

Current distribution and spreading of *Euphorbia davidii* (*E. dentata* agg.) in Europe

Research Article

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Abstract: Of the *Euphorbia dentata* aggregate, both *E. dentata* and *E. davidii* have been reported from Europe. A revision of herbarium and published materials, however, indicates that only *E. davidii* can be confirmed in Europe. Although known in Europe since 1968, most records are from the 1990s. There are 46 known populations scattered throughout the continent, in Russia, Ukraine, Moldova, Romania, Bulgaria, Hungary, Italy, Belgium, Switzerland and France. Most populations are small and restricted to railway areas; however, the species can also invade agricultural fields. Due to its wide distribution, the growing number of recently established populations, and its invasive ability, special attention should be paid to changes in distribution and population sizes in Europe.

Keywords: Agricultural fields • Alien plants • Invasion • Neophytes • Ruderal habitats • Weeds

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1. Introduction

As in many areas worldwide, the number of alien plant species in Europe is growing at an alarming pace [1] and they have significant impact on biodiversity and economy [2]. More and more countries and regions have up-to-date checklists of alien plants; however, many countries lack even brief reports, testifying that our knowledge of alien species in Europe varies significantly by region [3].

Despite the growing number of aliens and the associated problems they cause, their impact is sufficiently documented for only a few species (e.g. [4,5]).

Various methods are used to reveal the pattern of spread of important aliens, including reviewing data in the literature and unpublished records [6], studying herbarium vouchers [4,5,7,8] or interviewing landholders [9]. However, there is a lack of records for many species and regions. The more we know concerning the spreading history of alien taxa, the better we can predict their expected impact, and the potential impact and spread of related taxa [8,10].

In the present study we provide a revision of the *Euphorbia dentata* complex in Europe, aim to determine its current distribution, reconstruct its spreading history in Europe, and assess its habitat-preferences

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