CONTRIBUTIONS TO THE TYROGLYPHID FAUNA OF HUNGARY (ACARI)

by

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The family *Acaridae* of the suborder *Sarcoptiformes* is in Hungarian relation, even among the little known *Acarina* groups the most neglected. Altogether two papers were issued at the turn of the century which contain data about this group too (Karpelles, L.: Adalékok Magyarország atka-faunájához — Contributions to the mite fauna of Hungary, Budapest, 1893; and Tafner, V.: Adatok Magyarország atka-faunájához — Some data to the mite fauna of Hungary, Budapest, 1905). The enumeration of the Fauna Regni Hungariae was also built on the first paper. After a long time, in a paper with a more hygienic purpose (Makara, Gy. — Aradi, M. P.: Néhány atka előfordulása és egészségügyi jelentőségük — The occurence of some mites and their hygienic significance) there are published some Acaridae species which occur in Hungary.

Unfortunately the first paper was already obsolate when it was written and we can accept only with reservation his data about the *Acaridae*. The species *Tyroglyphus canestrini* described by the author cannot be recognized, in spite of the long description and the published figure. In the second paper there are only 3 *Acaridae* species mentioned, each with one locality, one of them lying beyond our recent border.

In the paper of Makara — Aradi there are only the most common species mentioned, which live in human habitations and are injurious to health. Faunistically this paper is of no particular value. Altogether there were not more than 9 species known from our fauna area. These are the following: (in brackets I give also the sources of the data). *Acarus siro* L. 1758. (Fauna Regni Hungariae — in the following as FRH, Makara & Aradi — in the following as M.—A.); *Tyrophagus dimidiatus* Herm. 1804 (FRH, M.—A.); *Sennertia xylocopae* ; (Donnadieu?) — (Tafner); *Saproglyphus neglectus* Berl. 1890 (Tafner); *Carpoglyphus lactis* (L. 1758) (M.—A.); *Glyciphagus domesticus* (De Geer, 1771) (M.—A.); *Lepidoglyphus cadaverum* (Schrank, 1781) (M.—A.).

In this paper I enumerate some of the material collected by me and of the older material that accumulated during my revision. The material derives from the Zoological Department of the Hungarian National Museum and from the private collections of Dr. János Balogh, Imre Loksa, János Szabó and mine. I express my thanks also here for ceding this material.

Of some species both imago and deutonymph were found. Of the other part of species I know only the imago or the deutonymph. I mention it near the species. Among the carriers of deutonymph there are some species which are new data or were known only as the carriers of other species. These are the following:

Carabus violaceus	*Sancassania bartheli*
Carabus scheidleri	*Sancassania bartheli*
Abax parallelopipedus	*Acotyledon schmitzi*, *Sancassania bartheli*
Pterostichus melas	*Sancassania bartheli*
Brachinus crepitans	*Acotyledon schmitzi*
Necrophorus vespilloides	*Pelzneria necrophori*
Staphylinus olens	*Acotyledon schmitzi*
Bombus agrorum	*Tyroglyphus farinae*
Camponotus ligniperda	*Garsaultia gigantonympha*
Lucilia sp.	*Myanoetus dyonichus*

The 23 species treated below are all but two new for our fauna. Five of them belong to the Anoetinae subfamily. The sequence of the enumeration is taken with little alterations from the works by Türk & Türk and Scheucher, taking in account the changes in nomenclature.

The used abbreviations of the collector's names are: J. Balogh: (B); Z. Kaszab: (K); Kaszab & Székessy: (K.—Sz.); J. B. Szabó: (Sz); S. Mahunka: (M).

List of species

1. *Acarus siro* L. 1758

Cosmopolite, common also in our country. The Fauna Regni Hungariae mentions it from Budapest under the name *Tyroglyphus siro* Gerv. Makara and Aradi report its frequent occurence on human faeces, in bakeries, mills and on dried stomachs stored for milk-curding. I proved the imagoes in material collected in the open (Ócsa, Szőce), horse stable and manure heap (Pomáz, Perkáta) and also from the "garbage heap" of the seed-collector ant Messor structor. It turned up also in the nest of the gopher *(Citellus citellus)*. Its deutonymph I found on *Bombus agrorum*, *Musca domestica* and in the nest of the above mentioned ant.

Bátorliget, 25. VI. 1948 (K.—Sz.); Zalavár—Lebujpuszta, 7. V. 1950 (K); Ócsa—Turjáni-erdő, 24 IV. 1952 (K); Szőce, 14. VII. 1954 (B); Zamárdi, 31. VIII. 1954 (B); Budapest—Jánoshegy, 1. III. 1959 (M); Pomáz 19. III. 1959 (Sz); Perkáta, 14. IV. 1959, 29. V. 1959 (Sz).

2. *Forcellinia wasmanni* (Moniez 1892)

Till now the species was known from England, France, the Netherlands, Germany and the Soviet Union. New for our fauna. I collected the deutonymph on *Camponotus ligniperda*, the imagoes I do not know. The specimens from Hungary are larger than those known before.

