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Additions to the vascular flora of the central and southern Italy

Abstract

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In this paper new floristic records for 21 units are reported. In particular, 8 taxa are native, 1 is cryptogenic and 12 aliens, 9 are new or confirmed for Molise, 7 are new or confirmed for Abruzzo, 1 reported as doubtful for Abruzzo, 2 are new for Lazio and Basilicata, 1 is new for Marche. Two alien taxa are new to Italy: *Acer tataricum* subsp. *tataricum* and *Campanula grandis* subsp. *grandis*. The last one is new to Europe.

Key words: alien species, native species, vascular flora, floristics.

Introduction

Although the flora of Italy has been extensively studied (Bartolucci & al. 2018; Galasso & al. 2018), it still reserves many new findings as attested by numerous contributions and the column of “notulae” as reported in the reports on plant biodiversity in Italy (Bartolucci & al. 2021, 2023). The increase in floristic knowledge of central Italy depends on the existence of the Centro Ricerche Floristiche dell’Appennino (University of Camerino - Parco Nazionale del Gran Sasso e Monti della Laga) through its investigations and also thanks to the collaboration of expert friends who the Center manages to catalyze. The present work is a further contribution to the knowledge of the flora of central and southern Italy like others recently published (e.g., Conti & al. 2016, 2017, 2018, 2019, 2022, 2023; Bartolucci & al. 2019, 2022a). Unpublished floristic findings in the central and southern Italy are here presented. Most of the new floristic records concern Molise and Abruzzo, a few Marche, Lazio and Basilicata administrative regions.

Materials and Methods

The investigated area is located in the central and southern Italy, and comprises the territories of Marche, Lazio, Abruzzo, Molise and Basilicata administrative regions. Floristic

data were collected during field investigations carried out mainly during 2022. Some other specimens collected in the past have been revised. Herbarium specimens are preserved in APP (code follows Thiers 2023).

Nomenclature follows the checklists of the Italian native (Bartolucci & al. 2018) and alien (Galasso & al. 2018) vascular flora and subsequent updates summarized in the Portal to the Flora of Italy (2023; see also Martellos & al. 2020). Taxa are categorized in native and aliens and ordered alphabetically.

For each taxon, the following information is provided: current accepted name; family; reason(s) for its inclusion in this report; current invasiveness status (only for the alien units); examined herbarium materials, with details about the location (in Italian, according to the information reported on the herbarium labels), UTM coordinates (datum WGS84), altitude, habitat, collection date, collector(s), and herbarium storage code; any additional notes.

Results

Natives

Centaurium tenuiflorum subsp. *acutiflorum* (Schott) Zeltner (*Gentianaceae*)

Subspecies new for the flora of Basilicata.

Gravina tra Matera e Montescaglioso (Matera), 25.04.1991, *F. Conti & A. Manzi s.n.* (APP No. 64850).

Centranthus calcitrapae (L.) Dufr. subsp. *calcitrapae* (*Valerianaceae*)

Species new for the flora of Molise and doubtfully occurring in Abruzzo.

Campomarino (Campobasso), loc. Ramitelli, UTM WGS84: 33T 510258 E 4641838 N, macchia pioniera su duna consolidata, 5 m, 27.04.2022, *D. Palermo s.n.* (APP No. 66451).

The species was recorded also in Abruzzo (Bartolucci & al. 2018) based on Gravina (1812 as *Valeriana calcitrapa*) and Biondi & Galdenzi (2012) for “Monte Piselli” and “il Vallone”. During several field investigations in the mentioned localities we have not been able to find this species; furthermore its preferential habitat is not present. Also, in the locality “Distretto di Sulmona alle colline di Pantaniello” reported by Gravina (1812) the presence of this species is not probable. Consequently, its presence in Abruzzo is doubtful.

Crepis bursifolia L. (*Asteraceae*)

Criptogenetic species new for the flora of Molise.

Termoli (Campobasso), loc. passeggiata di Rio Vivo, UTM WGS84 33T 499879 E 4649952 N, ambiente urbano, su marciapiede, 10 m, 09.05.2022, *D. Palermo s.n.* (APP No. 66452).

Festuca jeanpertii subsp. *campana* (N.Terracc.) Markgr.-Dann. (*Poaceae*)

Subspecies new for the flora of Lazio.

