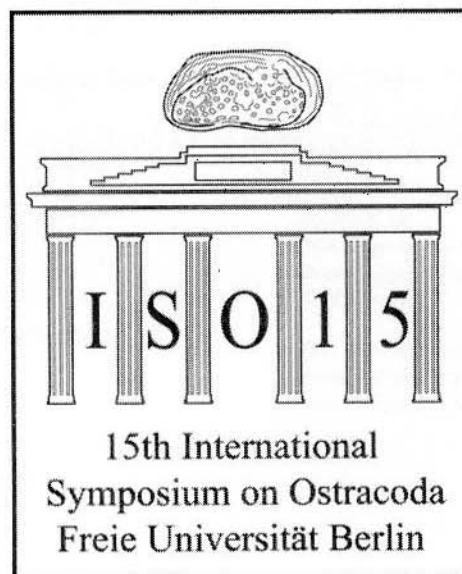


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**In Memory of
Friedrich-Franz Helmdach (1935-1994)**

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Martens, K. 1992. Taxonomic revision of African Cypridini. Part II. Description of *Ramotha* gen. nov. - Annals of the south African Museum **102** (2): 91-130.

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HISTORICAL BIOGEOGRAPHY OF RECENT CENTRAL EUROPEAN FRESHWATER OSTRACODS

Radovan Pipík¹ and Anne-Marie Bodergat²

- 1 Geological Institute, Slovak Academy of Sciences, Severná 5, SK-974 01 Banská Bystrica, Slovakia
- 2 Université Claude Bernard Lyon I, UMR 5125: Paléoenvironnements et Paléobiosphère, bât. Géode, 2 rue Raphaël Dubois, F-69622 Villeurbanne Cedex, France

Actual freshwater ostracod fauna of Central Europe comprises 158 species (Meisch 2000) which of 32 (20%) is identified in pre-Quaternary basins situated mostly in area of the Alpine-Carpathian orogenic belt. Besides of oligotitanophilic and rheophobic species, all ecological groups from the view of temperature, calcium content, salinity and water velocity are present. The holarctic and fully sexual taxons prevail. On the base of actual data the evolution of recent nonmarine ostracods starts since Early/Middle Miocene, but most of the species should evolve in Quaternary, in period with significant fluctuations of ecological conditions (Tab. 1).

First stratigraphical and geographical occurrence of recent species in pre-Quaternary deposits:

OLIGOCENE

Darwinula stevensoni (Brady and Robertson 1870) - Middle Oligocene (Meisch 2000); known from most of freshwater deposits. *Ilyocypris bradyi* Sars 1890 - reported from Melanienton (Early Oligocene) of Germany (Carbonnel and Ritzkowski 1969), Early Miocene of Turkey (Tunoglu and Celik 1995); frequently from different Late Miocene sequences but without details of ripple marks in PV margin significant for species determination. Pliocene of USA and ex-USSR (Meisch 2000).

EARLY MIOCENE

Candonopsis kingsleii (Brady and Robertson 1870) - firstly mentioned from Early Miocene of Mainz Basin (Germany) by Lienenklaus (1905) and later described and drawn by Lutz (1965) from the same basin. Certainly known since Middle Miocene (Janz 1997). *Cyclocypris ovum* (Jurine 1820) - Carpathian of Southern German Molasse Basin (Witt 2000). *Ilyocypris gibba* (Ramdohr 1808) - Ottnangian of Southern German Molasse Basin (Witt 2000). *Potamocypris zschokkei* (Kaufmann 1900) - Aquitanian of the Lower Freshwater Molasse of Switzerland (Carbonnel and Ritzkowski 1969). *Cyprina ophthalmica* (Jurine 1820) - described from Lower and Upper Freshwater Molasse and Brackish Molasse of Germany (Early to Late Miocene) (Straub 1952) but younger works (Witt 2000) don't indicate its presence. Certainly known since Late Miocene of Vienna Basin (Slovakia) (Pipík et al. 2004).