Budapest—Hűvösvölgy, 5. VIII. 1960 (M),

3. *Garsaultia gigantonympha* (Vitzt. 1920)

Known localities are: Germany, Czechoslovakia. New for our fauna. Samsinák used in his paper "Über einige myrmecophile Milben aus der Familie Acaridae" an older generic name given by Oudemans and took it out from the genus *Acotyledon* where its place was not justified. In my opinion it is related to the genus *Forcellinia*. Its deutonymph was till now only collected from ants, I have caught it on some specimens of *Pterostychus melas* (Carabidae). In addition I found it on the ants *Camponotus ligniperda* and *Lasius fuliginosus*. I observed them covering the ants in great number. On 10 ants not selected I found 108 deutonymphs, on one among them there were as many as 15 ones. The nymphs were

sitting in regular, parallel rows, usually on the thorax and abdomen, but some were sitting even on the base of the antennae and the border of the eyes.

Budapest—Remetehegy, 14. III. 1959 (M); Pomáz, 17. IV. 1959 (M); Budafok, 9. IV. 1960 (M); Budapest—Jánoshegy, 1. V. 1960 (É. Molnos); Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

4. *Garsaultia tetramorii* (T ü r k & T ü r k 1957)

Till now it was known only from Czechoslovakia and Germany. New for our fauna. The species was described by S a m s i n a k and T ü r k nearly simultaneously and under the same name. In his last paper S a m s i n a k regarded T ü r k as the author and so do I. It was found in great number in the nests of *Tetramorium caespitum* on the south slope of the Sashegy under stones warmed by the sun.

Budapest—Sashegy, 19. IV. 1960 (M).

5. *Tyrophagus dimidiatus* (H e r m. 1804)

Cosmopolite. It was mentioned in the Fauna Regni Hungariae by its older synonymous name as *Tyroglyphus longior* G e r v. from Budapest. M a k a r a and A r a d i found it in straw mattresses of a workman's hostel. I collected the imagoes in garbage heaps (Budafok), in rabbit cage (Zamárdi), in straw litter of a horse stable (Pomáz) and in decaying reed debris on the shore of Lake Balaton. Also a very common animal, occuring everywhere.

Ócsa—Nagyerdő, 10. X. 1952 (K); Velence—tópart, 23. IX. 1953 (L); Töreki láp, 5. VI. 1954 (B—L); Zamárdi, 9. X. 1954 (K); Zamárdi, 31. VIII. 1955 (B); Balatonfenyves, 12. X. 1958 (M); Budafok, 10. XI. 1958 (M); Pomáz, 19. IV. 1959 (Sz); Budapest—Szabadsághegy, 1. IV. 1960 (M).

6. *Tyrophagus infestans* (B e r l. 1884)

Till now this species was known from Italy, the Netherlands, Poland and Germany. New for our fauna. It was collected in the open in decomposing vegetable matters (Budapest, Remetehegy) and on the shores of Lake Velence. It was found also in the dung of rabbit cage and in the litter of cow-sheds. I collected it also from decaying wood debris in the cave of Remetehegy. In the other localities I proved it in forest litter.

Zalavár—Lebujpuszta, 17. IV. 1953 (K); Tátika plato, 7. V. 1953 (K); Velence—shore, 23. XI. 1953 (L); Lovasi völgy, 29. VIII. 1954 (L); Zamárdi, 31. VIII. 1954 (B); Budapest—Remetehegy, 14. III. 1959 (M); Pomáz, 19. III. 1959 (Sz); Budapest—Kelenföld, 23. IX. 1959 (M); Budapest—Farkasrét, 17. XI. 1959 (M).

7. *Tyrophagus fungivorus* (O u d m s. 1932)

Till now it was known from Germany and England. New for our fauna. I collected it in the open in wet decaying wood debris.

Budapest— Remetehegy, 14. III. 1959 (M).

8. *Acotyledon krameri* (B e r l. 1881)

It was known from England, Germany, Italy, France, Indonesia and Brasil. New for our fauna. Both the imago and deutonymph were found in the garbage of rabbit cages and in manure heaps.

Zamárdi, 31. VIII. 1954 (B); Pomáz, 19. III. 1959 (Sz); Perkáta 14. IV. 1959 (Sz).

9. *Acotyledon schmitzi* (O u d m s. 1929)

Known localities ; Germany, the Netherlands and the Soviet Union. New for our fauna. One of our most common *Tyroglyphidae*. It is the most frequent species in forest litter and is also found on a great part of Carabidae. I collected it in

great number on *Abax parallelopipedus*, *Pterostichus macer*, *Brachinus crepitans* and *Staphylinus olens*.

