**Title :** Leaf blade anatomy of some aquatic plants found in Chiang Mai University

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**Type of presentation*** *(choose 1)* **:**

- ☐ **Oral Presentation**
- ☑ **Poster**
- ☐ **Cooperative Education**

## ABSTRACT

This study aims to investigate leaf blade anatomy of 17 species of aquatic plants found in Chiang Mai University, including *Echinodorus cordifolius* (L.) Griseb., *Colocasia esculenta* (L.) Schott, *Lasia spinosa* (L.) Thwaites, *Pistia stratiotes* L., *Canna indica* L., *Cyperus alternifolius* L., *Hydrilla verticillata* (L. f.) Royle, *Thalia geniculata* L., *Eichhornia crassipes* (Mart.) Solms, *Hydrocotyle umbellate* L., *Ipomoea aquatica* Forsk., *Nelumbo nucifera* Gaertn., *Nymphaea capensis* Thunb., *Bacopa caroliniana* (Walter) B.L.Rob., *Marsilea crenata* C.Presl, *Salvinia cucullata* Roxb.ex Bory and *Salvinia molesta* D.S. Mitchell. Leaves were collected, cross-sectioned by hand, and stained with 0.05% Safranin O. After that, leaf internal structure was examined under a compound microscope. The study found that the emerged plants mostly had stomata on both leaf sides and cuticle present. The mesophyll presented air space except *Canna indica, Thalia geniculata, Ipomoea aquatica* and *Bacopa caroliniana.* The leaf thickness was between 0.2–0.4 mm, with *Nelumbo nucifera* having the highest thickness (0.4±0.03 mm). The submerged plants had very thin leaves with a thickness of 0.04±0.001 mm. They lacked stomata and cuticle. The free-floating plants found stomata on both leaf sides, except *Salvinia cucullata* and *Salvinia molesta* were presented only adaxial surface. Unicellular trichome and multicellular trichome were found. The mesophyll presented air space. The leaf thickness was between 0.2–0.4 mm, with *Eichhornia crassipes* having the highest thickness (0.4±0.03 mm). The floating-leaf plants had stomata only on the adaxial surface and cuticle was found. But unicellular trichome presented only on the abaxial surface. The mesophyll presented air space. The leaf thickness was 0.3±0.01 mm.