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**Taxonomic notes on freshwater gastrotrichs of the genus
Aspidiophorus VOIGT (*Gastrotricha: Chaetonotidae*), with
descriptions of four new species**

[With 6 text-figures]

Abstract. The present paper provides descriptions of four new species of *Gastrotricha* of the genus *Aspidiophorus*, an account on two forms of obscure species affiliation and supplements to original descriptions of *A. ophiodermus* and *A. squamulosus*.

In the course of recent faunistic studies carried out in various aquatic environments in Poland, a number of species has been found out of the insufficiently known genus *Aspidiophorus* VOIGT. Three species of this genus have already been described as new to science, namely, *A. bibulbosus* KISIELEWSKI, 1979, *A. oculifer* KISIELEWSKI, 1981, and *A. polonicus* KISIELEWSKI, 1981. The present paper supplies descriptions of four other species new to science and of two forms of an obscure taxonomic status, as well as supplementary data on two species, which were earlier described by other authors. At the comparison of measurements use was made of indices estimated by the author of the present paper in his earlier paper (KISIELEWSKI 1981).

***A. tatraensis* sp. n. (Fig. 1)**

Material. „Rybie Oka” flood waters down the Morskie Oko Lake in the Tatra Mountains, September 19, 1977, 3 specimens.

Photographic documentation. None.

Diagnosis. *Aspidiophorus* of 180 μm body length. The outer edge of the head three-lobed. Very slender body, the longitudinal lines of the body contour almost parallel. Pedunculated scales arranged in about 50 longitudinal alter-

nating rows, the scale edges invisible and peduncles bow-shaped. There are keels on the ventral field of the body.

Description. A very slender body, the head and body trunk of the same width; no neck narrowing is to be observed. Five-lobed head, the central plates retreated towards the dorsal body side, due to which the outer edge of the head is made up of the anterior and two posterior plates only. Caudal appendages short, adhesive tubes almost straight, slightly distally pointed. Pharynx narrow of approximately the same width all its length.

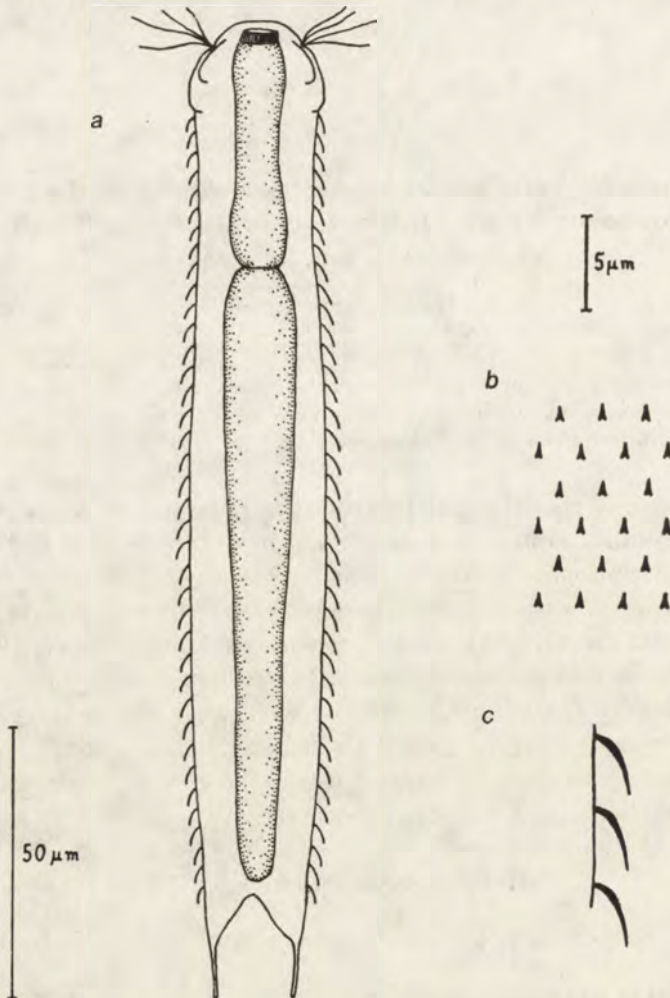


Fig. 1. *Aspidiophorus tatraensis* sp. n.; a - dorsally viewed animal (dorsal pedunculated scales are not marked), b - a fragment of dorsally viewed animal (scale peduncles are visible), c - lateral view of pedunculated scales.

Body covered with scales, attached to the body surface by means of diagonally protruding and arched peduncles. Both the surface and edges of scales invisible on the dorsal body side, only their callous peduncles easily seen. Scales perceivable only at the lateral view; they resemble bristles due to the bow shape and a considerable thickness of the peduncles as well as to their thickness tapering tipwards. Owing to these features, the species seems at first sight to belong to the genus *Chaetomotus* EHRENBERG. Only the dorsal view revealing characteristically distributed yet untypically developed peduncles allows for ordering this species to the genus *Aspidiophorus*. Consecutive scales of each lateral row are fairly distant. Terminal scales have not been observed to occur on the ventral field. On the intestine field section keels may be observed, arranged into 9–10 longitudinal alternating rows, while the pharyngeal section is either bare or keeled in its posterior part, the keels being arranged in 7 longitudinal rows.

