ACTA HYDROBIOL.	18	3	291—304	KRAKÓW 1976

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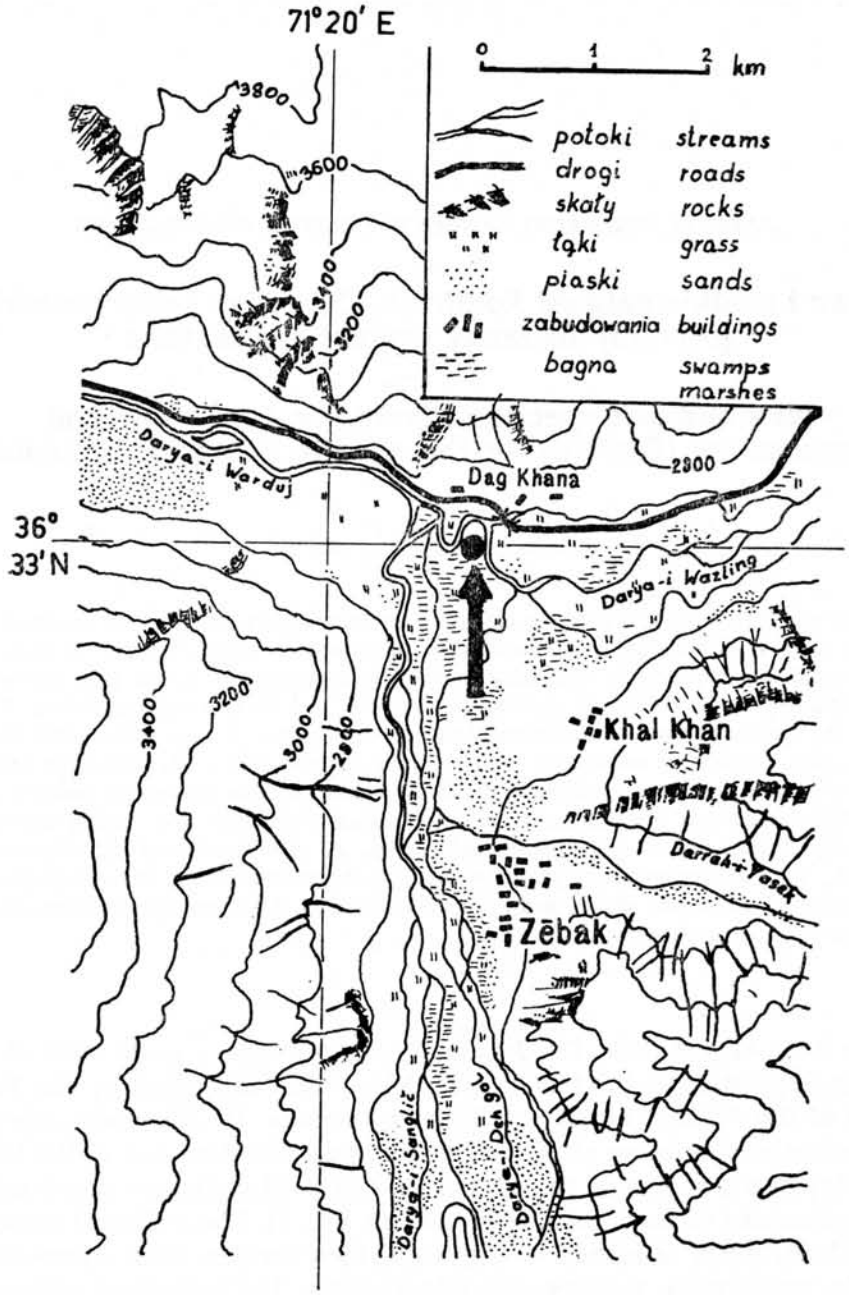
Nowe i rzadkie gatunki *Rotatoria, Cladocera* i *Chironomidae* (*Diptera*) dla fauny wodnej Afganistanu

New and rare species of *Rotatoria, Cladocera,* and *Chironomidae (Diptera)* for the aquatic fauna of Afghanistan

Wpłynęło 13 lutego 1975 r.

Abstract — In the samples collected on 28th August, 1973, in the overflow-arm of the River Warduj in the neighbourhood of te village of Zebak (Badakhshan province) in Central Hindu-Kush the following species were found to occur: two species of *Rotatoria, Keratella cochlearis cochlearis* Gosse and *K. quadrata reticulata* Carlin; six species of *Cladocera, Simocephalus* cf. *elizabethae* King, *Macrothrix dadayi* Behning, *Acroperus angustatus* Sars, *Alona costata* Sars, *A. rectangula coronata* Kurz, and *Bosmina longirostris* (O. F. Müll.); and nine taxonomic units of *Chironomdiae (Diptera); Macropelopia* sp. Afghanistan, *Cricotopus (Isocladius) sylvestris* (Fabr.), *Psectrocladius (Allopsectrocladius)* sp., *P. (Psectrocladius)* cf. *oligosetosus* Wülk., *P. (Psectrocladius)* ex gr. *psilopterus,* (?) *Psectrocladius* sp., *Rheocricotopus* sp., *Coryneura* cf. *scutellata Winn.,* and *Thienemanniella* sp. All these species were new or rare for the aquatic fauna of Afghanistan.

On 24th August, 1973, Dr. Janusz Wojtusiak, a participant of the Polish Expedition in the Hindu-Kush Mountains, organized by the Tatra Club of the Polish Tourist and Touring Society in Kraków, collected a number of specimens of aquatic fauna in an overflow-arm of the River Warduj in the region of the village of Zebak (Badakhshan province) in the mountains of the Central Hindu-Kush (fig. 1). The collected material contained larvae of insects — bugs, mayflies, beetles, flies, water-mites, snails, crustaceans, rotifers, and oligochaetes. The individual groups of organisms were turned over to specialists for elaboration. In the present report *Rotatoria, Cladocera,* and *Chironomidae (Diptera)* have been elaborated.



Ryc. 1. Mapa badanego terenu. Stanowisko, z którego pobierano materiał, oznaczono czarnym punktem

Fig. 1. Map of the investigated territory. The station where the material was collected is marked with a black dot

Description of the site

The overflow-arm of the river lies in a valley, where the montane rivers Darya-i Sanglič (fig. 2), Darya-i Deh Gol, Darya-i Yasek (fig. 3), and Darya-i Wazling join, giving rise to the River Warduj and collecting waters from the south-west part of the Central Hindu-Kush. The valley is surrounded by the following mountain groups: the Zebak Hindu-Kush from the east, the Jokham Hindu-Kush from the west, and the mountains of the northern Badakhshan from the north. They are 4500—5500 m. high.

