

Notulae to the Italian alien vascular flora: 10

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Abstract

In this contribution, new data concerning the distribution of vascular flora alien to Italy are presented. It includes new records, confirmations, exclusions, and status changes for Italy or for Italian administrative regions. Nomenclatural and distribution updates published elsewhere are provided as Suppl. material 1.

Keywords

Alien species, floristic data, Italy, nomenclature

How to contribute

The text for the new records should be submitted electronically to Chiara Nepi (chiara.nepi@unifi.it). The corresponding specimen along with its scan or photograph has to be sent to FI Herbarium: Museo di Storia Naturale (Botanica), Sistema Museale di Ateneo, Via G. La Pira 4, 50121 Firenze (Italy). Those texts concerning nomenclatural novelties (typifications only for accepted names), status changes, exclusions, and confirmations should be submitted electronically to Gabriele Galasso (gabriele.galasso@comune.milano.it). Each text should be within 1,000 characters (spaces included).

Floristic records

Achillea filipendulina Lam. (Asteraceae)

+ (CAS) **MAR**: Urbino (Pesaro e Urbino), Monti delle Cesane, basso versante W del Monte della Cesana, tra Case Peschiera e Ca' Mignone (WGS84: 43.730999°N, 12.650354°E), luoghi maceriosi ai margini di una gariga arbustata, ca. 460 m, 1 July 2020, *N. Hofmann* (FI, PESA). – Casual alien species new for the flora of Marche.

Achillea filipendulina is a neophyte native to central and south-western Asia (Ghafoor 2002) and cultivated as ornamental. Recently, a single individual has been detected, growing in a ruderal habitat at the edge of a garrigue, along with *Cotinus coggygria* Scop. and *Spartium junceum* L.

L. Gubellini, N. Hofmann

Bidens lanceolata (L.) Banfi, Galasso & Bartolucci (Asteraceae)

+ (CAS) **TAA**: Trento (Trento), Tangenziale Ovest, uscita Piedicastello, in una rotonda al termine del Lungadige San Nicolò (WGS84: 46.065557°N, 11.111498°E), rotonda stradale, 195 m, 31 May 2020, *G. Bonari* (FI). – Casual alien species new for the flora of Trentino-Alto Adige.

The species, occurring with less than 10 individuals, was found in a flowerbed-like roundabout. Therefore, the place might have been subjected to wildflower seed mixture sown in the past. However, the site looks abandoned. On the other hand, this species might have also arrived from the nearby motorway. Unfortunately, these two explanations are speculative as we don't have data in this respect. In any case, we believe the record is noteworthy, because it suggests the persistence ability of the species.

G. Bonari, C. Wellstein, S. Zerbe

Bidens subalternans DC. (Asteraceae)

+ (NAT) **LAZ**: Alatri (Frosinone), fondovalle in loc. Cosciano (WGS84: 46.719662°N, 13.346098°E), luoghi erbosi a bordo strada, 337 m, 15 October 2018, *E. Fanfarillo* (RO); Orte (Viterbo), nei pressi del casello autostradale (WGS84: 42.453581°N, 12.409637°E), stazioni ruderali a bordo strada, 55 m, 27 October 2018, *E. Fanfarillo* (RO); Genzano di Roma (Roma), loc. Ponte Tre Armi (WGS84: 41.677850°N, 12.727938°E), incolti e margini stradali, 265 m, 26 August 2020, *M. Latini* (RO); *ibidem*, tra Ponte San Gennaro e Ponte Tre Armi (WGS84: 41.678913°N, 12.727939°E), incolti e orti, 275 m, 26 August 2020, *M. Latini* (RO). – Status change from casual to naturalized alien for the flora of Lazio.

In Lazio, *Bidens subalternans* was first reported as a casual alien in 2016 in Genzano di Roma (Galasso et al. 2016), where it still occurs and has spread to neighbor-

ing areas. This annual species was also observed by G. Abbate in other localities of Colli Albani at Velletri (Roma), Via Fontana Marcaccio (WGS84: 41.712511°N, 12.782465°E) and Via Passo dei Coresi (WGS84: 41.619027°N, 12.755517°E). This species regularly produces abundant flowers and fruits. Its presence in the same locality for several years, and its occurrence in other provinces, lead us to consider *B. subalternans* as naturalized in Lazio.

