

ANNALES ZOOLOGICI

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Halina KOMOSIŃSKA

*Trionymus luzensis* sp. n. (Homoptera, Coccoidea, Pseudococcidae)  
from Poland

[With 7 text-figures]

ADULT FEMALE

Body oval (Fig. 1). Colour dark violet. Measurements after oviposition: length 4686 (4025-5100), width 2424 (1875-2825)<sup>1</sup>; data based on 25 specimens.

Antennae 8-segmented, occasionally and asymmetrically 9-segmented, then the segment V, which is usually longer than the IV and VI is divided.

Length and number of setae on particular antennal segments:

Length (18 measurements)								
I	II	III	IV	V	VI	VII	VIII	Total length
88	72	46	44	68	40	44	115	517
(72-114)	(62-93)	(41-52)	(31-57)	(52-83)	(31-41)	(41-52)	(104-124)	(434-616)
Number of setae (6 specimens)								
4	4-5	2-3	3-5	6-8	5	5-6	18-19	Total number of setae 47-55

In the given number of setae there are 1 and 5 stout sensory setae on segments VII and VIII, respectively. Second segment with a placoid sensillum.

Eyes upon membraneous base, height about 30.

Labium 3-segmented with 13 pairs of setae (3 on basal segment, 1 on medial

<sup>1</sup> Measurements given in micrometers (µm).

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and 9 on apical one). Average length of labium 145, width 131; average length of loop of the piercing stylets 252, it extends to the level of the anterior spiracles.

Legs. Hind coxae with small translucent pores, especially numerous around the anterior edges. Claw without a denticle, with two apically broadened claw digitules. Tarsus with a campaniform sensillum and two thin tarsal digitules, apically slightly broadened.

Length, width and number of setae of the posterior pair of legs

Length (13 measurements)						
coxa	trochanter	femur	tibia	tarsus	claw	Total length
122 (104-156)	119 (72-135)	295 (280-312)	287 (260-312)	121 (114-135)	31 (20-36)	966 (850-1086)
Width (13 measurements)						
165 (145-176)	—	81 (72-93)	42 (41-52)	32 (31-41)	—	
Number of setae (6 specimens)						
12-13	5	16-17	13-15	9-11		Total number of setae 55-61

Ostioles two pairs, with trilocular pores, arranged in two or three rows.

	Number of trilocular pores	Number of setae	Number of specimens
anterior pair of ostioles	anterior lip 10 (6-14)	0	8
	posterior lip 16 (14-18)	1	
posterior pair of ostioles	anterior lip 16 (11-25)	0	19
	posterior lip 19 (14-24)	0	

Circulus present in all (25) examined specimens, length 73 (52-93), width 140 (124-176), measurements based on 18 specimens.

Anal ring (Fig. 2) with 2 rows of small pores along the part of the outer edge of ring and with 2 rows of bigger pores on the sclerotized surface of ring. Each of its 6 setae a little longer than the diameter of ring.

Cerarii on last two segments of abdomen, occasionally and asymmetrically on last three segments. Anal lobe cerarius with two conical setae on a sclerotized plate nearly the same or larger in area than anal ring and accompanied by 87 (73-98) trilocular pores and 18 (14-21) slender auxiliary setae. Penultimate cerarius with two smaller conical setae on a small sclerotized plate, containing 20 (13-29) trilocular pores and 3 (2-5) auxiliary setae.

Pores. Multilocular disc pores present on both sides all over the body. On dorsal side, on head + thorax there are about 40 pores<sup>1</sup>. On head 1 or several

<sup>1</sup> Number of multilocular disc pores refers to half of the body.



pores and a dozen or so on each segment of thorax. On the posterior edge of mesothorax and on the anterior and posterior edge of metathorax, they are arranged in single transverse rows. On dorsal side of abdomen, on the anterior and posterior edge of each segment, multilocular disc pores are arranged in single or partly double (segment V and VI) transverse rows. On segment VIII, pores are only at the anterior edge (I assume, according to BORCHSENIUS 1949, that segment VIII bears anal lobes).