Picinisco (Frosinone), San Gennaro prati, 800 m, 25.05.1991, *F. Conti s.n.* (APP Nos. 30512, 30513, 30524, 30528); *ibidem*, M. Cavallo, pascolo montano, 1800-2000 m, 07.08.1992, *F. Conti s.n.* (APP No. 30519).

A comprehensive understanding of the variability of the whole aggregate *Festuca circum-mediterranea* (to which this taxon belongs), across its entire distributional range is still lacking and the separation of the currently accepted taxa has recently been regarded as questionable (Foggi & al. 2009, Foggi & Tison 2014; Ardenghi & al. 2016).

***Malva parviflora* L. (Malvaceae)**

Species new for the flora of Molise.

Montenero di Bisaccia (Campobasso), loc. Calanchi di Montenero, UTM WGS84: 33T 480269 E 4651386 N, coltivo a vigneto, 60 m, 06.06.2022, *D. Palermo s.n.* (APP No. 66456).

***Pulmonaria officinalis* L. subsp. *officinalis* (Boraginaceae)**

Species new for the flora of Basilicata.

Muro Lucano (Potenza), Vallone dell'Arco, presso il torrente, radura, 480 m, 04.06.2003, *F. Conti & D. Tinti s.n.* (APP No. 5505).

***Senecio ovatus* subsp. *stabianus* (Lacaita) Greuter (Asteraceae)**

Subspecies new for the flora of Marche.

Acquasanta (Ascoli Piceno), Cascata “La Volpara”, margini del bosco, 1250 m, 31.07.2006, *F. Conti, D. Tinti, A. Manzi & P. Minghetti s.n.* (APP No. 21449).

***Silene vulgaris* subsp. *commutata* (Guss.) Hayek (Caryophyllaceae)**

Subspecies new for the flora of Molise.

San Massimo (Campobasso), Monti del Matese, loc. Grotta delle Ciaole, UTM WGS84: 33T 448118 E 4590087 N, pendio erboso delimitato da costone roccioso di natura calcarea a sud-ovest e faggeta a nord-ovest, 1680 m, 11.06.2022, *D. Palermo s.n.* (APP No. 66453); *ibidem*, 5.06.2016, *D. Palermo s.n.* (APP No. 59518).

In this locality, *S. vulgaris* subsp. *commutata* forms large populations.

***Symphytum bohemicum* F.W. Schmidt (Boraginaceae)**

Species new for the flora of Lazio.

Roma (Roma), Parco della Caffarella, canale a nord del F. Almona, UTM WGS84: 33T 293950 E 4637942 N, rive, 14 m, 03.04.2016, *F. Conti & V. Giacanelli s.n.* (APP No. 62783).

In the area was recorded *S. officinale* of which *S. bohemicum* was considered a synonym (Iamónico 2022). Recently, *S. bohemicum* has been re-evaluated (Koblová & al. 2022).

Aliens

***Acer tataricum* L. subsp. *tataricum* (Sapindaceae)**

Casual alien subspecies new for the flora of Italy and Abruzzo.

Avezzano (L'Aquila), presso Paterno, UTM WGS84: 33T 376082 E 4657665 N, siepe, 680 m, 15.12.2022, *B. Santucci s.n.* (APP No. 66467).

Close to this locality, a few hundred meters away, there is an abandoned nursery where there are four individuals of *A. tataricum* subsp. *tataricum* which gave rise to naturalization.

Campanula grandis Fisch. & C.A. Mey. subsp. ***grandis*** (*C. latiloba* A. DC. subsp. *latiloba*) (*Campanulaceae*)

Naturalized alien species and subspecies new for the flora of Europe, Italy and Abruzzo. Lucoli Alto (L'Aquila), scarpata e muretto a secco lungo la strada, 1060 m, 15.06.2022, *R. Soldati & E. De Santis s.n.* (APP Nos. 66469, 66470, 66471, 66472).

The species, and the two currently accepted subspecies (subsp. *grandis* and subsp. *rizeensis* (Güner) Lammers), are endemic to Turkey (Castroviejo & al. 2023; POWO 2023).

Capparis orientalis Veill. (*Capparaceae*)

Naturalized alien species confirmed for the flora of Abruzzo.