M. Latini, G. Nicolella, E. Fanfarillo

***Campsis radicans* (L.) Bureau (Bignoniaceae)**

+ (CAS) **CAL**: Reggio Calabria (Reggio Calabria), fraz. Ortì (WGS84: 38.147734°N, 15.710454°E), scarpata, 607 m, 29 June 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); *ibidem*, fraz. Archi rione Carmine (WGS84: 38.159076°N, 15.666590°E), bordo strada, 56 m, 1 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); *ibidem*, loc. Pentimele (WGS84: 38.152204°N, 15.657830°E), bordo strada arrampicata su una rete metallica, 9 m, 17 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); Montebello Jonico (Reggio Calabria), contrada Masella (WGS84: 38.004679°N, 15.643481°E), arrampicata su un muro, 56 m, 3 July 2020, leg. *C.M. Musarella*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); *ibidem*, fraz. Saline, borgata Sant’Elia, SS106 (WGS84: 37.932926°N, 15.736238°E), bordo strada, 31 m, 4 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); Condofuri (Reggio Calabria), fraz. San Carlo, SS106 (WGS84: 37.928938°N, 15.884340°E), bordo strada, 9 m, 5 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (REGGIO); Palizzi (Reggio Calabria), fraz. Spropoli, SS106 (WGS84: 37.924085°N, 16.024619°E), bordo strada, 10 m, 5 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (FI, REGGIO). – Casual alien species new for the flora of Calabria.

Campsis radicans is an ornamental used to cover nets and pergolas. We have observed numerous individuals originating both from seed reproduction and vegetative propagation.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Cascabela thevetia* (L.) Lippold (Apocynaceae)**

+ (NAT) **ITALIA (SIC)**: Campofelice di Roccella (Palermo) (WGS84: 37.996910°N, 13.886166°E), in un canale di scolo dell’acqua piovana, 9 July 2019, *G. Domina* (FI); Monreale (Palermo), Via Olio di Lino (WGS84: 38.076133°N, 13.310443°E), bordo strada, 15 July 2020, *E. Di Gristina* (SAF). – Status change from casual to naturalized alien for the flora of Italy; naturalized alien species new for the flora of Sicilia.

Cascabela thevetia is native to Central and South America (Alvarado-Cárdenas et al. 2017), it is cultivated frequently as an ornamental in Sicilia, and was recorded as a casual alien in Calabria (Laface et al. 2020). Several individuals of this species at different growth stages were found in a rainwater drain and on a road edge. These plants

were identified according to Alvarado-Cárdenas et al. (2017), and originated from dispersed seeds from ornamentals growing in nearby private gardens.

E. Di Gristina, F. Scafidi, G. Barone

***Cedrus deodara* (Roxb.) G. Don (Pinaceae)**

+ (CAS) **LIG**: Magliolo (Savona), impluvio del Torrente Maremola (WGS84: 44.18919°N, 8.24017°E), macchia mediterranea, 260 m, 7 December 2019, *A. Alberto, A. Baroni, F. Baroni, I. Briozzo, S. Briozzo, C. Cibeï, D. Dagnino, D. Dozza, D. Longo, M. Ottonello, R. Paneri, S. Peccenini, E. Rodi* (FI, GE No. 1613). – Casual alien species new for the flora of Liguria.

D. Longo, C. Cibeï

***Cenchrus americanus* (L.) Morrone subsp. *americanus* (Poaceae)**

– **ITALIA (VEN)**. – Alien species to be excluded from the flora of Italy (Veneto).

The record published by Englmaier and Wilhalm (2018) for Veneto as casual alien and cited by Galasso et al. (2020) is based on a cultivated plant: WSW di Castagnaro (Verona), ca. 500 m a ESE del Ponte di Pietra, campo a riposo, pianta coltivata, 11 m, 28 March 2002, *F. Prosser* (ROV No. 41991 under the name *Pennisetum glaucum* (L.) R.Br.).

F. Prosser

***Cotoneaster hjelmqvistii* Flinck & B. Hylmö (Rosaceae)**

+ (CAS) **TOS**: Pomarance (Pisa), Riserva Naturale Monterufoli-Caselli, presso Podere Monterufolino (WGS84: 43.244828°N, 10.780255°E), margine boschivo, 500 m, 12 June 2020, leg. *L. Pinzani, F. Olivieri*, det. *F. Roma-Marzio* (FI, *Herb. L. Pinzani*). – Casual alien species new for the flora of Toscana.

L. Pinzani, F. Roma-Marzio

***Cotoneaster salicifolius* Franch. (Rosaceae)**

+ (CAS) **PUG**: Brindisi (Brindisi), aiuole in Via Bastioni di San Giorgio (WGS84: 40.636294°N, 17.938775°E), aiuola semi-ombreggiata, ca. 19 m, 24 August 2019, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

Some young individuals of the species have developed in semi-shady flowerbeds. The plants originated from seeds produced by adult individuals growing nearby.

