Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Iridaceae*

Kit Tan[1] & Konstantinos Giannopoulos[2]

[1] Institute of Biology, University of Copenhagen, Universitetsparken 15, DK-2100 Copenhagen Ø, Denmark, e-mail: kitt@bio.ku.dk (author for correspondence)

[2] Dabaki 15, Pyrgos, Ilias 271 00, Greece

Received: February 09, 2022 ▷ Accepted: March 05, 2022

Abstract. The bulb flora of prefecture (nomos) Ilias in NW Peloponnese, Greece is documented with an emphasis on its distribution within the administrative unit. Families, genera and species are presented in alphabetical order. Each taxon is accompanied by a photograph, description, habitat, ecology and distribution dot map. This is the fifth contribution of the series and deals with the family *Iridaceae* comprising five genera — *Crocus*, *Gladiolus*, *Iris*, *Moraea* and *Romulea*.

Key words: *Iridaceae*, *Crocus*, *Gladiolus*, *Iris*, *Moraea*, *Romulea*, distribution maps, Greece, NW Peloponnese

Citation: Tan, Kit & Giannopoulos, K. 2022. Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Iridaceae*. -- Phytologia Balcanica, 28 (1): 85-101. -- ISSN 1310-7771 (print), 1314-0027 (online).

Introduction

Approximately a hundred species of bulb plants belonging to 14 families occur in nomos Ilias. This is the fifth contribution in the series (Giannopoulos & al. 2021a, b & Giannopoulos & Tan 2021a, b) and deals with the family *Iridaceae* which comprises five genera, viz., *Crocus*, *Gladiolus*, *Iris*, *Moraea* and *Romulea*. The presentation in alphabetical order follows that adopted in the first four publications of the series.

Material and methods

Field studies have been carried out in the prefecture (nomos) of Ilias. Keys to the species, photographs, short descriptions, habitat, ecology, and distribution maps are provided for the taxa which are listed in alphabetical order. The general range within and without the prefecture is also indicated. For external distribution, reference is made to Floras of the neighbouring countries and Plants of the World online (Kew Science). Descriptive terminology is as used in English language Floras, e.g., *Flora Europaea* (Tutin & al. 1980), *Mountain Flora of Greece* (Strid & Tan 1991). Unqualified measurements refer to length or height. Three species are endemic to Greece.

DOI 10.7546/PhB.28.2022.8

Results and discussion

IRIDACEAE

Herbaceous perennials; rootstock a rhizome, corm or tuber. Leaves linear or ensiform. Perianth petaloid, mostly connate at base. Stamens 3. Ovary 1 or 3-locular, inferior. Fruit capsular.

1. Style branches petaloid 2
- Style branches not petaloid 3
2. Stock rhizomatous or tuberous; hypanthial tube present ..... *Iris*
- Stock a corm; hypanthial tube absent..... *Moraea*
3. Inflorescence spicate..... *Gladiolus*
- Inflorescence not spicate..... 4
4. Leaves flat or canaliculate, with white median stripe ..... *Crocus*
- Leaves subterete, 4-grooved, without white stripe.... ..... *Romulea*

Crocus L.

1. Inner perianth segments yellow ..... *olivieri*
– Inner perianth segments white, lilac or bluish-purple..... 2
2. Anthers streaked blackish-purple. Outer corm tunics forming horizontal rings at base ..... *biflorus*
– Anthers white or yellow. Outer corm tunics not forming horizontal rings at base 3
3. Outer corm tunics smooth or splitting at base into parallel fibres ..... *boryi*
– Outer corm tunics reticulate-fibrous or splitting into triangular teeth..... 4
4. Anthers white. Outer corm tunics smooth, splitting into triangular teeth..... *laevigatus*
– Anthers yellow. Outer corm tunics finely or coarsely reticulate-fibrous..... 5
5. Style divided into more than 3 branches... *cancellatus*
– Style divided into 3 branches..... 6
6. Flowering in autumn, September to December; perianth white ..... *hadriaticus*
– Flowering in spring to early summer, (late Dec–) January to June; perianth pinkish-mauve, lilac bluish-purple..... *nivalis*

White-flowered forms occur sporadically in populations of *C. cancellatus* and *C. nivalis*.

Crocus biflorus subsp. ***melantherus*** B. Mathew [syn.: *C. melantherus* Boiss. & Orph.] (Figs. 1:1, 2:1 & 6)

Corm depressed-globose, 8–14 mm in diam.; tunics membranous to coriaceous, forming circumscissile, entire or toothed rings at base. Leaves 3–8, synanthous, 0.5–2 mm wide, usually greyish-green with narrow white median stripe. Flowers 1–4; outer perianth segments white with purplish or greyish-purple stripes; throat yellow, glabrous. Anthers yellow, streaked blackish-purple before dehiscence. Style short, divided into 3 yellow to reddish-orange, apically expanded branches. – $2n = 12$ (Tutin & al. 1980).

Mainly in southern part of Ilias. Abundant on open rocky ground, fields, carpeting grassy slopes in archaeological sites, on limestone and *terra rossa*, 810–1200 m. Flowering November to January. Endemic to Greece.

C. biflorus Miller is a widespread (Italy to Caucasus) and very variable species, and has been divided into several subspecies, most of them occurring in Turkey. Only the autumnal *C. biflorus* subsp. *melantherus* occurs in Ilias; the other subspecies in Greece are spring-flowering.