The substratum of the overflow-arm is formed of quarternary and post-glacial river sediments, its east part is chiefly composed of conglomerates and in the west part of gravel and sand which are the products of decay of granite rocks.

In the northern part of the overflow-arm of the Rivers Daryai-i Wazling and Darya-i Sanglic shallow meanders are formed whose banks are covered with low meadow vegetation. This area is very wet and rich in small water bodies with stagnant water. The soil layer is relatively thin, being not more than 20 cm in thickness. The material was collected with a hand sampler with a No 10 net (3 mesh/mm) in the overflow-arm, at places particularly rich in algae and aquatic plants. The overflow-arm, having a depth of 0.1—0.8 m and dimensions of 4 ×5 m, is partly separated from the main current and has water which is transparent to the bottom.

Rotatoria

In general, the rotifers are cosmopolitan species, the occurrence of the below — mentioned species in the territory of Afghanistan confirming the rule. Gurvič (1974) reports 34 species of rotifers for Pamir and 30 for Tjan-Shan.

Keratella cochlearis cochlearis Gosse, 1851. A specimen smaller in dimensions than those quoted as average. The length of the lorica 62 μm, length of ventral, median, and dorsal spines 8 μm, 10 μm, and 16 μm respectively. Posterior spine 36 μm. The length of the posterior spine only slightly greater than half the body length (58%). A cosmopolitan species. Gurvič (1974) reports. *K. cochlearis* for the mountains of Tjan-Shan.

Keratella quadrata reticulata Carlin, 1943 — A specimen with a lorica 152 μm in length and 121 μm in breadth. The length of dorsal, lateral, and ventral spines 65 μm, 39 μm, and 35 μm respectively. The posterior spines of 100 and 105 μm parallel. The species occurs in small water bodies of various kinds. A cosmopolitan species, reported from Pamir (Kutikova 1972, Gurvič 1974) and Tjan-Shan (Gurvič 1974) (Figs 11 and 12).

Cladocera

The fauna of the Afghanistan cladocerans is very little known. Usually the samples are collected by way of various expeditions (Uéno 1966, Brehm 1959, Löffler 1956). From this area Brehm reports 19 positively identified species, while Uéno (1966) found only 4 species of cladocerans in the available samples. Gurvič (1974) lists 35 species of cladocerans from Pamir and 20 species from Tjan-Shan. The distribution of species quoted in further parts of the present work concern only the territories neighbouring with Afghanistan.

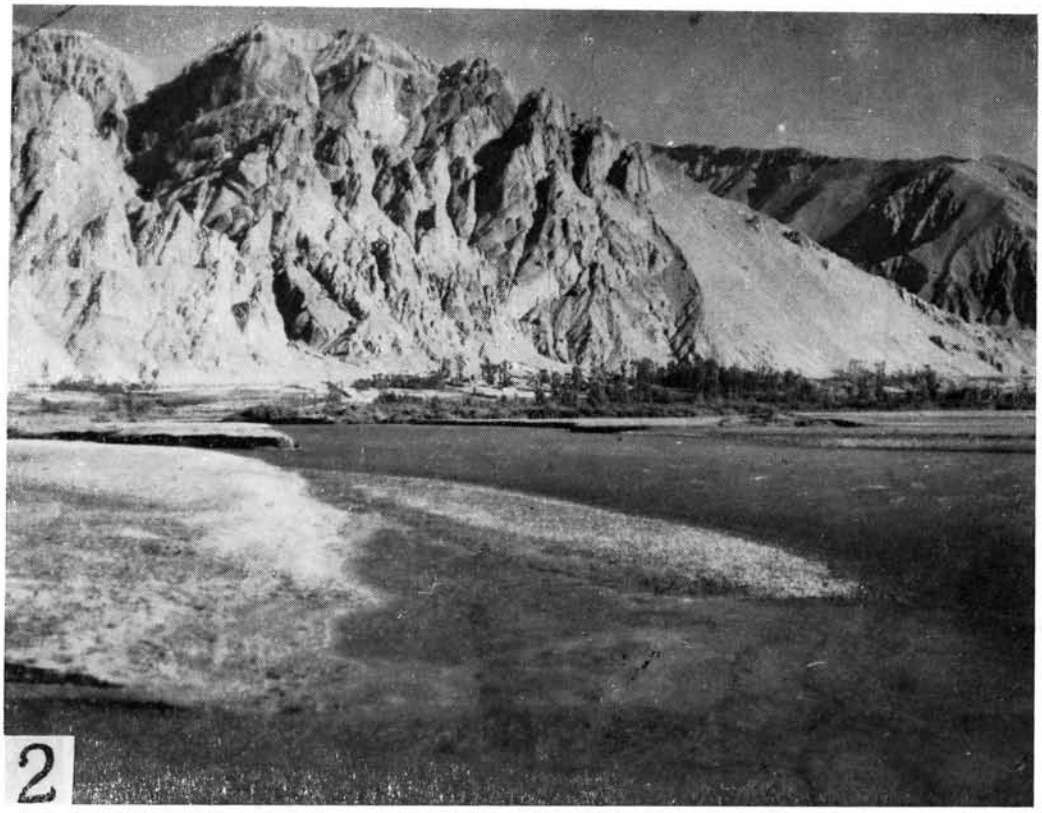
Simocephalus cf. *elizabethae* King. 1853 — The sample contained 2 female specimens, one of them being immature with not yet fully developed features. The posterior margin of the carapace has three haired spines. The postabdomen is shown in fig. 4. 12 anal spines. In the description of a new species *S. mixtus* Sars (1903) reports that usually about 10 anal spines are observed. King (1853) quotes 10—14 anal spines for *S. elizabethae*. According to Bening (1941), in. *S. mixtus* the angle of the dorsal margin of the postabdomen is slightly sharpened. In the specimens discussed this is almost a right angle (fig. 4).

The sense-hair at the base of second antennae reaches the join of the second and third proximal segment of the antennae. In consequence of differences and similarities mentioned above this species cannot be identified as *S. elizabethae*.

The species has not been reported from Afghanistan. It occurs in Southern Asia and in southern republics of the Soviet Union (Kasymov 1972). Brehm (1959) reports *Simocephalus* sp. (12 stations) from Afghanistan but gives neither figures nor descriptions.