The examined specimens immediately retracted when covered with the cover glass and, therefore, observation and measurement taking were much hindered.

Dimensions (n = 1):

body length	180 μm
length of adhesive tubes	12 μm
at : ph index	29 %
pharynx length	41 μm
pharynx formula	22 %
	20 %
	22 %
total number of longitudinal rows of pedunculated scales	about 50
length of neck pedunculated scales	2.5 μm
length of trunk pedunculated scales	3 μm

Discussion. Notwithstanding the scanty material and incompleteness of measurements it may be concluded that the examined specimens cannot be ordered into any known species. The feature differentiating *A. tatraensis* from all the so far recognized species of the genus *Aspidiophorus* is the scale structure, its specific look and aslant position of peduncles in particular. Other peculiar characters are: an exceptionally slender body shape, narrow pharynx and three-lobed head margin.

A. tetrachaetus sp. n. (Fig. 2)

Material. Wielki Staw (Lake) in the Karkonosze Mountains, September 9, 1978 — 4 specimens. The further 8 specimens were found out in the aquarium where a sample taken from the same lake on May 25, 1978 was stored for about three months.

Photographic documentation. Film No 1b/78 in the author's collection.

Diagnosis. *Aspidiophorus* of 110–137 μm body length, with two pairs of thick spines on the dorsal side of the posterior part of the body trunk. Pedunculated scales of a rounded forepart edge arranged in 25–31 longitudinal rows, each row comprising 33–41 scales. The ventral field has keeled terminal scales and minute keels on the intestine section. The pharynx is very short and thick, much dilated in its posterior part.

Description. Semi-circular head with five hardly distinguishable lobes of approximately the same size. A very short cephalion, the first scales arising already behind the head front edge. The adhesive tubes almost straight.

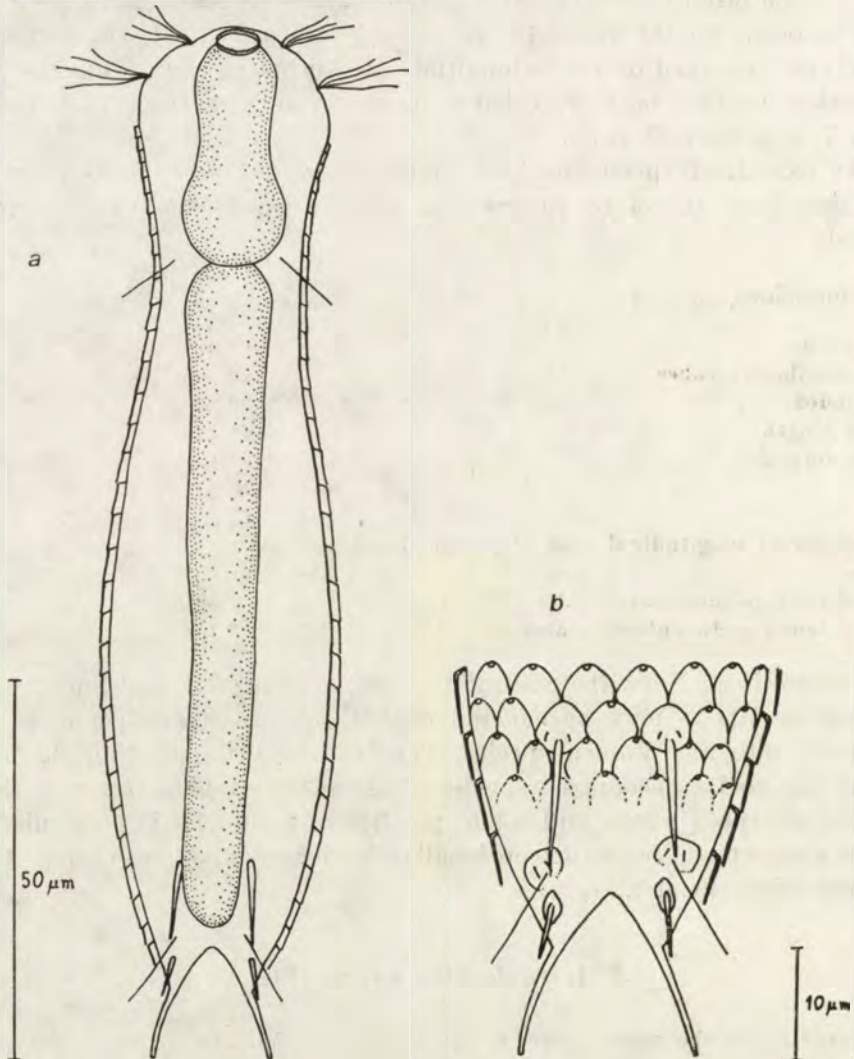


Fig. 2. *Aspidiophorus tetrachaetus* sp. n.; a – dorsally viewed animal (dorsal pedunculated scales are not marked), b – the posterior part of the body of dorsally viewed animal.

