

***ERIGERON SUMATRENSIS* (ASTERACEAE), CASUAL ALIEN NEW TO THE POLISH FLORA**
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**Abstract**

Pliszko A., 2016: *Erigeron sumatrensis* (Asteraceae), casual alien new to the Polish flora [*Erigeron sumatrensis* (Asteraceae) – nauja atsitiiktinai patekusi svetimžemė Lenkijos floros rūšis]. – Bot. Lith., 22(2): 182–184.

*Erigeron sumatrensis* is newly reported as casual alien in Poland. A single plant was found growing on the edge of the roadside in Głogoczów near Mogilany, Lesser Poland Voivodeship, southern Poland. The locality was mapped by using the ATPOL cartogram method, and the pathway of introduction by road transport was presented.

**Keywords:** casual alien, *Conyza sumatrensis*, distribution, Poland.

*Erigeron sumatrensis* Retz. (*Conyza sumatrensis* (Retz.) E. Walker), an annual or biennial herb of the Asteraceae family, is native to South America and was introduced to North America, Europe, Asia, Africa and Australia (PRUSKI & SANCHO, 2006). In Europe, it has been reported as a naturalized species in Portugal, Spain, Andorra, France, the United Kingdom, Belgium, the Netherlands, Germany, Croatia, Montenegro, Italy, Slovenia, Romania, Bulgaria, Greece, Malta, Turkey, and as a casual alien in Switzerland, Ireland and Sweden (GREUTER, 2006–2016; RANDALL, 2012 and the literature cited therein). It is a thermophilous species that favours arid, sun-baked niches (WURZELL, 1988), and usually occurs in anthropogenic habitats such as abandoned fields, gardens, railway embankments, roadsides, cracks in paving and brick walls (WURZELL, 1988; HAO et al., 2009; VLADIMIROV, 2009; ANASTASIU & MEMEDEMINE, 2012). Moreover, NINOT et al. (2010–2011) mentioned that *E. sumatrensis* is a component of the ruderal plant community *Astero squamati-Amaranthetum viridis* Carretero 1993 formed under the warm Mediterranean conditions. *Erigeron sumatrensis* is morphologically very similar

to *E. bonariensis* L. and *E. canadensis* L. However, it can be separated from *E. bonariensis* by its smaller capitula and the presence of a very short lamina in ray flowers, and from *E. canadensis* by its densely hirsute involucre bracts and stems (WURZELL, 1988; ANASTASIU & MEMEDEMINE, 2012). This paper presents the first record of *E. sumatrensis* in Poland.

Taxonomic treatment of *E. sumatrensis* followed the concept proposed by GREUTER (2003). Identification was based on diagnostic morphological features given by WURZELL (1988), VLADIMIROV (2009) and ANASTASIU & MEMEDEMINE (2012). Distribution map was prepared by using the ATPOL cartogram method (ZAJĄC, 1978), where the basic unit is a square with a side length of 10 km. Geographical-historical status followed PYŠEK et al. (2004). A voucher specimen of *E. sumatrensis* is deposited at the Herbarium of the Institute of Botany of the Jagiellonian University in Kraków (KRA0462523).

*Erigeron sumatrensis* was discovered in Głogoczów near Mogilany, Lesser Poland Voivodeship, southern Poland (GPS coordinates: 49°55.260' N/19°52.921' E; altitude: 266 m a.s.l.) on 14 Sep-

tember 2016. This locality is situated within the unit DF89 of the ATPOL cartogram grid (Fig. 1).

A single specimen of *E. sumatrensis* was found growing on the edge of the roadside of Zakopianka road, a stretch of National road No. 7 between Kraków and Zakopane, accompanied by *Atriplex prostrata* Boucher ex DC., *Calystegia sepium* (L.) R. Br., *Elymus repens* (L.) Gould, *Leontodon autumnalis* L., *Plantago major* L., *Polygonum aviculare* L., *Potentilla anserina* L., *Puccinellia distans* (Jacq.) Parl., *Setaria pumila* (Poir.) Roem. & Schult., *Solidago canadensis* L. and *Sonchus oleraceus* L. Both sides of Zakopianka road in Głogoczów as well as in the neighbouring villages (i.e. Mogilany, Bęczarka and Krzyszkowice) were checked by the author, but there was no sign of other stands of *E. sumatrensis*. Currently, *E. sumatrensis* is a casual alien in the flora of Poland, and probably was introduced by road transport.