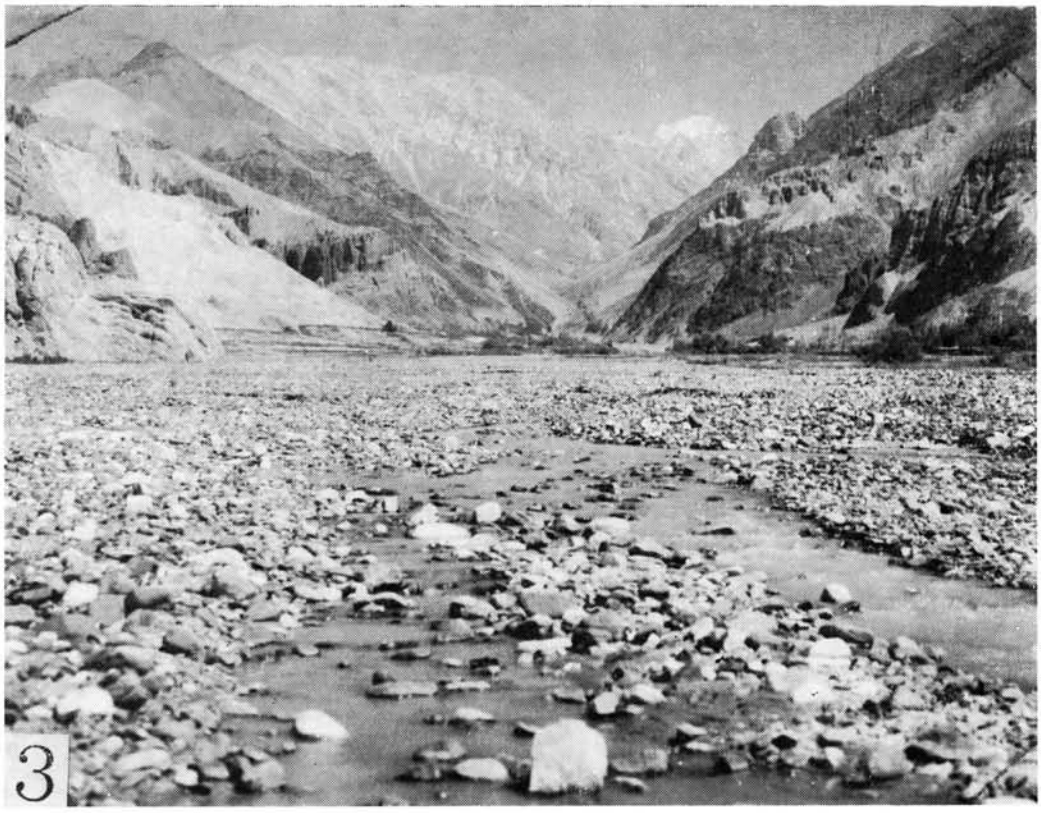
Macrothrix cf. *dadayi* Bening, 1941 — A female without eggs, 0.52 mm in length. The dorsal margin of the carapace smooth (fig. 5). The first antennae widen at the base to 2/3 of the length, then narrow (fig. 14). The postabdomen short and high, the dorsal side showing an incision (figs 7 and 13). The claws haired; between the claws and the first anal spine several small hairs. 6 anal spines. The proximal part of the postabdomen covered with hairs. On their whole length setae natatori have hairs which are best visible at the end. The ventral side of the carapace has a single line of setae and small spines. The second antennae have the $\frac{3\text{-}1\text{-}0\text{-}0}{3\text{-}1\text{-}1}$ pattern (fig. 6). These features, with the exception of a deep incision, seem to suggest that this is *M. dadayi*. A species not reported from Afghanistan.

Brehm (1959) reports a *Macrothrix* sp. not described in detail, from Pol Khomri (Qataghan province) from a similar environment.

