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

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In 1957 we had the opportunity to describe an epizooty in populations of blowflies Protophormia terraenovae R. D. and Calliphora vomitoria L. on the Radhošt' mountains (Czechoslovakia) caused by an entomophthoraceous fungus (Rozyspal 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, vomitoria.

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. Skirgiesel 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 (1966b) came to the conclusion that the differences between our fungus and allied fungi are pronounced enough and the fungus proposed as E. vomitoria 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 (Rozyspal 1957) Batko came to the conclusion, that our fungus is close to Zoophthora calliphorae (Giard) Batko (1964b), Zoophthora americana (Thaxter) Batko (1964b, the new combination for Entomophthora americana) and Z. bullata (Thaxter in Povah) Batko (1966a) 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 dipterigena (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:

<table>
<thead>
<tr>
<th></th>
<th>Conidia shape</th>
<th>Conidia size</th>
<th>Resting spores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z. calliphorae</td>
<td>ovoid</td>
<td>11–13 × 20–24 μ</td>
<td>brown</td>
</tr>
<tr>
<td>(Batko 1966 b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z. vomitoriae</td>
<td>ovoid</td>
<td>12–18 × 28–36 μ</td>
<td>hyaline</td>
</tr>
<tr>
<td>(Rozsypal 1957)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z. vomitoriae</td>
<td>ovoid</td>
<td>15–19 × 30–44 μ</td>
<td>hyaline</td>
</tr>
<tr>
<td>(Batko 1966 b)</td>
<td></td>
<td></td>
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</tbody>
</table>

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.


Hospes typicus: Calliphora vomitoria L., imago.
Habitatio typica: Radhošť-Mons, Moravia, ČSSR.

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REFERENCES


Rozsypal J., 1957, Houbová nákaza masové lhnh bzucívky obecné (Calliphora vomitoria L.), Zool. Listy 6: 12–16. Fig. 1–7, phot. 1–3.