

## ARGAS (ARGAS) VULGARIS FILIPPOVA, 1961, A NEW MEMBER OF CZECHOSLOVAK TICK FAUNA

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**Abstract.** In the eastern part of the Czechoslovak Socialist Republic the occurrence of the soft tick *Argas (A.) vulgaris* Fil., 1961 was established in four localities. All findings were made in synanthropic nesting sites of *Columba livia* Gm. and *Corvus frugilegus* L. in the belfries and lofts of churches.

In his comprehensive work on the tick fauna of Czechoslovakia Černý (1972) lists among the members of the family Argasidae 3 species of the genus *Argas*: *A. (Argas) reflexus* (Fabr., 1794), *A. (Persicargas) persicus* (Oken, 1818) and *A. (Carios) vespertilionis* (Latr., 1796). During our study on parasites of domestic pigeons returned to the wild (*Columba livia* Gm.), carried out in recent years in the Czechoslovak Socialist Republic, we happened to find another argasid species, which was identified as *Argas (Argas) vulgaris* Fil., 1961. The correct determination was kindly confirmed by Dr. N. A. Filippova of the Zoological Institute, the USSR Academy of Sciences in Leningrad, to whom my sincerest thanks are due.

*Argas vulgaris* is morphologically closely related to the species *A. reflexus*, from which adults and nymphs mainly differ in partly or completely reduced apical denticle on digitus fixus of chelicerae, in smaller number of denticles (5-7 pairs in 2-3 trans-

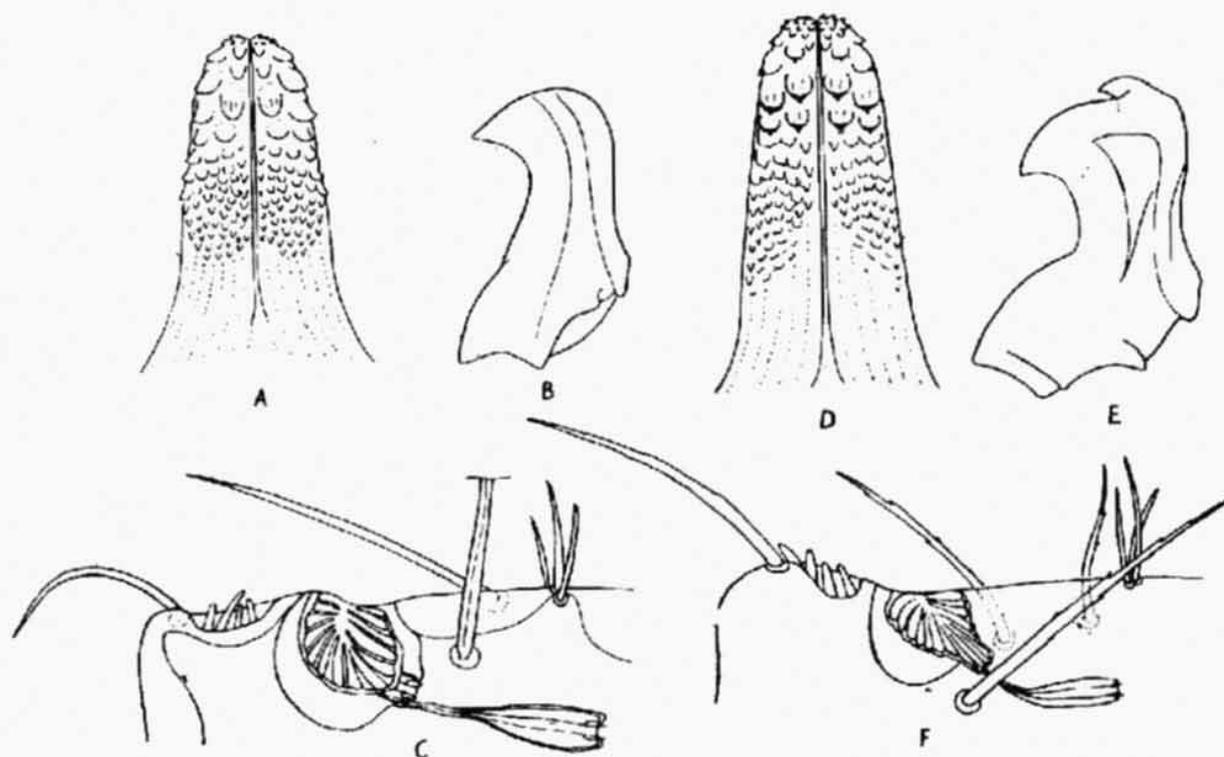


Fig. 1. A-C — *Argas vulgaris* Fil., 1961, female. A — hypostome, B — digitus fixus of chelicerae, C — Haller's organ; D-F — *Argas reflexus* (Fabr., 1794), female. D — hypostome, E — digitus fixus of chelicerae, F — Haller's organ. (Original)