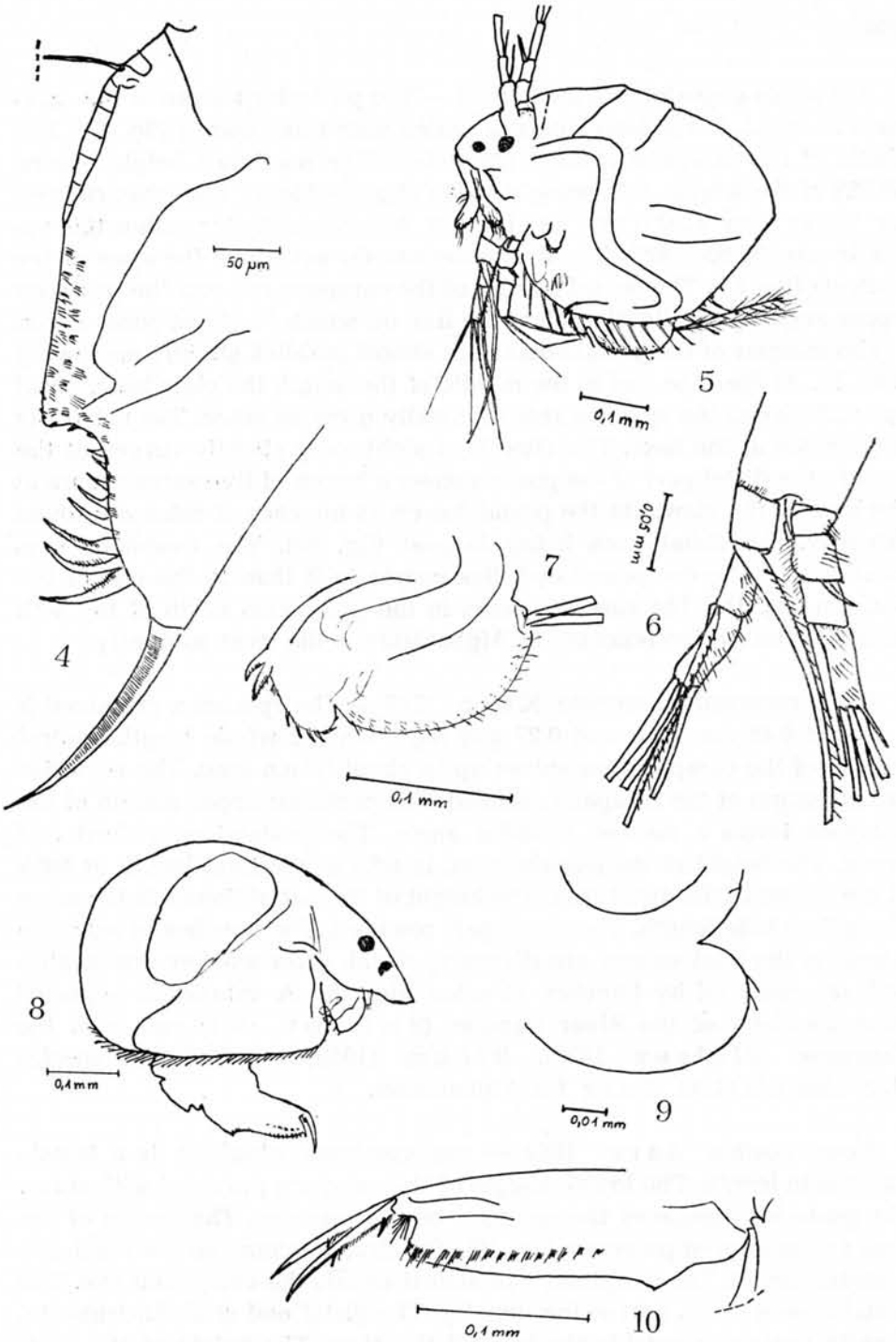


Ryc. 2. Widok z okolicy Dang Khana w kierunku południowym na rozlewisko rzeki Daryia-i Sanglič (fot. J. W o j t u s i a k)

Fig. 2. A view of the neighbourhood of Dang Khana to the south on the overflow-arm of the River Daryia-i Sanglič (Phot. J. W o j t u s i a k)



Ryc. 3. Wylot doliny Darrah-i Yasek widziany z wioski Zebak (fot. J. W o j t u s i a k)
Fig. 3. The mouth of the Darrah-i Yasek Valley seen from the village of Zebak (Phot. J. W o j t u s i a k)



Ryc. 4—10. 4 — *Simocephalus* cf. *elizabethae* postabdomen dorosłej ♀; 5—7 — *Macrothrix* cf. *dadayi*: 5 — samica; 6 — anteny II ♀; 7 — postabdomen ♀; 8—9 — *Alona costata*: 8 — samica; 9 — płytka wargi ♀; 10 — *Acroperus angustatus* — postabdomen ♀

Figs. 4—10. 4 — *Simocephalus* cf. *elizabethae* postabdomen of adult ♀; 5—7 — *Macrothrix* cf. *dadayi*: 5 — female; 6 — antennae II ♀; 7 — postabdomen ♀; 8—9 — *Alona costata*: 8 — female; 9 — plate of labrum ♀; 10 — *Acroperus angustatus* — postabdomen ♀

Acroperus angustatus Sars, 1863 — The posterior margin of the carapace rounded, in the lower part provided with three spines (fig. 17). The shells of the carapace striated (29 striae). The maximum height attains 58.5% of the length, this being a value slightly higher than that claimed by Smirnov (1971) as a key feature. According to this author this value is usually 55—56%. The first antennae do not reach the apex of the rostrum (fig. 15). The dorsal margin of the carapace convex; the posterior upper angle lying slightly below the line on which the head pores occur.

The margins of the postabdomen are almost parallel, slightly narrowing distally. At the base and in the middle of the length the claw has a basal spine. Between the spines a row of distally growing setae. The spine has some setae at the base. The claw is straight, only slightly curved at the end. In the distal part of the postabdomen a bunch of five setae occurs at the base of the claw. On the postabdomen 15 bunches of setae are found laterally, the distal ones being longest (fig. 10). The nauplious eye, smaller than the compound eye, lies nearer to it than to the end of the rostrum (fig. 15). The species occurs in the palearctic, north of the 40th parallel. The station reported in Afghanistan is the most southerly.

Alona rectangula coronata Kurz, 1875 — The specimen examined is a female 0.45 mm long and 0.27 mm high. On the whole length ventral margin of the carapace has spines up to about 30 μm long. The posterior lower margin of the carapace rounded. The posterior upper margin of the carapace forms a marked rounded angle. The postabdomen short and broad. The height of the postabdomen is 40% of the total length or 64% of the length of the distal part. The height of the postabdomen is the same along its whole length. The distal part rounded. The bunches of setae lie laterally, the anal spines, are distinctly distal, grow smaller proximally, and are replaced by bunches of setae (fig. 18). A subspecies reported from the delta of the River Danube (Smirnov 1971) and from the Caucasus (Sikleev 1930). Brehm (1959) reported the species *A. rectangula* G. O. Sars for Afghanistan.

Alona costata Sars, 1862 — the specimen obtained is a female 0.47 mm in length. The lower margin of the carapace provided with setae. The posterior margin of the carapace gently rounded. The design of the shell in the form of polygons (fig. 19). The first antennae do not reach the rostrum (fig. 8). The nauplious eye almost equals the compound eye. The postabdomen short, narrowing distally. The distal end straight, truncate, slightly protrudes outside the base of the claw. The height of the postabdomen is 40% of its length and 77% of the length of the distal part. The claw smooth with one spine at the base. 11 anal spines. Laterally on the postabdomen bunches of setae, the distal one being longest. The anal margin of the postabdomen almost straight (fig. 20). The plate of

the labrum rounded with two hairs (fig. 9). The species reported from Iran (Löffler 1959), Georgia (Vereščagin 1911), Azerbaijan (Alizade 1940), and Pamir (Gurvič 1974). Not reported from Afghanistan.

Bosmina longirostris O. F. Müller 1785 — A specimen 0.31, mm long, shown in fig. 21. A eurotope species encountered in water bodies of various kinds all over the world. Recently reported from Lake Zeribar in Iran (Smagowicz 1975) and from Pamir (Gurvič 1974).

Diptera — Chironomidae

The *Chironomidae* fauna of Afghanistan is as yet very little known. Tokunaga (1966) reports 12 species from this territory, describing them on the basis of adult forms. Hirvenoja (1973) gives 3 species of the genus *Cricotopus* and Lehman (1969) 1 species of the genus *Rheocricotopus*. Data on the *Chironomidae* of neighbouring regions are also scarce. Singh (1958) and Kaul (1970) describe new species from the Himalaya Mts, and Reiss (1968, 1969) from Nepal. Löffler (1969) reports several kinds of *Chironomidae* on the basis of larvae from montane lakes in Nepal. A few more data on the larvae are contained in the work of Pankratova (1970) from the territories of the Asiatic republic of the Soviet Union neighbouring with Afghanistan.

In the collected material larvae and pupae of the *Chironomidae* of 9 taxonomic units were found and in some cases adult forms were skeletonized from pupal exuviae. Ufortunately, the state of knowledge of the pre-imaginal forms does not always allow them to be identified precisely.