*Erigeron sumatrensis* is known as an agricultural weed and an invasive species in many countries in the world (RANDALL, 2012 and the literature cited therein). HAO et al. (2009) pointed out that the high and rapid production of achenes, high dispersal capability of achenes as well as rapid germination enhances the invasiveness of *E. sumatrensis*. Since the plant is restricted to warm regions and habitats (WURZELL, 1988; VLADIMIROV, 2009), its establishment in Poland as well as in Eastern European countries seems to be difficult, however, the global warming may increase the chance that the plant will extend its distribution area in temperate zones in the future as it was evidenced in the case of other alien species (WALTHER et al., 2009).

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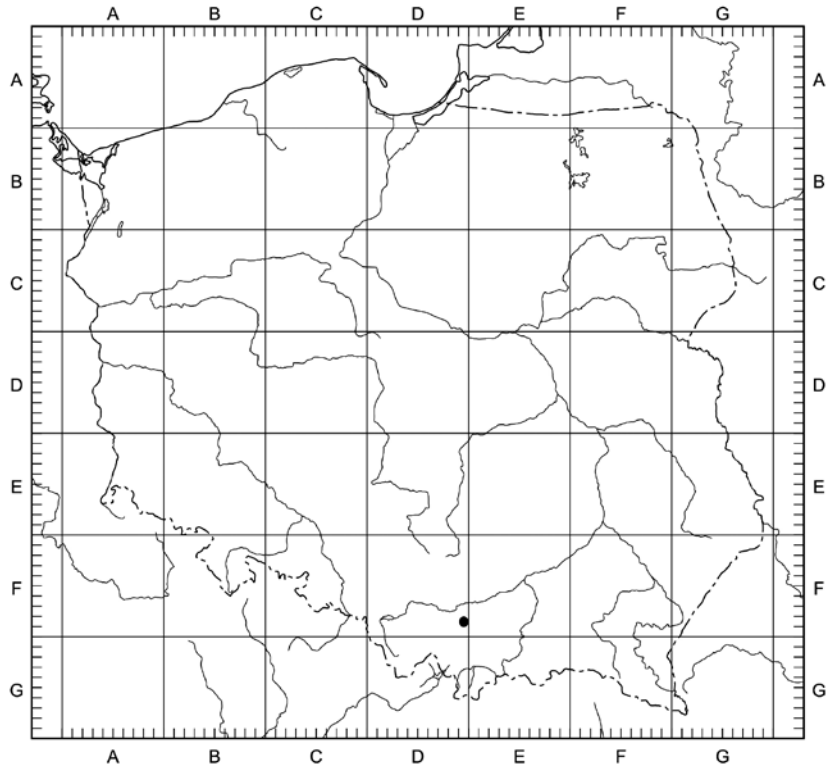


Fig. 1. Location of the first record of *Erigeron sumatrensis* in Poland

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## ***ERIGERON SUMATRENSIS* (ASTERACEAE) – NAUJA ATSITIKTINAI PATEKUSI SVETIMŽEMĖ LENKIJOS FLOROS RŪŠIS**

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### **Santrauka**

*Erigeron sumatrensis* Retz. yra svetimžemė, į Lenkiją atsitiktinai patekusi rūšis. Vienas šios rūšies augalas pirmą kartą buvo aptiktas 2016 metų rugsėjo 14 dieną Głogoczów kaime (į pietvakarius nuo Mogilany, Mažosios Lenkijos vaivadija, Pietų Lenkija). Jis

augo krašto kelio šalikelėje ruderalinių augalų bendrijoje. Radvietė kartografuota naudojant ATPOL kartografavimo metodą. Manoma, kad į šalį šios rūšies augalo sėkla pateko automobiliais pervežant krovinius.