Crocus boryi J. Gay [syn.: *C. cretensis* auct.; *C. ionicus* Herb.; *C. marathonisius* Heldr.] (Figs. 1:2, 2:2 & 6)

Corm ovoid, 8–20 mm in diam.; tunics papery, pale brown, smooth, sometimes laciniate at base into parallel fibres. Leaves 3–9, synanthous, 1–3 mm wide, dark green with white median stripe. Flowers 1–4, goblet-shaped; outer and inner perianth segments nearly always creamy-white; throat yellow, glabrous. Anthers white. Style divided into several slender, yellow or reddish-orange branches shorter than perianth. – $2n = 30$ (Tutin & al. 1980).

Resembling *C. tournefortii* J. Gay endemic to the C and S Aegean area, but distinguished by its white flowers and relatively short style branches. White forms of *C. laevigatus* may look similar but can be separated by the different corm tunics.

Central and south Ilias. Stony and grassy slopes, coastal dunes, *Pinus halepensis* woodland, phrygana, uncultivated olive groves, archaeological sites, on limestone and alluvium, sea level to 800 m. Flowering October to December. Previously considered endemic to Greece, now known also from S Albania.

The specific epithet commemorates the French biologist Jean Baptiste Geneviève Marcellin Bory de Saint-Vincent (1778–1846) who collected many interesting plants in, and wrote a flora of, the Peloponnese and Cyclades.

Crocus cancellatus subsp. ***mazziaricus*** (Herb.) B. Mathew [syn.: *C. mazziaricus* Herb.; *C. spruneri* Boiss. & Heldr.] (Figs. 1: 3, 2:3 & 6)

Corm broadly ovoid, 15–25 mm in diam.; tunics coarsely reticulate-fibrous, extended into a fibrous neck. Leaves 4–7, synanthous or appearing soon after the flowers, 1–2 mm wide, greyish-green, with broad, greyish-white median stripe. Flowers 1–3; perianth segments usually lilac or pale purple with darker purplish stripes at base; throat yellow or pale yellow, glabrous or pubescent. Anthers yellow. Style divided into several yellow or deep orange branches longer or shorter than anthers. – $2n = 16$ (Tutin & al. 1980).

South and northeastern parts of Ilias. Stony ground, open scrub, forming pale bluish-purple carpets on mountain slopes, in archaeological sites, on limestone, 1000–1500 m. Flowering September to November. C and S Balkan Peninsula, W Anatolia.

C. mazziaricus was described based on a specimen collected in c. 1840 from the Ionian island of Lefkas by Alessandro Domenico Mazziari after whom the species was named.

Crocus cartwrightianus Herb.

Style divided into 3 long, bright red, clavate branches sometimes shallowly lobed at apex, much longer than anthers and often flopping out of the flower between two perianth segments.

Considered as a diploid progenitor of the sterile triploid *C. sativus* L. ($2n = 24$), the latter widely cultivated for its styles which were used for colouring and flavouring (saffron).

Reported from forest of Manolada in NW Ilias (Maire & Petitmengin 1908:205, sub nom. *C. sativus* var. *cartwrightianus* (Herb.) Maw). However, it was not rediscovered in this locality despite intensive searching and the voucher specimen (*Maire & Petitmengin* 2299) has not been examined. *Crocus cartwrightianus* is endemic to the eastern part of Greece (Attiki, Malea peninsula and Aegean islands) and the report from Ilias is far outside its distributional range. We presume it is an erroneous identification for the superficially similar, autumn-flowering *C. hadriaticus* Herb.; the latter is also the only *Crocus* species found in the area.

Crocus hadriaticus Herb. [syn.: *C. peloponnesiacus* Orph.] (Figs. 1: 4, 2:4 & 6)

Corm depressed-globose, 10–16 mm in diam.; tunics finely reticulate-fibrous, extended into a short neck. Leaves 5–10, usually visible at anthesis, 1–1.5 mm wide, greyish-green with white median stripe. Flowers 1–3; perianth segments pale lilac, suffused brownish or lilac-purple outside or only towards base, rarely all white; throat yellow, rarely white, pubescent. Anthers yellow. Style divided into 3 rather short, slender, orange or red branches; undivided part of style raised well above throat of perianth. – $2n = 16$ (Tutin & al. 1980).

North and southeastern parts of Ilias. Open oak forest and scrub, grassy and stony slopes, phrygana, fields, on limestone, 50–1180 m. Flowering (September–) October to November (–December). Previously considered endemic to Greece, now known also from S Albania.

Variable in flower colour.

Crocus laevigatus Bory & Chaub.
(Figs. 1:5, 2:5 & 6)

Corm ovoid-globose, 8–15 mm in diam.; tunics coriaceous, smooth, splitting at base into acute triangular teeth. Leaves 3–4(–6), synanthous, 1–2.5 mm wide, dark green with white median stripe. Flowers 1–3; perianth segments lilac or white, the outer usu-