Macropelopia sp. Afghanistan — One pupa (fig. 22) and 3 larvae of *Macropelopia*, the *nebulosa* group, were found. The larvae do not differ from other species of this group while the pupa shows a number of features distinguishing it from other European species of *M. nebulosa* (Meigen). *M. fehlmanni* (Kieff.), *Macropelopia* sp. Fittkau from Norway, and from the Japanese *M. paranebulosa* Fittkau (Fittkau 1962). The structure of the pupa from Afghanistan is most similar to the European species of *M. nebulosa* but since several details of it are different, it seems justifield to differentiate it as a new sub-species.

The pupa: 7.5 mm in length, the colour of the exuvia greyish brown. The thoracic horn similar to that in *M. nebulosa* (Meigen) (fig. 27), on the tergite of the first segment four dorsal D bristles, on segments II—VI five bristles, the D_1 bristle, set on a very large base as long as

the bristle itself, the D_2 hair bristle lying on the upper part of the tergite, the bristles D_3 and D_4 lying one beside the other at the level of the base, the D_5 bristle lying just below the base, the L lateral bristle thin and hairy (fig. 24), on the tergite of the VII segment the base of the D_1 bristle poorly developed while the distribution of other D bristles slightly different from that on the segments discussed above; besides one L bristle 6 LS bristles are found on the lateral margin, and on segment VIII one D bristle and five LS bristles; the margin of the anal lobe is more or less straight, covered with bristles in the fringe.

Imago ♂, ♀: hitherto not known.

Larvae: no features occur which would permit differentiation of the larvae of these two sub-species.

The specimens of one pupa and three larvae fixed in alcohol are preserved in the collection of the laboratory of Water Biology of the Polish Academy of Sciences in Kraków.

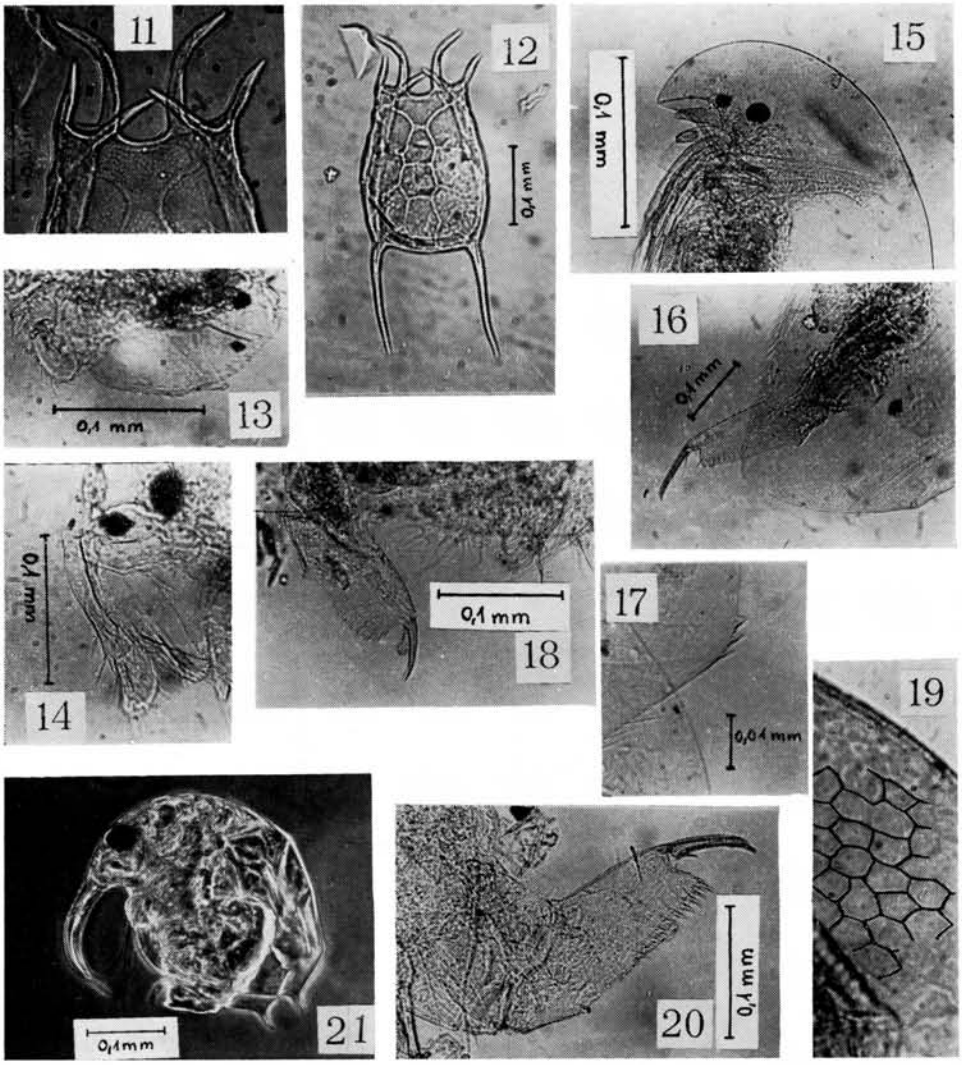
Distribution and acology: *Macropelopia* sp. Afghanistan has been found so far in the territory of Afghanistan in the overflow-arm of the River Warduj, 2000 m above sea level, on 23rd August, 1973.

Macropelopia nebulosa (M e i g e n) is a species common in all the investigated biotopes in the whole territory of Europe (F i t t k a u 1962). It also occurs in the territory of the Caucasus Mts, in a mineral spring stream feeding the River Terek at the level of 1800 m (the Kazbeck region, Georgian SSR) on 13th May, 1970.