N. Olivieri

***Crocus tommasinianus* Herb. (Iridaceae)**

+ (NAT) **ITALIA (LOM)**: Olgiate Molgora (Lecco), loc. Bruggione, boschetto nei pressi di Via Consortile Bruggione (WGS84: 45.735548°N, 9.400043°E), bosco misto mesofilo, 300 m, 14 February 2014, *M. Villa* (*Herb. Parco di Montevecchia e della Valle del Curone*); *ibidem*, 25 February 2019, *M. Villa* (PI025542); *ibidem*, 22 Febru-

ary 2020, *F. Roma-Marzio, L. Peruzzi* (FI); Montevicchia (Lecco), Parco Regionale di Montevicchia e della Valle del Curone, loc. Ceresè, boschetto nei pressi di Via Monza (WGS84: 45.68947°N, 9.37343°E), bosco misto mesofilo, 300 m, 22 February 2020, *F. Roma-Marzio, L. Peruzzi, A. Spalma, P. Bolzani, M. Villa* (PI033382). – Naturalized alien species new for the flora of Italy (Lombardia).

+ (NAT) **FVG**: Mezzana del Turgnano (Udine), Bosco Baredi-Selva Aruonchi, al margine destro del sentiero principale (Stradon di Mieze), precisamente all'ingresso del bosco (WGS84: 45.786111°N, 13.115033°E), 7 m, 26 February 2020, *M. Bianco* (FI). – Naturalized alien species new for the flora of Friuli Venezia Giulia.

Crocus tommasinianus is native to the NW Balkan peninsula (Harpke et al. 2015), but it is known as introduced alien for Great Britain and Netherlands (Barker 2020). Other localities where this species was observed are: La Valletta Brianza (Lecco), loc. Lissolo (WGS84: 45.736751°N, 9.348045°E); Latisana (Udine), lungo l'argine del Fiume Tagliamento (WGS84: 45.755100°N, 13.006976°E); Lignano Sabbiadoro (Udine), Lungomare A. Kechler (WGS84: 45.666355°N, 13.110460°E); Talmassons (Udine), fraz. Flambro, lungo un fossato appena fuori il centro abitato in Via Tagliamento (WGS84: 45.931594°N, 13.084167°E).

M. Villa, M. Bianco, P. Bolzani, F. Roma-Marzio, L. Peruzzi

***Echinochloa colona* (L.) Link (Poaceae)**

+ (CAS) **MAR**: Fermo (Fermo), fraz. Lido di Fermo, sulla spiaggia (WGS84: 43.2215278°N, 13.7823888°E), sabbie, 1 m, 1 September 2019, *M. Tiburtini* (FI). – Casual alien species new for the flora of Marche.

Several plants have grown in a human-disturbed area where mechanical beach cleaning frequently occurs.

M. Tiburtini, J. Franzoni, F. Roma-Marzio

***Erythrostemon gilliesii* (Wall. ex Hook.) Klotzsch (Fabaceae)**

+ (CAS) **CAL**: Reggio Calabria (Reggio Calabria), loc. Bocale (WGS84: 37.968386°N, 15.756872°E), collina sabbiosa, 298 m, 26 May 2020, leg. *C.M. Musarella*, det. *V.L.A. Laface, C.M. Musarella, G. Spampinato* (FI, REGGIO). – Casual alien species new for the flora of Calabria.

Erythrostemon gilliesii is commonly cultivated as ornamental. The observed individual probably escaped from the gardens of nearby houses.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Heliotropium amplexicaule* Vahl (Heliotropiaceae)**

+ (NAT) **SIC**: Catania (Catania), porto di Catania (WGS84: 37.501733°N, 15.096016°E), bordo strada, ca. 1 m, 13 October 2020, *G. Tavilla, D. Azzaro, V. Ranno* (FI, CAT). – Naturalized alien species confirmed for the flora of Sicilia.

For Sicily, *Heliotropium amplexicaule* is reported by Costa and Pavone (2018) inside the Botanical Garden of Catania, and by Pignatti et al. (2018) without invasiveness status. The presence of this species is confirmed as naturalized along the roadside of the port of Catania.

G. Tavilla, D. Azzaro, V. Ranno

***Hesperocyparis glabra* (Sudw.) Bartel (Cupressaceae)**

+ (NAT) **MAR**: Acqualagna (Pesaro e Urbino), Monti del Furlo, versante W-NW del Monte Pietralata, nella parte sommitale del Monte Bregno (WGS84: 43.662655°N, 12.693646°E), pascoli aridi e sassosi, ca. 705 m, 22 July 2020, *L. Gubellini* (FI, PESA).

– Naturalized alien species new for the flora of Marche.

Hesperocyparis glabra is a neophyte native to the SW United States of America (Adams et al. 2009; Farjon 2010), widely used as ornamental and for reforestation. The observed population consists of a few dozen young individuals, whose propagation has probably been favoured by a recent forest fire.

L. Gubellini, N. Hofmann

***Houttuynia cordata* Thunb. (Saururaceae)**

+ (CAS) **ITALIA (FVG)**: Palazzolo dello Stella (Udine), rive del Fiume Stella (WGS84: 45.809452°N, 13.079030°E), bosco ripariale disturbato, 5 m, 16 June 2020, *F. Liccari* (FI); *ibidem* (45.809453°N, 13.079031°E), bosco ripariale disturbato, 5 m, 16 June 2020, *F. Boscutti* (FI). – Casual alien species new for the flora of Italy (Friuli Venezia Giulia).

