

(Übersalzung, Sauerstoffmangel), kommen sie als Lebensraum nicht in Frage. Das Tier kann über die Riffschwelle in die Lagune eingeschwemmt worden sein, oder es gelangte von einem der belebten, in die sauerstoffreiche Oberflächennzone reichenden Schwammriffe an seinen Einbettungsort. Ein möglicher Lebensraum können auch die zwischen den Schwammriffen vorkommenden oberflächennahen Weichböden gewesen sein.

#### 4. Systematic description

Superclass: Crustacea  
Class: Malacostraca  
Order: Isopoda  
Suborder: Sphaeromatidea

##### *Schweglerella* gen.nov.

**Etymology:** The name is derived from the surname of the finder, Mr. HORST SCHWEGLER, Übermatzhofen.

**Diagnosis:** Body elongate oval, dorsoventrally flattened; Cephalothorax with large dorsolateral oval eyes. Pereonites 1-7 free, large coxal plates, increasing caudally directed; all coxal plates markedly indicated by dorsal sutures. Pleon caudally broadened; pleonites 1 and 2 free, 3 and 4 only medially fused, 4 and 5 medially and laterally fused. Pleotelson subtrapezoid; uropods biramous, inserting anterolaterally; sympodite not fused with rami, endopodite twice as long as exopodite, laterally reaching caudal margin of pleotelson.

**Type species:** *Schweglerella strobli* sp.nov.

**Holotype:** Bürgermeister-Müller-Museum Solnhofen, D-91807 Solnhofen; on permanent loan by H.SCHWEGLER, Übermatzhofen (BMMS No.1984/01) and G.STROBL, Solnhofen (BMMS No. 1984/02).

**Type Locality:** Langenaltheim, Solnhofen Plattenkalk, Bavaria/Germany.

**Stratum:** Lower Tithonian (Malm  $\zeta$  2a).

**Etymology:** The species is named after Mr. GÜNTER STROBL, Solnhofen, the specimen of whom drew the author's attention to the uniqueness of the find, and without his help the location of the counter slab would have been impossible.

**Description:** **Body** dorsoventrally flattened with oval outline; length:width ratio = 1,289. Outline mainly formed by lateral margins of coxal plates, uropods and pleotelson (Fig. 1 and 2A). Dorsal surface rather smooth, without bristles or spines, except for microsculpturation on coxal plates consisting of irregular very flat scale like elevations, similar to the surface of leather, and another on the frontal part of the head and especially on the pleotelson formed by flat tubercles (Plate 2: Fig. 4 and 6). **Cephalothorax** subtrapezoid (or triangular, if taking in consideration the small median parts (Plate 1: Fig. 2) protruding between antennal peduncles, which may belong to a rostrumlike protrusion as in *Maricoccus brucei* POORE, 1994, or to a labrum); anterolateral areas too poorly preserved for description; small irregular, sculpturations probably caused by underlying mouthparts. Large oval **eyes**, dorsolaterally reaching over four fifths of lateral margins of the head behind antennal peduncle. Groups of hexagonal facets of about 0,08 mm diameter discernible (Plate 1: Fig. 1 and 3). **Antennae** incompletely preserved; antenna 1 only transmitted by one distal peduncular article, joined by a short part of flagellum, consisting of about 4 flagellar segments; of antenna 2 at least 2 large proximal peduncular articles are preserved and part of a subsequent smaller one; flagellum only very scarcely discernible. All **pereonites** free; width slightly increasing from pereonites 1 to 5, only pereonite 7 scarcely smaller; pereonites 1 and 2 markedly vaulted, vaulting of posterior pereonites decreasing (Fig. 1; Plate 2: Fig. 2). All **coxal plates** indicated by dorsal sutures; plates large, laterally broadened, those of pereonites 4-7 more than half as wide as the tergites between them; from 1 to 7 increasingly directed caudally; plates of pereonite 1 enclosing the head laterally, with a small reniform depression of about 0,75 mm length near caudolateral margin of eyes (Plate 1: Fig. 5); as similar yet more irregular deformations are discovered on other coxal plates they might be caused by the underlying pereopods (dactyli?); coxal plates 7 enclosing pleon laterally, reaching to first third of pleotelson, thus epimera not visible; parallel to the anterior margin a narrow, smooth, and very shallow concavity on



