

PALYNOLOGICAL STUDY OF LATE PLEISTOCENE DEPOSITS AT PANTAI REMIS, PERAK

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Palynological analyses were carried out on 15 peat and clayey samples from a coastal tin mine exposure at Pantai Remis in the west coast of Perak. 131 palynomorphs were differentiated. The pollen and spore assemblages indicate two distinct vegetation development in the profile. An earlier development is distinguished by three palynological zonations while in the later phase two successive vegetation change is shown.

The profile starts on a predominantly *Pandanus* swamp forest which shows a rather abrupt change to a mixed swamp community, mainly colonised by *Camptosperma* and lesser *Calophyllum*, and subsequently to a limited open swamp condition with increased fern spore representation. Proximity to the coast is indicated throughout the vegetation development. The sequence is interpreted to have developed during the period of high sea level, at least at 13.5 m below present MSL. The corresponding dates indicate that the deposits had accumulated earlier than 65000 years BP. The overlying palynomorph barren horizon, mainly made up of gravelly sand layers, is interpreted as terrestrially deposited by fluvial processes during period of low sea level, earlier than 55800 years BP. The top-most clayey peat layer discloses mangrove initiated vegetation characterised by abundant *Rhizophora* pollen which was consequently replaced by coastal forest with predominance of *Casuarina equisetifolia*. The sequence indicate accumulation after marine transgression, during periods of high sea stand. The sea level maxima lasted about 2000 years from 55810±1140 to 53870±1450 years BP and is measured at 4.3 m below present MSL. Further low sea stand, correspondingly deposited the overlying deposits dated at 37700±1800 and 28900±3000 years BP. Finally, a disconformity separates the lower truncated and eroded horizon from the overlying very recent deposits.

The high sea levels recorded in the area form the equivalents of the early Wisconsin/Weichselian/Devensian interstadials of the northern hemisphere. An interstadial of about 2000 years is denoted by the younger peat layer while a longer duration is reflected from the underlying older and thicker sequence.
