

Short communication

Contribution to the vascular flora of Ventotene and Santo Stefano islands (Pontine Islands, Lazio, Italy) with two taxa new to Lazio

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Abstract - In this paper, based on field, herbarium and bibliographic research, new distributional data for 16 species and subspecies (13 natives and 3 aliens) are reported for Ventotene and Santo Stefano islands. Particularly, 6 are new or confirmed to Ventotene and 8 to Santo Stefano. One species is excluded from the flora of Ventotene and one is to be considered locally extinct. One native and one alien are new to Lazio administrative region.

Key words: alien species, biodiversity, distribution, native species, vascular flora

Riassunto - Contributo alla flora vascolare di Ventotene e Santo Stefano (Isole Ponziane, Lazio, Italia) con due taxa nuovi per il Lazio.

In questo lavoro, sulla base di ricerche di campo, d'erbario e bibliografiche, vengono riportati nuovi dati distributivi per 16 specie e sottospecie (13 autoctone e 3 alloctone) per le isole di Ventotene e Santo Stefano. In particolare, 6 sono nuove o confermate per Ventotene e 8 per Santo Stefano. Una specie è esclusa dalla flora di Ventotene e una è da considerarsi localmente estinta. Un'autoctona e un'alloctona sono nuove per la Regione Lazio.

Parole chiave: biodiversità, distribuzione, flora vascolare, specie autoctone, specie alloctone.

INTRODUCTION

The Pontine Islands (Isole Ponziane) form a volcanic archipelago located in the Tyrrhenian Sea and belong to Lazio administrative region. They are subdivided in two

groups: a northwestern group, including Ponza, Palmarola and Zannone, and a southeastern group, comprising Ventotene and Santo Stefano. This paper is a contribution to the knowledge of the flora of Ventotene and Santo Stefano, presenting unpublished floristic findings and confirmations of old records. The flora of the two islands was studied by Béguinot (1902, 1905) and Anzalone & Caputo (1976). Lucchese (2017) updated the alien flora. Some original records are reported in Mazzella & Mazzella (1997) and in Calbi *et al.* (2017), and other updates to the checklist and conservation measures can be found in Pretto *et al.* (2010), Celesti-Grapow *et al.* (2017).

MATERIALS AND METHODS

The floristic data are based on field investigations carried out from 26 to 29 May 2022, and bibliographic analysis. Herbarium specimens are preserved in APP (herbarium code follows Thiers, 2022+).

Nomenclature follows the checklists of the Italian native (Bartolucci *et al.*, 2018) and alien (Galasso *et al.*, 2018) vascular flora, and subsequent updates summarized in the Portal to the Flora of Italy (2022; see also Martellos *et al.*, 2020). Taxa are classified as natives or aliens and ordered alphabetically within each category.

The following information is provided for each taxon: currently accepted name; family; reason(s) for it being recorded; current invasiveness status (only for the exotic units); examined herbarium materials, with details about the location (in Italian, according to the information in the herbarium label), UTM coordinates (datum WGS84), altitude, growth habitats, collection date, collector(s), and herbarium storage code; any additional notes.

RESULTS

Native plants

Catapodium pauciflorum (Merino) Brullo, Giusso, Miniss. & Spamp. (Poaceae)

Species new for Ventotene, Santo Stefano and the Pontine Islands.

Santo Stefano, tra l'approdo settentrionale e il carcere, UTM WGS84: 33T 369720E 4516703N, prati aridi, ca. 50 m, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

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Ventotene, sopra Cala Bosco, UTM WGS84: 33T 367457E 4517787N, prati aridi, 23 m, 26 Mai 2022, *F. Conti & V. Giacanelli* (APP).

For Ventotene and Santo Stefano Béguinot (1902) recorded *Catapodium balearicum* (Willk.) H.Scholz (as *C. loliaceum* (Huds.) Link); Anzalone & Caputo (1976, as *Catapodium marinum* (L.) C.E.Hubb.) confirmed it for Ventotene.

Centaurium erythraea Rafn subsp. *erythraea* (Gentianaceae)

Species confirmed for the flora of Santo Stefano.

Santo Stefano, tra l'approdo settentrionale e il carcere, UTM WGS84: 33T 369720E 4516703N, prati aridi, ca. 50 m, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

Species previously recorded by Béguinot (1905).

Echinophora spinosa L. (Apiaceae)

Species confirmed for the flora of Ventotene.

One individual was observed in Cala Rossano, in the southern part of the beach, inside the area fenced to prevent accidents due to falling rocks. In Calanave, the locality mentioned in a previous report (Anzalone & Caputo, 1976), the species is now extinct due to erosion and the impact of tourism.

Eryngium maritimum L. (Apiaceae)

Species extinct from the flora of Ventotene.

Due to erosion and the impact of tourism, the species is now extinct from Calanave, the locality mentioned in a previous report (Anzalone & Caputo, 1976).

Euphorbia peplis L. (Euphorbiaceae)

Species confirmed for the flora of Ventotene.