**Tafel 3.**

Rezente Serolidae als Beispiele für den Zusammenhang von Morphologie und Lebensweise (s. Textabschnitt 5); Präparate aus der Sammlung des Zoolog. Instituts der Universität Hamburg; Maßstäbe = jeweils 1 cm.

Abb. 1. *Acanthoserolis schythei* (LÜTKEN, 1858); K 38261 Laredo.

Abb. 2. *Ceratoserolis trilobitoides* (EIGHTS, 1833); Ant. VI/II St. 231.

Abb. 3. *Cristaserolis gaudichaudii* (AUDOUIN & MILNE-EDWARDS, 1841); K 38260 Laredo.

Abb. 4. *Frontoserolis bouvieri* (RICHARDSON, 1906); Ant. VI 12 St. 218 GSN.

**Plate 3.**

Living Serolidae as examples for the connection of morphology and mode of life (see passage 5); specimens in the collection of the Zoolog. Institute of the University of Hamburg; Scale bars = 1 cm each.

Fig. 1. *Acanthoserolis schythei* (LÜTKEN, 1858); K 38261 Laredo.

Fig. 2. *Ceratoserolis trilobitoides* (EIGHTS, 1833); Ant. VI/II St. 231.

Fig. 3. *Cristaserolis gaudichaudii* (AUDOUIN & MILNE-EDWARDS, 1841); K 38260 Laredo.

Fig. 4. *Frontoserolis bouvieri* (RICHARDSON, 1906); Ant. VI 12 St. 218 GSN.

coxal plates; parallel to posterior margin a discrete carina, caudally curving near lateral margin and exactly leading into lateral margin of following plate, possibly indicating overlapped plates; lateral margins of coxal plates provided with fine hairs (Plate 2: Fig. 4 and 5). **Pleonites** caudad increasingly broader; pleonites 1 and 2 free, 3 and 4 slightly fused medially, 4 and 5 fused medially and laterally (Fig. 1; Plate 2: Fig. 2 and 6). **Pleotelson** broad, subtrapezoid; with longitudinal median keel, beginning behind smooth anterior area, crossing tubercular area and reaching over two thirds of pleotelson to the rounded caudal apex (Fig. 1; Plate 2: Fig. 6). **Uropods** biramous, inserting anterolaterally; sympodite subtrapezoid with small concavities, not fused with endopodite; endopodite and exopodite narrow, leaflike; endopodite about twice as long as exopodite, with longitudinal carina, and extending to caudal margin of pleotelson (Plate 1: Fig. 6 and 7).

## 5. Dank

Besonderer Dank gebührt den Herren GÜNTER STROBL, Solnhofen, und HORST SCHWEGLER, Übermattshofen, die ihre Sammlungsstücke zur Bearbeitung zur Verfügung stellten und anschließend uneigennützigweise als Dauerleihgabe im Bürgermeister-Müller-Museum Solnhofen hinterlegten. Durch die bereitwillige Vermittlung von Herrn STROBL konnte auch die Gegenplatte in die Untersuchung einbezogen werden.

Frau Prof. Dr. A. BRANDT, Zoologisches Institut und Zoologisches Museum der Universität Hamburg, danke ich herzlich für ihre hilfreiche Diskussion, die Bereitstellung rezenten Vergleichsmaterials und die Durchsicht des Manuskripts.

Herr Dr. P. J. GRIFFITHS (University of Wolverhampton) überprüfte freundlicherweise die »Systematic description« in sprachlicher Hinsicht.

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