

QUARTERNARY OSTRACODA OF EASTERN GERMANY

Silvia Kolomaznik & Peter Frenzel

Institute of Geosciences, Friedrich Schiller University, Burgweg 11, 07749 Jena, Germany

INTRODUCTION

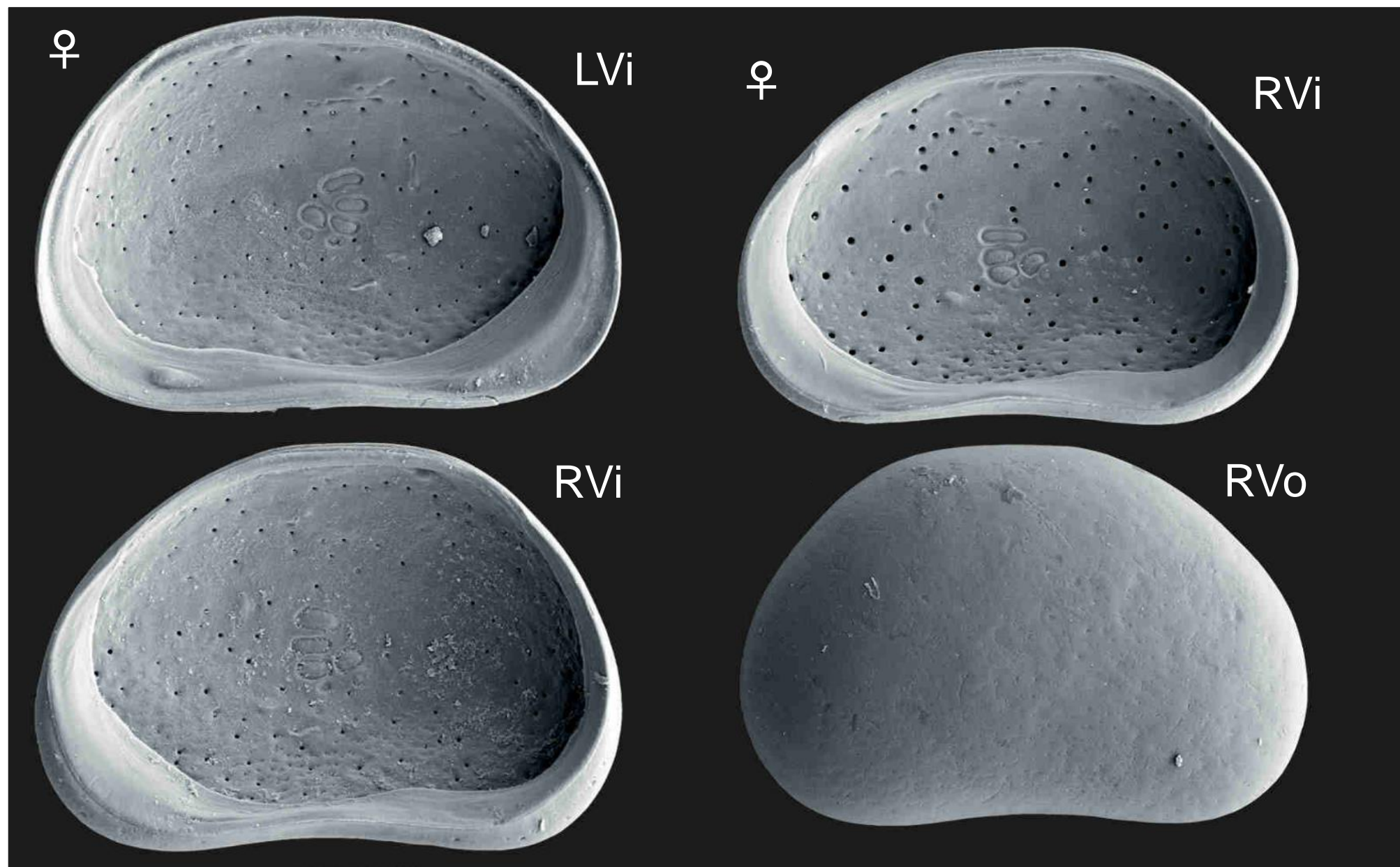
We just started a new research project funded by the German Research Foundation for compiling data of Quaternary Ostracoda in eastern Germany. Our goal is to document palaeobiogeographical and biostratigraphical distribution patterns as well as palaeo-ecological analyses including the MOTR method created by Horne (2007).