Uzsapuszta, 1. IX. 1952 (B); Ócsa—Nagyerdő, 16. IX. 1952 (K—Sz); Töreki láp, 6. V. 1953 (K); Zamárdi, 9. X. 1953 (K); Sátorhegység, 31. IX. 1955 (K); Pécs, 25. X. 1958 (M); Budapest—Kelenföld, 13. IX. 1959 (M); Budapest—Jánoshegy, 1. V. 1960 (M); Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

10. *Sancassania polyphyllae* (Zachv. 1941)

In a recently published paper (Über einige myrmecophile Milben aus der Familie Acaridae) Samsinak has replaced the hitherto used *Caloglyphus* generic name—according to the rules of nomenclature—by an older generic name described by Oudemans. Thus the species *C. polyphyllae* must also be ranged in this genus. Till now it was known from the Soviet Union and Germany. Both imago and deutonymph were collected on manure heaps. According to Türk it is the associate species of *Acotyledon krameri* and *Caloglyphus berlesei* which is always in small number present. In the material from Pomáz I found this species in majority, and only a few *Acotyledon krameri* with it. The species *Caloglyphus berlesei* did not occur there at all.

Pomáz, 19. III. 1959 (Sz).

11. *Sancassania bartheli* (Türk & Türk 1957)

Till now it was known from Germany only. It was described lately by Türk. As to its classing to a genus, what I wrote about the species *Sancassania polyphyllae* goes for this species too. It is, together with *Acotyledon schmitzi*, one of our most common species, found mainly on *Carabidae*. I collected it on species *Abax parallelopipedus*, *Carabus scheidleri*, *Amara aenea*, *Harpalus smaragdinus* and *Pterostichus melas*. My specimens measure up to 300 μ, this is more than the measure published in the description by Türk.

Visegrád, 19. IX. 1959 (M); Budafok, 9. IV. 1960 (M); Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

12. *Rhyzoglyphus lucasii* Hughes 1948

Hughes described it from England, since then it was also found in Germany. New for our fauna. In the establishment of the Research Institute for Gardening it pullulated in enormous numbers in stored tulip bulbs. It consumed the moist inner leaves and caused great damage.

Nagytétény, 1. X. 1959 (V. Martinovich).

13. *Schwiebea nova* (Oudms. 1905)

Till now it was known from Germany and the Soviet Union. New for our fauna.

Sátorhegység, 1954 (T. Pócs).

14. *Schwiebea scheucherae* (Türk & Türk 1957)

It was recently described by Türk from Germany. New for our fauna. I found some specimens of this species in the mould, accumulated at the bottom of a tree-hole in an oak.

Budaörs, 5. III. 1960 (M).

15. *Lepidoglyphus michaeli* (Oudms. 1903)

Till now it was known from England and the Soviet Union. New for our fauna. It is one of the dominant species in the manure-samples examined. It was equally found in the excrement of horse, cattle and pig.

Zalavár—Lebujpuszta, 7. V. 1950 (K); Pomáz, 19. III. 1959 (Sz); Perkáta, 14. IV. 1959 (Sz).

16. *Ctenoglyphus intermedius* (Can. 1888)

Till now it was known from Germany and England. New for our fauna.

Likewise very common in our stables.

Zalavár—Lebujpuszta, 7. V. 1950 (K).

17. *Ctenoglyphus canestrini* (A r m. 1887)

Till now the known localities were England, Italy and the Soviet Union. It was found in soil-sample taken from horse-stable, besides in manure heap. New for our fauna.

Zalavár—Lebujpuszta, 7. V. 1950 (K); Pomáz, 19. III. 1959 (Sz); Perkáta, 14. IV. 1959 (Sz).

18. *Ctenoglyphus plumiger* (K o c h 1835)

It was known from England, Italy and the Soviet Union. New for our fauna. In the materials collected in stables it occured in the smallest number.

Zalavár—Lebujpuszta, 7. V. 1950 (K); Perkáta, 14. IV. 1959 (Sz).

19. *Histiostoma litorale* (O u d m s. 1914)

Till now it was known from Germany. New for our fauna. I caught it on the Carabid named *Pterostichus niger.*

Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

20. *Myanoetus dionychus* (O u d m s. 1910)

Till now it was known from Germany. New for our fauna. I caught it on *Lucilia sp.*

Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

21. *Rhopalanoetus lanceocrinus* (O u d m s. 1914)

It was known from Germany and the Netherlands. New for our fauna. It was found in reed-debris.

Töreki láp, 8. X. 1953 (K).

22. *Wichmannia spinifera* (M i c h. 1901)

It was known from England and Germany. New for our fauna.

Zalavár, 20. III. 1950 (K).

23. *Pelzneria necrophori* (D u j. 1849)

Til now it was known from France and Germany. New for our fauna. I caught it on *Necrophorus vespilloides* and *Necrophorus humator.*

Budapest—Hűvösvölgy, 5. VIII. 1960 (M).

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РЕЗЮМЕ

Статья посвящается изучению видов Tyroglyphidae, встречающихся в Венгрии. После оценки литературы, опубликованной по данному вопросу на венгерском языке, автор пополняет на основе собственных исследований число известных до сих пор в Венгрии 9 видов с дальнейшими двадцатью видами из коллекции зоологического отдела Венгерского Национального музея, а также из экземпляров, собранных исследователями Dr. B. Balogh, I. Loksa и самым автором.