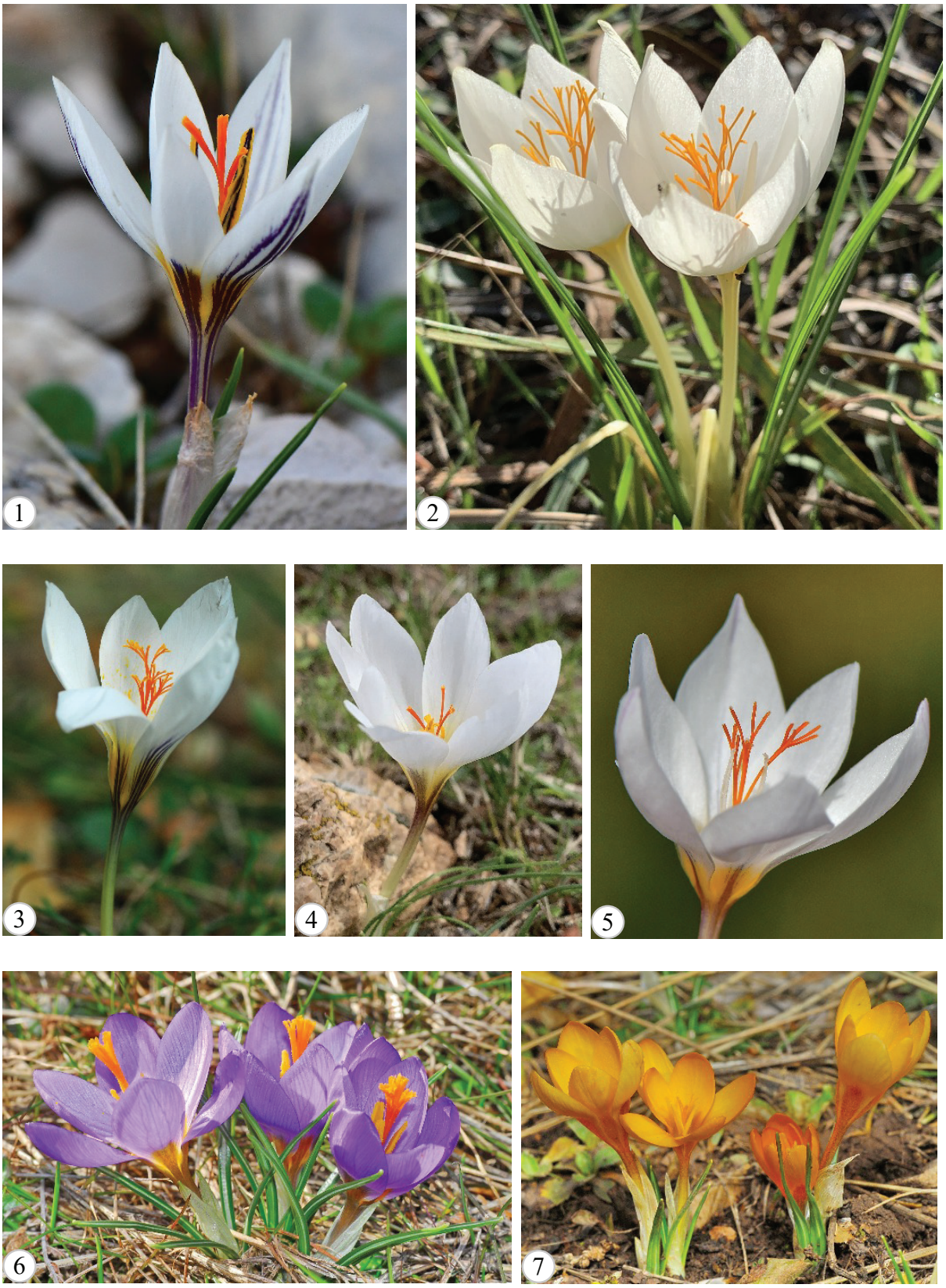

Fig. 1. *Crocus* species in nomos Ilias: 1, *Crocus biflorus* subsp. *melantherus* 2, *C. boryi* 3, *C. cancellatus* subsp. *mazziaricus* 4, *C. hadriaticus* 5, *C. laevigatus* 6, *C. nivalis* 7, *C. olivieri* subsp. *olivieri*.

