

EMAPI

2023



**16TH International Conference on Ecology
and Management of Alien Plant Invasions**

*Promoting diversity in the science and
management of biological invasions*

Book of abstracts



***Asclepias syriaca* L. in Ukraine: economic value against environmental impact.**

Tetiana Dvirna¹, Liudmyla Zavalova², Oksana Kucher³, Vasyl Budzhak⁴, Sergiy Koniakin⁵, Olexandr Orlov⁶, Nadiia Sytachak⁷, Vira Protopopova⁸, Anna Kuzemko⁹, Myroslav Shevera¹⁰

(1) M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, 2, Tereshchenkivska Str. 01601, Kyiv, Ukraine

(2) M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, 2, Tereshchenkivska Str., 01601, Kyiv, Ukraine

(3) M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, 2, Tereshchenkivska Str., 01601, Kyiv, Ukraine

(4) Institute for Evolutionary Ecology, National Academy of Sciences of Ukraine, 37, Lebedeva Str., 03143, Kyiv, Ukraine

(5) Institute for Evolutionary Ecology, National Academy of Sciences of Ukraine, 37, Lebedeva Str., 03143, Kyiv, Ukraine

(6) State Institute "Institute of Environmental Geochemistry, National Academy of Sciences of Ukraine, 34A, Academician Palladin Ave., 03143, Kyiv, Ukraine

(7) Institute of Ecology of the Carpathian, National Academy of Sciences of Ukraine, 4, Kozel'nytska Str., 78926, Lviv, Ukraine

(8) Ferenc Rakoczi II, Trnscarpathian Hungarian College of Higher Education, 6, Koshut sq., 90200, Beregove, Trnscarpathian, Ukraine

(9) M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, 2, Tereshchenkivska Str., 01601, Kyiv, Ukraine

(10) M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, 2, Tereshchenkivska Str., 01601, Kyiv, Ukraine

*Corresponding author: dvirna_t@ukr.net

The initial centers of cultivation on the *A. syriaca* as honey-bearing and ornamental plants in Ukraine are private estates and Botanical Gardens from the middle of the 19th c., from the 1930s – Scientific Research Institute of Rubber, as a technical and medicinal plant. Today, seed hairs are used as filler for clothing, and waste as biofuel. However, *A. syriaca* is an invasive alien species as ranked as Medium significance of I-Rank in Ukraine.

From the end of the 19th to the beginning of the 20th century, the escaped plants were noted in the West, Center and South. Lag-phase is about 50–100 years in different regions. The intensification of the distribution of species took place in the Forest zone and Forest Steppe since 2000s and continues now. The species has fully naturalized in anthropogenic and semi-natural habitats (along roads, field borders, fallows, forest edges, etc.) in the plant communities of the synanthropic vegetation. It has been noted in the five classes of vegetation: Koelerio-Corynephoretea canescentis, Digitario sanguinalis-Eragrostietea minoris, Robinietea, Epilobietea angustifolii and Artemisietea vulgaris (it is a diagnostic species of ass. *Asclepiadetum syriacae* of this class).

The species is characterized by high levels of seed productivity, the predominant vegetative method of reproduction variable modes of dispersal, coenotic amplitudes, and CRS-strategy in Ukraine.

Limiting factors of *A. syriaca* distribution in Ukraine are indicators of soil acidity (Acidity), salt regime (Total salt regime), nitrogen content and climate humidity (Humidity). In connection with climatic changes, wider distribution is predicted, with the exception of the Steppe zone.

Keywords: common-milkweed invasive Ukraine.