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## Gastrotricha from the Poznań Palm House—one new subgenus and three new species of freshwater Chaetonotida (Gastrotricha)

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### Table of contents

Abstract .....	232
Introduction .....	232
Material and methods .....	233
Results .....	235
Taxonomic accounts .....	236
Phylum Gastrotricha Mečníkow, 1865 .....	236
Order Chaetonotida Remane, 1925 [Rao & Clausen, 1970] .....	236
Suborder Paucitubulatina d'Hondt, 1971 .....	236
Family Chaetonotidae Gosse, 1864 (sensu Leasi & Todaro, 2008) .....	236
Subfamily Chaetonotinae Kisielewski, 1991 .....	236
Genus <i>Chaetonotus</i> Ehrenberg, 1830 .....	236
Subgenus <i>Tristratachaetus</i> subgen. nov. ....	237
<i>Chaetonotus (Tristratachaetus</i> subgen. nov.) <i>rhombosquamatus</i> sp. nov. (Figs 4–12, Table 5) .....	237
Subgenus <i>Chaetonotus sensu stricto</i> Ehrenberg, 1830 .....	244
<i>Chaetonotus (Chaetonotus) eximius</i> sp. nov. (Figs 13–17; Table 6) .....	245
<i>Chaetonotus (Chaetonotus) pravus</i> sp. nov. (Figs 18–23; Table 7) .....	252
<i>Chaetonotus (Chaetonotus) sp. 1</i> (Table 8) .....	258
<i>Chaetonotus (Chaetonotus) sp. 2</i> (Table 9) .....	260
<i>Chaetonotus (Chaetonotus) cf. oculifer</i> Kisielewski, 1981 (Table 10) .....	262
<i>Chaetonotus (Chaetonotus) polyspinosis</i> Greuter, 1917 (Table 11) .....	262
Subgenus <i>Hystricochaetonotus</i> Schwank, 1990 .....	263
<i>Chaetonotus (Hystricochaetonotus) sp. 3</i> (Table 12) .....	265
<i>Chaetonotus (Hystricochaetonotus) macrochaetus</i> Zelinka, 1889 (Table 13) .....	266
<i>Chaetonotus (Primochaetus) heideri</i> Brehm, 1917 (Table 14) .....	269
Genus: <i>Heterolepidoderma</i> Remane, 1927 .....	269
<i>Heterolepidoderma acidophilum</i> Kånnby et al., 2012 (Table 15) .....	269
Genus: <i>Ichthydium</i> Ehrenberg, 1830 .....	270
<i>Ichthydium</i> sp. (Table 16) .....	270
Genus: <i>Lepidodermella</i> Blake, 1933 .....	271
<i>Lepidodermella squamata</i> (Dujardin, 1841) (Table 17) .....	272
Discussion .....	273
Acknowledgements .....	274
References .....	275

A polyphyletic taxon, with only one apparently monophyletic subgenus (*Chaetonotus (Zonochaeta)* Remane, 1927) encompasses 165 nominal freshwater species and 44 nominal marine species (Kånneby *et al.* 2012, 2013; Todaro & d'Hondt 2013). Present in benthic, interstitial, periphytic and rarely semiplanktonic habitats.



FIGURE 3. Study site.

#### **Subgenus *Tristratachaetus* subgen. nov.**

*Type species:* *Chaetonotus (Tristratachaetus subgen. nov.) rhombosquamatus* sp. nov.

*Terra typica:* Poland

**Etymology:** From Latin “tri”—three and “stratum”—stratum, and Greek “khaite”—long hair, referring to the unique construction of the cuticle.

**Diagnosis:** Body length from 221 to 240 µm. Subgenus characterised by very thick cuticle with a three-layer construction of cuticle—scales—cuticle. Outer cuticle layer, covering scaled and scaleless body regions, has a granulated, irregular structure. Entire cuticle, including scales, is orange–brown in colour. Dorsal and ventrolateral convex, conical scales with two pairs of perpendicular keels bearing thick, long spines at their intersections present. All scale edges adjacent to the edges of neighbouring scales. Spines after the straight basal section are heavily curved, explicitly and uniformly narrowing and tapering distally. Spines without lateral denticles. Ventral interciliary field covered with two kinds of keel-less and spineless, smooth minor scales. Large cephalic globular cuticle formation, strongly reflecting light, located dorsally between the cephalion and epipleuria. These globules probably represent a kind of ocellar granules. Adhesive tubes short relative to body length.

#### ***Chaetonotus (Tristratachaetus subgen. nov.) rhombosquamatus* sp. nov. (Figs 4–12, Table 5)**

**Locality:** Site 1; session II.

**Material:** 1 sample, 9 specimens (all adults), all photographed. The photographs of holotype and four paratype are available in Natural History Collection at Adam Mickiewicz University in Poznań under accession number NHC-GCTR-1-1-19/h (holotype) and NHC-GCTR-1-20-69/p (paratypes). Additional all photographs are available at Adam Mickiewicz University in Poznań, in the collection of the first author.

**Etymology:** From Latin “rhombus”—rhomb, and Latin “squama”—scale, referring to the specific shape of the body scales.

**Diagnosis:** As for the subgenus.

**Description:** *Chaetonotus (Tristratachaetus subgen. nov.) rhombosquamatus* sp. nov. is a species with relatively large and massive body. The head is of a rounded shape with five lobes, i.e. the cephalion (U1–U3) and