

***Lucilia bufonivora*-Befall (Myiasis) bei Amphibien in Nordrhein-Westfalen – Verbreitung, Wirtsarten, Ökologie und Phänologie**

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***Lucilia bufonivora* infestation (Myiasis) of amphibians in Northrhine Westphalia – distribution, host species, ecology and phenology**

For the first time, an overview on the occurrence of amphibian myiasis caused by the blowfly *Lucilia bufonivora* in the countryside of Northrhine Westphalia is given. It was compiled by records from a poll of local herpetologists and ecologists started in 2001 as well as from published and unpublished data on this subject to describe distribution, phenology, host species and habitat characteristics of infested amphibians. Breeding experiments with cadavers from infested toads provide preliminary data on fly species involved in myiasis in the study area. Infestation of amphibians, mainly common toads, is widespread in Northrhine Westphalia but only rarely recorded, since infested amphibians mainly occur between may and september, outside the breeding season of the most important host, the common toad *Bufo bufo*. Records of infested amphibians from 72 grid fields are used to compile a preliminary distribution map of myiasis in Northrhine Westphalia. Detection probability of infested animals increases significantly with the number of active herpetological volunteers per grid field. Distribution gaps in mountain areas are probably due to low recording intensity. Beside the common toad (*Bufo bufo*) as the main host (85 % of all records), few infested animals of common frogs (*Rana temporaria*), water frogs (*Rana esculenta* complex), natterjack toads (*Bufo calamita*), midwife toads (*Alytes obstetricans*) and fire salamanders (*Salamandra salamandra*) were recorded. Infested amphibians mainly occur in open landscapes outside forests or beside/inside ponds. In several localities infestation was recorded in consecutive years. Myiasis mainly affects adult amphibians, infestation rates vary between 15 % and 70 % of all individuals recorded at the localities where data was available and increases with snout-vent length of the hosts. Data strongly suggest that myiasis significantly contributes to mortality of common toads outside their breeding season. Hatching success of flies from toad carcasses shows high variation in number of emerging imaginal flies as well as number of fly species involved.

Key words: *Lucilia bufonivora*, myiasis, parasite, parasitoid, Northrhine Westphalia, Germany, distribution, common toad, *Bufo bufo*, infestation rate, amphibians.

Zusammenfassung

Anhand von Umfragedaten, der Auswertung bisher unpublizierter Felddaten sowie Literaturangaben wird das Phänomen des Goldfliegenbefalls (Myiasis) bei Amphibien in Nordrhein-Westfalen erstmals zusammenfassend dargestellt. Neben Horizontal- und Vertikalverbreitung von Befallsmeldungen, Phänologie, Wirtsspektrum und