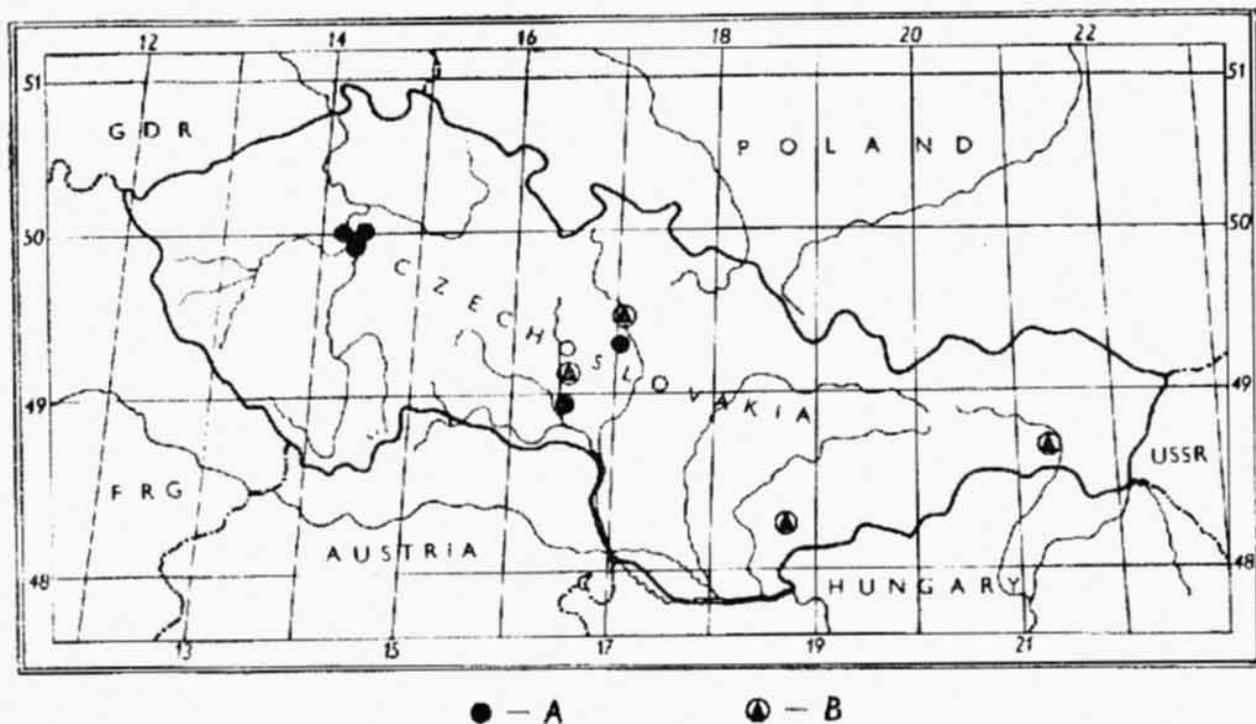


Fig. 2. Map showing the known recorded distribution of *Argas reflexus* (Fabr., 1794) and *Argas vulgaris* Fil., 1961 in Czechoslovakia. A — records of *Argas reflexus*, B — records of *Argas vulgaris*.

verse rows) in corona of hypostome, in short chamber of Haller's organ which does not exceed capsula (Fig. 1), and in a smaller diameter of sclerotized circular bases of setae on the marginal part of idiosoma (13—20  $\mu\text{m}$  as opposed to 20—28  $\mu\text{m}$  in *A. reflexus*). In larvae only 19—21 pairs of dorsal marginal setae are developed.

