

A new fungal parasite of calyptrate flies from Europe *Zoophthora vomitoriae* sp. nov. (Entomophthoraceae)

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In 1957 we had the opportunity to describe an epizooty in populations of blowflies *Protophormia terrae-novae* R. D. and *Calliphora vomitoria* L. on the Radhošť mountains (Czechoslovakia) caused by an entomophthoraceous fungus (Rozsypal 1957). In this paper we described the fungus involved and compared it with other fungi known from higher Diptera. We came to the conclusion that the fungus is close or identical with *Entomophthora americana* (Thaxter) Lakon with some differences in rhizoid formation. At that moment it was not clear what taxonomic value should be attributed to these differences. Therefore we proposed for the case it both infection would be different the new name *Entomophthora, vomitoriae*.

In the meantime dr. A. Batko (University of Warsaw, Dept. Plant Systematics and Geography) had the opportunity to collect further material of this fungus on *Calliphora vomitoria* L. in the insectary of Moscow University (1957) on the same host near Moscow (1958) and later (1960) in Poland, Warsaw, on *C. erythrocephala* Meig. Further material was collected by prof. A. Skirgiełło of the Warsaw University in the Białowieża National Park on *Lucilia* sp., *Syrphidae* and *Stratiomyidae* and by dr. H. Jakubczyk (Institute of Ecology, Warsaw) on *C. erythrocephala* at Świdnik near Lublin (Poland). On the basis of this material Batko (1966 b) came to the conclusion that the differences between our fungus and allied fungi are pronounced enough and the fungus proposed as *E. vomitoriae* is really a new species. At the same time he drew my attention to the fact that the formulation we used in our paper is invalid in the sense of the International Code of Botanical Nomenclature (Lanjouw et al. 1961). After evaluation of his material and our description (Rozsypal 1957) Batko came to the conclusion, that our fungus is close to *Zoophthora calliphorae* (Giard) Batko (1964 b), *Zoophthora americana* (Thaxter) Batko (1964 b, the new combination for *Entomophthora americana*) and *Z. bullata* (Thaxter in Povah) Batko (1966 a) differs from our fungus by the rhizoids coiled into bundles and are members of an other sub-

genus — *Zoophthora* subg. *Zoophthora* Batko (1966 a). *Zoophthora* *dippterigena* (Thaxter) Batko (1964 b) belongs to the subgenus *Pandora* Batko, as our fungus, but forms pseudocystidia, smaller conidia and rhizoids differing in branching and size. The *Zoophthora calliphorae* and our fungus differ as follows:

	Conidia shape	Conidia size	Resting spores
<i>Z. calliphorae</i> (Batko 1966 b)	obovoid	11—13 × 20—24 μ	brown
<i>Z. vomitoriae</i> (Rozsypal 1957)	ovoid	12—18 × 28—36 μ	hyaline
<i>Z. vomitoriae</i> (Batko 1966 b)	ovoid	15—19 × 30—44 μ	hyaline

In view of this we propose to consider the fungus described in 1957 as a new species included in the genus *Zoophthora* Batko (1964 a), subgenus *Pandora* Batko (1966 a) with the following diagnose:

Zoophthora (subg. *Pandora*) *vomitoriae* sp. nov.

Corpora hyphalia de segmenta brevis hypharum forma inaequalibus, ramosa vel sacciformia. Conidiophori ramosi. Conidia uninucleata, ovi-formia vel ovoidea, subpapillata vel raro papillata (secundum Lakonii classificationem), 12—19 μ lata et 28—44 μ longa (mediocriter 17 × 37 μ). Pseudocystidia desunt, rhizoidea apice asteriforme dilatata. Azygosporae globosae, exosporio laevi et hyalino, 2,5 μ crasso, 25—52 μ latae.

Typus: figurae in Rozsypal, Zool. listý 6: 12—16, fig. 1—7, phot. 1—3, 1957.

Hospes typicus: *Calliphora vomitoria* L., imago.

Habitatio typica: Radhošť-Mons, Moravia, ČSSR.

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