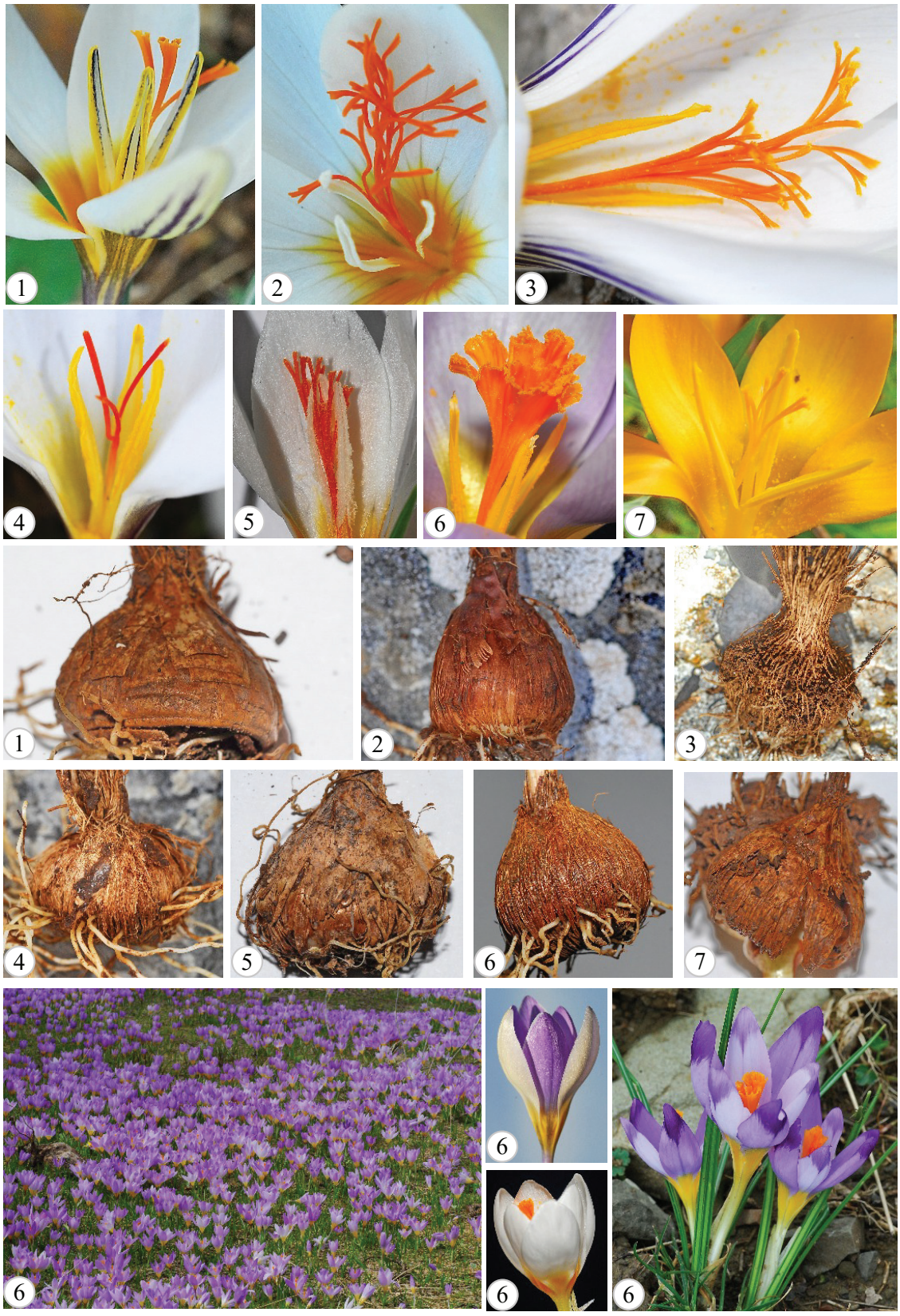

Fig. 2. *Crocus* species in nomos Ilias: 1, *Crocus biflorus* subsp. *melantherus* 2, *C. boryi* 3, *C. cancellatus* subsp. *mazziaricus* 4, *C. hadriaticus* 5, *C. laevigatus* 6, *C. nivalis* 7, *C. olivieri* subsp. *olivieri*.