*Argas vulgaris* is a parasite of birds, primarily nesting in cavities and burrows, but it is also numerous on synanthropic nesting birds. A number of bird species such as *Passer domesticus* (L.), *Sturnus vulgaris* L., *Hirundo rustica* L., *Corvus monedula* L., *Columba livia* Gm. etc. serve as its hosts. It is widespread primarily in central and south Asia and in the USSR it was found in the Trans-Baikal region, in the south of the RSFSR, in Tadjikistan, Turkmenia, Uzbekistan, Kirghizia, Kazakhstan, Armenia, Dagestan; it ranges as far as into Ukraine (Pavlodar and Crimea) and Israel (Filippova 1966). In the Czechoslovak territory we found this species three times, in Košice, Levice and Brno and once it was identified among an old material from Olomouc, collected always on hemisynanthropic nesting sites of wild birds. In the St. Elizabeth cathedral in Košice argasid ticks were found in crevices of the belfry stonewall near a nest of *Corvus frugilegus* L. situated in bay window. Apart from rooks, the belfry was also inhabited by numerous *Columba livia* Gm. In the Levice locality numerous nymphal exuviae, but no live nymphs and adults were found behind the wall plaster in the church loft. The collections in Brno and Olomouc were also made in nesting sites of wild pigeons in the St. James church and in the city hall. All localities where *A. vulgaris* ticks were found, are situated in the central and eastern part of Czechoslovakia, while the collections of *A. reflexus* come from the western and central part of the country (Fig. 2). In the eastern part of our country and more eastward *A. vulgaris* seems to substitute the argasid tick *A. reflexus* which is associated primarily with the region of western Europe. It may be possible that atypical specimens of *A. reflexus* collected in Budapest (Hungary), pointed out by Hoogstraal and Kohls (1960), also belong to the species *A. vulgaris*.

**Material:** 6♂♂ and 6♀♀, Košice, nesting site of *Columba livia* Gm. and *Corvus frugilegus* L. in St. Elizabeth cathedral, 15.5. 1975, lgt. F. Dusbábek; numerous nymphal exuviae, Lovice, nesting site of *Columba livia* Gm. in the loft of a Roman-Catholic church, 18. 5. 1975, lgt. F. Dusbábek and M. Kaftan; 1♂ and 1 nymphal exuvia, Brno, nesting site of pigeons in the St. James cathedral, 21. 5. 1975, lgt. M. Kaftan; 2♀♀ and 1♂, Olomouc, nesting site of pigeons in City Hall, July 1965, lgt. P. Lauterer.

The finding of *A. vulgaris* in our territory is also important from the epidemiological and epizootological view, because in the Uzbek SSR *Coxiella burneti*, the causative agent of Q-fever, was isolated from this argasid tick identified as *A. reflexus* (Zhmaeva et al. 1955, 1965). In the Armenian SSR it was also incriminated in the spontaneous transmission of *Treponema gallinarum*, the causative agent of spirochaetosis of poultry (Postoyan 1970).

*ARGAS (ARGAS) VULGARIS* FILIPPOVA, 1961, НОВЫЙ ЧЛЕН ФАУНЫ КЛЕЩЕЙ ЧЕХОСЛОВАКИИ

Ф. Дусбабэк

**Резюме.** В восточной части Чехословацкой социалистической республики на четырех местах был обнаружен аргасовый клещ *Argas (A.) vulgaris* Fil., 1961. Все находки этого клеща сделаны в синантропных гнездовьях *Columba livia* Gm. и *Corvus frugilegus* L. в банях и чердаках костелов.

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**A CASE OF EYE MYIASIS IN MAN CAUSED BY FIRST INSTAR LARVAE OF OESTRUS OVIS L. (DIPTERA, OESTRIDAE) IN IRAN**

During the expedition to Iran organized in 1973 by the Entomology Department, National Museum in Prague, a member of the expedition was afflicted with eye myiasis. The case occurred in southern Iran in the region of Sowghan, Banu-Charehár locality.

The locality is situated in the Kermán province south of the Djamalbaríz mountain range. It is a scarcely populated semidesert with growths of *Haloxylon ammodendron* and *Peganum harmala*. A small number of donkeys, goats and sheep were kept there. In the first

ten days of May (8.5.) at 7 hours, in full sunshine and at temperature of 35 °C a fly alighted on a member of the expedition just collecting material in the field and laid a batch of larvae into his eye. The fly was collected and identified as a female of *Oestrus ovis* Linné, 1758. The larvae moving on the eye surface and interior side of lids caused a sharp pain preventing any further work. The patient was sent to an eye specialist in Bandarabas who removed 16 first instar larvae from his eye.

Human cases of eye myiasis caused by first