Houttuynia cordata is a perennial herb native to temperate and tropical Asia, cultivated worldwide as ornamental. It has become naturalized in wetland habitats in New Zealand and the USA (Louisiana), where it is considered invasive (Wunderlin et al. 2010; USDA, NRCS 2020). In Europe it was first reported in Belgium, where it is considered a casual alien (Saintenoy-Simon 2013; Verloove 2020). We found this species growing in a disturbed riverine wood along the river Stella. We observed a few individuals in July 2019, but the species is rapidly spreading due to vegetative propagation; we also observed several flowering individuals. This trend suggests an ongoing naturalization process, with an invasive potential.

F. Liccari, F. Boscutti

***Ibicella lutea* (Lindl.) Van Eselt. (Martyniaceae)**

+ (CAS) **ITALIA (SAR)**: Laerru (Sassari) (WGS84: 40.814497°N, 8.851962°E), in un erbaio a dominanza di *Sulla coronaria*, 97 m, 1 July 2020, leg. *G. Riviuccio*, *S. Bagella*, *V. Bica*, *L. Lunesu*, det. *L. Lunesu* (FI, SS). – Casual alien species new for the flora of Italy (Sardegna).

Native to South America, *Ibicella lutea* has been reported in Europe for different areas (Verloove 2006; Yannitsardos and Bazos 2006; Tison et al. 2014). The population of Laerru occupies two small portions of a cultivated field (around 3,000 m²).

G. Riviuccio, L. Lunesu, S. Bagella

***Impatiens parviflora* DC. (Balsaminaceae)**

+ (CAS) **ABR**: Teramo (Teramo), strada secondaria presso Via A. De Gasperi (WGS84: 42.662158°N, 13.707497°E), margine erboso, ca. 250 m, 10 June 2020, *N. Olivieri* (FI). – Casual alien species new for the flora of Abruzzo.

N. Olivieri

***Lantana camara* L. subsp. *camara* (Verbenaceae)**

+ (CAS) **ITALIA (PUG)**: Brindisi (Brindisi), aiuole in Via Bastioni di San Giorgio (WGS84: 40.636294°N, 17.938775°E), aiuola semi-ombreggiata, ca. 19 m, 24 August 2019, *N. Olivieri* (FI). – Casual alien subspecies new for the flora of Italy (Puglia).

Some young individuals of this taxon are growing in semi-shaded flowerbeds. The plants, identified according to Sanders (2012), originated from seeds produced by some adult specimens present nearby. This subspecies is widely cultivated in Italy as ornamental in areas with a Mediterranean climate, however, unlike *L. camara* subsp. *aculeata* (L.) R.W.Sanders (Thaman 1974), it rarely gives rise to adventitious populations.

N. Olivieri

***Liriope spicata* (Thunb.) Lour. (Asparagaceae)**

+ (CAS) **CAL**: Scilla (Reggio Calabria) (WGS84: 38.239889°N, 15.719085°E), bordo strada vicino ad un castagneto, 378 m, 14 July 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (FI, REGGIO). – Casual alien species new for the flora of Calabria.

The only plant found probably escaped from cultivation or was thrown together with the waste material from nearby gardens.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Lobelia erinus* L. (Campanulaceae)**

+ (CAS) **SIC**: Palermo (Palermo), Via Cluverio, nei pressi di Piazza San Francesco di Paola (WGS84: 38.121652°N, 13.351802°E), negli interstizi dei marciapiedi, 22 m, 11 May 2020, *E. Di Gristina* (FI). – Casual alien species new for the flora of Sicilia.

Some mature individuals have been found in sidewalk crevices, probably coming from nearby adult fruiting plants.

E. Di Gristina, F. Scafidi, G. Barone

***Nandina domestica* Thunb. (Berberidaceae)**

+ (CAS) **LAZ**: Roma (Roma), aiuola in Piazza B. Cairoli (WGS84: 41.893619°N, 12.475277°E), margine di aiuola semi-ombreggiata, ca. 31 m, 20 September 2019, *N. Olivieri* (FI). – Casual alien species new for the flora of Lazio.

A few young individuals of this species originated from seeds produced by some adults grown as ornamentals in a nearby flowerbed. *Nandina domestica* is native to China and Japan, and was introduced in Italy in 1821 (Maniero 2015).

N. Olivieri

***Nassella neesiana* (Trin. & Rupr.) Barkworth (Poaceae)**

+ (NAT) **LAZ**: Roma (Roma), Villa Ada (WGS84: 41.928728°N, 12.505276°E), incolto, 40 m, 29 June 2020, G. Nicolella (RO). – Status change from casual to naturalized alien for the flora of Lazio.