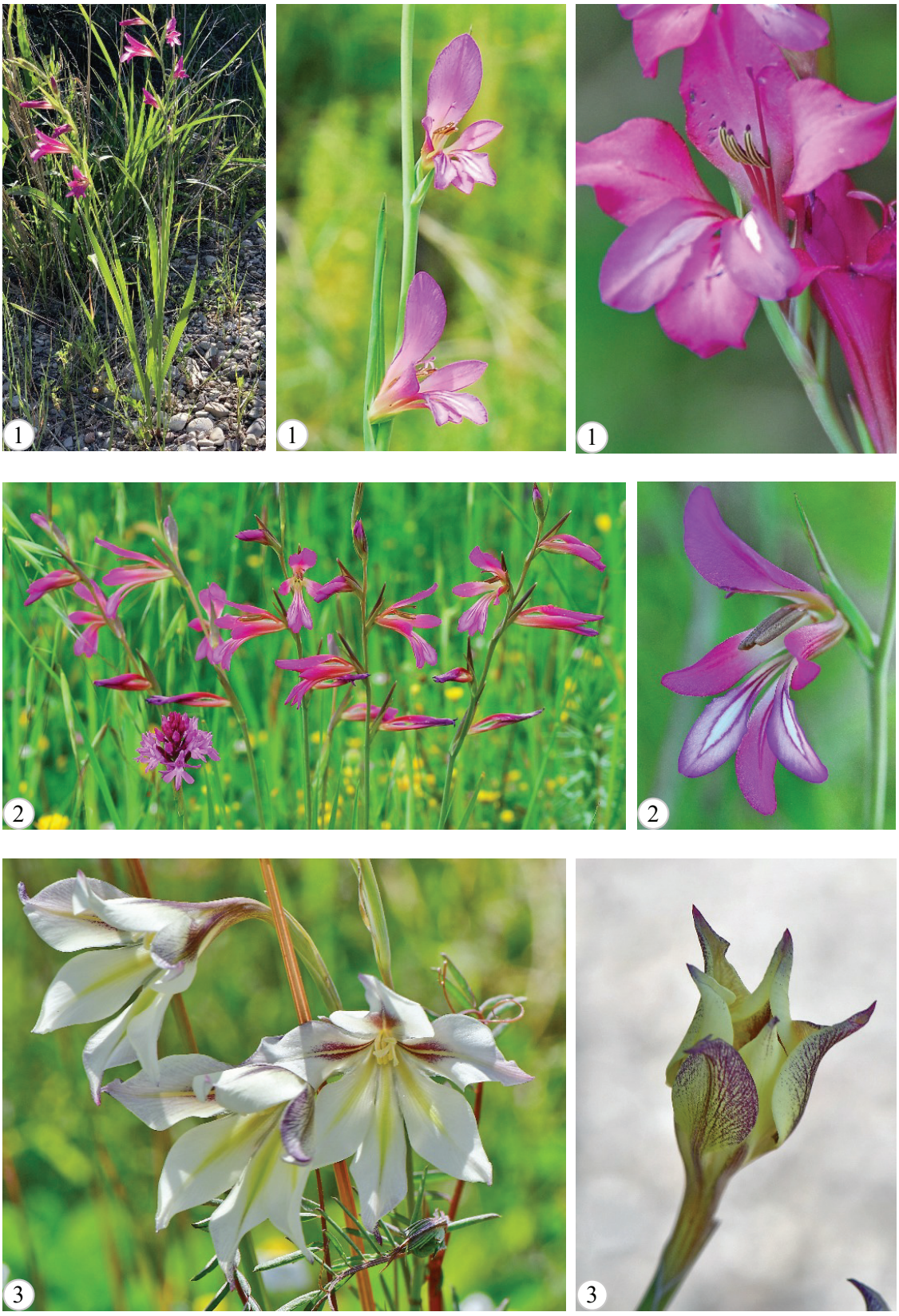

Fig. 3. *Gladiolus* species in nomos Ilias: 1, *Gladiolus illyricus* 2, *G. italicus* 3, *G. tristis* subsp. *spiralis*.

ally with purple stripes and slender lateral veining (feathering); throat yellow, glabrous. Anthers white, discolouring with age. Style divided into several slender, yellow to deep orange branches usually exceeding anthers but shorter than perianth segments. – 2*n* = 26 (Tutin & al. 1980).

Southern part of Ilias. Open stony slopes, phrygana, archaeological sites, on limestone, 500–1130 m. Flowering October to January, unusual in having a very long flowering period from autumn (the main flowering period) through winter to early spring (March). Endemic to Greece.

Crocus nivalis Bory & Chaub. [syn.: *Crocus sieberi* subsp. *nivalis* (Bory & Chaub.) B. Mathew]
(Figs. 1:6, 2:6 & 6)

Corm ovoid or depressed-globose, 7–16 mm in diam.; tunics finely or coarsely reticulate-fibrous, not extended into neck. Leaves 3–8, partly developed at anthesis, elongating later, 1.5–2 mm wide, green, with broad white median stripe. Flowers 1–3; perianth segments pinkish-lilac to bluish-purple; throat deep yellow, glabrous (in Ilias), sometimes pubescent. Anthers yellow. Style divided into 3 yellow or orange-red branches expanded at apex, shorter than perianth. – 2*n* = 22 (Tutin & al. 1980).

Northeast, central and south Ilias. Grassy alpine slopes, oak forest and scrub, forming lilac to bluish-purple carpets at edge of melting snow, on limestone, 635–2100 m. Flowering late December to June, depending on altitude (peak flowering January and February at moderate altitudes). S Balkan Peninsula.

C. nivalis was based on specimens collected at high altitude on Mt Taigetos, here the flowers are rather dark coloured with a distinct yellow centre. *C. sieberi* Gay, collected in 1822 by Franz Sieber, has white flowers and is endemic to Crete. Other colour variants with various geographical ranges have been recognized at different taxonomic levels.

Crocus olivieri J. Gay subsp. ***olivieri***
(Figs. 1:7, 2:7 & 7)

Corm ovoid, 8–12 mm in diam.; tunics papery, splitting at base into triangular teeth or parallel fibres. Leaves 2–4(–5), rather broad (usually 2–4 mm), dark green with conspicuous white median stripe. Inner perianth segments yellow; outer segments yellow, but sometimes striped or suffused brownish-purple at base and towards tube. Anthers yellow. Style divided into 6 or more slender, yellow to orange branches. – 2*n* = 16 (Tutin & al. 1980).

Northeast and south Ilias. Grassy montane slopes, large numbers carpeting the meadows after snowmelt, on limestone, 1120–1410 m. Flowering February to April. S Balkan Peninsula.

C. olivieri subsp. *balansae* (Baker) B. Mathew occurs on the E Aegean islands of Chios and Samos and in W Anatolia.

Gladiolus L.

1 Perianth white or cream ..... *tristis*
– Perianth pink to reddish-purple 2
2. Anthers shorter than filaments. Seeds winged, alveolate ..... *illyricus*
– Anthers longer than filaments. Seeds not winged, rugose ..... *italicus*

Gladiolus illyricus W. D. J. Koch (Figs. 3:1 & 7)

Corm ovoid-globose; tunics membranous, often splitting into fibres towards base. Plant 25–50 cm tall. Leaves 3–5, sheathing at base, ensiform, as long as inflorescence, 4–12 mm wide, with distinct parallel veins. Flowers 3–10, zygomorphic, in a lax, rarely branched, weakly secund, almost distichous spike. Bracts linear-lanceolate. Perianth segments 25–35 mm, fused below into a slightly curved tube, pink to reddish-purple. Anthers shorter than filaments. Capsule 12–15 mm, ellipsoid-triquetrous. Seeds c. 6 × 3.5 mm, ellipsoid, flattened, distinctly winged, brown, alveolate.

North, central and southern parts of Ilias. Damp places in macchie, grassy roadside slopes, 320 m. Flowering in April. Mediterranean area and west Europe.