Pharynx very short, thick, strongly dilated in its hind part. Two pairs of tactile bristles.

Body covered with pedunculated scales of rounded forepart edges. On the dorsal side of the hind part of the body trunk there may be noted a pair of straight and thick at the base spines arising from scales, the scales being shaped as all the others. Also on the dorsal side of the base segments of caudal appendages another pair of spines may be noted. They are, however, twice as short as the former and arise from much smaller scales. On the ventral field a pair of terminal keeled scales may be noted, the scale length ranging 7.5–11 μm . Tiny keels also occur on the intestine body section. They are usually hardly perceivable. In case of one specimen where the accurate estimations were feasible, the keels were arranged in longitudinal alternating rows, numbering 9, and 6 in the anterior part of the intestine section. Each row contained 22 keels, whose length ranged 1.5–2.5 μm . The pharyngeal section of the ventral field was most probably bare; only at one specimen minute spots were observed.

Dimensions:

body length	110–137 μm (125.2) n = 4
length of caudal appendages	11–16 μm (13.8) n = 3
length of adhesive tubes	9–10 μm (9.5) n = 3
at : ph index	32–38 % (36.0) n = 3
pharynx length	25.5–30 μm (27.4) n = 4
pharynx formula	35–41 % (38.0) n = 4
	33–38 % (35.7) n = 4
	45–53 % (49.0) n = 4
mouth diameter	4.5–6 μm (5.5) n = 4
total number of longitudinal rows of pedunculated scales	25–31 (28.2) n = 5
number of pedunculated scales in one longitudinal row	33–41 (35.4) n = 5
scale distribution index	76–89 % (79.8) n = 5
length of neck pedunculated scales	2–3.5 μm (2.8) n = 4
length of trunk pedunculated scales	3–5 μm (3.8) n = 4
length of spines (the first pair)	8–10 μm (9.2) n = 3
length of spines (the second pair)	5 μm n = 1

Discussion. Among the species of the genus *Aspidiophorus* the following two are conspicuous by the occurrence of spines on the dorsal side of the hind part of the body trunk, namely, *A. multitubulatus* HUMMON, 1974 and *A. heterodermus* SAITO, 1937. The former differs from *A. tetrachaetus* by the presence of additional adhesive tubes and, furthermore, it is a marine species. *A. heterodermus* is distinct from the new species due to its three-lobed head, the scale shape as well as to the number and the length of spines.

A. longichaetus sp. n. (Fig. 3)

Material. The old river bed of the Narewka River in Białowieża, August 24, 1978 — 1 specimen.

Photographic documentation. Film No 4/78 in the author's collection.

Diagnosis. *Aspidiophorus* of 150 μm body length, covered with pedunculated scales distributed into 21 longitudinal rows of 24 scales each. On the hind dorsal part of the body trunk there are three spines. The body sides are covered with much protracted and constricted pedunculated scales. The base segments of caudal appendages carry a pair of long spines, protruding far beyond the tips of adhesive tubes. The pharynx is narrow and no thickenings may be observed. The ventral field is bare, except for the pair of the terminal spines.

Description. Five-lobed head, the anterior lobe being the largest. Re-

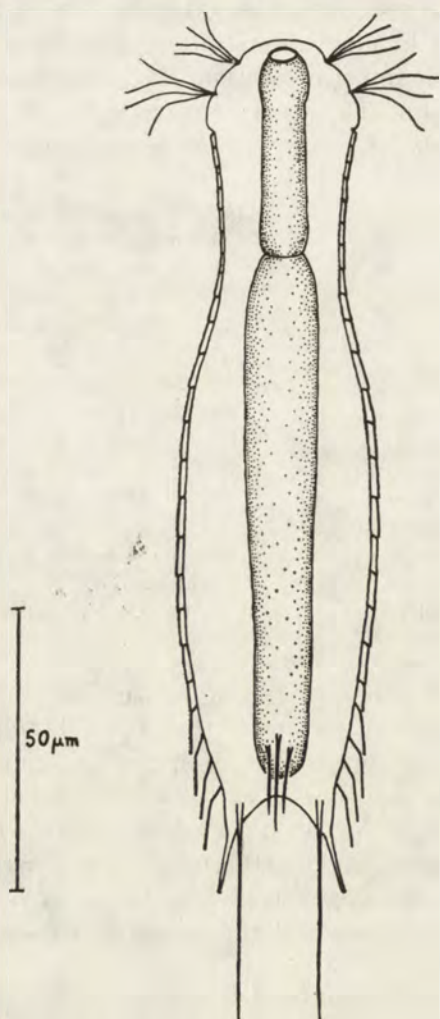


Fig. 3. *Aspidiophorus longichaetus* sp. n.; dorsally viewed animal (dorsal pedunculated scales are not marked).

maining lobes are of the same size. Adhesive tubes straight and rather sharply ended. No distinct dilatations may be observed on the slender pharynx.