RESULTS

This compilation of ostracoda shows the recent and quaternary fauna known in the central and north-eastern parts of Germany. It comprises a total of 251 species. About 2/3 of these (158 species) can still be found today. For the remaining third no recent finds are in the study area known in the literature. According to Fuhrmann (2013), 8 species are probably extinct.

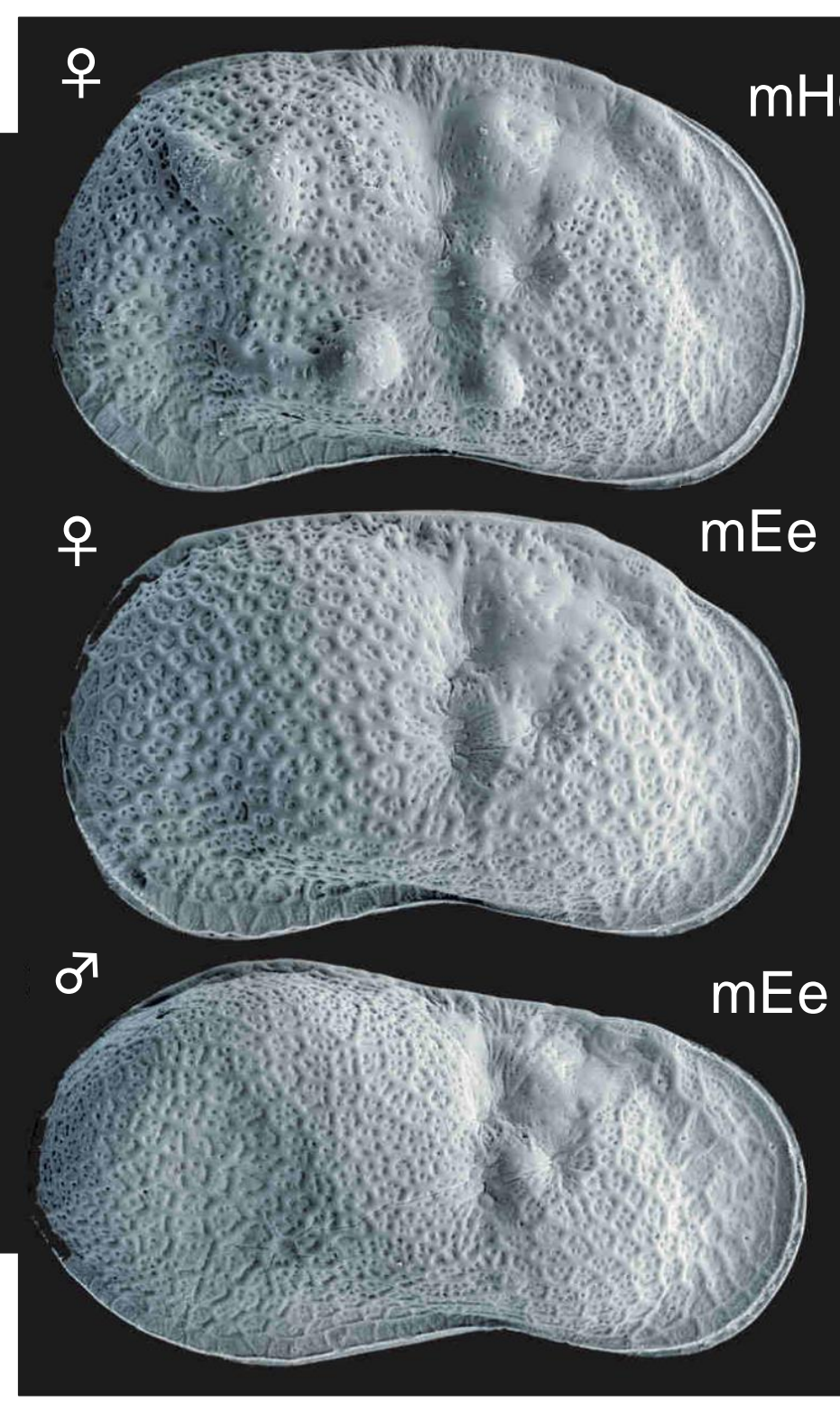
19 of the 251 species live in or tolerate the marine environment (see Table 1). A further 232 species live in fresh or brackish water (see Table 2).