On ventral side, on head + thorax there are about 80 multilocular disc pores. They are scattered between antennae, at clypeolabral region, above mesothoracic sternal apophyses, and on meso- and metathorax they form transverse series. On the anterior segments of abdomen they are arranged in transverse rows, each of them has more than 20 pores. On anterior edges of segments IV-VII multilocular disc pores form transverse double or threefold rows. On posterior edges of segments IV-VII, pores are arranged in the following number of rows:

segment	middle part	lateral part	marginal part
IV	4	3	0-2
V	4-5	2-4	2-4
VI	4	2-4	2-4
VII	4	4	3-4

Segment VIII is covered wholly by multilocular disc pores. Trilocular pores evenly distributed, present on both sides of the body. Tubular ducts with oral collar of two sizes scattered on dorsal and ventral side of the body. They are more numerous between the anterior and posterior edges of abdominal segments. Simple disc pores on both sides of the body, somewhat smaller than the trilocular pores, few and sparse.

Setae slender, on dorsal side they are a little less numerous than on ventral one. Ventral surface with apical setae longer than anal ring setae.

#### FIRST LARVAL STAGE

Body oval (Fig. 4), dark violet. Measurements: length 586 (540-634), width 269 (249-291), data based on 14 specimens.

Antennae 6-, occasionally 5-segmented. Distance between the antennae 58 (41-67).

Eyes protruded, upon membraneous base.

Labium 3-segmented with 12-13 pairs of setae: 3 on basal, 1 on medial and 8-9 on apical segment. Length of labium 59 (52-62), length of loop of the piercing stylets 83 (72-104). The loop extends to the metathorax.

Legs well developed. On tarsus two tarsal digitules slightly broadened at apex, one thin and one thick. Tarsal claw without any denticle, with two thin apically broadened claw digitules. Tarsus with a campaniform sensillum. Trochanter with oval sensillum, two at each side.

## Length and number of setae of particular antennal segments:

Length (13 measurements)						
I	II	III	IV	V	VI	Total length
34 (31-41)	30 (20-36)	25 (20-31)	21 (15-31)	23 (20-26)	66 (62-72)	201 (171-239)
5-segmented (1 measurement)						
36	26	31	20	62	-	176

Number of setae (7 specimens)						
I	II	III	IV	V	VI	Total number of setae
4	3	4	3-5	5	16-18	35-39

In the given number of setae there are 1 and 4-5 stout sensory setae on segments V and VI respectively.

## Length and number of setae of posterior legs

Length (13 measurements)					
Coxa	trochanter	femur	tibia	tarsus with claw	Total length
43 (41-52)	36 (31-41)	87 (72-104)	63 (52-72)	78 (72-93)	309 (270-364)
Number of setae (10 specimens)					
10	5-6	7-8	7-9	9-11	Total number of setae 38-44

Ostioles two pairs, each pair with one trilocular pore on anterior and posterior lips.

Circulus transversally oval, present only on one specimen among twenty examined.

Anal ring (Fig. 3) with two rows of pores; outer row contains about 12, inner about 10 pores. Each of its 6 setae approximately two times as long as greatest diameter of ring.

Cerarii only on two last segments of abdomen, each with two conical setae. Anal lobes without sclerotized plates.

Pores only trilocular, on both sides of the body. On dorsal side of the head (on half of the body) there are 3 pores at submedian region and several at submarginal. On ventral side there is 1 pore at submedian area, several at clypeolabral and marginal regions. On thorax the pores form transverse rows, more regular and numerous on dorsal side. On dorsal side of abdomen trilocular pores are arranged in 4 longitudinal rows: submedian with 1 pore, sublateral with 1 or 2, lateral with 1 and marginal row with 1 pore on each segment. On ventral side of abdomen trilocular pores are arranged in 3 longitudinal rows: submedian,

lateral and a marginal with one pore on each segment, except segment III, which bears on submedian row 2 or 1 pore and segment VIII, which has no trilocular pores.