Ortona (Chieti), castello, UTM WGS84: 33T 451121 E 4689775 N, mura, esp. SE, 49 m, 09.12.2022, *F. Conti & V. Giacanelli s.n.* (APP No. 66464); Civitella del Tronto (Teramo), Via Ferdinando II di Borbone, UTM WGS84: 33T 391076 E 473637 N, mura, 573 m, 01.01.2023, *F. Bartolucci s.n.* (APP Nos 66465, 66466).

The previous records for the flora of Abruzzo (Abbate 1903 as *C. rupestris*), Teramo, Atri, Civitella del Tronto, Penne (Di Giuseppe 1909 as *C. rupestris*; Zodda 1954, 1967 as *C. spinosa* var. *inermis* Turra) were referred with doubt to *C. orientalis* (Bartolucci & al. 2018).

Capparis spinosa L. (*Capparaceae*)

Naturalized alien species confirmed for the flora of Molise.

Termoli (Campobasso), loc. porto di Termoli, UTM WGS84: 33T 499861 E 4650078 N, ambiente urbano su parete in laterizi; la specie è molto diffusa sulle mura del borgo vecchio della città, 12 m, 08.06.2022, *D. Palermo s.n.* (APP Nos. 66458, 66459).

The species was recently added to Molise without invasiveness status (Bartolucci & al. 2022b) based on the generic citation of the species in Conti & al. (2005).

Dichondra micrantha Urb. (*Convolvulaceae*)

Naturalized alien species new for the flora of Molise.

Termoli (Campobasso), via Roma, UTM WGS84: 33T 499652 E 4650185 N, ambiente urbano sottoposto a calpestio, specie osservata anche in diversi altri punti nell'ambito urbano, 18 m, 05.10.2022, *D. Palermo s.n.* (APP No. 66457).

Hypericum calycinum L. (*Hypericaceae*)

Naturalized alien species new for the flora of Molise.

Pescocolanciano (Isernia), UTM WGS84: 33T 444927 E 4614803 N, luogo erboso su ciglio stradale, 760 m, 01.10.2022, *D. Palermo s.n.* (APP 66454).

Nicotiana glauca Graham (*Solanaceae*)

Casual alien species new for the flora of Abruzzo.

Atessa (Chieti), Contrada Piazzano 70, UTM WGS84: 452166 E 4664553 N, muro in mattoni di un'abitazione abbandonata, 80 m, 20.10.2022, *M. Paolucci s.n.* (observed but not collected).

Oenothera glazioviana Micheli (*Onagraceae*)

Casual alien species new for the flora of Molise.

Pescolanciano (Isernia), UTM WGS84: 33T 444927 E 4614803 N, ciglio stradale, 760 m, 21.08.2022, *D. Palermo s.n.* (APP No. 66455).

Parthenocissus inserta (A. Kern.) Fritsch (*Vitaceae*)

Naturalized alien species new for the flora of Abruzzo.

Pescara (Pescara), Pineta d'Avalos, siepi, 0-4 m, 10.05.2003, *F. Conti s.n.* (APP No. 7698).

Sedum praealtum A. DC. (*Crassulaceae*)

Naturalized alien species new for the flora of Abruzzo and status change, from casual to naturalized alien, for the flora of Italy.

Atessa (Chieti), contrada Querceto, UTM WGS84: 33T 452630 E 4662857 N, bordo strada comunale, 128 m, 28.12.2022, *M. Paolucci s.n.* (APP No. 66474); Bomba (Chieti), all'ingresso nord del paese, UTM WGS84: 33T 447367 E 4654349 N, rupe lungo la strada, 410 m, 28.12.2022, *M. Paolucci* (obs.).

Symphotrichum ×versicolor (Willd.) G.L.Nesom (*Asteraceae*)

Naturalized alien species new for the flora of Abruzzo and status change, from casual to naturalized alien, for the flora of Italy.

Civita di Bagno (L'Aquila), UTM WGS84: 33T 370691 E 4686070 N, margine stradale, 598 m, 12.09.2018, *F. Bartolucci s.n.* (APP Nos 59603, 59611).

Vicia lens (L.) Coss. & Germ. subsp. *lens* (*Fabaceae*)

Casual alien species new for the flora of Molise.

Campomarino (Campobasso), loc. Fantine, UTM WGS84: 33T 507304 E 4642729 N, margini della duna consolidata e massicciata ferroviaria, 4 m, 27.04.2022, *D. Palermo s.n.* (APP No. 66450).

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