INDICATOR SPECIES

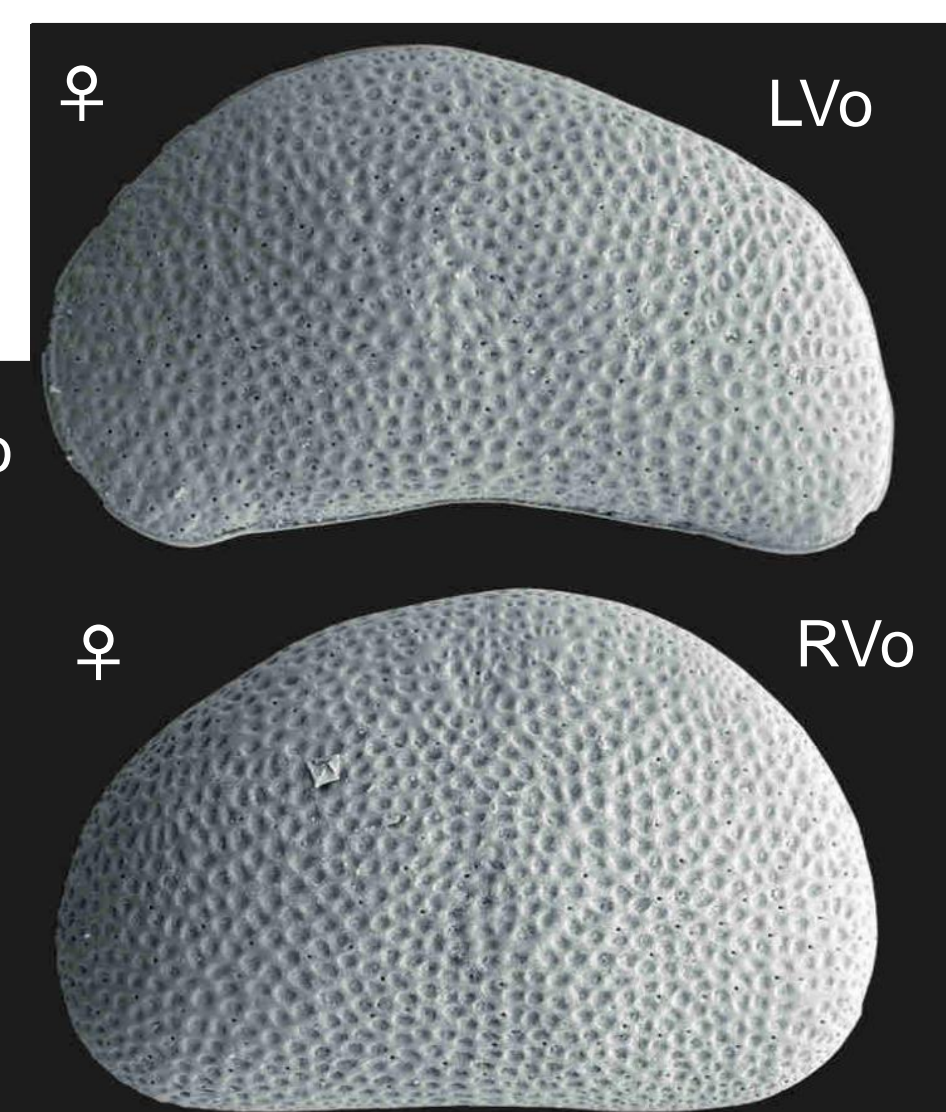


Scottia browniana: presumably extinct, indicator species of the older Middle and Early Pleistocene, LVi 0.88, RVi 0.83

