KW7 (*P. sagittata*) and RPF-KW8 (*P. sagittata*) which had different leaf shapes are genetically identical. This technique also tells that the selected samples (*R. glauca* and *R. peepla*) are different from the commercial varieties. The research also revealed the rapid method to propagate the selected samples in order to quickly commercialize them. In addition, this research also provided information to growers so they can be more aware of the postharvest treatments because it was demonstrated that using citric acid and silver nitrate could prolong the vase life of both *R. glauca* and *R. peepla*. Finally, this research clearly demonstrated that Thai forest is the valuable source of new plant varieties to be introduced into floriculture business. Some of forest plants may have an export value which will benefit Thai economy.



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