Gladiolus italicus Mill. [syn.: *G. segetum* Ker Gawl.]
(Figs. 3:2 & 7)

Resembling *G. illyricus*, but taller (60–100 cm) and

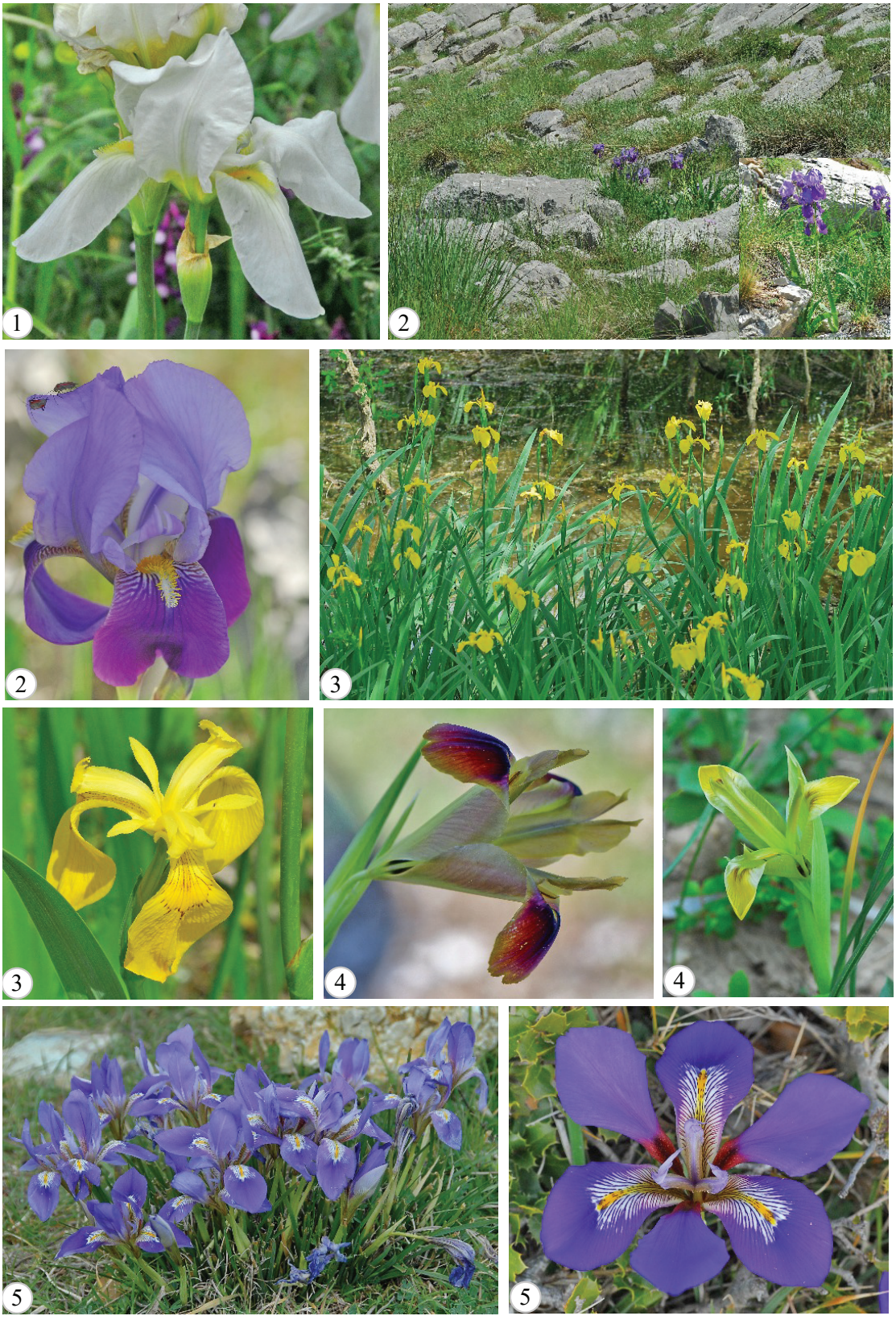

Fig. 4. *Iris* species in nomos Ilias: 1, *Iris albicans* 2, *I. hellenica* 3, *I. pseudacorus* 4, *I. tuberosa*. 5, *I. unguicularis* subsp. *carica*.