This species was first recorded in Lazio in 1970 at Villa Ada (Anzalone and Veri 1975) and then collected there also in the following years (Moraldo 1986; Anzalone et al. 2010). Its presence in the same locality 50 years later leads us to consider *Nassella neesiana* as naturalized in this administrative region.

G. Nicolella, M. Latini

***Nothoscordum gracile* (Aiton) Stearn (Amaryllidaceae)**

+ (CAS) **SIC**: Messina (Messina), Viale Bocchetta (WGS84: 38.198263°N, 15.551971°E), marciapiede, 26 m, 17 June 2020, leg. C.M. Musarella, det. V.L.A. Laface, C.M. Musarella, G. Spampinato (FI, REGGIO); Catania (Catania), Via A. Longo, vicino Orto Botanico (WGS84: 37.515272°N, 15.082627°E), bordo strada, 33 m, 18 June 2020, leg. C.M. Musarella, det. V.L.A. Laface, C.M. Musarella, G. Spampinato (REGGIO); *ibidem*, Via S. Paola (WGS84: 37.514850°N, 15.081857°E), marciapiede, 37 m, 19 June 2020, leg. C.M. Musarella, det. V.L.A. Laface, C.M. Musarella, G. Spampinato (FI, REGGIO). – Casual alien species new for the flora of Sicilia.

Some plants of the species grow in the crevices of sidewalks, having probably escaped from nearby pots or flowerbeds.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Oxalis dillenii* Jacq. (Oxalidaceae)**

+ (NAT) **SIC**: Palermo (Palermo), Via G. La Farina, angolo Via N. Garzilli (WGS84: 38.1292592°N, 13.3504172°E), negli interstizi dei marciapiedi, 16 m, 16 May 2019, G. Barone (FI). – Naturalized alien species new for the flora of Sicilia.

Recent expansion of the range of the species, not yet reported in the recent flora of Palermo (Domina et al. 2020).

E. Di Gristina, F. Scafidi, G. Barone

+ (NAT) **SAR**: Gairo (Nuoro), presso il Rio Sammuccu (WGS84: 39.904900°N, 9.427900°E), bordo stradale moderatamente fresco-umido, 900 m, 21 June 2020, G. Mereu (FI). – Naturalized alien species confirmed for the flora of Sardegna.

This species has been indicated as naturalized alien in Sardegna by Arrigoni (2010), but its presence on the island was considered doubtful by Galasso et al. (2018).

G. Mereu

***Papaver orientale* L. (Papaveraceae)**

+ (CAS) **ITALIA (UMB)**: Norcia (Perugia), Parco Nazionale dei Monti Sibillini, Fonte delle Fate (WGS84: 42.852796°N, 13.240533°E), ghiaia, 1,996 m, 19 July 2020, *F. Miconi* (FI). – Casual alien species new for the flora of Italy (Umbria).

A single plant of *Papaver orientale* bearing four flowers was found on gravelly soil. It was identified according to Cullen (1995).

F. Miconi

***Passiflora incarnata* L. (Passifloraceae)**

+ (CAS) **LAZ**: Tuscania (Viterbo), Via XI Febbraio, lungo il muro del campo di calcio (WGS84: 42.420996°N, 11.870770°E), base di muro, 180 m, 13 July 2020, *S. Magrini* (FI). – Casual alien species new for the flora of Lazio.

Several plants of the species grow along a wall, having probably escaped from nearby gardens; they produce many fruits every year.

S. Magrini, S. Buono

***Phyllostachys aurea* Carrière ex Rivière & C. Rivière (Poaceae)**

+ (CAS) **LAZ**: Latina (Latina), loc. Astura, lungo la sponda sinistra del Torrente Astura, a monte del ponte della SP106b (WGS84: 41.423738°N, 12.774910°E), area di ripa incolta occupata nella porzione basale da *Phragmites australis*, 1 m, 4 January 2020, *S. Ravetto Enri, M. Pittarello, M. Lonati* (FI). – Casual alien species new for the flora of Lazio.

A large population of this species, occupying an area of approximately 10×10 m, has been observed along a scarp of the Astura stream. The expansion probably occurred through leptomorph underground rhizomes. A recent project (BampApp 2020+) provided comprehensive information for evaluating and updating the presence of bamboo species in Piemonte and Valle d'Aosta, and a similar approach could be replicated to increase current knowledge regarding the status of bamboos in other Italian regions as well.

S. Ravetto Enri, M. Pittarello, M. Lonati

***Robinia hispida* L. (Fabaceae)**

+ (CAS) **ABR**: L'Aquila (L'Aquila), presso il Parco del Sole (WGS84: 42.341639°N, 13.403482°E), incolto, 680 m, 12 May 2020, *F. Conti, V. Giacanelli* (FI, APP). – Casual alien species new for the flora of Abruzzo.