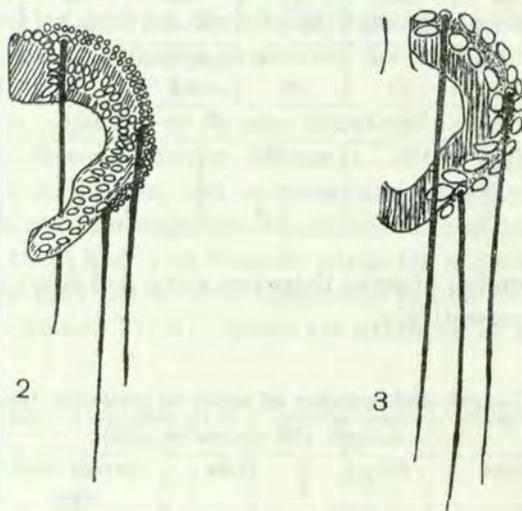


Fig. 2, 3. *Trionymus luzensis* sp. n. 2 — anal ring of female; 3 — anal ring of first larva.

Setae slender. On cephalic part in submedian row (on half of the body) there are 3 setae on dorsal and 3 on ventral side. Those on ventral side are much more longer. On thorax the setae are more numerous on dorsal side. On dorsal side of abdomen on segments I–VI, setae form 3 longitudinal rows: submedian, lateral and submarginal one. On segment VII there are only 2 setae (submedian and lateral) and on segment VIII there are no setae. On ventral side of abdomen, there are 3 longitudinal rows of setae: submedian, lateral and submarginal; only on the segment III there is lack of lateral setae. Ventral surface of anal plate with apical setae longer than anal ring setae. Along the body there is a marginal row of setae, with tendency rather towards the dorsal side.

Material: The Kampinoski National Park, the southern border of the Łuże swamp, 2 IX 1977, 67 ♀♀ during oviposition; the same locality, 11 X 1978, 4 ovisacs. Series of the first larval stage (hatched in tubes) from the material of 1977 and 1978.

Holotype ♀ and paratypes 20 ♀♀ are deposited in the Warsaw Agricultural University at the Department of Zoology; paratypes 2 ♀♀ are also deposited in the Institute of Zoology, Polish Academy of Sciences, Warsaw.

Habitat and distribution. The females with ovisacs of *Trionymus luzensis* sp. n. were collected on the surface of leaves of *Deschampsia caespitosa* (L.) P. B. and *Calamagrostis* sp. (*Gramineae*)<sup>1</sup>. As well as numerous specimens

<sup>1</sup> The plants were identified by courtesy of Dr. Barbara STAŃKO-BRÓDKA.

with ovisacs were found on the fallen, dry leaves of *Alnus* sp., *Betula* sp. and on the vestiges of unidentified plants. Also a female, crawling on the surface of grass, just before oviposition — was collected. Ovisacs (Fig. 5–7): white,

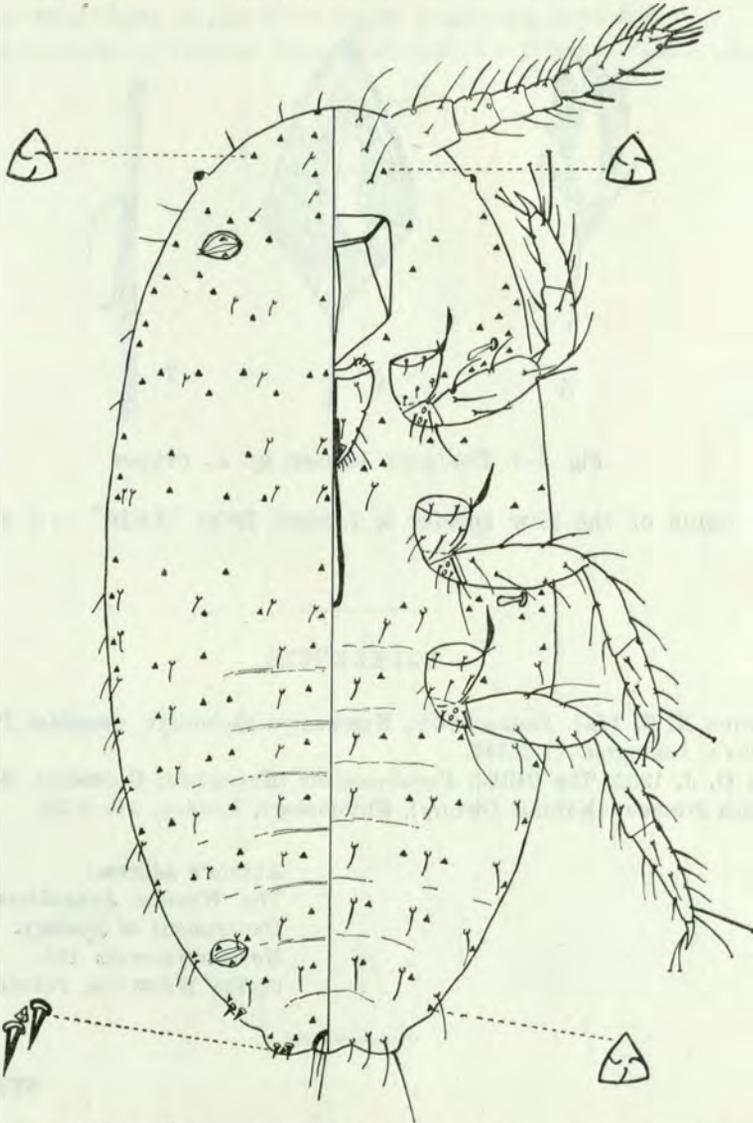


Fig. 4. *Trionymus luzensis* sp. n., first larval stage.

cylindrical, felt; their length 7–12 mm, width 3–4 mm. The new species was found on the narrow zone between the edge of a swamp and dry sandy dune overgrown by forest.

Notes. *Trionymus luzensis* sp. n. comes close to *Trionymus phalaridis*

GREEN; WILLIAMS, 1962. It differs in the greater number of trilocular pores and auxiliary setae on cerarii area, greater number of multilocular pores on both sides of the body and in the shape of the body.

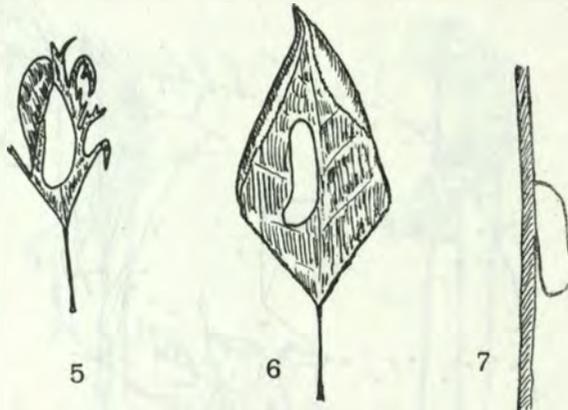


Fig. 5-7. *Trionymus luzensis* sp. n., ovisacs.

The name of the new species is formed from "Łuże" — a name of the swamp.

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#### STRESZCZENIE

[Tytuł: *Trionymus luzensis* sp. n. (Homoptera, Coccoidea, Pseudococcidae) z Polski]

Praca zawiera szczegółowy opis morfologiczny samicy i larwy pierwszego stadium. Opisy zilustrowano rysunkami. Nowy gatunek podobny jest do *Trionymus phalaridis* GREEN.

## РЕЗЮМЕ

[Заглавие: *Trionymus luzensis* sp. n. (*Homoptera, Coccoidea, Pseudococcidae*) из Польши]

Приведена подробная морфология самки и личинки первой стадии, описание которых сопровождается рисунками. Новый вид близок к *Trionymus phalaridis* GREEN.

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Fig. 5-7. *Xylocopa* sp. n., details.

The name of the new species is derived from "Dux" — a name of the genus.

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