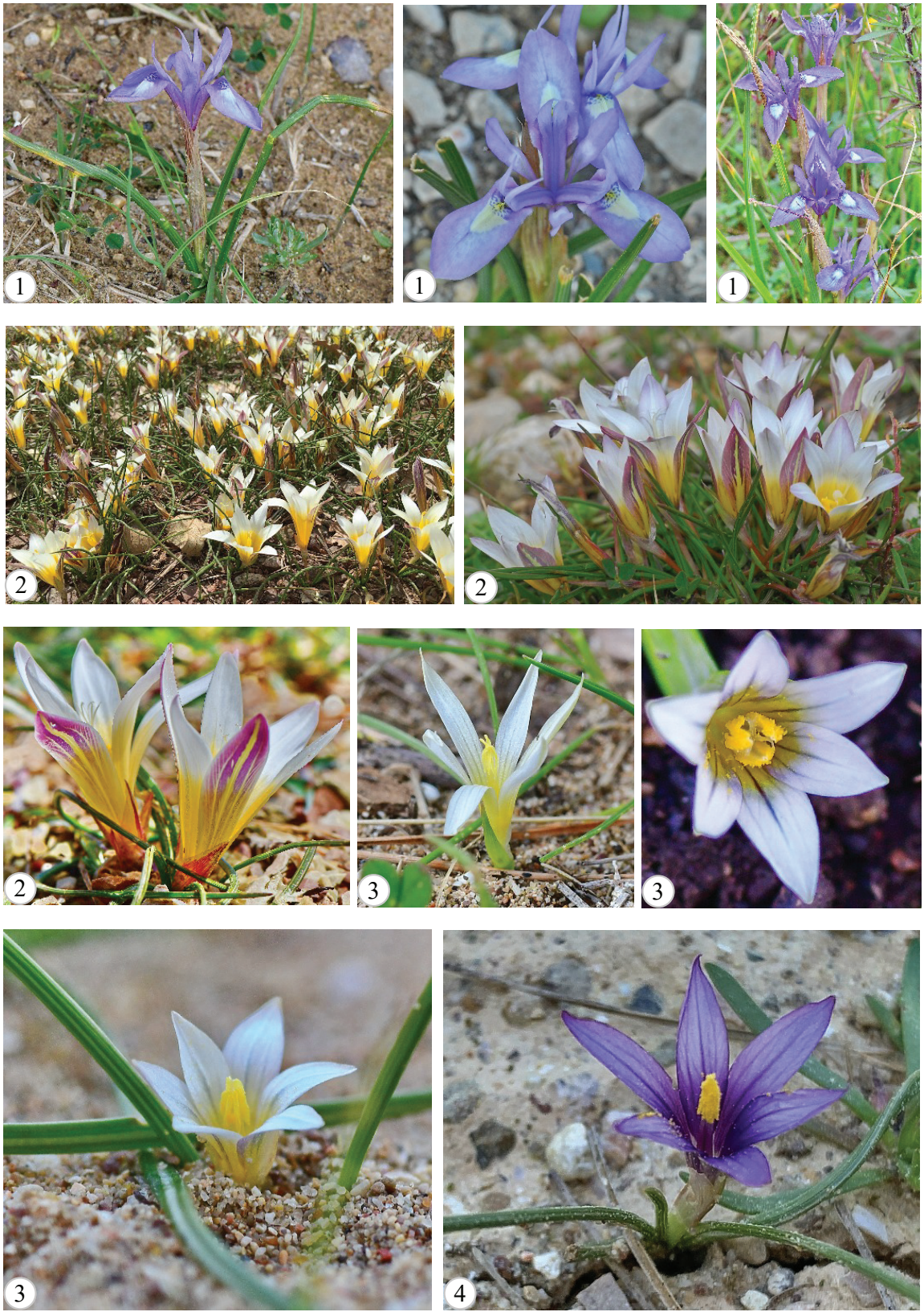

Fig. 5. *Moraea and Romulea* species in nomos Ilias: 1, *Moraea sisyrinchium* 2, *Romulea bulbocodium* 3, *R. columnae* 4, *R. linaresii* subsp. *graeca*.

generally larger in all parts; corm squarish; tunics often disintegrating into fibres; anthers longer than filaments; seeds c. 4 mm, ovoid-pyriform or slightly triquetrous, not winged, rugose. – $2n = 120$, octoploid (Kapasa & al. 2001).

North, central and southern parts of Ilias. Open scrub, edge of cultivated and fallow fields, olive groves, roadsides and other ruderal places near villages, 10–300 m. Flowering April to May. Mediterranean area, SW to C Asia.

Gladiolus tristis subsp. ***spiralis*** (Pers.) Maire & Weiller (Figs. 3:3 & 7)

Plant 50–70 cm tall. Leaves 3, narrow. Flowers 2–8, large. Perianth white or cream, lower segments banded greenish or purplish; hypanthial tube suffused or finely spotted purple. – $2n = 30$, diploid (based on *Phitos & Kamari* 20325, UPA, det. Peter Goldblatt).

North and central Ilias. Marsh, lake edge, 50–75 m. Flowering in March. Native to S Africa, naturalized in Greece. Introduced to Australia and California, also cultivated as garden ornamental in S Europe.

The Marsh Gladiolus was first collected in Greece by Phitos and Kamari on 18 March 1989 near the village of Krestena in Ilias; with a second documentation thirty-two years later at the artificial lake of Pinios proving the species is now established. The flowers are very fragrant at night, the scent reminiscent of carnation and clove.

Iris L.

1. Leaves quadrangular in cross-section. Outer perianth segments (falls) velvety brownish-purple on limb. Ovary 1-locular ..... *tuberosa*
– Leaves flat. Falls not brownish-purple on limb. Ovary 3-locular 2
2. Falls bearded in the centre (with median band of hairs) 3
– Falls without beard at centre 4
3. Perianth pure white. Stem 35–60 cm tall ..... *albicans*
– Perianth bluish-purple. Stem 20–30 cm ..... *hellenica*
4. Leaves 1–5 mm wide. Hypanthial tube 6–20 cm long. Perianth bluish-purple, rarely white..... *unguicularis*
– Leaves 10–30 mm wide. Hypanthial tube less than 2 cm. Perianth bright yellow ..... *pseudacorus*

Iris albicans Lange (Figs. 4:1 & 8)

Resembling *I. germanica* L. which is an established hybrid of ancient origin, but more robust, inflorescence unbranched, flowers fragrant, white. Cultivated as garden ornamental, often planted in cemeteries, monasteries and outside villages.

Southern part of Ilias, introduced. Grassy slopes near villages, 610 m. Flowering April to May. Probably native to Arabian Peninsula; naturalized in Mediterranean area, SW Asia.

