

## The new locality of *Argas reflexus* Fabricius, 1794 in Warsaw, Poland

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**ABSTRACT.** The new locality of *Argas reflexus* in Warsaw, Poland is recorded. The ticks occur in the lof of apartment blocks, inhabited by pigeons. When the birds were removed by cleaning services, the ticks began to look for a new host and penetrate the flats. Some of the lodgers had been bitten by tick larvae and nymphs.

**Key words:** *Argas reflexus*.

The family Argasidae Murray, 1877, contains approximately 170 species, living in the tropical and subtropical countries. There are three representatives of Argasidae in Poland and neighboring countries. They are permanent components of the arthropods fauna. These are pigeon tick *Argas reflexus* Fabricius, 1794, *Argas polonicus* Siuda, Hoogstaal, Clifford, Wassef, 1979 and bat tick *Carios vespertilionis* Latreille, 1796. These species live in temperate forest zone countries. The area of *Argas reflexus* in Poland reach the northern borders; it has been found in Grodzisk Wielkopolski, Wrocław, Poznań, Łódź, Gdańsk and in some localities of Katowice agglomeration [1-5].

*Argus reflexus* belongs to the category of nest-dwelling parasites from the ecological point of view. It feeds on bird blood in all stages of the life cycle and the main host is the ferla pigeon *Columba livia*. Due to its occurrence in the synanthropic environment, it prefers places of birds nesting and spending the night. Some examples are attics, lofts, spaces under the roof and other similar places where pigeons are frequently seen and little human activity. A ticks' activity is limited to the night hours and therefore follow a nocturnal life cycle because this is the only time the hosts are available. At other

hours of the day including the morning and afternoon, they sleep [5].

These arthropods do not attack humans and usually feed on the blood of proper hosts. The larvae feed some days, adult ticks take some hours. In the case where the host lacks or has an excessive number of ticks, this status can be disturbed. In this situation the ticks find new sources of food. Due to the specific condition of the synanthropic environment, humans are the most available substitute hosts because wander ticks penetrate into the human lodgings. Although the feeding is relatively short, humans may find this experience very sore to the point of swelling and flush. In the case of repetitive bites, the allergic and toxic symptoms can be present. *Argas* ticks are the vectors of many bird pathogens and due to the synanthropic life, they also have the potential to be vectors of human diseases — the ability to spread of flaviviruses is documented, rickettsia *Coxiella burnetti* and *Salmonella* bacteria [5-7].

In April 2006 the House Community from the Warsaw District Grochów asked the W. Stefański Institute of Parasitology for the entomological expertise. They reported the presence of an unknown arthropod parasite biting lodgers in the

flats. During the local vision, the presence of active I stage larvae and I stage nymphs was stated in the flats of the top level. They were recognized as *Argas reflexus*. In the result of the investigation to the sources of their origin place, the numerous population of *Argas reflexus* has been found on the loft of the block of flats. The loft is unused and covered by the slanting pent-roof, 0.2 to 1 m high. The floor has been covered by the thick coat of dust, in some places with the pigeons' feathers, droppings and bones. The all active developmental stages, as well as the eggs deposits were found, however the adults were most numerous. At the study hour (12am-1pm) the ticks showed no activity. They stayed in the chinks between bricks and under the peeled plasters. They were questing usually, however a few individuals have been in various stages of engorgement.

The interview with the Community supports the suspicion that when the cleaning of the building took place, the pigeons were removed from the loft. Their nestling and night long occupation stood unfeasible because the ventilation slots were secured by the bars. This could be the reason why the ticks began to penetrate the flats. The way of the penetration of the ticks from the loft into the flats has not been detected; it is possible that they passed through the windows.

New records confirm the occurrence of the pigeon tick *Argas reflexus* in Warsaw as per the supposition of Siuda [5] that the populations of this species are more numerous in Poland than it is presen-

tly documented and that *A. reflexus* is the permanent component of big cities fauna.

## References

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