F. Conti, V. Giacanelli, F. Bartolucci

***Sedum palmeri* S.Watson (Crassulaceae)**

+ (CAS) **ABR:** Teramo (Teramo), Via A. De Gasperi (WGS84: 42.662222°N, 13.708197°E), muro di contenimento in cemento situato al di sotto della sede stradale, ca. 256 m, S, 20 April 2020, *N. Olivieri* (FI). – Casual alien species new for the flora of Abruzzo.

Some individuals have settled on the rough surface of a vertical south-facing wall, which is, however, partially shaded by buildings.

N. Olivieri

***Siphonostylis unguicularis* (Poir.) Wern.Schulze (Iridaceae)**

+ (NAT) **ABR:** Atri (Teramo), margine stradale di Via D. Tinozzi (WGS84: 42.580874°N, 13.986662°E), scarpata a vegetazione ruderale con presenza di *Robinia pseudoacacia*, *Sambucus nigra*, *Laurus nobilis* e vegetazione erbacea nitrofila, 400 m, 29 January 2020, *J. Lupoletti*, *A. Pica* (FI). – Naturalized alien species new for the flora of Abruzzo.

Several individuals of different ages grow in an area of approximately 80 m². The surrounding areas and closest gardens do not host the species.

J. Lupoletti, A. Pica

***Sisyrinchium montanum* Greene (Iridaceae)**

+ (CAS) **MAR:** Apecchio (Pesaro e Urbino), Serre della Stretta, margine settentrionale del Bosco della Brugnola lungo la Strada Provinciale Pianditebbio (WGS84: 43.559302°N, 12.463115°E), luoghi acquitrinosi, ca. 600 m, 10 May 2020, *L. Gubellini*, *N. Hofmann* (FI, PESA). – Casual alien species new for the flora of Marche.

This neophyte is native to North America (Banfi and Galasso 2010; Cholewa and Henderson 2002). The small recorded population consists of about 10 individuals, and it grows in a grassy wet depression of a high hilly area.

L. Gubellini, N. Hofmann

***Viola sororia* Willd. (Violaceae)**

+ (CAS) **MAR:** Cagli (Pesaro e Urbino), loc. Case San Pietro (WGS84: 43.541383°N, 12.654030°E), siepe camporile e fessure del ciottolato di sentiero e capezzagna, 300 m, 6 April 2020, leg. *G. Mei*, det. *G. Mei*, *A. Stinca* (FI, PORUN-Stinca, *Herb. G. Mei*); *ibidem* (WGS84: 43.541230°N, 12.653035°E), suolo rimaneggiato, 285 m, 12 April 2020, leg. *G. Mei*, det. *G. Mei*, *A. Stinca* (PORUN-Stinca, *Herb. G. Mei*). – Casual alien species new for the flora of Marche.

G. Mei, A. Stinca

***Viola wittrockiana* Gams ex Nauenb. & Buttler (Violaceae)**

+ (CAS) **TOS**: Empoli (Firenze), Via E. Fermi (WGS84: 43.712452°N, 10.952261°E), circa 10 piantine sfuggite a coltura dalle abitazioni vicine, 25 m, 10 May 2020, *F. Roma-Marzio*, *P. Liguori* (FI). – Casual alien species new for the flora of Toscana.

F. Roma-Marzio

***Wisteria sinensis* (Sims) DC. (Fabaceae)**

+ (CAS) **SIC**: Misilmeri (Palermo), SP38 (WGS84: 38.052065°N, 13.434617°E), bordo strada, 239 m, 15 June 2020, *F. Scafidi* (FI). – Casual alien species new for the flora of Sicilia.

Some individuals of the species were also found, probably originated by vegetative propagation from plants cultivated nearby.

F. Scafidi, G. Barone, E. Di Gristina

***Yucca gigantea* Lem. (Asparagaceae)**

+ (CAS) **CAL**: Reggio Calabria (Reggio Calabria), fraz. Catona, ex Centro Svizzero (WGS84: 38.185560°N, 15.636418°E), incolto, 4 m, 7 January 2020, leg. *V.L.A. Laface*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (FI, REGGIO). – Casual alien species new for the flora of Calabria.

The observed individual probably escaped from cultivation after being thrown away with waste material.

V.L.A. Laface, C.M. Musarella, G. Spampinato

Nomenclatural and distribution updates from other literature sources

Nomenclatural, status, distribution updates, and corrections to Galasso et al. (2018) are provided in Suppl. material 1.

G. Galasso, F. Bartolucci

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References

Adams RP, Bartel JA, Price RA (2009) A new genus, *Hesperocyparis*, for the cypresses of the western hemisphere. *Phytologia* 91(1): 160–185.