Body covered with pedunculated scales, the peduncle length increasing backwards the body. The peduncle length ranges from about 0.4 μm on the head, to 0.6 μm on the neck and up to 1.2 μm in the central part of the body trunk. Scales of a distinct rhomboidal shape. In the posterior part of the body trunk the scales are observed to be constricted and to be apt to transform its outer ends into spines. The spines, at various stages of development, may also be noted on several of terminal pairs of lateral scales. On the hind part of the body trunk, 3 spines of 18 μm in length are observed, growing along the center axis of the dorsal body side. On the dorsal base sections of caudal appendages there also is noted a pair of straight, parallel, backward directed spines. They are 39 μm long and protrude far beyond the ends of the adhesive tubes. The ventral field is bare, both in its pharyngeal and intestine section, except for a pair of very thin, 10 μm long bristles, growing on the field's terminal part.

Dimensions (n = 1):

body length (to the end of adhesive tubes)	150 μm
length of caudal appendages	19 μm
length of adhesive tubes	9.5 μm
et : ph index	26 %
pharynx length	36 μm
pharynx formula	25 %
	23 %
	25 %
mouth diameter	5 μm
total number of longitudinal rows	
of pedunculated scales	21
number of pedunculated scales in one	
longitudinal row	24
scale distribution index	88 %
length of neck scales	4.5 μm
length of scales in the middle part of the	
body trunk	5.7 μm

Discussion. The most characteristic trait of the species in question is a pair of very long spines growing out of the dorsal side of base segments of caudal appendages. Among the known species of the genus *Aspidiophorus*, spines on the base segments of caudal appendages were recorded in: *A. squamulosus* (ROSZCZAK, 1935), *A. multitubulatus* HUMMON, 1974 and *A. tetrachaetus* sp. n. *A. longichaetus* differs from them all by having its spines projected far beyond the end of the adhesive tubes. At the compared species these spines are much shorter. Furthermore, *A. longichaetus* has the pharynx much narrower than *A. squamulosus* and *A. tetrachaetus* and lacks additional adhesive tubes, by which it is different from *A. multitubulatus*.

A. slovinensis sp. n. (Fig. 4)

Material. The Dolgie Wielkie Lake in the Słowiński National Park, 3 specimens coming from the aquarium culture of a sample taken on August 20, 1980 (the specimens having been found 3–5 days after sampling); a fen at the village Łomnica, the commune of Wodynie, the province of Siedlce, November 27, 1982 – 1 specimen.

Photographic documentation. Film No 32/80 and 60/82 in the author's collection.

Diagnosis. *Aspidiophorus* of 140–158 μm body length. The pharynx conspicuous for two bulbs and additional structures on the anterior dilatation. Unusually well developed hypostomium has a marked transversal fissure. Pedun-

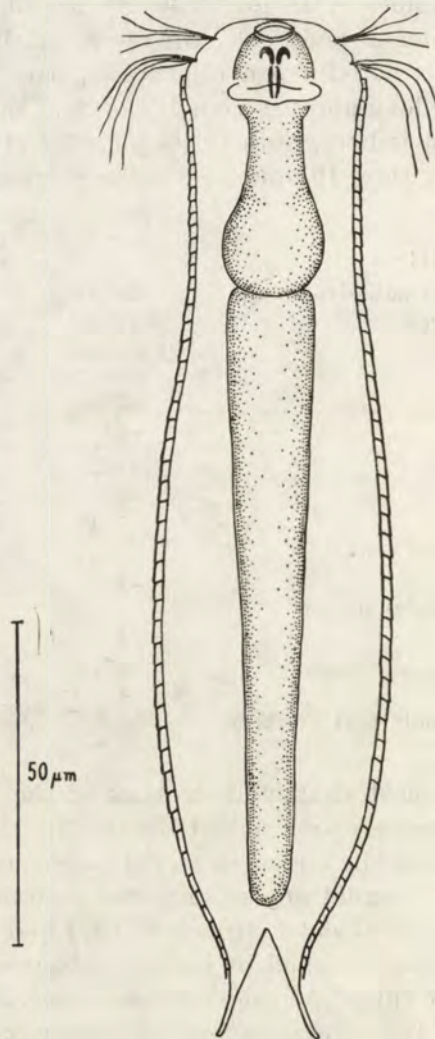


Fig. 4. *Aspidiophorus slovinensis* sp. n.; ventrally viewed animal (ventral-lateral pedunculated scales, cilia bands and the covering of the ventral field are not marked).

culated scales of a somewhat rounded front edges, arranged in 37 longitudinal rows, 45 scales in each. Pedunculated scales on the base segments of caudal appendages smaller than those on the body trunk. No spines were to be observed in the body covering. Ventral field covered with pedunculated scales.