The pupae of the two subspecies differ in the following features:

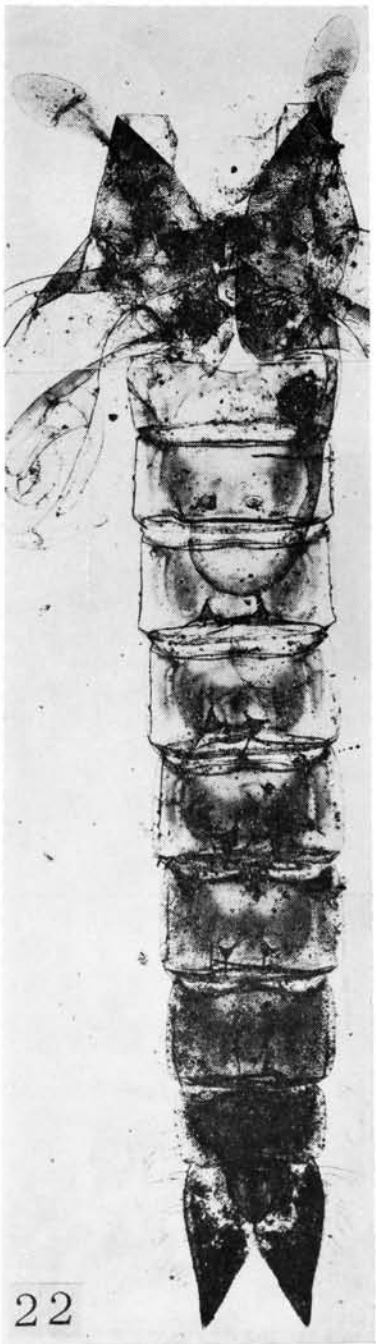
Macropelopia nebulosa sp. Afghanistan.	*Macropelopia nebulosa* (M e i g.)
1. On segments II—VI large bases on which a short D_1 bristle is set (fig. 22);	On segments II—VI the bases are poorly developed, bristle D_1 being narrower and slightly longer.
2. Bristles D_3 and D_4 are grouped together and set on the side of a tergite at the level of the base, while bristle D_5 is set just below the base, none of the bristles being exceptionally long (fig. 24);	Bristles D_3, D_4, and D_5 are set below the base, bristle D_3 being exceptionally long (fig. 25);
3. On the tergites of segments II—V no row of spinules occurs on the posterior margin;	On the tergites of segments II—V in the posterior part a row of small, dark spinules spreads as wide as the breadth of the bases;
4. The lateral margin of the anal lobe more or less straight.	The lateral margin of the anal lobe rounded.

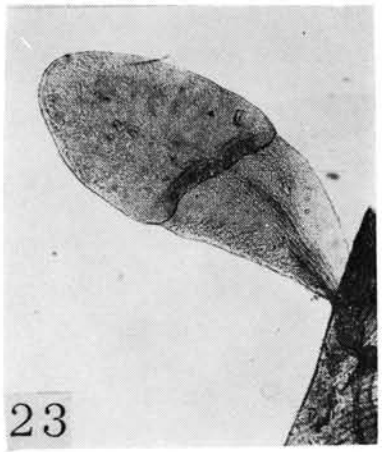
Cricotopus (Isocladius) sylvestris (F a b r.) — One pupa and four larvae of this species were found. The species has a very wide distribution and

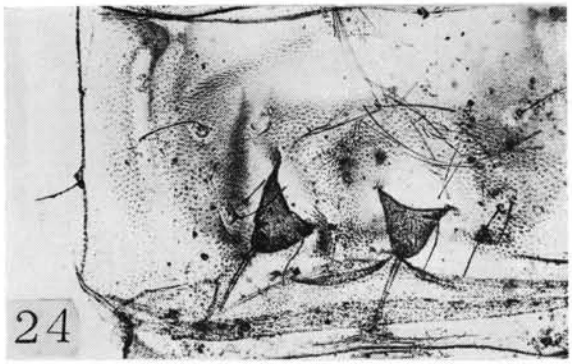


Ryc. 11—21. 11—12 — *Keratella quadrata reticulata:* 11 — wyrostki przednie pancerzyka i rzeźba przednich płytek; 12 — układ płytek pancerzyka; 13—14 — *Macrothrix* cf. *dcdayi:* 13 — postabdomen ♀; 14 — anteny I ♀; 15—17 — *Acroperus angustatus:* 15 — anteny I i głowa ♀; 16 — postabdomen ♀; 17 — tylny brzuszny skraj pancerzyka; 18 — *Alona rectangula coronata* — abdomen ♀; 19—20 — *A. costata:* 19 — rzeźba skorupek pancerzyka; 20 — postabdomen ♀; 21 — *Bosmina longirostris* — samica

Figs. 11—21. 11—12 — *Keratella quadrata reticulata:* 11 — anterior spines of the valve and sculpture of anterior plates; 12 — arrangement of plates in the valve; 13—14 — *Macrothrix* cf. *dadayi:* 13 — postabdomen ♀; 14 — antennae I ♀; 15—17 — *Acroperus angustatus:* 15 — antennae I and head ♀; 16 — postabdomen ♀; 17 — posterior ventral margin of the valve; 18 — *Alona rectangula coronata* — abdomen ♀; 19—20 — *A. ccstata:* 19 — sculpture of valves in the carapaces; 20 — postabdomen ♀; 21 — *Bosmina longirostris* — female

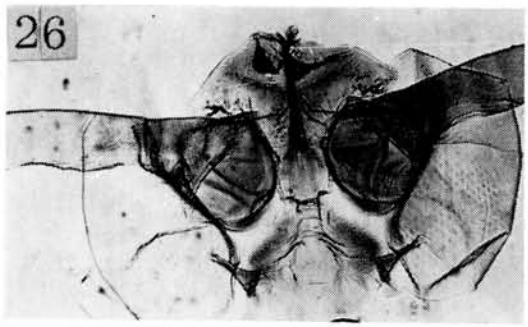


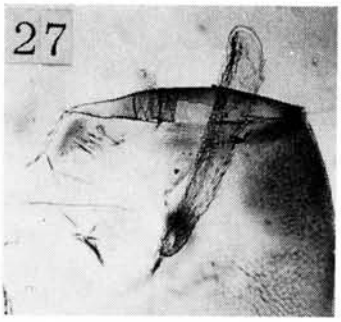


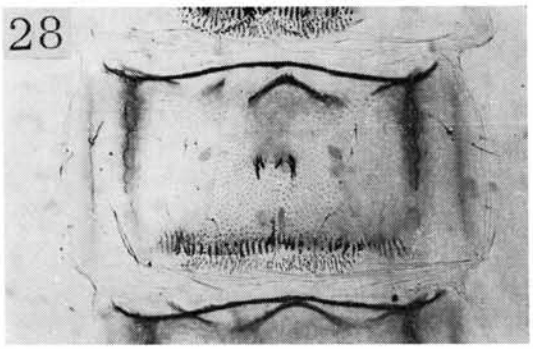


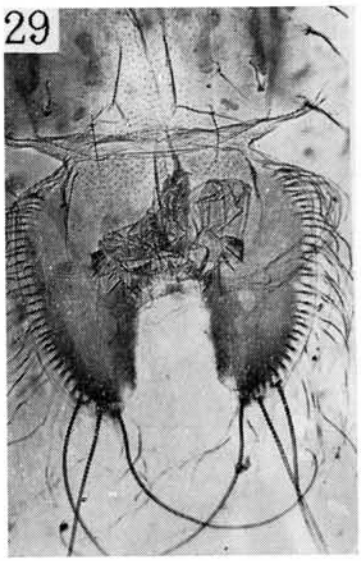
Ryc. 22—25. 22—24. *Macropelopia* sp. afghanistan: 22 — poczwarka; 23 — róg oddechowy poczwarki; 24 — fragment tergitu IV poczwarki; 25 — *M. nebulosa* — fragment tergitu IV poczwarki (fot. W. H u k)

