FLORAL DIVERSITY AND DISTRIBUTION IN THE MANGROVES AT MATANG, WEST PENINSULAR MALAYSIA, AFTER A CENTURY OF SUSTAINABLE FORESTRY

Goessens Arnaud¹, Behara Satyanarayana¹, Husain Mohd-Lokman² and Farid Dahdouh-Guebas^{1,3}

- Laboratory of Complexity and Dynamics of Tropical Systems, Université Libre de Bruxelles, ULB, CPI 169, Avenue Franklin Roosevelt 50, 1050 Brussels, Belgium E-mail: agoessen@ulb.ac.be; satyam2149@gmail.com; fdahdouh@vub.ac.be
- ² Institute of Oceanography (INOS), University Malaysia Terengganu, 21030 Kuala Terengganu, Malaysia

E-mail: mlokmn@umt.edu.mv

Laboratory of Plant Biology and Nature Management, Vrije Universiteit Brussel, VUB, Pleinlaan 2, 1050 Brussels, Belgium

E-mail: fdahdouh@vub.ac.be

Mangroves are important in protecting shorelines against tidal waves and erosion, and also support a range of wildlife species. In Malaysia, the mangroves occupy 564,606ha, with a nearly 16% (91,779ha) distributed along the west coast of peninsular Malaysia. Mangroves are more prevalent here due to the sheltered environment, in comparison to the east coast (mangrove extent = 5,738ha), which is entirely exposed to the South China Sea. Although Malaysia possesses the second largest mangrove cover (about 11.7%) in Southeast Asia (FAO, 2007), the scientific literature on these mangrove forests remain scanty. While Matang mangrove forest on the west coast has been under a concerted scientific management since the beginning of 20th century (Shamsudin and Nasir, 2005), the efforts to evaluate its floral diversity and distribution through the ground inventory techniques like PCQM (cf. Cintron and Schaeffer Novelli, 1984; Dahdouh-Guebas and Koedam, 2006) are almost nil. This present investigation brings out valuable information on this aspect in a well-managed and ecologically important location on the west coast of Peninsular Malaysia. The aim of this poster is to report the ongoing research, which is expected to lead to conclusions on the state of mangrove forest evolution.

References

- Cintron G. and Y. Schaeffer-Novelli. 1984. Methods for studying mangrove structure. p.91-113. *In*: Snedaker, S.C. and Snedaker, J.G. (Eds). The mangrove ecosystem: research methods. UNESCO, Paris, France.
- Dahdouh-Guebas F. and N. Koedam. 2006. Empirical estimate of the reliability of the use of the Point-Centred Quarter Method (PCQM): Solutions to ambiguous field situations and description of the PCQM+ protocol. Forest Ecology and Management 228:1-18.
- FAO, 2007. Mangrove guidebook for Southeast Asia (RAP/2006/07) (Dharmasarn Co., Ltd., Bangkok, Thailand).
- Shamsudin I. and M.H. Nasir. 2005. Future research and development of mangroves in Malaysia. p.153-161. *In*: Shaharuddin M.I., A. Muda, R. Ujang, A.B. Kamaruzaman, K.L. Lim, S. Rosli, J.M. Som and A. Latiff (Eds). Sustainable management of Matang mangroves: 100 years and beyond. Forestry Biodiversity Series. Forestry Department Peninsular Malaysia, Kuala Lumpur, Malaysia.