Description. A relatively squat body. The head has five poorly distinguishable lobes, the anterior lobe, covered with a wide cephalion, being the biggest and the central lobes — the smallest. The pharynx with two bulbs and a marked contraction in its central part, the posterior bulb usually bigger than the anterior one. In the forepart of the pharynx there may be observed a system of additional selvages, of a structure similar to that recorded in *Chaetonotus pawlowskii* KISIELEWSKI, 1984. Ventrally, this section is shielded by a well developed hypostomium with a wide and very distinct transversal fissure.

Body covered with quite small pedunculated scales. They are also seen on the dorsal side of base segments of caudal appendages and on the intestine section of the ventral field, the ventral scales, however, being smaller than the lateral and dorsal ones. The foremost edges of scales coming from the middle part of dorsum are slightly rounded. Neither spines nor any other cuticular structures except for pedunculated scales, were recorded. Cilia bands run all the body long.

Dimensions:

body length	140; 158 μm (n = 2)
length of caudal appendages	22 μm (n = 1)
length of adhesive tubes	10 μm (n = 2)
at : ph index	26; 28 % (n = 2)
pharynx length	36; 38 μm (n = 2)
pharynx formula	35; 42 % (n = 2)
	26; 28 % (n = 2)
	42; 44 % (n = 2)
mouth diameter	6; 6.5 μm (n = 2)
total number of longitudinal rows of pedunculated scales	37 (n = 1)
number of pedunculated scales in one longitudinal row	45 (n = 1)
scale distribution index	82 % (n = 1)
length of neck pedunculated scales	2 μm (n = 1)
length of trunk pedunculated scales	3 μm (n = 1)

Discussion. The feature differentiating the examined species from all the other known species of the genus *Aspidiophorus* is an exceptionally well and characteristically developed hypostomium as well as the presence of additional structures in the pharyngeal section. A well developed hypostomium with a transversal fissure has been recorded to occur in *A. squamulosus* (ROSZCZAK 1935). The latter, however, is slightly bigger, its pharynx lacks a distinct contraction in its middle section and its base segments of caudal appendages are furnished with spines (ROSZCZAK 1968 and the present paper — see below).

Aspidiophorus sp. (Fig. 5)

Material. The old river bed of the Bug River at the village Zabuze, the commune of Sarnaki, the province of Białá Podlaska, August 2, 1980 — 1 specimen.

Description. Slender body. Five-lobed head with two pairs of tufts of cilia. Adhesive tubes thin, straight, sharply ended. Pharynx short, with two bulbs on its both ends. Body covered with pedunculated scales of a peculiar shape. Peduncles are relatively long and project perpendicularly from the body surface. At a majority of species of the genus scales are positioned paral-

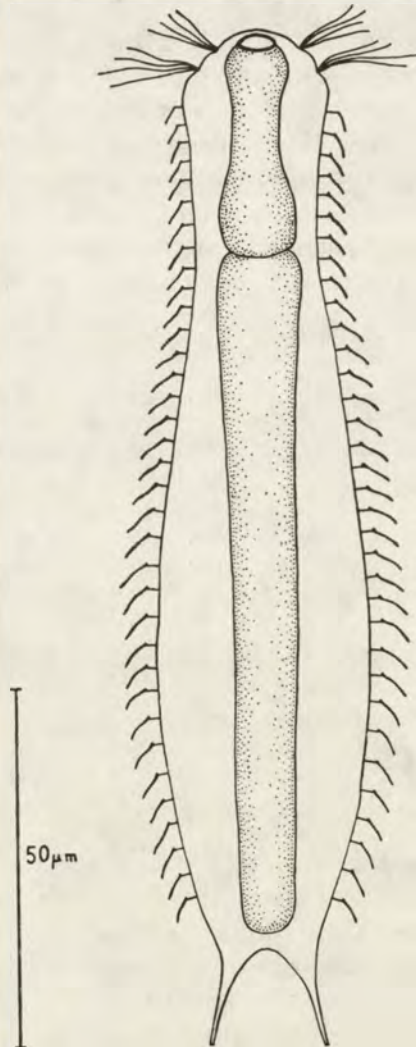


Fig. 5. *Aspidiophorus* sp.; general view (only lateral pedunculated scales are marked in the body coverage).

lley to the body surface, forming, in this way, an outer "carapace", whereas at the species in question they are directed strongly outwards. No spines in the body covering were noticed. The ventral field, which lacks terminal scales at its end, is covered with tiny pedunculated scales. On the intestine field section there are observed 10 longitudinal alternating rows of 31 pedunculated scales each. The pharyngeal section has the number of longitudinal rows amounting to 7, each row being made up of 10 pedunculated scales. Cilia bands run all the body long.