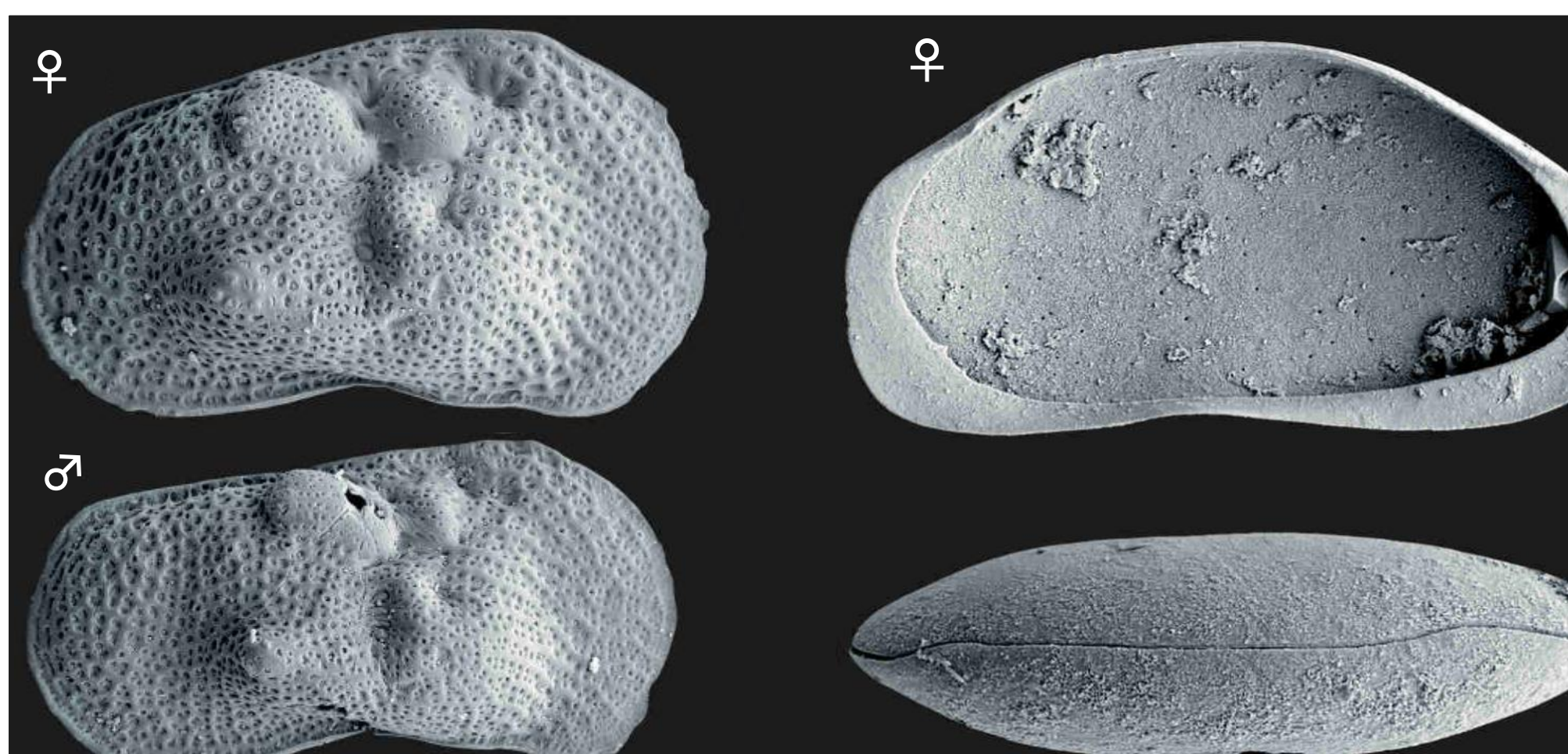
Scottia tumida: presumably extinct, indicator species of the older Middle and Early Pleistocene, RVi 0.69, RVo 0.71



