

New Systematic Position of *Acephalis radiata*

By ALINA SKIRGIELLO and MARIA ZADARA

Institute of Botany, Warsaw University, 00-478 Warszawa, Aleje
Ujazdowskie 4, Poland

In 1964, BADURA and BADUROWA described a new genus and species of fungus, which they isolated for the first time from beech forest soil on silica medium containing sodium humate. For the second time it grew on fertilizer. Wishing to classify the species, they have analyzed the following genera: *Syncephalis*, *Piptocephalis*, *Syncephalastrum*, *Spinalia*, and even *Coemansia* and *Kickxella*. However, no characteristics were observed in their material which would justify its classification as one of the above mentioned genera (i. e. the merosporangial vesicle, or the sporocladium).

Having observed that the species has the "most primitive morphological structure" of all the representatives of these genera, they singled out a new genus and new species, which they named *Acephalis radiata*. Since the description of the fungus was not complete, and the drawing did not allow for a determination of suitable characteristics, the species was regarded as insufficiently defined by BENJAMIN (1966) and ZYCHA and SIEPMANN (1969).

The same fungus, again appearing in small quantity, has been isolated by the authors during their study of Poland's mycoflora. In detailed analysis, they observed the presence of a very small, but clearly differentiated vesicle, upon which grew the merosporangia. This has given them a basis for determining the systematic position of the fungus in the genus *Syncephalis*. After completing Badura and Badurowa's description, the authors suggest a new combination.

Syncephalis radiata (BADURA & BADUROWA) SKIRGIELLO & ZADARA
comb. nov.

Basonymum: *Acephalis radiata* BADURA & BADUROWA, Acta Soc. Bot.
Pol. 33: 519—510, fig. 9. 1964.

Sporophores without septa, unbranched, growing separately, straight, hyaline, low, attaining heights of up to 90—300 μm and breadths of 6.6—8.3 μm at the base and 2.5—3.3 μm below the vesicle. The vesicle is extremely small, of 4.9—6.6 μm diameter, nearly spherical, hyaline. On the surface of the vesicle, around 15 merosporangia are formed, of the dimensions 20—26—33.2 \times 2.2—2.5 μm ,

each containing some 5 to 8 spores. The spores are smooth, hyaline, short cylindrical, $3.3-4.8 \times 1.6-2.5 \mu\text{m}$. No zygotes have been observed.

The fungus described here has been collected during the very mild winter of 1975 (minimum temp. 0°C , max. temp. 10°C) on strongly unfolded leaves of the *Solidago* species, from the oak reservation Bielany in Warsaw.



Fig. 1. *Syncephalis radiata* (BADURA et BADUROWA) comb. nov. Aged fertile head with terminal vesicular enlargement and the fragments of merosporangia

References

- BADURA, L., BADUROWA, M. (1964). Występowanie grzybów glebowych w zbiorowisku bukowym rezerwatu Lubsza. — *Acta Soc. Bot. Pol.* 33: 507—525.
- BENJAMIN, R. K. (1966). The merosporangium. — *Mycologia* 58: 1—42.
- ZYCHA, H., SIEPMANN, R. (1969). *Mucorales*. — Weinheim.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Sydowia Beihefte](#)

Jahr/Year: 1977

Band/Volume: [8](#)

Autor(en)/Author(s): Skiergiello Alina

Artikel/Article: [New Systematic Position of *Acephalis radiata* 366-367](#)