Dimensions ($n = 1$):

body length	141 μm
length of caudal appendages	16.5 μm
length of adhesive tubes	9.5 μm
at : ph index	32 %
pharynx length	30 μm
pharynx formula	30 %
	22 %
	35 %
total number of longitudinal rows of pedunculated scales	38
number of pedunculated scales in one longitudinal row	36
scale distribution index	106 %
length of neck pedunculated scales	2 μm
— length of their peduncles	1 μm
length of body trunk pedunculated scales	3 μm
— length of their peduncles	1.5 μm

Discussion. The sampled specimen is most similar to *A. bibulbosus* KISIELEWSKI, 1979. Specimens of this species have their body dimensions corresponding to those measured at the examined specimen as well approximate dimensions and number of scales and almost identical coverage of the ventral field. However, *Aspidiophorus* sp. is slender than the compared species, its pharyngeal bulbs are not so well developed. The most significant character differentiating the two compared *Gastrotricha* species is the position of scales, i. e. the pedunculated scales of *A. bibulbosus* form a compact "carapace", while in case of the described species they stick out from the body surface. On the basis of examination of a single sampled specimen it cannot be concluded whether this is a regular feature, which gives enough reason for ordering the sampled gastrotrich to a new species or whether this is an individual peculiarity, sporadically occurring at the *A. bibulbosus* population. Due to these doubts the described gastrotrich has not been given a name.

***Aspidiophorus* aff. *paradoxus* (VOIGT, 1902)**

Material. The old river bed of the Narewka River in Białowieża, July 6, 1980 — 1 specimen.

Description. Very squat body. Five-lobed head, with only the first three plates being visible, the hind ones being covered by the foremost pedunculated scales. Two pairs of tufts of cephalic cilia. The long pharynx has two bulbs, the hind one being considerably bigger. Intestine exceptionally wide, also in its middle and hind part. Beneath a mouth there is hypostomium developed in the shape of a small transversal fissure.

Body covered with a "carapace" made up of rhomboidal scales set on long peduncles. The scale edges overlap considerably. The front-lateral edges are thick and well visible; a selvage is observed to run along the scale longitudinal axis, which makes the scale resemble a duck's foot — a feature observed at a typical form of the species. In the hind part of the body trunk and at its end in particular, the scales grow longer and thinner, which causes the front-lateral edges and the central selvage to draw near, running almost parallel. Consequently, at first glance it seems as if the hind part of the body was covered with spines. The body trunk extremity is endowed with a pair of tactile bristles.

Dimensions (n = 1):

body length	about 240 μm
length of caudal appendages	31 μm
length of adhesive tubes	14 μm
at: ph index	20%
pharynx length	71 μm
pharynx formula	29%
	25%
	42%
mouth diameter	12.5 μm
total number of longitudinal rows of pedunculated scales	43
number of pedunculated scales in one longitudinal row	41
scale distribution index	105%
length of scales at the hind part of the head	7 μm
— length of their peduncles	5 μm
length of scales at the central part of the body trunk	8.5 μm
— length of their peduncles	3.5 μm
length of protracted scales of the body trunk extremity	13 μm

Discussion. The described specimen differs from the typical form of the species by having a squatter body, less protruding hind head lobes and the spine-like structure of terminal pedunculated scales. Due to scanty of material it can not be ascertained whether the examined specimen may be appointed to a distinct species or whether the recorded differences are only a form of individual variability of *A. paradoxus*.

***Aspidiophorus ophiodermus* BALSAMO, 1983 (Fig. 6)**

Material. Karpacz, a pond at the Ecological Station of the University of Wrocław, September 6, 1978 — 1 specimen, September 11, 1978 — 6 specimens; the Dolgie Wielkie

Lake in the Słowiński National Park, August 11, 1979 — 5 specimens, August 20, 1979 — 4 specimens; the Dolgie Male Lake in the Słowiński National Park, August 20, 1979 — 1 specimen.

The species in question has been described on the basis of samples coming from Apennines (Italy), from a lake located at 1400 m altitude, whose shores were overgrown mainly with peat mosses. It is not necessary to reconstruct the precise description of the species in the present paper, only the most important traits will be recalled and certain supplementary notes will be made to the original description as well as the dimensions of Polish specimens will be given.