Limnocythere inopinata: only knotted in Holocene, RVo mHo ♀0.61, mEe ♀0.63 ♂0.71

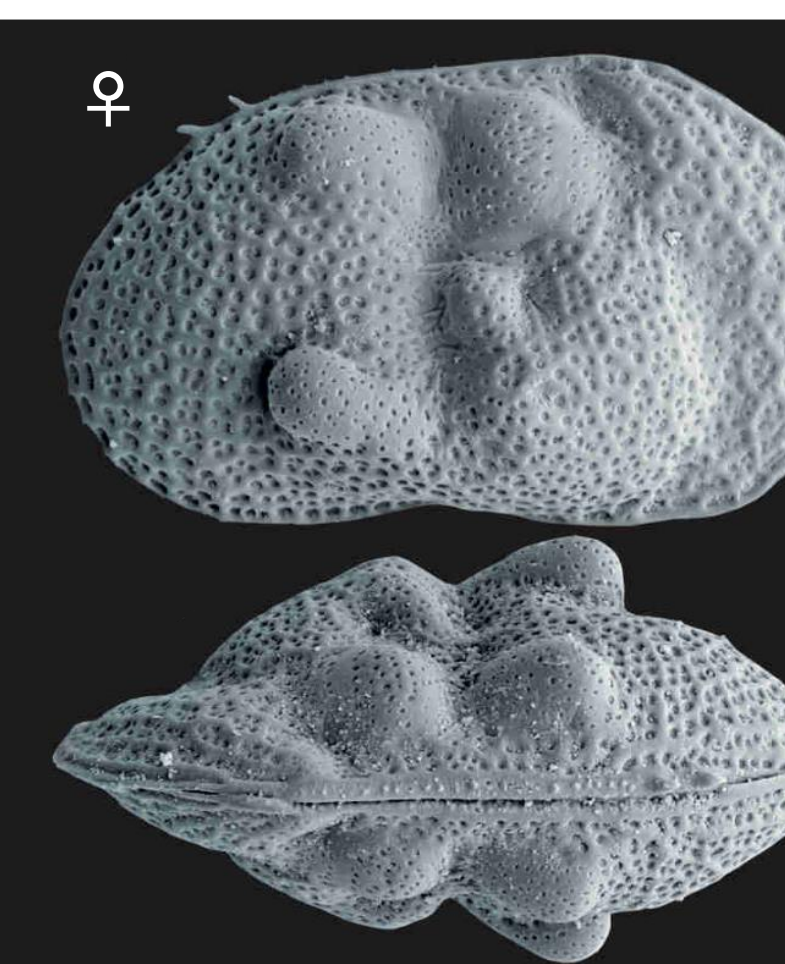


Potamocypris similis: characteristic of Eemian and Grabschütz interstadial lake deposits, LVo 0.58, RVo 0.53