Ventotene, Cala Rossano, UTM WGS84: 33T 367603E 4517659N, spiaggia, 0 m, 28 Mai 2022, *F. Conti & V. Giacanelli* (APP).

Due to erosion and the impact of tourism, the species is now extinct from Calanave, the locality mentioned in a previous report (Anzalone & Caputo, 1976).

Ferula glauca L. (Apiaceae)

Species excluded from the flora of Ventotene and Santo Stefano.

The species was recorded for Ventotene and Santo Stefano (Anzalone & Caputo, 1976; Mazzella & Mazzella, 1997; Calbi *et al.*, 2017). All the individuals of *Ferula* observed by the authors belong to *F. communis* L. subsp. *communis*. Correctly, Anzalone *et al.* (1992) recorded only *F. communis* for the Pontine Islands.

Galium murale (L.) All. (Rubiaceae)

Species confirmed for the flora of Santo Stefano.

Santo Stefano, parte alta dell'isola nelle vicinanze del carcere, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

Species previously recorded by Béguinot (1905) for Ventotene and Santo Stefano but not confirmed by Anzalone & Caputo (1976).

Juniperus macrocarpa Sm. (Cupressaceae)

The distribution and origin of this species in the Pontine Islands deserve clarifications. Calbi *et al.* (2017) hypothesized a natural origin for this juniper recorded for

Ventotene. We observed the taxon in the same two localities (Cala Rossano, over Cala Bosco) and, additionally, in Via Parata Grande. Although the habitus and the growing habitats could support the thesis of Calbi *et al.* (2017), we learned from an inhabitant of the island that these junipers were planted about 30 years ago by an agronomist.

Pancretium maritimum L. (Amaryllidaceae)

Species confirmed for the flora of Ventotene.

Due to the erosion and the impact of tourism the species is now extinct from Calanave, the locality of a previous report (Anzalone & Caputo, 1976; Mazzella & Mazzella, 1997). In Cala Rossano, one clump was observed by Calbi *et al.* (2017). In the same locality we observed 6 clumps and 15 seedlings.

Populus nigra L. subsp. *neapolitana* (Ten.) Maire (Salicaceae)

Subspecies new for the flora of Santo Stefano and for Lazio administrative region.

Santo Stefano, parte alta dell'isola nelle vicinanze del carcere, venendo dall'approdo settentrionale, UTM WGS84: 33T 369689E 4516697N, boscaglia, ca. 60 m, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

Populus nigra was recorded by Anzalone & Caputo (1976) as probably introduced for Ventotene and Santo Stefano, without indication of the subspecies.

Stachys major (L.) Bartolucci & Peruzzi (\equiv *Prasium majus* L.) (Lamiaceae)

Species new for the flora of Santo Stefano.

This species was observed in Santo Stefano, in the upper part of the island, close to the "carcere", on 29 May 2022.

Urtica membranacea Poir. (Urticaceae)

Species new for the flora of Santo Stefano.

Santo Stefano, parte alta dell'isola nelle vicinanze del carcere, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

For Ventotene and Santo Stefano Béguinot (1905) recorded *Urtica urens* L., subsequently confirmed only for Ventotene by Anzalone & Caputo (1976), but probably this datum is to be referred to *U. membranacea*.

Vinca difformis Pourr. subsp. *difformis* (Apocynaceae)

Species new for the flora of Ventotene and Santo Stefano.

Santo Stefano, parte alta dell'isola nelle vicinanze del carcere, venendo dall'approdo settentrionale, UTM WGS84: 33T 369689E 4516697N, boscaglia, ca. 60 m, 29 Mai 2022, *F. Conti & V. Giacanelli* (APP).

This species was also observed over Calanave, in Via Calanone.

Alien plants

Oenothera speciosa Nutt. (Onagraceae) (Fig. 1)

Casual alien species new for the flora of Ventotene and for Lazio administrative region.

Ventotene, Via Olivi presso la stazione dei Carabinieri, UTM WGS84: 33T 367113E 4517234N, scarpata, 56 m, 27 Mai 2022, *F. Conti & V. Giacanelli* (APP).



Fig. 1 - *Oenothera speciosa* Nutt. (Foto F. Conti).

***Tropaeolum majus* L.** (Tropaeolaceae)

Casual alien species new for the flora of Ventotene.

Ventotene, Faro, UTM WGS84: 33T 367909E 4517382N, incolti, 10 m, 27 Mai 2022, F. Conti & V. Giacanelli (APP).

This species was observed in Punta Arco and Belvedere over Calanave.

Vitis ×koberi Ardenghi, Galasso, Banfi & Lastrucci (Vitaceae)

Naturalized alien species new for the flora of Santo Stefano and for Isole Ponziane.

Santo Stefano, parte alta dell'isola nelle vicinanze del carcere, UTM WGS84: 33T 369560E 4516450N, incolti, 77 m, 29 Mai 2022, F. Conti & V. Giacanelli (APP).

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