MIDDLE MIOCENE

Paracandona euplectella (Robertson 1889), *Fabaeformiscandona fabaeformis* (Fischer 1851), *F. balatonica* (Daday 1894), *Notodromas monacha* (O.F. Müller 1776), *Cavernocypris subterranea* (Wolf 1920), *Potamocypris arcuata* (Sars 1903) - all Middle Miocene findings come from Steinheim Basin (Janz 1997).

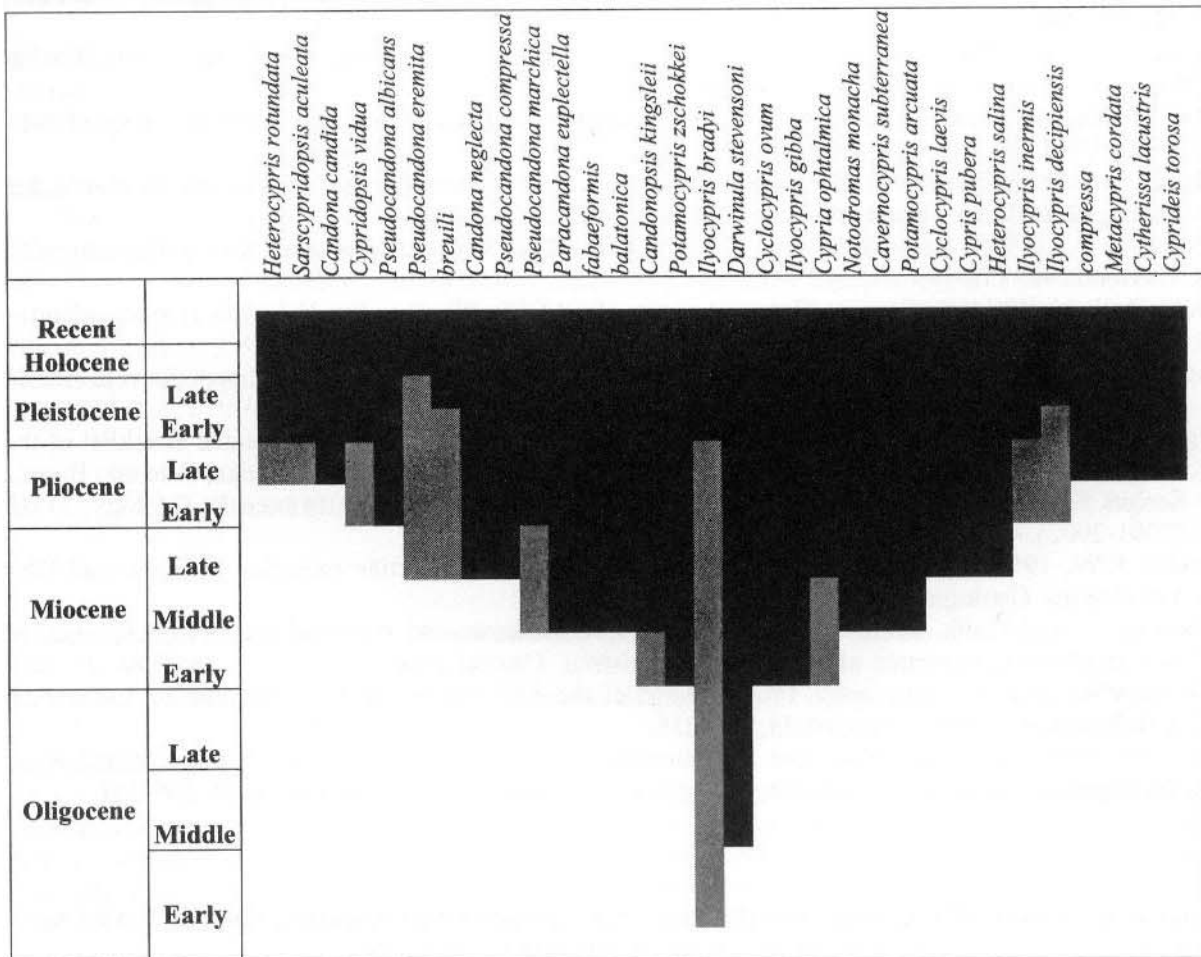
LATE MIOCENE

Candona neglecta (Sars 1887) - Rhône Basin (France) (Carbonnel 1969); Turiec Basin (Slovakia) (Pipík 2001) *Fabaeformiscandona* aff. *breuili* (Paris 1920) - Turiec Basin (Slovakia). Undoubtedly known since Late Pleistocene of Germany (Diebel and Pietrzeniuk 1984). *Pseudocandona* aff. *eremita* (Vejdovsky 1820) - Turiec Basin (Slovakia); *Candona* (*Typhlocypris*) ex gr. *eremita* comes from Pliocene of Serbia (Krstić 1995; juvenils of *C. (T.) eremita* are described from Pliocene of Turkey (Freels 1980). Certainly known since Holocene (Meisch 2000). *Pseudocandona compressa* (Koch 1838) - Upper Freshwater Molasse of Switzerland (Carbonnel et al. 1985); Turiec Basin (Slovakia). *Cyclocypris laevis* (O.F. Müller 1776) - Pannonian (Vienna Basin), Turiec Basin (both Slovakia).

Cypris pubera (O.F. Müller 1776) - Turkey (Freels 1980). *Heterocypris salina* (Brady 1868) - Rhône Basin (France) (Carbonnel 1969); Turkey (Freels 1980), Turiec Basin (Slovakia).

PLIOCENE

Candona candida (O.F. Müller 1776) - Late Pliocene of ex-USSR (Mandelshtam and Schneider 1963). *Pseudocandona marchica* (Hartwig 1899) - Rhône Basin (France) (Carbonnel 1969); possibly Middle Miocene of Steinheim Basin (Germany) (Janz 1997) and Late Miocene of Turkey (Freels 1980). *Pseudocandona albicans* (Brady 