



## Group A01 – ABS FUND

### Tropical modern pollen collection as a tool to interpret the quarternary fossil pollen records in Sumatra, Indonesia

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Collections of modern pollen samples represent the basic research tool of any palynological research. Without proper surveys of the modern pollen assemblage of the area under study, the analysis is often if not always incomplete. Despite that, currently, Indonesia lack such a collection. Only a small pollen collection of about 200 pollen and spore taxa is found at the Herbarium Bogoriense (Bogor, Java) while the rest of Indonesia, including UNJA, have never had the opportunity to create a modern reference collection for pollen and spores. The reason behind that, is mostly related to the fact that Indonesian universities lack the necessary facilities and equipment needed to implement pollen analysis. In Jambi, following the collaboration established between the Department of Palynology and Climate Dynamics in Goettingen and UNJA (EFForTS-A01), this is no longer a problem. Since the end of 2013 a new fully equipped laboratory for pollen analysis is ready to be used. As a consequence palaeoecological and palynological studies very rarely include detailed analysis on pollen rain in the area under study. The present proposal will make such indispensable information available for the province of Jambi, and will be the first complete pollen rain-vegetation study in Indonesia. An important step forward, in the advancement of palynological analysis in Sumatra and Indonesia. Objectives of this research are to (1) Develop a pollen and spore collection at UNJA and (2) Carry on vegetation analysis and set new pollen-spore traps in defined locations related to the A01 subproject (Jambi province). The project area span through the whole Jambi province, from mountainous regions to the coastal peat forests via inland lowland rainforests. The targets are locations where natural vegetation is mostly preserved and protected. The selected locations are Taman Nasional Kerinci Seblat (TNKS), Taman Nasional Berbak (TNB) and Peatland Conservation areas Sungai Buluh. Methods used by Vegetation survey, Flower collection, Pollen traps and analysed by Pollen analysis method. Research still be continued during flower blooming during December 2014 untill June 2015 to collect the flowers and pollen traps. As temporal results of this research are some modern pollen and spore collection still analysed and waiting flower blooming and the pollen trap collection next year. Some collected cores from study site are analysed. Mountainous areas dominated by family Dipterocarpaceae (*Shorea Spp*, *S. teysmanniana* dan *S. pinanga*, *Dipterocarpus appendiculatus*, *Anisoptera* spp., *Hopea* spp., and Family Sapotaceae (*Castanopsis buruana*, *Ixonanthes petiolaris*, *Calophyllum inophyllum*, *Mangifera minor*, *Santiria laevigata*, *Diospyros macrophylla* dan *Alseodaphne umbeliflora*. Low land area dominated by family Apocynaceae (*Dyera polyphylla*), Anacardiaceae (*Gluta renghas* L.), Sapotaceae (*Palaquium obovatum*), Arecaceae (*Calamus javensis* Blume) and Pandanaceae (*Pandanus spp*), Ebenaceae (*Diospyros glaberrima* Koenig).

Key Words : *Pollen Modern*, *Diptrocarpaceae*, *Sapotaceae*, *Arecaceae*, *Pandanaceae* *Ebenaceae*, Jambi Mountainous and Low Land Areas.