



The Miocene *Cyprideis* species flock (Ostracoda; Crustacea) of western Amazonia (Solimões Formation)

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The Miocene mega-wetland of western Amazonia holds a diverse, largely endemic aquatic invertebrate fauna (e.g., molluscs, ostracods). Among ostracods, the genus *Cyprideis* experienced a remarkable radiation. Micropalaeontologic investigations of a 400-m-long sediment core (~62 km SW Benjamin Constant, Amazonia, Brazil) permitted a taxonomic revision of about two-thirds of hitherto described *Cyprideis* species. Ostracod index species enabled a biostratigraphic allocation of the well succession to the *Cyprideis minipunctata* to *Cyprideis cyrtoma* biozones (late middle to early late Miocene age). The current study underlines once more *Cyprideis*' remarkable capability to produce species flocks and western Amazonian *Cyprideis* comply with the criteria of a species flock: i) endemism: up to now not a single species is recorded in adjacent areas; ii) monophyly: although hardly verifiable to date and probably Amazonian *Cyprideis* is not monophyletic s.str., several closely related, quite rapidly evolving species are proved; iii) speciosity: due to the present study, 30 formally described species exist; several further species, left in open nomenclature, are recorded in the literature, which strongly hints to a much higher, still unrecorded species richness; iv) ecological diversity: based on rare sedimentologic cross-references, ecological diversity within a highly structured wetland is possible; the current results demonstrate the sympatric occurrence of up to 12 *Cyprideis* species, which may indicate adaptations to different microhabitats; v) habitat dominance: regularly *Cyprideis* holds more than >90 % in western Amazonian ostracod assemblages during the early and middle Miocene. Explanations for this extreme habitat monopolisation are still arguable and touch the highly disputed question about the nature of western Amazonia's environments during the Miocene. It seems, however, evident that a strictly actualistic approach to endemic Neogene Amazonian biota is highly problematic. This study was funded by Austrian Science Fund (FWF project P21748-N21).