

Auttaporn Sitwipusiri 2015: Diversity of Stonewort (Family Characeae) in the Central Region of Thailand. Master of Science (Botany), Major Field: Botany, Department of Botany. Thesis Advisor: Nuttha Miss Sanevas, Ph.D. 115 pages.

Diversity of stonewort (Characeae), as well as studies of some ecological characteristics e.g. water quality of stonewort's habitats was carried out in the Central region of Thailand from January 2011 to November 2014. The samples of stonewort and water quality were mainly surveyed and collected from different natural freshwater habitats and paddle fields in Krung Thep Maha Nakhon, Chai nat, Sing buri, Lop Buri, Suphan Buri, Ang Thong, Phra Nakhon Si Ayutthaya, Sara Buri, Nakhon Pathom, Pathum Thani, Nakhon Nayok, Nontaburi, Samut Prakan, Samut Songkhram and Samut Sakhon provinces. Two genera and 21 species of stonewort were recorded: *Chara corallina* C. L. Willdenow, *Chara fibrosa* C. Agardh ex A. Bruzelius, *Chara hydrophytes* H. Reichenbach, *Chara leptosperma* A. Braun, *Chara pseudohydrophytes* K. Imahori, *Chara zeylanica* Willdenow, *Nitella acuminata* A. Braun ex Wallman, *Nitella asagrayana* Schaffn. ex Nordstedt, *Nitella confervacea* (Brennison) A. Braun ex Leonhardi, *Nitella flexilis* (L.) C. Agardh, *Nitella furcata* (Reichenbach) C. F. O. Nordstedt, *Nitella gracilis* (J. E. Smith) C. Agardh, *Nitella lechleri* A. Braun ex H. Horn af Rantzien, *Nitella microcarpa* A. Braun, *Nitella mucronata* (A. Braun) F. Miquel, *Nitella oligospira* A. Braun, *Nitella pseudoflabellata* A. Braun, *Nitella tenuissima* (Desvaux) Kutzing, *Nitella tumida* C. F. O. Nordstedt, *Nitella* sp.1 and *Nitella* sp.2.

The water quality monitoring parameters such as water temperature, pH, dissolved oxygen (DO), conductivity, total dissolved solids (TDS) and salinity (NaCl) of stonewort's habitats were measured and evaluated. Water analysis results in each parameter were showed in the average as it follow; water temperature  $32.32 \pm 2.72$  °C, pH  $6.62 \pm 0.45$ , DO  $4.89 \pm 2.08$  mg/l, conductivity  $329.91 \pm 223.78$   $\mu$ S/cm, TDS  $297.81 \pm 404.45$  ppm and NaCl  $268.68 \pm 565.02$  ppm. As for the substrates, the most of stonewort samples were found on .clay and loam clay.

---

Student's signature

---

Thesis Advisor's signature