- Alvarado-Cárdenas LO, Villaseñor JL, López-Mata L, Cadena J, Ortiz E (2017) Systematics, distribution and conservation of *Cascabela* (Apocynaceae: Rauvolfioideae: Plumerieae) in Mexico. *Plant Systematics and Evolution* 303(3): 337–369. <https://doi.org/10.1007/s00606-016-1375-6>
- Anzalone B, Iberite M, Lattanzi E (2010) La Flora vascolare del Lazio. *Informatore Botanico Italiano* 42(1): 187–317.
- Anzalone B, Veri L (1975) Su alcune piante nuove o interessanti per Lazio e Abruzzo. *Giornale Botanico Italiano* 109(4–5): 251–255. <https://doi.org/10.1080/11263507509426389>
- Arrigoni PV (2010) Flora dell'Isola di Sardegna (Vol. 3). Carlo Delfino Editore, Sassari.
- BambApp (2020+) Un social network per la ridefinizione del grado di diffusione e invasività dei bamboo in Piemonte e Valle d'Aosta. <https://bambapp.weebly.com/risultati-del-progetto.html> [accessed 16.07.2020]
- Banfi E, Galasso G (2010) La flora esotica lombarda. Museo di Storia Naturale di Milano, Milano.
- Barker C (2020) World Checklist of Iridaceae. Facilitated by the Royal Botanic Gardens, Kew. <http://wcp.science.kew.org/> [accessed 09.06.2020]
- Cholewa AF, Henderson DM (2002) *Sisyrinchium* Linnaeus. In: Flora of North America Editorial Committee (Ed.) *Flora of North America North of Mexico* (Vol. 26). Oxford University Press, New York, Oxford, 351–371.
- Costa RMS, Pavone P (2018) Invasive plants and natural habitats: the role of alien species in the urban vegetation. In: Pennisi G, Cremonini L, Georgiadis T, Orsini F, Gianquinto GP (Eds) *International symposium on greener cities for more efficient ecosystem services in a climate changing world*. *Acta Horticulturae* 1215: 57–60. <https://doi.org/10.17660/ActaHortic.2018.1215.10>
- Cullen J (1995) *Papaver* Linnaeus. In: Cullen J, Alexander JCM, Brady A, Brickell CD, Green PS, Heywood VH, Jörgensen P-M, Jury SL, Knees SG, Leslie AC, Matthews VA, Robson NKB, Walters SM, Wijnands DO, Yeo PF (Eds) *The European garden flora. A manual for the identification of plants cultivated in Europe, both out-of-doors and under glass* (Vol. 4). Cambridge University Press, Cambridge, 105–110.
- Domina G, Di Gristina E, Scafidi F, Calvo R, Venturella G, Gargano ML (2019) The urban vascular flora of Palermo (Sicily, Italy). *Plant Biosystems* 154(5): 627–634. <https://doi.org/10.1080/11263504.2019.1651787>
- Englmaier P, Wilhalm T (2018) Alien grasses (Poaceae) in the flora of the eastern Alps: contribution to an excursion flora of Austria and the eastern Alps. *Neireichia* 9: 177–245. <https://doi.org/10.5281/zenodo.1196285>
- Farjon A (2010) *A handbook of the world's conifers* (Vol. 2). Brill, Leiden, Boston. <https://doi.org/10.1163/9789047430629>
- Galasso G, Conti F, Peruzzi L, Ardenghi NMG, Banfi E, Celesti-Grapow L, Albano A, Alesandrini A, Bacchetta G, Ballelli S, Bandini Mazzanti M, Barberis G, Bernardo L, Blasi C, Bouvet D, Bovio M, Cecchi L, Del Guacchio E, Domina G, Fascetti S, Gallo L, Gubellini L, Guiggi A, Iamónico D, Iberite M, Jiménez-Mejías P, Lattanzi E, Marchetti D, Martinetto E, Masin RR, Medagli P, Passalacqua NG, Peccenini S, Pennesi R, Pierini B, Podda L, Poldini L, Prosser F, Raimondo FM, Roma-Marzio F, Rosati L, Santangelo A, Scoppola A, Scortegagna S, Selvaggi A, Selvi F, Soldano A, Stinca A, Wagensommer RP, Wilhalm T,

