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First localities of neophytic moss *Campylopus introflexus* (Hedw.) Brid.  
in the Lublin district

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Pierwsze stanowiska neofitycznego mchu *Campylopus introflexus* (Hedw.) Brid.  
w województwie lubelskim

SUMMARY

New data on the occurrence of the neophytic moss *Campylopus introflexus* (Hedw.) Brid. in Poland is given. A description of the localities discovered in the Lublin district (SE Poland) is provided and the current geographical distribution of the invasive species in Poland is mapped.

STRESZCZENIE

W pracy przedstawiono nowe dane na temat występowania w Polsce neofitycznego mchu *Campylopus introflexus* (Hedw.) Brid., opisano stanowiska odkryte na terenie województwa lubelskiego oraz przedstawiono obecne rozmieszczenie tego inwazyjnego taksonu w naszym kraju.

**Key words.** *Campylopus introflexus*, invasive taxa, neophytic species, distribution, Lublin district, SE Poland

INTRODUCTION

*Campylopus introflexus* (Hedw.) Brid., a moss of the family *Dicranaceae*, is thought to be one of one hundred invasive organisms colonising the European continent (5). The species, which originates from the southern hemisphere, belongs to the most widespread and relatively aggressive neophytes. Its occurrence has been recorded in as many as 21 countries in the Old World, including

Poland (2, 4, 7). *Campylopus introflexus* was for the first time recorded in Poland in 1986 (6), 45 years after it had first occurred in Europe. At the end of the 20<sup>th</sup> century and the beginning of the 21<sup>st</sup> century, the moss was observed in many regions in Poland and the current distribution of its localities suggests that it arrived to Poland from Germany and the Czech Republic (4). The species was previously known only from few sites in areas located east of the Vistula and situated outside the borders of the Lublin district (1, 3, 4).

The localities of *Campylopus introflexus* in the Lublin district were observed in two separate sites and the occurrence of the species in this area is reported for the first time. One site is located on the north-western edge of the Wyżyna Lubelska upland in the vicinity of Nitrogen Factories in Puławy. The second locality is on the border between the Kotlina Sandomierska basin and the Roztocze region, on the edge of the Puszcza Solska Landscape Park (Fig. 1). The latter is the species' easternmost locality in Poland and was found during a field session organised within the National Research Conference 'Interspecific Relationships at Different Levels of Organization: Individual – Population – Biocoenosis. Vascular Plants and the 'Minor Brothers' (*Interakcje międzygatunkowe na różnych poziomach organizacji: osobnik – populacja – biocenoza. Rośliny naczyniowe a „bracia mniejsi”*), Krasnobród, 22–25 June 2009.