1864) - Early Pliocene of Dacic Basin (Roumanie) (Danielopol et al., 1990). *Ilyocypris* gr. *decipiensis* Masi 1905 - Pannonian Basin of ex-Yugoslavie (Krstić 1988). *Ilyocypris inermis* Kaufmann 1900 - Greece (Lüttig 1968). *Heterocypris rotundata* (Bronshstein 1928) - Plio-Pleistocene of Greece (Mostafawi 1988). *Cypridopsis* aff. *vidua* (O.F. Müller 1776) - Pannonian Basin of ex-Yugoslavie (Krstić 1988). Certainly known since Early Pleistocene (Meisch 2000). *Sarscypridopsis aculeata* (Costa 1847) - Plio-Pleistocene deposits of Greece (Mostafawi 1988). *Paralimnocythere compressa* (Brady and Norman 1889) - Late Pliocene of Greece (Mostafawi 1994). *Metacypris cordata* Brady and Robertson 1870 - Late Pliocene of Greece (Mostafawi 1994). *Cytherissa lacustris* (Sars 1863) - Late Pliocene of Euxinian Basin (Caspian Sea), (Danielopol et al. 1990). *Cyprideis torosa* (Jones 1850) - Late Pliocene of Greece (Mostafawi 1994).



Tab. 1: Stratigraphical distribution of actual freshwater ostracod fauna of Central Europe in pre-Quaternary deposits. **Black:** certain occurrence - **Grey:** uncertain occurrence.

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OLIGOCENE OSTRACODS FROM THE SOUTHERN UPPER RHINEGRABEN AREA: PALEOECOLOGICAL IMPLICATIONS

Claudius Pirkenseer and Jean-Pierre Berger

Dept. Geosciences-Geology, University of Fribourg, CH-1700 Fribourg

Keywords: Southern Upper Rhinegraben, Paleogene, "Série Grise", Ostracod Assemblages

About 200 samples from the two boreholes Allschwil 2 (Southeast of Basel) and DP202 (North of Mulhouse) were investigated on microfossils. There are three zones particularly rich in foraminifers and/or ostracods: