

Investigations on the Fauna at the Province of Ivanovo-Vosnesensk, ordered by the Faculty of agriculture of the Polytechnical Inst. of Ivanovo Vosnesensk. Summer 1920.

6. Turbellarians fauna of the investigated Region.

N.V. Kordé

(With one plate)

Here I record the list of Turbellaria obtained in the Province of Ivanovo-Vosnesensk by the Exped. during the year 1920, and also the informations concerning the lake Pereyaslavskoye at the Province of Vladimir are included. These Informations were collected by the Exp. of our Departement (Faculty) at the Hydrolog. Inst. of Russia undertaken together during the 1921. The two Exp. worked under the direction of the Prof. Lastochkin.

In the Province of Ivanovo-Vosnesensk the Turbellarian's Fauna was investigated in the following basins: 1) In the lakes: Yatrovskoye, Bryuchovskoye and Valdayskoye, 2) in the ponds: "The Nijni Pond" and "The Pond Derenski" at the Oustinsk's St. (at the marsh), the ponds: "The Bezsmertuy" at the Bezimyung one, in the neighbourhood of the above mentioned station. In the pond "Zoubkovsky" at the farm belonging to the Polyt. Inst. the village Bogorodskoye 3) in the marsh Konohovo between the villages Konohovo and Podyednoye near the Ivanovo-Vos. 4) in the river Ouvodz and its affluent Talka, and also in the holes and pits and ditches at its banks. 5) in the wells and springs, 6) in the pools during spring time.

In the province of Vladimir: 1) the lake Pereyaslavskoye, 2) the springs: Vosnesensky, Gremyachka, and "the spring near the Sovnia" which are discharging themselves into the lake Pereyaslavskoye, and its tributaries the rivers: Veskovka, Grobla, Kurotiia and the largest among them the Troubej, and the river Voeksa, which flows from the lake Pereyaslavskoye.

I. Subleg. Rhabdocoelida.

1. Ordo Rhabdocoela. A. Sect. Hysterophora.

Fam. Catenulidae Graff.

1. *Catenula lemnae* Ant. Dug. Most abundant during all summer in the moss of the marshy banks of the lakes: Yatrovskoye, Vyskovskoye, Bryuchovskoye and Valdayskoye. Indicated for the central Russia, the provinces of Novgorod, of Vyatka and the Finland.

2; *Stenostomum leucops* Ant. Dug. Common among all the weeds at the banks of the following lakes: Yatrovskoye, Bryuchovskoye, Vyskovskoye, Valdayskoye, and Pereyaslavskoye. In the rivers: Ouvodz, Talka, Voeksa, Veskovka, Brusnichka, Troubef, in the ponds: Zoubkovsky, Derevensky and Bezimyanny, in the marsh of Konohovo and in the springs. In winter samples it was very frequent. In the first days of August occurred some specimens with eggs. One round egg was present in the middle of the body. These animals were completely transparent, the gut did not contain some nourishment.

The species is widely spread.

p.41/

3. *Stenostomum* sp. The length of the body attains 1 mm. The animal has very feebly expressed lamellae of the head. A metabolic body, tapering towards the posterior end. The refracting organs are very tiny, their front part is very protuberant; in the middle of the nearly flat back side a dimple is situated. This form is very common at the marshy banks of the lakes: Vyskovskoye, Valdayskoye, Yatrovskoye, it occurred also in the pond Bezimyanny. V.N. Beklemischev informed me that he has obtained a form apparently identical with the named above in the provinces of Perm and Urenbourg.

4. *Stenostomum unicolor* O.Schm. Single specimens occurred in the lakes Yatrovskoye, Pereyaslavskoye and in the ponds Zoubkovsky. Indicated for the provinces of Livland, Novgorod, Vyatka, Saratov and Caucasus.

Fam. Microstomidae.

5. *Microstomum lineare* Müll. Had occurred in the rivers: Ouvodz, Talka, Veskovka, Voeksa. In the lakes Yatrovskoye, Vyskovskoye, Bryuchovskoye and Pereyaslavskoye; among the weeds as well as in the ooze at the places without vegetation. Some times it occurred in plankton. In the lake Pereyaslavskoye one could observe, that when moving away from shore, gradually the pigment of the eyes disappeared. Already in the depth of 30 cent. and 150 ~~m~~/m. away from the shore, some individuals occurred with a complete lack of pigment, and in the depth of 50 cm. 200 m. away from the shore the animals with eyes were very few. In

the lake Valdayskoye the *Microstomum* was found as deep as 3 sazen (1 sazen - seven english feet), and the eyes were always normally developed. Widely distributed sp.

6. *Microstomum giganteum* Hallez. Was rather often found in the creeks of the rivers Ouvodz. Widely distributed species.

6. *Macrostomum appendiculatum* O.Fabr. Very common near the shores of the lakes: Vysokovskoye, Valdayskoye, Pereyaslavskoye and in the rivers: Grobla, Veskovka, Troubez, Vöksa, Ouvodz. During the month of December now and then I have obtained some forms sexually mature. A widely spread species.

Fam. Prorhynchidae.

8. *Prorhynchus stagnalis* M.Schultze. Inhabits the lake Valdayskoye, the river Ouvodz, and in the marsh at its bank. The species rather widely spread in Russia.

9. *Prorhynchus sphyrocephalus* (Man). Seldom in the holes at the bank of the river Ouvodz and lake Vysokovskoye. Indicated for Finland and the gouvernement (province) of Vjatka.

B. Sekt. Lecithophora. Fam. Dalyelliidae.

10. *Dalyellia cuspidata* O.Schm. Seldom occurred in the lake Pereyaslavskoye, in the ditches at the bank of the river Ouvodz, in the pond Derevensky. Some varieties with four and five thorns were obtained. Indicated in the provinces: of Kalouga, Varshava, Vjatka, Saratov and for the west Siberia.

p. 42

11. *Dalyellia infundibuliformis* Fuhrm. Had occurred among the weeds at the banks of the lakes Yadrovskoye, Vysokovskoye, Valdayskoye. The chitinous genital apparatus corresponds to the Hofsten's drawing printed in the work of Beklemischev.(1917). This sp. was obtained in Switzerland, at the Island of Gotland in Sweden, in Finland too.

12. *Dalyellia expedita* Hofsten. Occurred in the holes at the banks of the rivers: Ouvodz, Talka, in the pond Bezimyanny, near the shore of the lake Valdayskoye. Indicated for the Finland, the provinces of Petrograd and Kalouga, the lake Ladoyskoye, and also for the Trans-Caucasus.

13. *Dalyellia virgulifer* Plotn. Very common during all the summer among the weeds at the shore of Valdayskoye lake. Thornbearing

had 6-7 thorns. Plotnikov

had obtained this species in the province of Petrograd among the weeds of the lakes Bologoye and Gloubokoye. N.V. Nasonov had described the subspecies *vjatkensis*, obtained from the lake Shishkinskye at the province of Vyatka.

14. *Dalyellia penicilla* M. Braun. In spring time occurs on vast swarms in the spring pools near Ivanovo-Voznesensk. The structure of the chitinous genital apparatus was usually not symmetrical: one half was more developed than the other one. This concerns the length of the proximal outgrowths as well as dimensions of the principal and supplementary branches and the number of thorns. The supplementary branches were always well developed and had the aspect of lamellas (lamina) with many rows of thorns. The number of thorns at the principal branch (varied) fluctuated between 17-23, and the supplementary branch at the same side, they fluctuated between 30-35. At the opposite side the principal branch had 15- to 20 thorns, the supplementary one had 15-19 thorns.

At the ends of the principal branches the thorns were often placed in 2-3 rows. In consideration that at the Braun's drawing (1885) one cannot distinctly see that the supplementary branches have many rows and because Nasonov (1919) and Beklemishev (1917) give the pictures of forms, which have single-rowed branches, therefore herein is enclosed my drawing No 1 of the chitinous genital apparatus. In spring 1922 in the vicinity of Ivanovo-Voznesensk all the individuals were without eggs, and the 11 of any nearly all had eggs, and the 22 of any after some warm days they disappeared completely.

This species is indicated for the provinces: of Kalouga, Petrograd, Livland and Vyatka.

15. *Dalyellia lutheri* Nass. This sp. was common in the lake of Walday, among the ^{vegetation} weeds at the shore; it could be found easily at the bottom of the lake in the moss. The exterior and the interior construction is quite in accordance with the description of N.V. Nasonov with the exception of the genital apparatus of the male, that is: all the individuals in the lake Walday had a chitinous copulatory organ (apparatus) but according to the informations of Nasonov this sp. was ^{wanting} missing it. This apparatus was composed (see fig.2) of proximal stems (a), which were often swollen at the ends and, usually they are of different length (on the average 27 microns); the fundamental lamella (b) with a who-

le of was covered with thorns, ranged in 3-4 rows; the lateral branches feebly developed (c).

p.43

present to be the immediate continuation of the fundamental lamella and they are provided with 3-4 thorns. The general length of the apparatus is 40 microns. The penis presents to be a spherical body with oval formed accumulations of sperm in its upper part and an irregular mass of granulous secretion under it. During the months: July, August, and September occurred some individuals with eggs. This species N.V. Nasonov had obtained in Finland in the vicinity of the st. Karassalimi in the year 1917.

16. *Dalyellia hallezii* Graff. It was obtained seldom from the holes at the bank of Ouvodz, in a ditch at the shore of the lake Valdayskoye. The chitinous apparatus is quite in accordance with the description and figure of Beklemischev (1917) with one exception: the proximal outgrowths exceeded the length of the lateral branches, not always, some times they were equal, some times slightly shorter. The number of thorns vacillated between 9-11. This sp. is indicated for the provinces of Kalouga, Vyatka and the Baltic.

17 *Dalyellia picta* O.Scm. Occurs among the vegetation at the shore of the lakes: Vysokovskoye, Valdayskoye and Pereyaslawskoye, in the rivers Toubes, and Vöksa. In the lake Pereyaslawskoye some individuals were found with not a large number of thorns at the lateral branches they were from 8-12; the medioventral lamella was not fully developed that is in the present case the sp. corresponds to the type of Beklemischev fig.(8) (1917); In the lake Valdayskoye beside of the above mentioned some individuals were found which genital apparatus was in accordance with the fig.(9). of the same work, it means they had a long, well developed medioventral process (outgrowth), but without intermediate outgrowths and with 17-20 thorns at the lateral branches. Usually one of the branches was longer than the other one. This sp. is indicated for Finland, the provinces of Kalouga, Petrograd, Vyatka and Sartov, the lake of Ladoga and Solovetsk Islands.

18. *Dalyellia armiger* O.Schm. Occurred in the springs at Ivanovo-Vosnesensk; at the st. Outkinskaya at the marsh and at Pereyaslavl. The chitinous genital apparatus corresponds rather to the description of Hofsten (1917) the intermediate thorns either were wanting or instead

Hofsten's "whip-formed" excressens" was present or in place of it 2 intermediat outgrouthes were at both sides of the medioventral one. In ϕ one well occured to me a form, which was smaller than the normal (usual) - 0,4 mm. The frontal part of the body was tapered and provided with long and hard hiar, at the back was a tail, which easily adhered to the slide (glass). Before the gullet small, reniform eyes were present. The mesenchi-me was yeklowish. The vitellarium dad a very feebly expressed protuberan-ces. In the other respects the genital apparatus corresponds closely to this of the typical form. The thorn bearing branch of the chitin apparatus bore 3-6 Thorns. This form is in accordance with the description of N.V. Nasonov (1919) of the *Dalyellia armiger* from the marsh in the wood in the province of Sarátov. But on the other side it is very like the *Dalyellia microphthalmus* (Vejd. (1895) by the form of the body, the presence of bristles at the fron end,

p.44

the yolk is learly without protuberanchs. Nasonov, in his work The Fauna- of the province of Vyatka points out, that *Dalyellia microphthalmus* Vejd. ought to be taken for a heterogeneous form of *D. armiger*, because the typical *D. armiger* shwed some times the structure of chitinous appara-tous corresponding to the *D. microphthalmas*, but the other fitures were identical withe the typical forms inhabiting the place.

On the other hand the above mentioned small form, having the same fitu-res as the species, wich Vejdovsky had described, possessed the genital apparatus typical for *D. armiger*. In his way once more the fact is confir-med, that the form of the chitinous apparatus cannot be taken as a base establish erect the sp. *microphthalmus*, Nevertheless it could be pointed out that the form of Vejdovsky, this of Nasonov and mine had in common similar declentions from the typical form (the yolks were nearly smooth, the bristles at the front were present, the general aspect of the body). Indicated for Finland, Caucasus, the provinces: of Tomsk, Vyatka, Saratov and Kalouga.

19. *Castrella truncata* Abild. Was very frequent in the rivers Ouvodz, ~~At~~ Talka and in the ditches, which communicated with them and also in the lake Bezsmertuy. This sp. is wideky spread.

20. *Phaenocora rufodorsata* Sekera. This form occurred in the ooze of the pond Zoubkovsky. Beklemischev had obtained ~~it~~ it in the province of Kalouga, Nasonov had found in Finland a form, wich as it seems, could

21. *Phaenocora typhlops* Vejf. Was very frequent in the ooze of the "Dirty" pond at Ivanovo-Vos. Indicated for the province of Petrograd.
22. *Phaenocora clavigera*? Was found only once in ooze of the river Veskovka, which discharges itself into the lake Pereyaslavskoye. The exterior aspect, the dimensions, the penis, the ovary, the receptaculum seminis are quite in accordance with the description and figures of Hofsten (1917). I could not see more, because Hofsten obtained only one specimen of this sp. and therefore it could not be sufficiently investigated.
23. *Phaenocora stagnalis* Fuhrm. Only one specimen obtained from a well at Pereyaslavl. Before it never occurred in Russia.
24. *Phaenocora gracilis* Vejd. In the ooze of a pond at Pereyaslavl. Indicated for the province of Vjatka.
25. *Opisthomum arsenii* Nass. Rather common near the shores of the lake Valdayskoye. Beklemischev had found it at Terioki.

Fam. Typhloplanidae.

26. *Olisthanella truncula* O.Schm. In the ooze of the river Veskovdischarging itself into the lake Pereyaslavskoye. 3 specimen were obtained, among them one had 3 eyes, the second 2 eyes and the third was

p.45

without eyes. Indicated for the provinces: of Kalouga, Vyatka and Saratov.

27. *Olisthanella palmeni* Nass. Only one specimen was found in the ooze at the shore of the lake Valdayskoye. This sp. Nasonov had found in Finland (1917) and later in the province of Vyatka. Beklemischev obtained it at Terioki.
28. *Typhloplanella limicola* Hofsten - *Dochmiotrema limicola* Hofst.-
Olisthanella valaamica Nass. (Fig.3,4 and5). Occurred in a very shallow place among the weeds *Heleocharis* in the lake Pereyaslavskoye. The length of the body is in average 2mm. It was slightly swollen in the middle, it grows narrower towards the front and the posterior ends, which are blunt. It is transparent, but grayish, by reason of a great accumulation of colourless drops of fat. The animal resisted with strength against the pressure. At the front end one, could see distinctly the traces of rabbits. It had no eyes. The gut is yellowish, the gullet is situated at the end of the second third of the body. The secretory orifices are placed at both sides of the throat at the same height as the mouth. The geni-

body. The vitellarium are slender with natches, wich are not very deep, they attain nearly the front end of the gutt and they are opening by a common canal into the atrium genital. The receptaculum seminis is divide into two parts: the first one with thick walls is tube formed, sometimes it is swollen and even spher like, the second part has a shape of a bladder with thin walls, ^{it is} ~~they~~ often filled with sperms. The uterus was close to the lower part of ^{the} atrium. into the uterus a dirty-yellowish ovalformed egg was placed. The ovalformed testis are situated at the dorsal side in relation to the vitellarium at its upper part. The copulatory organ has varius aspects according to the degree in which it is filled sperm, usually it is in accordance with the fig (3). Ductus ejaculatorium is divided into two parts. This form corresponds to the *Dochmitrema* ~~Hofsten~~ Hofsten, with the exception of the single uterus, while Hofsten describes the presence of the rudiments of 2 uterus into the front part of the atrium 1) This turbellaria is correspondng fairly closely to the *Olisthanella valaamica* Nass., which he obtained from the lake Ladoga. The difference consists only in the place of the excretory pores which are situated lower at the turbellaria of Valaam and the presence of a "large gland" at the lower part of the body. But it is quite possible, that erroneously was taken for a gland the distal part of the receptaculum seminis much swollen. Some specimens obtained from the lake Pereyaslvskoye had the both parts (compartements) of the receptaculum seminis mightly distende by the transparent liquid, and the second partition of the receptaculum sem; was situated (a) precisely at the place where Nas. has drawn the gland (See fig.4 and5). If we adopte the systematic of the group *Olisthanellini* which Sekera proposed in the year 1911,

p.46

in this case this form, according to the place of the excretory system, must be called *Typhloplanella limicola* Hofst.

29. *Strongylostoma radiatum* (Müll). Common in the rivers: Ouvodz, Talka, Kubotnya, Veskovka. At the zone of the shores of the lakes: Pereyaslvskoye and Valdayskoye, some times in the plancton of lake Valdayskoye.

1) N.V. Beklemischev directed my attention, that the unpaired apertures of discharge of the *Dochmitrema* seemingly is erroneous, because Sekera, when examining Hofstens animals did not find some pores of discharge of excretions.

In Russia it is rather widely spread.

30. *Strongylostoma elongatum* Hofsten. Occurred but not often in the zone of the lakes: Pereyaslavskoye, Valdayskoye and in the river Vöksa. Indicated for the province of Vyatka.

31. *Rhynchomesostema rostratum* (Müll.). Is common at the zone of the shore off the lakes Valdayskoye and Vysokovskoye, in the ponds Zoubkovskoy and the Bezimyanny, in the holes and the ditches near the Ivanovo-Vosnes. This sp. is rather widely spread in Russia.

32. *Typhloplana viridata* (Abildg.). Inhabiting the zone of the shore of the lakes Yadrovskoye, Valdayskoye, Bryouchovskoye, Pereyaslavskoye, in the rivers: Ouvodz, Talka, Veskovka, Vöksa, the pond Bezimyanny, in the marsh of Konohovo, and in many ditches and holes. A species rather widely spread in Russia.

33. *Castrada fuhrmanni* (Volz.). One specimen was found in the lake Pereyaslavskoye near the shore among the weeds of *Potamogeton perfoliatus*. It was never before found in Russia.

34. *Castrada segne* (Furm.) Was frequent in the river Ouvodz, and in ditches at the shore. The bursa copulatrix was always covered with small thorns.

35. *Castrada lanceola* (M.Braun). Obtained from the ooze of the lake Valdayskoye. The exterior aspect and the interior structure is quite in accordance with the description of Nasonov's *Castrada segnis fennica* (1917). In his work on the Fauna of the province Vyatka he considers, that it corresponds closely to the *Castrada lanceola* (M.Braun). The forms from Valday had the ductus ejaculatorius some times bell-shaped and large, an other time it was tube-formed, swollen and at the end it was round, The small thorns into the inner side of the canal occupied a lesser surface than the species of Nasonov. For the most part they were arranged in 5-6 rows, among them only 2-3 were well developed the remaining scarcely visible. In the month of september the individuals with eggs were common, The number of eggs attained 12. This species is indicated for Finland and the province of Vyatka, was found in the river the Northern Donez and at the shore of the lake Kaban.

36. *Castrada neocomensis* Volz. Was common among the weeds of the lakes Yadrovskoye and Valdayskoye. Some times during the spring time at Ivanovo-Vosnesensk, in the pools. Indicated for Finland too.

37. *Castrada intermedia* (Volz). Obtained many times in the creeks of the river Ouvodz. In Russia it was found in the province of Kalouga in the

lake Gokcha and in the bay of Finland.

38. *Castrada armata* (Fuhrm.) Occurred in the holes at the bank of the river Ouvodz, and in a well at Pereyaslavl. Occurred in Finland, in the lakes Bologoye and Gloubokoye and in the province of Vyatka.

P.47

39. *Castrada nigropontica* Nass. (fig.6-7). was obtained in December in the ooze of a spring, which did not freeze, near the factory of Poloushin at Ivanovo-Vosnesensk. 3-4 days after capturing the animals appeared at the walls of the vessel. The length of the body, the shape, the colour, the situation of the gullet and the constriction of the female genital apparatus are in accordance with the description of Nass. In other respects I can ~~not~~ complement his observations. The testis is oval-formed, growing narrower towards the end, they are situated immediately over the gullet at the ventral side in relation to the vitellarium. In December all the specimens were sexually mature and the ductus spermaticus were filled with sperm. Vesicula seminis and the shape of the granulous secretion were corresponding closely to the fig. of Nass. Ductus ejaculatorius had the shape of a tube swollen in the middle and growing narrower to both ends. What concerns the chitinous denticles of the copulatory organ, they were not three, as says Nasonov, but 5. At the right side in the smaller blind sac beside "the rod, which was bent" (fig.6a) immediately behind it a place was present (b), which was provided with a denticle. In the middle between the blind sacs also 2 denticles were present; one (c) of the same shape as the fig. 7 of Nasonov, the other (d) corresponds by its shape to the thorn (b) in the smaller sac. In the bigger blind sac was present, likewise as in description of Nasonov's form a long chitinous plate (2) with one or two denticles in the middle. Bursa copulatrix I could not discern. Many individuals had eggs, their number attained 6. Difficult to discern if they were placed in the uterus or directly in the mesenchym. The excretory system of all the individuals opened by 2 very obvious apertures in the middle between the lower extremity of the gullet and the upper end of the copulatory organ. In this way this species having the structure of the genital apparatus typical for the genus *Castrada*, shows a very primitive construction of the excretory systems. According to this symptom and also the absence of rabbits, indicated by Nasonov, the *Castrada nigropontica* must take quite a separate place among the other species of this genus. Nasonov obtained this form at the bottom of a ditch with running water in

40. *Mesostoma productum* (O.Schm.). Was common all kinds of weeds of the lakes Valdayskoye and Yadravskoye, in the creeks of the river Ouvodz, in the pond Bezimyanny. It is very abundant in the basins, which are drying out. In Russia it is rather widely spread.
41. *Mesostoma lingua* (Abbild). Often in the holes and ditches at the banks of the river Ouvodz. In the marsh of Konohovo. It is widely spread in Russia.
42. *Mesostoma chromobactrum* M.Braun. Only one specimen was obtained in May near Ivanovo-Vosnesensk in a pool, at the bank of the river Ouvodz after an overflow. Indicated for the Baltic.
43. *Mesostoma ehrenbergii* (Focke). Very common at the zone of the shore of the lake Valdayskoye during all the summer. A form widely distributed.

44. *Mesostoma craci* (O.Schm.) Occurs frequently in spring in the pool near Ivanovo-Vosnesensk. ~~INDICATED FOR THE PROVINCE OF PETROGRAD, LIVLAND, OF MOSKVA, KAZAN, OF SARATOV AND KALOUGA, THE SOLOVETSKI ISLANDS AND THE FINLAND.~~
Indicated for the province of Petrograd, Livland, of Moskva, Kazan, of Saratov and Kalouga, the Solovetski Islands and the Finland.
45. *Bothromesostoma personatum* (O.Schm.) Was frequent in the holes and the ditches at the bank of the river Ouvodz, among the weeds at the shore of the Lake Peryaslavskoye. A form widely distributed in Russia.

Fam. Gytratricidae

46. *Gytratrix hermaphroditus* Ehrbg. Was found in all the basins which were investigated. In winter time the forms with eggs were frequent. A cosmopolite.

Fam. Polycistidae.

47. *Polycistis goettei* Bresslau. Is very frequent at the zone of the shore of the lake Pereyaslavskoye. Masonov has indicated it for the provinces of Vyatka and Finland.
48. *Polycistis* sp. (fig. 8,9,10,11). Occurred at the zone of the shore of the lake Valdayskoye. The length of the body fr. 1,8 to 2mm. The body is cylindrical, tapered towards the front, the posterior end is blunt and roundet, the color is dirty gray or yellowish, the body is not very transparent. At the front end a relatively small proboscis is present, behind it the brain is placed and a pair of black eyes. The gullet is situated at the end of the first third of the body. The genital pore is placed at the limit between the second and the terminal third part of the body.

P. goettei Bresslau with the exception of the cocoon, which at the fig. of Bresslau in the determinative literature of Graff 1) is represented as sphere-form, but the species of Valday has the cocoon oval-shaped. Its length is in average 265 microns, the breadth 155 m., The soft parts of the genital apparatus of the male, I could not see, but the chitinous one presents to be rather peculiar. They are composed of a tube (a.fig.9); which is tapering gradually towards the end, its lower aperture is closed by a lid (b.fig.11) the lid has the shape of round slide, its diameter is equal to this of the of the aperture of the tube. A crown is placed over the lid, which shape is compleated (?), its height is 18 microns. In the interior of the tube (a), and also out of it a very slender tube is present (d) swollen at the lower end, at the upper part it forms directly an open conduct (d). From the lower dilated part of the tube sticks out a stylet (e,fig.10) it is arrow-formed. Inside the open conduct some times are present one or two arrows, which corresponds to that, which could be seen always at the enlarged end of the tube. When the slide was ~~pressed~~ pressed, one could see, that the arrows present in the conduit have the capacity to move along it. The excretory system I could not see.

p 49.

II Ordo Alloecoela.

A. Sect. Holocoela. Fam. Plagiostomidae.

49. *Plagiostomum lemani* (Pless). Often in the sandy-ooze of the lake Pereyaslvskoye. Indicated for the provinces of Livland, and Saratov, the lake Choudskoye and the Finland.

B. Sect. Crossocoela. Fam. Monocoelidae.

50. *Otomesostoma auditivum* (Pless.) Was found only twice in the lake Valdayskoye, the first time rather near the shore in the ooze, the next time at the depth of 3 m. Indicated for Finland, the province of Petrograd and the lake Choudskoye.

C. Sect. Cyclocoela. Fam. Bothrioplanidae.

51. *Bothrioplana semperi* ? Braun. One specimen of this genus, which belongs seemingly to the sp. *semperi*, was obtained in winter in the ooze in a spring, which never freezes at Ivanovo-Vosnesensk. Braun has obtained it in the province of Livland, and Nasonov at Finland.

1) Die Süßwasserfauna Deutschlands herausgegeben von A. Brauer heft 19.

II. Subleg. Tricladida.

52. *Bdellocephala punctata* (Pallas). One specimen occurred on the piles in the river Troubez. Indicated for the province of Petrograd, of Kalouga, the Finland and the West-Russia.
53. *Dendrocoelum lacteum* (Müller). Common in the ditches and wells at the Ivanovo-Vosnesensk. Indicated in Russia for many places.
54. *Polycelis nigra* Ehrenb. Usually it occurred in the springs with cold water, in the wells, near the Ivanovo-Vosnesensk as well at the Pereyaslav. Rather widely spread in Russia.

In conclusion I express my deep thankfulness to B.N. Beklemishev for his assistance to ~~the~~ determinate the sp. *Typhloplanella limicola*, *Phaeocora rufodorsata* and for other valuables informations.

January 1923.

N.V. Kordé 1923.



рис 1.
(*A. pinnilla*)

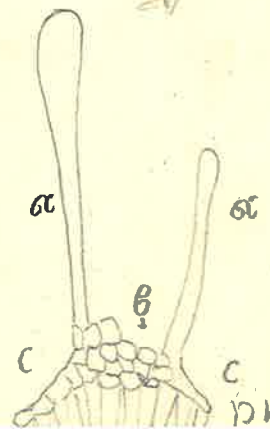


рис 2.



рис 5
(*Doehm. bimicola*)