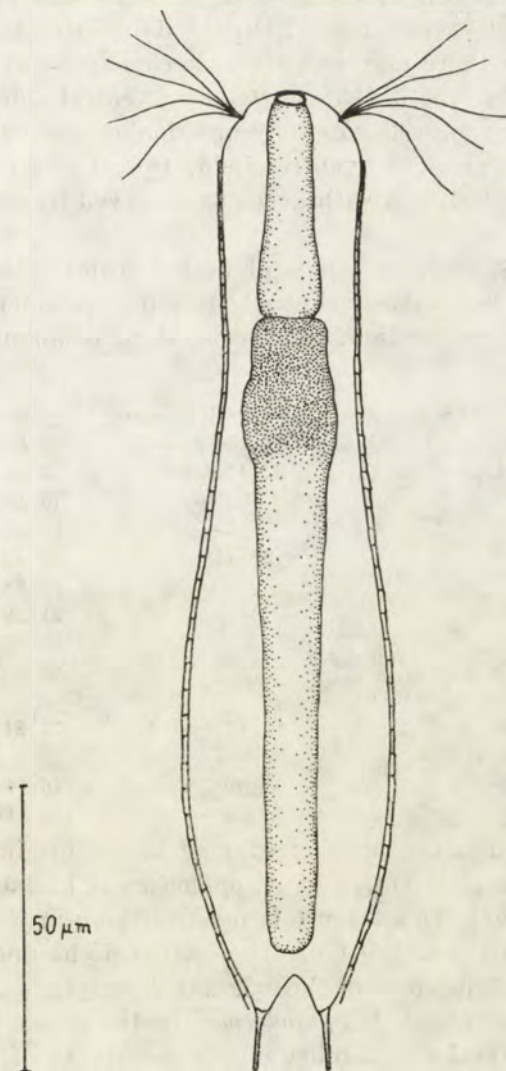


Fig. 6. *Aspidiophorus ophiodermus* BALSAMO; general view (only lateral pedunculated scales are marked in the body coverage).

At first glance the habit of the gastrotrich in question is very similar to *Heterolepidoderma majus* REMANE, 1927. Apart from a much alike body outline, it also has a three-lobed head outer margin, though, similarly as in *H. majus*, the head is actually five-lobed, the central lobes being retreated toward the head dorsal side. The pharynx is of an average length and width, having a slight dilatation in its hind part. The anterior section of intestine is of a fine-grained structure, similarly as in *H. majus* and certain other species of the family *Chaetonotidae*. This section is particularly long and thick in the species in question. This may be easily observed already at a low microscope magnification owing to the fact that this intestine section refracts the light in a manner different than the remaining intestine part. Numerous tiny scales are set on peduncles whose length does not exceed 1 μm . On the dorsal side of the base segments of caudal appendages there may be noticed keeled scales of a gradually increasing length amounting up to 4–5 μm . On the ventral side of these segments there are keeled scales as well, yet they are smaller and resemble those found on the intestine section of the ventral field. Dorsal and lateral pedunculated scales seem not to be endowed with keels, as observed by means of an ordinary optical microscope.

The ventral field ends in a pair of keeled scales of 6.5–9 μm in length. On the intestine section of the field and in some specimens also on the posterior part of pharyngeal section, tiny keels occur, of about 2 μm in length.

Dimensions:

	acc. to BALSAMO	the author's data
body length	92–154.2 μm	152–173 μm (166.2) (n = 6)
length of caudal appendages	22–41.2 μm	14–26 μm (19.1) (n = 6)
length of adhesive tubes	—	7.5–10.5 μm (8.8) (n = 8)
at : ph index	—	18–26 % (21.6) (n = 8)
pharynx length	22–41 μm	38–42 μm (40.8) (n = 8)
pharynx formula	—	22–28 % (25.3) (n = 6)
		21–29 % (24.9) (n = 6)
		28–35 % (32.1) (n = 6)
mouth diameter	—	5–8 μm (6.3) (n = 7)
total number of longitudinal rows		
of pedunculated scales	42–44 + 20–22	72–81 (76.0) (n = 3)
number of pedunculated scales		
in one longitudinal row	48–50	46; 48 (n = 2)
scale distribution index	—	150; 163 % (n = 2)

Discussion. It has not been mentioned in the original description whether the anterior intestine section of *A. ophiodermus* had a structure different than its remaining part. This feature is most striking in the Polish specimens, though it is shared by a number of other gastrotrichs and for this reason it may not have been emphasized in the original description. A thorough examination of the photograph of *A. ophiodermus* in the paper by BALSAMO (1983, Fig. 4 D) seems to reveal a possibility of the occurrence of this character also in Italian specimens. BALSAMO has noticed distinct keels on pedunculated

scales of the body trunk; in case of the Polish specimens keels have been observed to occur on scales of base segments of caudal appendages and on the scales of the ventral field. It should be stressed, however, that BALSAMO was using a scanning microscope, in the image of which it is much easier to notice this character. The remaining properties, especially a general body habit, head outer outline, the number of longitudinal rows of pedunculated scales and the number of scales in a row, the covering of the base segments of caudal appendages and the ventral field, are much alike.

Aspidiophorus squamulosus (ROSZCZAK, 1935)

Material. The old river bed of the Bug River at the village Mierzvice, the commune of Sarnaki, the province of Biała Podlaska, August 4, 1981 — 2 specimens.

This species was described by ROSZCZAK (1935) on the basis samples coming from water bodies in the vicinity of Poznań. Primarily it was ordered to the genus *Lepidoderma*. However, in his later paper (1968), the author mentioned new localities in the central part of Great Poland and complemented the description. The specimens sampled by the author of the present paper allow for supplementing some further details of the species characteristics.

Description. Body squat. Head distinctly five-lobed, the anterior lobe being the largest and the central ones — the smallest. Adhesive tubes almost straight, relatively long, sharpened at the end. Pharynx short and very thick; in its forepart a system of reinforcements may be observed, resembling structures recorded in *Chaetonotus pawlowskii* KISIELEWSKI, 1984 and *A. slovinensis*, though the structures in the species in question are much simpler than those in the compared ones. A well developed hypostomium, with a marked transversal fissure.

