

Anthracoidea vankyi, a new smut fungus for Moravia

PETR KOKEŠ

nám. Obránců míru 1, 682 01 Vyškov, Czechia
pkokes@tiscali.cz

Kokeš P. (2005): *Anthracoidea vankyi*, a new smut fungus for Moravia. – Czech. Mycol. 57(3-4): 275-278.

Anthracoidea vankyi was found in Moravia (eastern part of Czech Republic). It is a new species for this area. This smut is rare in Europe, while the host (*Carex muricata* agg.) is common. All host plants in the specimens examined were revised. *Carex chabertii* was discovered as a new host.

Key words: *Anthracoidea vankyi*, smut fungi, Moravia, Czechia.

Kokeš P. (2005): *Anthracoidea vankyi*, nová sněť pro Moravu. – Czech. Mycol. 57(3-4): 275-278.

Anthracoidea vankyi byla nalezena na Moravě. Jedná se o nový druh pro toto území. Tato sněť je v Evropě vzácná, zatímco hostitel (*Carex muricata* agg.) je hojný. Všechny hostitelské rostliny na zkoumaných položkách byly revidovány. Jako nový hostitel byla zjištěna *Carex chabertii*.

INTRODUCTION

This article deals with a find of the rare smut fungus *Anthracoidea vankyi* Nannf. Sori of this parasite are found in ovaries as globose (rarely ovoid) bodies (2–3 mm in diameter), originally covered by a thin membrane which soon ruptures, revealing the black spore mass. We usually find this fungus in the host plant's fruiting period in the stadium without the membrane, visible as black balls scattered in the inflorescence.

In Europe *Anthracoidea vankyi* parasitises on *Carex contigua* Hoppe, *C. divulsa* Stokes, *C. leersiana* Rauschert, *C. muricata* L. s. str. and *C. pairae* F.W. Schultz (Vánky 1994: 38). Newly *Carex chabertii* F.W. Schultz was found as host on the specimen from Bohemia. The aggregate of *Carex muricata* includes the six species mentioned above. They are defined here in accordance with Kubát (2002: 807–808).

The area of Moravia is understood as the country "Země Moravskoslezská", which was effective in the periods 1928–1939 and 1945–1948. See the map in Kokeš and Müller (2004: 122).

Details on the localities where the specimens were examined are structured as follows: district [okres, powiat] (mountain range), municipality, name of the locality. The coordinates (ellipsoid WGS-84) and altitudes were calculated for the centre of the lo-

cality named by the collector. The locality „Gałazki“ by Hoffmann was situated in the central part of the valley. The localities „Smrekovica“ and „Špičák“ by Součková were situated on the summit of the mountain. My locality has precise values.

Literature data regarding the localities in Germany are structured as follows: federal country, nearby city or town, name of the locality (if mentioned).

RESULTS

Anthracoidea vankyi Nannf.

In 2004, I found *Anthracoidea vankyi* on *Carex contigua* in the military ground Březina in the district of Vyškov. The locality is situated by Eichlerka Road (leading from Hanácká cesta path to the road in the valley Prostějovičský žleb [valley of Brodečka]), 310 m SW of the place where the Napajedelský potok brook flows into the Brodečka brook. The habitat is situated by a metalled road (Eichlerka), near the edge of a young spruce wood. The smut occurs here very sparsely (2 spikelets infected only, in both spikelets 1 ball only). In 2005, I did not find this fungus at this locality. This collection is the first record of this fungus in Moravia.

Finds were also made in Poland, Bohemia and Slovakia, each with one locality. The stands in Poland and Bohemia are in the same mountain range, on the Polish side named „Góry Kamienne“, on the Czech side named „Javoří hory“. The distance between these two localities is only c. 3 km. The fungus in the specimen by Hoffmann was identified as *Ustilago caricis* Pers., and was published newly as *Anthracoidea vankyi* by Piątek (2005: 88). The fungi in the specimens by Součková were identified as *Cintractia caricis* (Pers.) Magnus, and were published under the same names by the collector (Tomková-Součková 1960: 155). *Anthracoidea vankyi* was described by Nannfeldt in 1977.

Specimens examined:

Poland:

On *Carex muricata* L. s. str.: powiat Wałbrzych (Góry Kamienne), Sokołowsko, Gałazki, 16 Aug. 1919, leg. Käthe Hoffmann, WRSL, 50°40'34.0" N, 16°14'45.5" E, 601.1 m (= altitude of the central part of the valley, exact altitude not given by the collector).