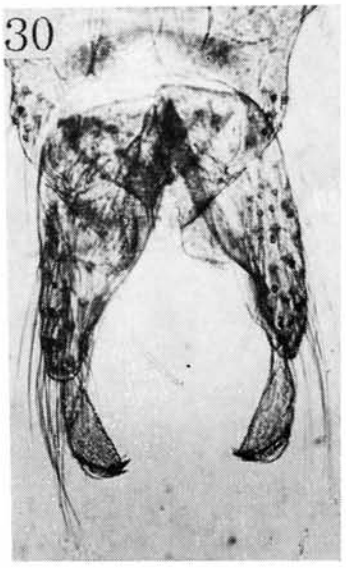
Figs. 22—25. 22—24 — *Macropelopia* sp. afghanistan: 22 — pupa; 23 — thoracic horn on the pupa; 24 — fragment of tergite IV of pupa; 25 — *M. nebulosa nebulosa* — fragment of tergite IV of pupa (Phot. W. H u k)





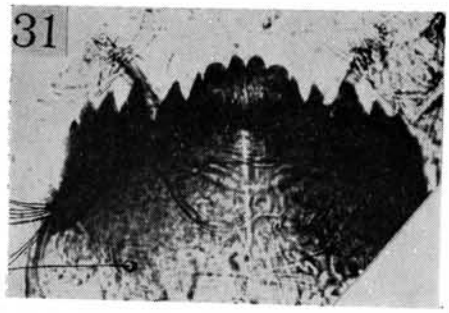


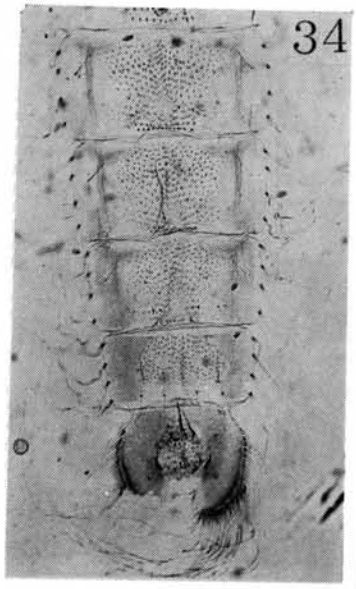




Ryc. 26—30. *Psectrocladius* (*Psectrocladius*) cf. *oligosetus:* 26 — część głowowa poczwarki; 27 — róg oddechowy poczwarki; 28 — tergit IV poczwarki; 29 — płytka pływna poczwarki; 30 — imago ♂ hypopyg (fot. W. H u k)

Figs 26—30. *Psectrocladius* (*Psectrocladius*) cf. *oligosetus:* 26 — cephalic part of pupa; 27 — thoracic horn of pupa; 28 — tergite IV of pupa; 29 — anal lobe of pupa; 30 — imago ♂ hypopygium (Phot. W. H u k)





Ryc. 31—36. 31—32 — *Psectrocladius* sp. (?): 31 — larwa, hypochilum; 32 — larwa, czułek; 33—36 — *Corynoneura* cf. *scutellata:* 33 — poczwarka, część tułowiowa; 34 — poczwarka, końcowe segmenty odwłoka; 35 — imago ♂, czułek; 36 — ♂ hypopyg (fot. W. Huk)

Figs 31—36. 31—32 — *Psectrocladius* sp. (?); 31 — larva, hypochilum; 32 — larva, antenna; 33—36 — *Corynoneura* cf. *scutellata:* 33 — pupa, thoracic part; 34 — pupa, last segments of abdomen; 35 — imago ♂, antena; 36 — ♂, hypophygium (Phot. W. Huk)

inhabits various aquatic environments. The males were caught near Kadjahkai in Afghanistan (Hirvenoja 1973).

Psectrocladius (Allopsectrocladius) sp. — 9 larvae of the subgenus *Allopsectrocladius* Wülker were found. This subgenus was described by Wülker (1949) who included here a number of species: *P. bifilis* Kieff., *P. dilatatus* Van der Wulp, *P. platypus* Edw., *P. obuvis* (Walk.), and *P. vicinus* Kieff., which in the larval stage are impossible to differentiate (Thienemann 1944, Romaniszyn 1958, Pankratova 1970). The species of this subgenus are widely distributed and have also been noted in the Asiatic part of the Soviet Union (Pankratova 1970). From Afghanistan no species of this subgenus have hitherto been reported.

Psectrocladius (Psectrocladius) cf. *oligosetus* Wülker 1949 — One pupa was found and a male specimen skeletonized from it. The features which can be observed are in accordance with those given by Wülker 1949 for the European species *P. oligosetus* Wülker. The absence of wings and a poorly skeletonized thorax prevent any statisfactory systematic identification of the specimen from Afghanistan.

Imago ♂: body length 5.5 mm. Head: 14 frontal antenna (104 : 68 : 24 : 24 : 24 : 24 : 24 : 28 : 28 : 28 : 28 : 28 : 608 µm), AR = 1.32, segments II—XII, of the antenna covered with two whorls of long hairs, the segment XIV covered with long hairs on its whole length, only the tip of the antenna having several curved bristles, no apical bristle occurs, eyes not haired. Claws: the spur on ti of the front leg has 72 µm, on the medium one 48 µm, and on the hind leg a spur of 80 µm and a comb composed of 18 bristles; tarsal spines do not occur on p_1, on p_2 and p_3 two spines on ta_1 and ta_2 are found; the claws with 5 apical teeth, the empodium longer than the claws, the pulvilli reach half the length of claws; length and proportions of the leg in µm:

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	BV	SV
p_1	612	760	580	388	304	200	138	0,76	1,87	2,36
p_2	660	728	360	228	160	124	120	0,49	2,77	3,86
p_3	800	888	500	348	240	160	132	0,56	2,49	3,38

Abdomen: the tergites covered with long hairs set on light fields; the hypopygium with a small number of bristles on the anal point, on the basistyle two strong bristles besides the apical spine (fig. 30).