Body covered with pedunculated scales of a notably rhomboidal shape. On the dorsal side of each of the base segments of caudal appendages, three spines may be noticed, the central one being shorter than the others. They are rather thick, straight, sharpened at the ends, resembling the base segment spines of *Chaetonotus polyspinosus* GREUTER. The caudal bifurcation carries some additional short bristles, their length not exceeding 3 μm . The ventral field is terminated with a pair of keeled scales of 5.5 μm in length. On the intestine section and on the pharyngeal section of the ventral field there may be noted long keels, densely arranged in 12 longitudinal alternating rows.

Dimensions:

	acc. to ROSZCZAK (1968)	the author's data (n = 2)
body length	115–165 μm	186; 205 μm
length of caudal appendages	—	23; 34 μm
length of adhesive tubes	15–20 μm	13; 14 μm
at: ph index	—	31; 33%

pharynx length	23-28 μm	39; 45 μm
pharynx formula	—	47; 53%
		40; 44%
		46; 49%
mouth diameter	—	12 μm
total number of longitudinal rows of pedunculated scales	—	45; 48
number of pedunculated scales in one longitudinal row	—	41; 45
scale distribution index	—	107; 110%
length of neck pedunculated scales	—	2.5 μm
length of trunk pedunculated scales	3-4 μm	4 μm
length of spines on the base segments of caudal appendages	8-10 μm	
— of the outer and inner spine		11-11.5 μm
— of the central spine		5.5-6 μm

Discussion. The specimens sampled by the author of the present paper were somewhat bigger than the largest one sampled by ROSZCZAK, moreover, they had a longer pharynx than the latter. It should be emphasized that although the greatest value of the pharynx length estimated by ROSZCZAK accounts merely for 17% of the greatest estimated body length, nevertheless, the pharynx seen in the figuration published by the quoted author (1968: 67) accounts for 24% of the body length (the pharynx length of the specimens sampled by the author of the present paper ranged 21-22% of the body length). Neither in original description nor in the supplementary notes (ROSZCZAK 1968) it was stated whether the caudal bifurcation carried any bristles, whereas at the specimens sampled by the author of the present paper, these bristles were clearly visible. Moreover it follows from the figure by ROSZCZAK (1968) that among the three spines of the base segments of his specimens, the central one was longer than the outer and inner ones, i. e. conversely to the arrangement recorded in the specimens sampled by the author of the present paper. These slight alternations listed above do not provide basis, however, for a conclusion that the specimens coming from the valley of the Bug River belong to some other species. All the fundamental diagnostic characters, such as the short thick pharynx, a well developed hypostomium with a transversal fissure, rhomboidal pedunculated scales and three pairs of spines on the dorsal side of the base segments of caudal appendages, are much alike.

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STRESZCZENIE

[Tytuł: Notatki taksonomiczne o brzuchorzęskach słodkowodnych z rodzaju *Aspidiophorus* VOIGT (*Gastrotricha*: *Chaetonotidae*) z opisami czterech nowych gatunków]

W pracy zamieszczone są opisy lub uzupełniające dane dotyczące ośmiu gatunków słodkowodnych z rodzaju *Aspidiophorus* VOIGT, znalezionych w Polsce w różnych środowiskach. Opisane zostały cztery nowe gatunki: *A. tatraensis*, *A. tetrachaetus*, *A. longichaetus* i *A. slovinensis*, *A. tetrachaetus* i *A. longichaetus* charakteryzują się występowaniem szczecin w tylnej części ciała, a u *A. slovinensis* stwierdzono skomplikowany system struktur dodatkowych w gardzieli. Podane zostały opisy dwu brzuchorzęsków o niejasnym statusie taksonomicznym: *Aspidiophorus* sp. i *A. aff. paradoxus*; pierwszy z nich zbliżony jest do *A. bibulbosus*. Zamieszczone zostały także uzupełniające dane dotyczące gatunków *A. ophiodermus* i *A. squamulosus*.

РЕЗЮМЕ

[Заглавие: Фаунистические заметки по пресноводным брюхоресничным из рода *Aspidiophorus* VOIGT (*Gastrotricha: Chaetonotidae*) с описанием четырех новых видов]

В работе помещены описания или дополнительные данные, касающиеся восьми пресноводных видов из рода *Aspidiophorus* VOIGT, найденных в Польше в разного рода биотопах. Описаны четыре новых вида: *A. tatraensis*, *A. tetrachaetus*, *A. longichaetus* и *A. slovinensis*. Для *A. tetrachaetus* и *A. longichaetus* характерно наличие щетинок на задней части тела, а у *A. slovinensis* констатирована сложная система добавочных структур в глотке. Приведены описания двух брюхоресничных с неясным таксономическим статусом: *Aspidiophorus* sp. и *A. aff. paradoxus*; первый из них близок к *A. bibulbosus*. Помещены также дополнительные данные относительно видов *A. ophiodermus* и *A. squamulosus*.