Bohemia (western part of Czechia):

On *Carex chabertii* F.W. Schultz: okres Náchod (Javoří hory), Ruprechtice, Mt. Špičák, 29 May 1947, leg. Milada Součková, BRNM, 50°39'42.8" N, 16°16'51.1" E, 880.5 m (= altitude of the mountaintop, exact altitude not given by the collector).

Moravia (eastern part of Czechia):

On *Carex contigua* Hoppe: okres Vyškov (Drahanská vrchovina), Osina, Napajedelský žleb, 31 July 2004, leg. Petr Kokeš, private herbarium, 49°25'15.0" N, 16°57'50.9" E, 415.3 m (exact altitude).

Slovakia:

On *Carex muricata* L. s. str.: okres Liptovský Mikuláš (Veľká Fatra), Liptovská Osada, Mt. Smrekovica, 12 July 1953, leg. Milada Součková, BRNM, 48°58'56.8" N, 19°13'51.2" E, 1530.2 m (= altitude of the mountaintop, exact altitude not given by the collector).

Literature data from Germany:

On *Carex muricata* agg. (in all cases, revision is necessary):

Niedersachsen: Hannover, July 1884, leg. C. Engelke (Scholz and Scholz 1988: 75).
Brandenburg: Lenzen, Elbufer, without further data (Scholz and Scholz 1988: 75).
Sachsen: Leipzig, July 1874, leg. G. Winter [deposited in M] (Scholz and Scholz 1988: 75).

Bayern: Pfelling, Wellchenberg, 28 May 2000, leg. M. Beisenherz (Scholz and Scholz 2004: 446).

DISCUSSION

Anthracoidea vankyi occurs in the temperate zone of the Northern hemisphere. The specimens from Asia and North America as well as many from Europe need further research (host specification, fungus identification). In Europe it is known from Czechia (Bohemia and Moravia, in this paper), France, Germany, Italy, the Netherlands, Poland, Romania, Russia, Slovakia, Spain, Sweden, Switzerland and Ukraine (Piątek 2005: 91). In this article localities from Czechia, Poland and Slovakia were mentioned (examined specimens), and from Germany to illustrate the fact that it is necessary to revise the hosts of this smut from other countries. The reason of this revision is that: hosts in the specimens are often labelled with aggregate names and some species of this aggregate were formerly understood in a different way or were not distinguished. Both hosts collected by Součková were identified as *Carex pairaei* F.W. Schultz (det. M. Součková), the host collected by Hoffmann was originally named *Carex contigua* Hoppe s. lat. (det. T. Majewski). All hosts in herbarium specimens studied were identified by Radomír Řepka (Mendel University, Brno), specialist in *Carex muricata* agg.

ACKNOWLEDGEMENTS

I would like to thank Kálmán Vánky (owner of Herbarium Ustilaginales Vánky) for information on the occurrence of *Anthracoidea vankyi* in Germany, Alois Vágner (curator of BRNM) and Krzysztof Świerkosz (curator of WRSL) for loans of the specimens, and Radomír Řepka for identifying of the hosts.

LITERATURE

- KOKEŠ P. and MÜLLER J. (2004): Checklist of downy mildews, rusts and smuts of Moravia and Silesia. – Czech Mycol. 56(1-2): 121-148.
- KUBÁT K. [ed.] (2002): Klíč ke květeně České republiky. – 928 p. Praha.
- PIĄTEK M. (2005): *Anthracoidea vankyi* (Ustilaginomycetes) in Poland, with a review of its host spectrum and world distribution. – Acta Mycol. 40(1): 87-93.
- SCHOLZ H. and SCHOLZ I. (1988): Die Brandpilze Deutschlands (*Ustilaginales*). – Englera 8: 1-691.
- SCHOLZ H. and SCHOLZ I. (2004): Die Brandpilze Deutschlands. 2. Nachtrag. – Verh. Bot. Vereins Berlin-Brandenburg 137: 441-487.
- TOMKOVÁ-SOUČKOVÁ M. (1960): K poznání snětí rodu *Cintractia* Cornu na ostřicích v Československu. – Čas. Morav. Mus. 45: 137-164.
- VÁNKY K. (1994): European smut fungi. – 570 p. Stuttgart.