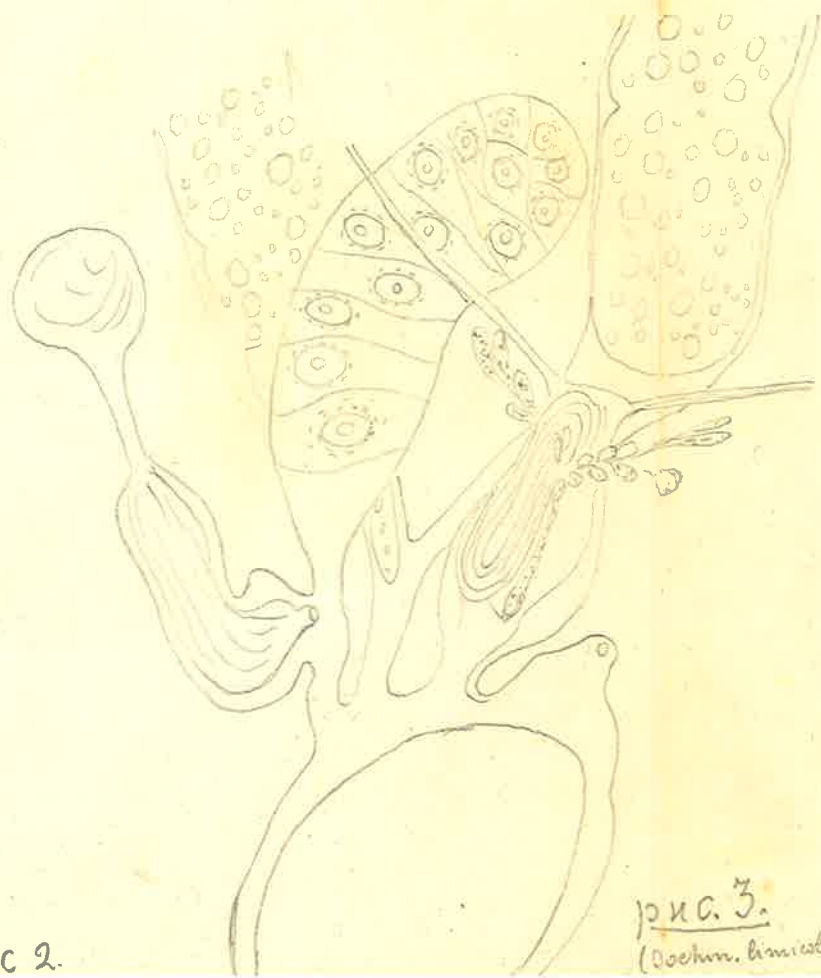


рис 3.
(*Doehm. bimicola*)



рис 4
(*Doehm. bimicola*)

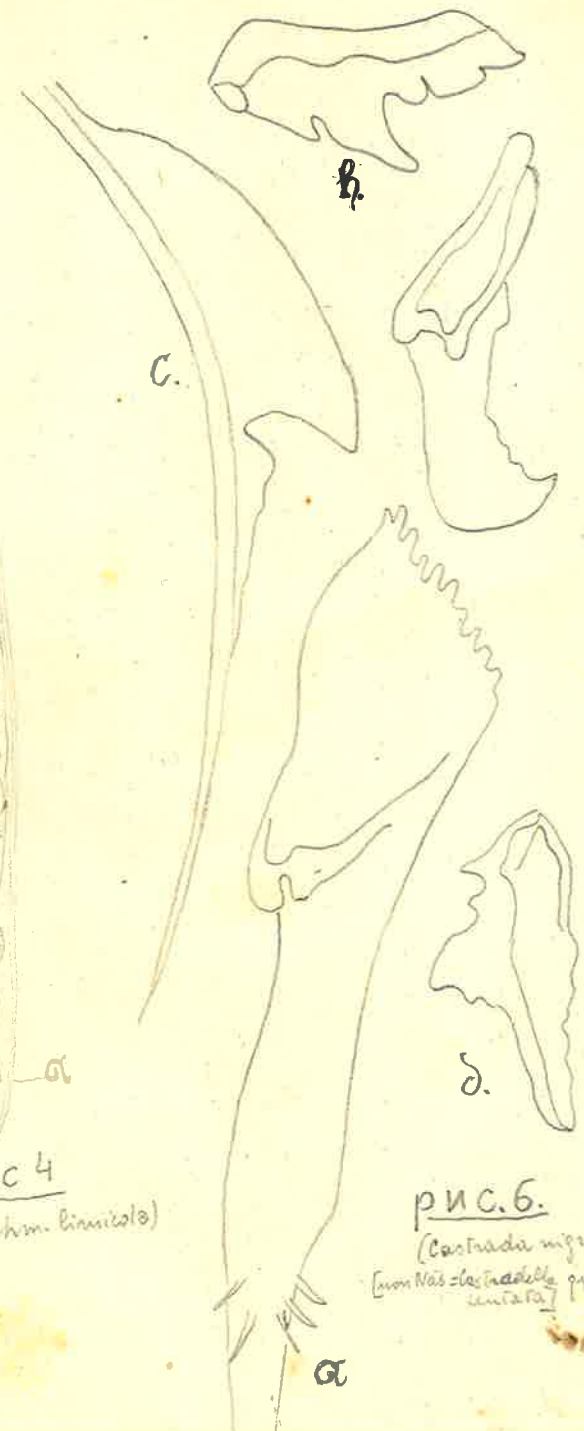


рис 6.
(*Castrovia micropontica*)
(*Castrovia micropontica*)