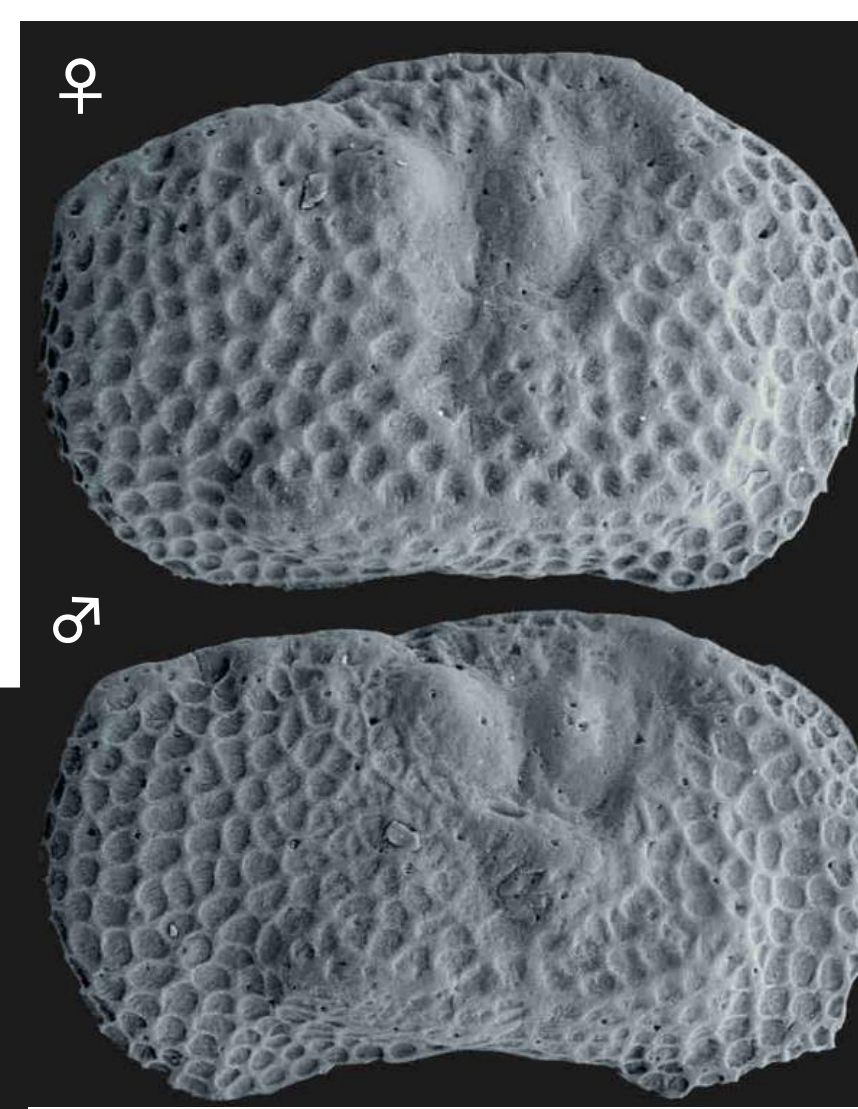


Paralimnocythere bicornis: presumably extinct, indicator species older Middle Pleistocene, RVo ♀0.55 ♂0.53

Fabaeformiscandona vimariensis: presumably extinct, indicator species Eemian, RVo 0.81

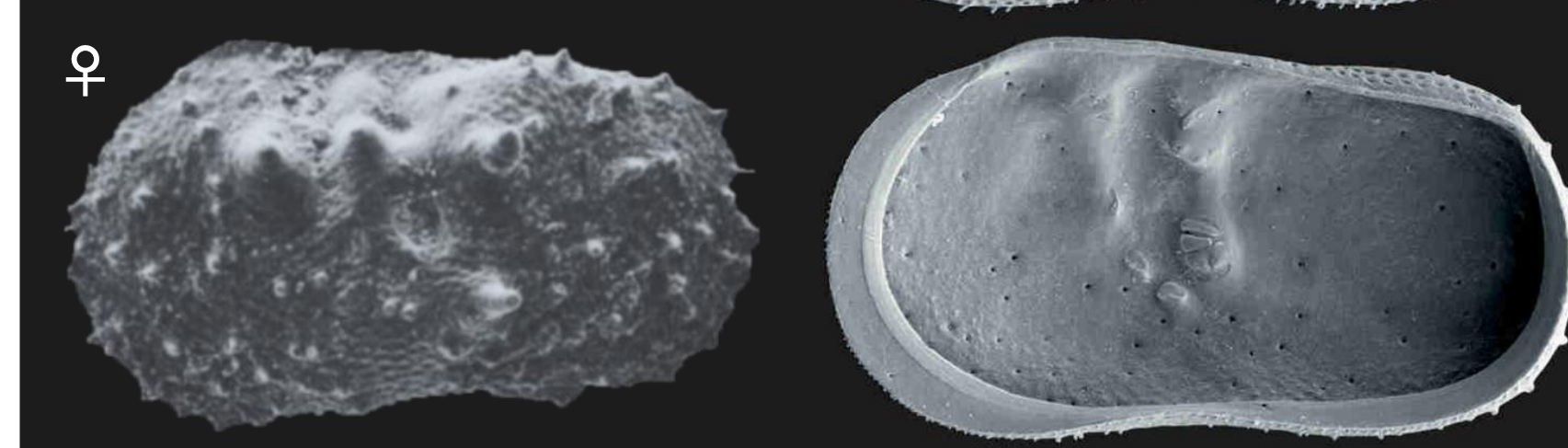


Limnocythere stationis: presumably extinct, indicator species Eemian, RVo 0.38



Limnocythere cf. dorsotuberculata: presumably extinct, indicator species Cromer-Komplex, RVo ♀0.57 ♂0.60