- Bartolucci F (2018) An updated checklist of the vascular flora alien to Italy. *Plant Biosystems* 152(3): 556–592. <https://doi.org/10.1080/11263504.2018.1441197>
- Galasso G, Domina G, Adorni M, Angiolini C, Apruzzese M, Ardenghi NMG, Assini S, Aversa M, Bacchetta G, Banfi E, Barberis G, Bartolucci F, Bernardo L, Bertolli A, Bonali F, Bonari G, Bonini I, Bracco F, Brundu G, Buccomino G, Buono S, Calvia G, Cambria S, Castagnini P, Ceschin S, Dagnino D, Di Gristina E, Di Turi A, Fascetti S, Ferretti G, Fois M, Gentili R, Gheza G, Gubellini L, Hofmann N, Iamónico D, Ilari A, Király A, Király G, Laface VLA, Lallai A, Lazzaro L, Lonati M, Longo D, Lozano V, Lupoletti J, Magrini S, Mainetti A, Manca M, Marchetti D, Mariani F, Mariotti MG, Masin RR, Mei G, Menini F, Merli M, Milani A, Minuto L, Mugnai M, Musarella CM, Olivieri N, Onnis L, Pasalacqua NG, Peccenini S, Peruzzi L, Pica A, Pinzani L, Pittarello M, Podda L, Prosser F, Ravetto Enri S, Roma-Marzio F, Rosati L, Sarigu M, Scafidi F, Sciandrello S, Selvaggi A, Spampinato G, Stinca A, Tavilla G, Toffolo C, Tomasi G, Turcato C, Villano C, Nepi C (2020) Notulae to the Italian alien vascular flora: 9. *Italian Botanist* 9: 47–70. <https://doi.org/10.3897/italianbotanist.9.53401>
- Galasso G, Domina G, Adorni M, Ardenghi NMG, Banfi E, Bedini G, Bertolli A, Brundu G, Calbi M, Cecchi L, Cibeï C, D’Antraccoli M, De Bastiani A, Faggi G, Ghillani L, Iberite M, Latini M, Lazzeri V, Liguori P, Marhold K, Masin R, Mauri S, Mereu G, Nicoletta G, Olivieri N, Peccenini S, Perrino EV, Peruzzi L, Petraglia A, Pierini B, Prosser F, Roma-Marzio F, Romani R, Sammartino F, Selvaggi A, Signorile G, Stinca A, Verloove F, Nepi C (2016) Notulae to the Italian alien vascular flora: 1. *Italian Botanist* 1: 17–37. <https://doi.org/10.3897/italianbotanist.1.8777>
- Ghafoor A (2002) Asteraceae (I), Anthemideae. In: Ali SI, Qaiser M (Eds) *Flora of Pakistan* (Vol. 207). University of Karachi, Karachi.
- Harpke D, Carta A, Tomović G, Randelović V, Randelović N, Blattner FR, Peruzzi L (2015) Phylogeny, karyotype evolution and taxonomy of *Crocus* series *Verni* (Iridaceae). *Plant Systematics and Evolution* 301(1): 309–325. <https://doi.org/10.1007/s00606-014-1074-0>
- Laface VLA, Musarella CM, Cano Ortiz A, Quinto Canas R, Cannavò S, Spampinato G (2020) Three new alien taxa for Europe and a chorological update on the alien vascular flora of Calabria (southern Italy). *Plants* 9(9): 1181. <https://doi.org/10.3390/plants9091181>
- Maniero F (2015) *Cronologia della flora esotica italiana*. Leo S. Olschki, Firenze.
- Moraldo B (1986) Il genere *Stipa* L. (Gramineae) in Italia. *Webbia* 40(2): 203–278. <https://doi.org/10.1080/00837792.1986.10670388>
- Pignatti S, Guarino R, La Rosa M (2018) *Flora d’Italia* (Ed. 2, Vol. 3). Edagricole, Bologna.
- Saintenoy-Simon J (2013) Excursion de l’A.E.F. aux étangs de Woluwe, le 25 août 2012, avec les Naturalistes de Charleroi. *Adoxa* 76–77: 6–12.
- Sanders RW (2012) Taxonomy of *Lantana* sect. *Lantana* (Verbenaceae): II. Taxonomic revision. *Journal of the Botanical Research Institute of Texas* 6(2): 403–441.
- Thaman RR (1974) *Lantana camara*: its introduction, dispersal and impact on islands of the tropical Pacific Ocean. *Micronesica* 10: 17–39.
- Tison JM, Jauzein P, Michaud H (2014) *Flore de la France méditerranéenne continentale*. Naturalia Publications, Turriers, Conservatoire Botanique National Méditerranéen de Porquerolles, Hyères.

- USDA, NRCS (2020) The PLANTS Database. National Plant Data Team, Greensboro. <http://plants.usda.gov> [accessed 10.07.2020]
- Verloove F (2006) Catalogue of neophytes in Belgium (1800–2005). *Scripta Botanica Belgica* 39: 1–89.
- Verloove F (2020) *Houttuynia cordata*. Manual of the Alien Plants of Belgium. Botanic Garden Meise, Belgium. <http://alienplantsbelgium.be/> [accessed 10.07.2020]
- Wunderlin RP, Hansen BF, Franck AR, Bradleyand KA, Kunzer JM (2010) Plants new to Florida. *Journal of the Botanical Research Institute of Texas* 4(1): 349–355.
- Yannitsardos A, Bazos I (2006) *Ibicella* (Stapf) Van Eseltine: a genus of the American family Martyniaceae new for Greece. *Annales Musei Goulandris* 11: 271–279.

Supplementary material I

Supplementary data

Authors: Gabriele Galasso, Fabrizio Bartolucci

Data type: Species data

Explanation note: 1. Nomenclatural updates; 2. Note updates; 3. Distribution updates; 4. Synonyms, misapplied or included names.

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