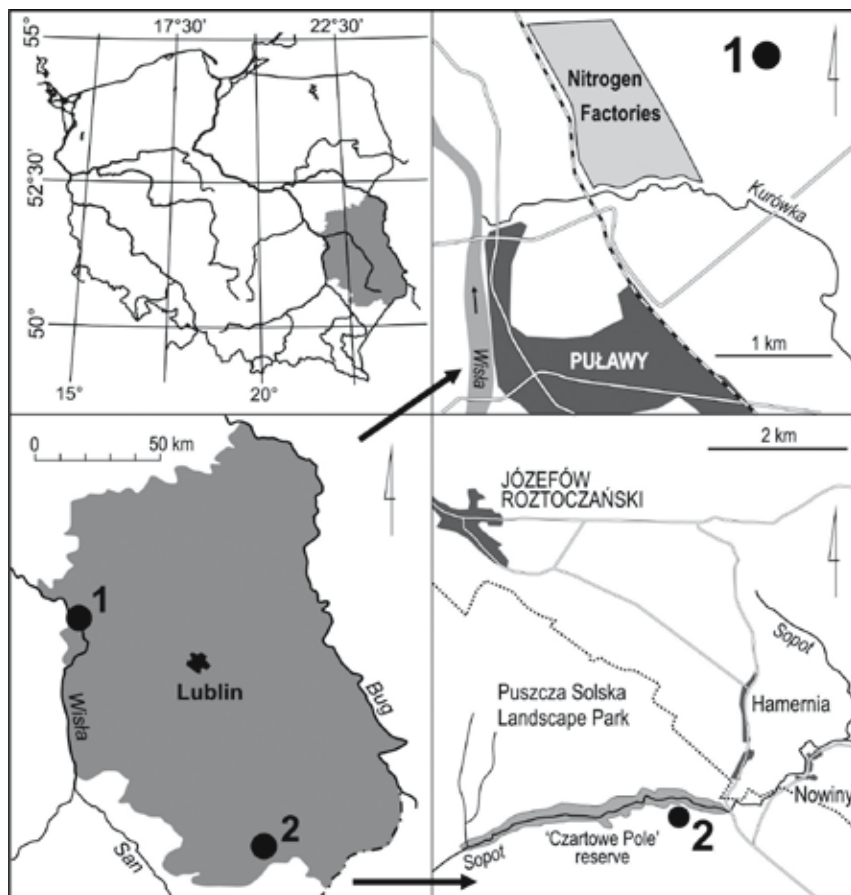


Fig. 1. Location of new localities of *Campylopus introflexus* in the Lublin district

## LIST OF LOCALITIES

**Ef 03** – The Middle Vistula river valley; Puławy, 1.5 km E of the Nitrogen Factories; in birch forest on the habitat of *Leucobryo-Pinetum*; N 51°28'02" E 21°59'45"; leg. A. Uziębło, 15.08.2008 (KTU);

**Fg 12** – The Kotlina Sandomierska basin in the escarpment zone of the Roztocze region, the Puszcza Solska Landscape Park, 4 km SE of Józefów Roztoczański, the Sopot river valley, close to SE boundary of the 'Czartowe Pole' nature reserve near the Nowiny and Hamernia villages, forest section 242; on sandy soil in pine plantation, near the tourist path; 250 m a.s.l., N 50°26'44" E 23°06'34"; leg. G. J. Wolski, 25.06.2009 (LBL).

The species occurs in habitat conditions typical of it at both sites. It does not produce sporogonia, forms small agglomerations among other mosses (*Polytrichum piliferum*, *P. juniperinum* and *Pohlia nutans*) and does not seem to be numerous. The new localities of *Campylopus introflexus* against the background of the distribution of the species in Poland are given in Figure 2.

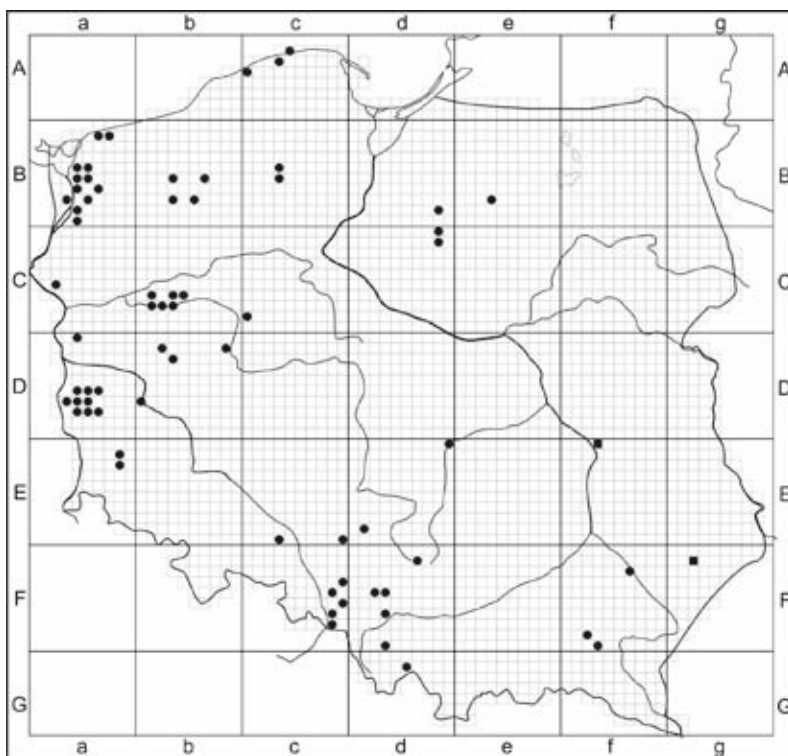


Fig. 2. Current distribution of *Campylopus introflexus* in Poland (ATMOS squares grid system, according to Fudali et al. 2009 – extended); new localities are marked as squares

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