| Species | marine | brackish / fresh water | Recent | Holocene | Weichselian | Eemian | Saalian | Stadial | Stadial | Stadial | Stadial | Stadial | Stadial | Stadial | Reference |
|---------------------------------------|--------|------------------------|--------|----------|-------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| <i>Acanthocythereis dunelmensis</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Acanthocythereis harrida</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cypridites torosa</i> | x | x | x | x | x | x | x | x | x | x | x | x | x | x | Fuhrmann (2013), Frenzel & Viehberg (2004) |
| <i>Cytheropteron cf. inornatum</i> | x | | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytheropteron pseudomacrosense</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytheropteron testudo</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Elfofonia cencinna</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Eucythere argus</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Neocythereis crenulata</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Palmocochia guttata</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Paracypridites fenica</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Pterocythereis jonesi</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Roboreomyces tuberculatus</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Roundostoma glaberrima</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Sarsocythereis boadi</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Sarsocythereis punctilata</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Semicythereis cf. concentrica</i> | x | | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Vestalenella nitida</i> | x | x | x | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Yocypris salteriana</i> | x | x | | | | | | | | | | | | | Griffiths (1995), WoRMS (2024) |



Ilyocypris quinculminata: presumably extinct, indicator species older Middle and ?Early Pleistocene, LVo x60; Lister, McGlade & Stuart 1990

Ilyocypris absentiva: indicator of continental climate phases in the Holocene, RVo 0.97

Table 1: List of ostracoda that live in marine and brackish-marine environments.

Table 2: List of the brackish and freshwater ostracoda of central and north-eastern Germany.

| Species | Recent | Holocene | Weichselian | Eemian | Wurme | Grabschütz | Saalian | Stadial | Stadial | Stadial | Stadial | Stadial | Stadial | Reference |
|--------------------------------------|--------|----------|-------------|--------|-------|------------|---------|---------|---------|---------|---------|---------|---------|--|
| <i>Bradleystrandia affinis</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Bradleystrandia fuscata</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Frenzel & Viehberg (2004) |
| <i>Bradleystrandia harrida</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Bradleystrandia reticulata</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona alloides</i> | x | x | x | x | x | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Candona angulata</i> | x | x | x | x | x | x | x | x | x | | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona cardata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona improbia</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona lindneri</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona muelleri</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona nathropshila</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Candona neglecta</i> | x | x | x | x | x | x | x | x | x | x | | | | Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona vernalis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013) |
| <i>Candona wellneri</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candona wellneri obtusa</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candongopsis kingi</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Candongopsis scoufieri</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013) |
| <i>Caveroscypris subterranea</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cryptocandona reducta</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cryptocandona vavrii</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyclocypris detrusca</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cyclocypris diebeli</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris fastigata</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cyclocypris globosa</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyclocypris helocensensis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris humilis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris impressopunctata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris labialis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris laevis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyclocypris leuckendorfsensis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013) |
| <i>Cyclocypris meischi</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cyclocypris neumarkensis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris obunca</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris ovades</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cyclocypris ovum</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyclocypris pygmaea</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyclocypris serena</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyclocypris taubacherensis</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cyprina eissamari</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyprina excruciat</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cyprina ophthalmica</i> | x | x | x | x | x | x | x | x | x | x | | | | Frenzel & Viehberg (2004) |
| <i>Cyprina subaenea</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cypridopsis abaloni</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cypridopsis concolor</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cypridopsis elongata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013) |
| <i>Cypridopsis groebenensis</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cypridopsis hartwigii</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cypridopsis lusitana</i> | x | | | | | | | | | | | | | Fuhrmann (2013) |
| <i>Cypridopsis parva</i> | x | | | | | | | | | | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cypridopsis vidua</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cypris pubera</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cypris triscutata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cypris marginata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Cythere lutea</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytherea lacustris</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Griffiths (1995) |
| <i>Cytherea arenicola</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytherea fischeri</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytheromorpha fuscata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004) |
| <i>Cytheropteron latissimum</i> | x | x | x | x | x | x | x | x | x | x | | | | Frenzel & Viehberg (2004) |
| <i>Cytherura atra</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytherura fulva</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Cytherura gibba</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Darwinula stevensoni</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Dolerocypris fasciata</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Eufonia baltea</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Eufonia pusilla</i> | x | | | | | | | | | | | | | Frenzel & Viehberg (2004) |
| <i>Eucypris crassa</i> | x | x | x | x | x | x | x | x | x | x | | | | Fuhrmann (2013), Frenzel & Viehberg (2004), Griffiths (1995) |
| <i>Eucy</i> | | | | | | | | | | | | | | |