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**NEW LOCALITY OF IVY-LEAVED TOADFLAX
(*CYMBALARIA MURALIS* G.M. ET SCHERB.)
IN OBORNIKI WIELKOPOLSKIE**

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ABSTRACT. In the paper the new locality of *Cymbalaria muralis* discovered the walls of ruined monastery in Oborniki Wielkopolskie (25 km northward from Poznań) was described. The site is laid in at the distance of approximately 25 km to the next two known populations in Poznań and Czarnków. The population consists approximately of 200 individuals, being in good condition and fruiting abundantly.

Key words: *Cymbalaria muralis*, Wielkopolska region, flora

The Ivy-leaved Toadflax (*Cymbalaria muralis* P. Gaertn., B. Mey. & Scherb.) (= *Linnaria cymbalaria* (L.) Mill.) is an anthropophytic species (Mirek et al. 2002, Den virtuella floran 2005), characteristic for the association *Cymballarietum muralis* Görs 1966 from the class *Asplenietea trichomanis* (Br.-Bl. in Meier et Br.-Bl. 1934) Oberd. 1977. The class is grouping the plant communities inhabiting crevices and clefts of the rocks and cliffs, but in the European lowlands the phytocoenoses occur also on the brick and stone walls (Matuszkiewicz 2001). In Poland the species is found usually on the remains of ancient buildings, e.g. medieval houses, churches or fortifications around the downtowns. The connection of the described species to the very old brick underlay is probably caused by the specific chemical conditions generated during the decay of formerly used mortars.

The known populations of *Cymbalaria muralis* in Poland are located in the western part of the country, especially in the Sudety Mountains, Lower Silesia and Western Pomerania. In the central part of the country only not numerous and dispersed localities are known. Among them there are only two sites in Wielkopolska: Poznań and Czarnków (Atlas... 2001).

The range of *Cymbalaria muralis* in Poland is determined probably by its favourable ecological conditions. According to Ellenberg et al. (1992), the species prefers shady,

warm, humid sites on the slightly alcalic soil in subatlantic climatic conditions. The climate of the eastern part of Poland and of the Wielkopolska region, having much more continental features, seems to be unfavourable for the described taxon.

In the year 1995 we discovered the population of *Cymbalaria muralis* on the walls of an old building, of a monastery of the San Francesco order in Oborniki Wielkopolskie (Phot. 1). The building is situated on the northern bank of the Warta river, about six meters above the average water level. The monastery building was built in 1768. In the XIXth century, after the end of the activity of the monastic congregation, the building has been used as a storehouse (Misiorny 1997). About 1990 the construction of the roof was destroyed by fire, and after that, in recent times, the building has been abandoned.



Phot. 1. The ruins of San Francesco monastery in Oborniki Wielkopolskie (photo by S. Janyszek)
Ryc. 1. Ruiny klasztoru Franciszkanów w Obornikach Wielkopolskich (fot. S. Janyszek)

The population of *Cymbalaria muralis*, discovered in 1995, was controlled in 2005. During the recent observations we found 185 individuals of the species. Approximately 90% of them were abundantly flowering and fruiting. The plants grow on the basic part of the southern wall of the building, facing to the Warta river and exposed on the influence of humid air streams which is flowing in from the river bed. The plants are additionally shadowed by tall shrub and herb communities of *Reynoutria japonica* and *Sambucus nigra* growing near the base of the wall (Phot. 2). In the higher parts of the wall, which are not shadowed and exposed to the direct sunlight, the plants of the toadflax were not observed.



Phot. 2. The plants of *Cymbalaria muralis* on the basic part of the wall (photo by S. Janyszek)
 Ryc. 2. Okazy *Cymbalaria muralis* porastające dolną część ściany klasztoru (fot. S. Janyszek)

Described population of *Cymbalaria muralis* can be considered as an essential part of the phytocoenosis of the association *Cymbalarietum muralis* Görs 1966. The combination of the species can be illustrated by the following phytosociological relevé:

Relevé 1; date: 06.06.2005; locality: Oborniki Wielkopolskie, old ruins of monastery in the Sądowa street. Area of the relevé: 300 m². Inclination: 85-90°, exposition: south. Habitat: decaying mortar between red bricks of the wall. Cover of shrub layer (shrubs and young trees growing on the wall): 10%; cover of herbs layer: 15%; cover of moss layer: 0.

Trees and shrubs: *Ulmus minor* 2a.3; *Fraxinus excelsior* 2a.3; *Sambucus nigra* +
 Herbs: *Cymbalaria muralis* 2b.1; *Asplenium ruta-muraria* +; *Taraxacum officinale* +; *Lactuca serriola* +; *Poa compressa* 1.2; *Galium aparine* +; *Hordeum murinum* +; *Artemisia vulgaris* +.2; *Bromus sterilis* r; *Bromus tectorum* +.2; *Humulus lupulus* +.2; *Lapsana communis* +

The numerous population of *Cymbalaria muralis* in the described locality was found in 1995 and recently it is in a very good condition, but there are a few potential threats for the existence of the plants. One of the most important ecological circumstances seems to be the shading of the site by the adjacent tall herb and shrub ruderal communities. Any changes of these phytocoenoses (e.g. by the ordering of the property) can cause exposure of the walls to the direct sunlight, which can lead to the extinction of the plants. The next important problem is the state of the walls of the ruins. In case of

renovation or rebuilding of the monastery, the population of the toadflax can be destroyed. In the case of such threats, this small, very ornamental species, preferring unusual habitats and having original type of growth, should be actively protected.

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NOWE STANOWISKO LNICY MUROWEJ (*CYMBALARIA MURALIS* G.M. ET SCHERB.) W OBORNIKACH WIELKOPOLSKICH

S t r e s z c z e n i e

Populacja lnicy murowej (*Cymbalaria muralis*) na nowo opisanym stanowisku porasta dolne części ścian zrujnowanego budynku dawnego klasztoru Franciszkanów w Obornikach Wielkopolskich. Stanowisko to leży w odległości około 25 km od dwóch najbliższych znanych miejsc występowania tego gatunku – Poznania i Czarnkowa.

Badana populacja składa się z około 200 osobników, będących w bardzo dobrej kondycji i w większości obficie kwitnących.

Lnica murowa porasta przyziemne części zewnętrznych ścian dawnego klasztoru, ocienione wysokimi ziołoroślami z *Reynoutria japonica* i zaroślami *Sambucus nigra*. Dzięki temu ocienieniu i dzięki wyekspozowaniu ściany ku dolinie Warty, w miejscu tym panują korzystne, dla opisywanego gatunku, warunki mikroklimatyczne.

Omawiane stanowisko może być zagrożone w przypadku nagłego odsłonięcia (na przykład przy porządkowaniu terenu, po usunięciu ziołorośli ocieniających ścianę) lub podczas ewentualnego remontu czy też rozbiórki budynku. Wydaje się, że opisywana populacja lnicy – gatunku bardzo interesującego ze względu na swoją biologię rozrodu, niezwykle preferencje siedliskowe, a także bardzo estetycznego – powinna być aktywnie chroniona.

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