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New Aloes casual aliens in Sicily

Abstract

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Aloë arborescens, *A. brachystachys* and *A. maculata* (*Asphodelaceae*) are reported for the first time as casual aliens in Sicily. *A. brachystachys* is new also for the alien flora of Italy.

Key words: alien plants, succulents, Italian flora, Sicily.

Introduction

Aloë L. is a genus of the *Asphodelaceae* family (*Liliaceae* p.p.) represented by a very rich number of infraspecific species and taxa (Carter & al. 2011). Among them, there are many species introduced and cultivated in various regions of the world and then in part naturalized.

According to Galasso & al. (2018), the following nine taxa belong to the Italian alien flora: *Aloë arborescens* Mill., *A. humilis* (L.) Mill., *A. maculata* All., *A. perfoliata* L., *A. reynoldsii* Letty, *A. striata* Haw. subsp. *striata*, *A. striatula* Haw., *A. vera* (L.) Burm.f., and *A. ×caesia* Salm-Dyck. For Sicily are reported only *A. ×caesia* and *A. vera*, both naturalized (P A NAT). Recent explorations, in particular in western Sicily, have allowed the discovery in the spontaneous state of some of the above reported taxa hitherto unpublished for the alien flora of Sicily. These are *A. arborescens* and *A. maculata*. In addition *A. brachystachys* Baker was also found, a species that is still unknown to date due to the alien flora of Italy.

Review of the records

Aloë arborescens L. (Fig. 1).

Plant widely cultivated in all the coastal Italian regions, both in gardens and in flower beds and terraces - in the ground and in pots - it is indicated as naturalized in many Italian regions with the exception of Lombardy and Trentino-Alto Adige (Galasso & al. 2018). It has recently been reported as naturalized in Puglia (Oliveri

in Galasso & al. 2019). It is a winter flowering plant (Carter & al. 2011) of which several varieties are grown in Italy. Spontaneous populations of *A. arborescens* are also found in Sicily where they have been recorded in Taormina, Capo d'Orlando, Cefalù, Palermo, Scopello, Valderice and S. Vito Lo Capo (Trapani). In these localities the species occurs on rocky substrates, slopes and uncultivated areas, therefore also in semi-natural environments. However, these localities are close to residential centers distributed along the coast, or plants that have escaped from cultivation sites or from landfills located on the outskirts of inhabited centers.



Fig. 1. *Aloë arborescens* in Taormina, Messina.

Aloë brachystachys Backer (Fig. 2)

It is a plant native to South Africa (Cape Provinces). Also known as *Aloë lastii* L., it is cultivated both in gardens and in pots (Carter & al. 2011). To date, the species is not known as naturalized or casual in any of the Italian regions (cfr. Galasso & al. 2018). In Sicily, a casual population was recently found in Capo Rama, near Terrasini (Palermo), on the outer edges of the homonymous nature reserve. In this locality *A. brachystachys* coexists with *Opuntia stricta* L. and other succulents such as *Agave americana* L., *Aeonium arboreum* (L.) Webb & Berth., *Carpobrothus edulis* (L.) L. Bolus, and *Cylindropuntia* sp. (cfr. Raimondo & al. 2021).



Fig. 2. *Aloië brachystachys* in Capo Rama, Palermo.

Aloië maculata All. (Fig. 3)

Widely cultivated species in flowerbeds and in pots, in Italy it is given as an alien plant (P A CAS) in Lazio, Campania, Puglia and Sardinia (Galasso & al. 2018). In Sicily, although widely cultivated, it has not been reported as naturalized or casual so far. Two small groups, located a few meters from each other, along the rocky coast - between the outcrop-



Fig. 3. *Aloië maculata* in Sferracavallo (Palermo), with other alien species naturalized in Sicily.

ping limestones and the clayey-sandy soil - were recently found to Punta Matese (Sferracavallo, Palermo). This species can be considered a casual alien in Sicily.

Discussion and Conclusion

The alien flora of Sicily is enriched by three additional taxa, two of which (*A. brachystachys* and *A. maculata*) to be considered as casual alien species (P A CAS, *sensu* Galasso & al. 2018). Instead, the spontaneous presence of *A. arborescens*, a plant that has long been widely cultivated not only in Sicily, offers the opportunity for some considerations, given the well-known medicinal properties of the leaves which have been widely disclosed in the last three decades. On the island, in fact, the plants of this species were used for the supply of leaves which were then used in the preparation of syrups to also be used as a therapeutic. This has resulted in the reduction of cultivated populations, helping to contain the potential spread of this species not only in urban green areas and in poorly cared public gardens but also naturalized in partly accessible sites. *A. arborescens* very decorative and also rustic, is given in all the Italian regions where it is present as a naturalized alien plant (P A NAT, *sensu* Galasso & al. 2018). In Puglia (Oliveri in Galasso & al. 2019) and, on what has been reported above, in Sicily it is to be considered, instead, as a causal alien (P A CAS *sensu* Galasso & al. 2018). The localization in Sicily of the taxa retrieval sites, reported here, is shown in the following Fig. 4.

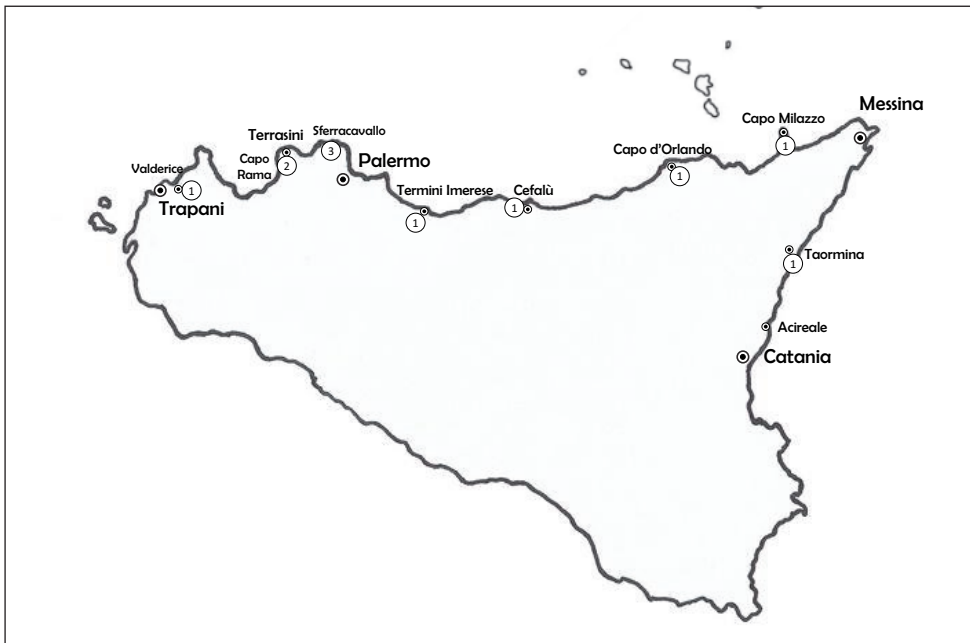


Fig. 4. Location in Sicily of the discovery sites of the three species of *Aloë* reported: 1 = *A. arborescens*; 2 = *A. brachystachys*; 3 = *A. maculata*.

Finally, the report of *A. brachystachys* as a casual alien species, in this contribution, has greater importance both because it is the first case observed in the entire Italian territory, and because it can affect other Italian regions where its spontaneous occurrence has probably been hitherto underestimated or, in any case, overlooked.

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