Pupa: the thoracic horn wholly covered with spines (fig. 27), before the horn three bristles of uneven length, on tergite II a protuberance covered with numerous small spines, on tergites III—VI on the posterior margin a row of transverse dark thorns, in the middle part of tergites IV—VI two patches of spines, three spines in one patch being found on

tergites IV—V and 5 spines on tergite VI, besides, in the posterior lateral corner of tergites IV—VI a group of long bristles of the colour of the body, in the intersegmental area of segment II—IV a group of numerous shagrinations (fig. 28), and the longest lateral L bristles on segment VIII; the anal lobe with 35—36 filamentous bristles (fig. 29) apart from three strong bristles.

In Europe this species has been reported from the Alps, Black Forest, and Fennoscandia (Fittkau, Reiss, Schlee 1967). Not reported from Afghanistan.

Psectrocladius (Psectrocladius) psilopterus group — A larva of this group was found. A detailed species determination of this group is not possible on the basis of the larvae (Thienemann 1944, Pankratova 1970).

A group of species of wide holarctic distribution (Pankratova 1970, Saetler 1969). The larvae of this group are reported for the first time from Afghanistan.

Psectrocladius sp.(?) — 2 larvae not yet described were found which most probably may be classified to the genus *Psectrocladius* Kieffer. This is suggested by the structure of the mouth organs, though, since no spur occurs on the procerci, the correctness of this identification is uncertain.

Larva: Body length 6 mm, colour greenish grey, the head light brown; antenna of five segments (68:22:8:7:5 µm), AR = 1.6, Lauterborn organs large, set on the second joint, reach 2/3 of the third joint, the style set on the first segment of the antenna reaches the end on the third segment (fig. 32); setae anteriores plumosae, setae posteriores long and sharply pointed, setae minimae delicately hairy, premandible dark brown, hypochilium (labium) with four median teeth and six pairs of lateral teeth, prelabial plate long and narrow with long and distinct hairs (fig. 31). Procerci conical without spur, with 6 long bristles; anal tubules short, digital, in length 1/3 of the posterior proleg.

Rheocricotopus sp. — 3 larvae of this genus were found. Identification of the species is not yet possible on the basis of larvae. Earlier descriptions of larvae (Thienemann 1944, Romaniszyn 1949, Pankratova 1970) are outdated after the last revision carried out by Lehmann (1969) on the basis of the imago. The larvae found may belong either to the species *R. lindbergi* Lehmann, decribed from Afghanistan, to one of the two Nepal species *R. godavaricus* Lehmann, belong either to the species *R. lindbergi* Lehmann, described from *R. nepalensis* Lehmann or to any of the European species of wide distribution. It is also possible that they may be of some as yet not described species.

Corynoneura cf. *scutellata* Winn. — The specimens found were: 2 male pupae from which adult forms were skeletonized, one female pupa and 90 larvae. On the basis of features visible in the males skeletonized from the exuviae this species was identified as C. *scutellata* Winn. However, the absence of wings and poorly sclerotized internal structure of the hypopygium prevent any certain identification. After the recent revision carried out on the basis of adult forms (Schlee 1968), the larvae and pupae of this genus need reelaboration.

Imago ♂: the length of 2.3 mm. Head: eyes haired, hairs shorter than the cornea of the ommatidia, visible only under great magnification, antennae composed of 11 segments (40:36:20:20:24:24:28:28:32:32:36:228 μm), AR = 0.77, segments II—X covered with long hairs, segment XI $^3/_4$ covered with long hairs, in the apical part slightly pointed and covered with a group of delicate bristles (fig. 35). Legs: on the ti of the anterior leg one long claw (24 μm), beside it two strong bristles (12 μm), on the ti of the second leg no claw, on the third leg besides a long claw (40 μm) and two thick bristles a comb composed of 20 large bristles.

Length and proportions of the leg (in μm):

	fe	ti	ta_1	ta_2	ta_3	ta_4	ta_5	LR	BV	SV
p_1	260	320	184	108	56	20	36	0.58	3.47	3.15
p_2	360	340	200	92	48	24	40	0.59	4.41	3.50
p_3	288	360	184	108	48	20	40	0.51	3.85	3.52

Abdomen: On tergites II—V one bristle set on a large light base in the medium part of the tergite, on tergites VI—VII three bristles arranged in a straight line in the middle part and on VIII three bristles arranged in one common field. Hypopygium (fig. 36); internal structure of the hypophygium (fig. 37). The shape of the basistyle as in *C. scutellata* Winn. It was not possible to stretch the wings.

Ryc. 37 — *Cyrynoneura* cf. *scutellata*, imago ♂, struktura wewnętrzna hypopygu
Fig. 37 — *Corynoneura cf. scutellata*, imago ♂, inner structure of hypophygium

Pupa: (figs 33—34) and larva: type of structure similar to that in the majority of species of the *Corynoneura* genus. A cosmopolitan species, occurring in all aquatic environments but not reported from Afghanistan.

Thienemanniella sp. — Five larvae of this genus were found. After the last revision of the genus (Schlee 1968), carried out on the basis of adult forms, it is not possible to identify the species on the basis of the larvae.

The genus is widely distributed in the holarctic, not reported from Afghanistan.

STRESZCZENIE

W próbach zebranych 28. VIII. 1973 r. z rozlewiska rzeki Warduj w pobliżu wsi Zebak (prowincja Badakhshan) w Hindukuszu Środkowym stwierdzono występowanie dwu gatunków *Rotatoria: Keratella cochlearis cochlearis* Gosse, *K. quadrata reticulata* Carlin; sześciu gatunków *Cladocera* — *Simocephalus* cf. *elizabethae* King, *Macrothrix dadayi* Bening, *Acroperus angustatus* Sars, *Alona costata* Sars, *A. rectangula coronata* Kurz, *Bosmina longirostris* (O. F. Müll.) i dziewięciu jednostek taksonomicznych *Chironomidae (Diptera)* — *Macropelopia* sp. Afghanistan, *Cricotopus (Isocladius)* sp., *P. (Psectrocladius)* cf. *oligosetosus* Wülk., *P. (Psectrocladius)* gr. *psilopterus*, *Psectrocladius* sp., *Rheocricotopus* sp., *Corynoneura* cf. *Scuttellata* Winn., *Thienemanniella* sp. — nowych lub rzadkich dla fauny wodnej Afganistanu.

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