Iris hellenica Mermygkas, Kit Tan & Yannits. (Figs. 4:2 & 8)

Rhizome horizontally creeping, up to 2.5 cm diam. Leaves 5–9, ensiform, falcate to slightly falcate, 8–25 × 0.5–2 (–2.5) cm, greyish-green, glabrous. Stem 20–30 cm, branched with 2–3 flowers. Spathes green suffused purple, glabrous. Hypanthial tube 1.5–3.5 cm. Limb of falls obovate-spathulate, white to pale lavender blue veined dark purple at base, with median band of orange-yellow hairs in lower half, dark violet-purple in upper half. Standards bluish-purple to lilac veined darker, proportion of claw to limb 1: 4.5–5. Anthers creamy-white; pollen white. Style branches petaloid, whitish to pale lilac-purple, with 2 acute, darker-coloured lobes at apex. Capsule ellipsoid, 2.5–4 × 2–2.5 cm. Seeds reddish-brown, pyriform to subglobose, 5–6 × 4–5 mm, rugose.

Northeastern part of Ilias. Open rocky mountain slopes and grassy plateaus, soil pockets in limestone rock, 1400–1900 m. Flowering May to early June; capsules ripening late June to late July. Endemic to Greece.

Iris hellenica resembles the widely distributed and cultivated *I. germanica* L. but differs by its lower stature, smaller leaves, bracts, bracteoles and flowers, including a different coloration to the perianth, particularly the standards when contrasted with the falls. The origin and native distribution of *Iris germanica* is unknown due to long-established cultivation and sub-

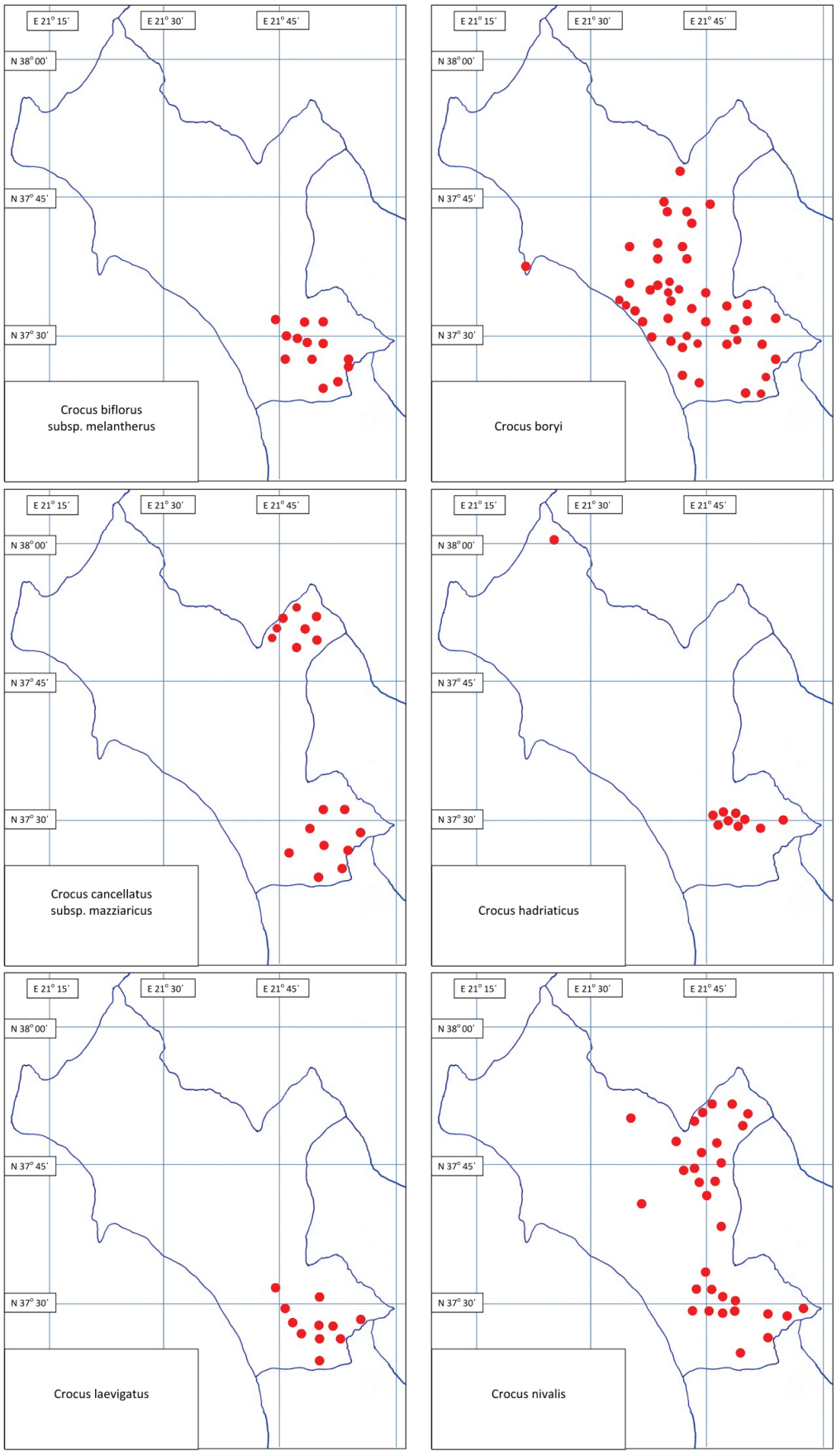

Fig. 6. Distribution of *Crocus* in nomos Ilias.

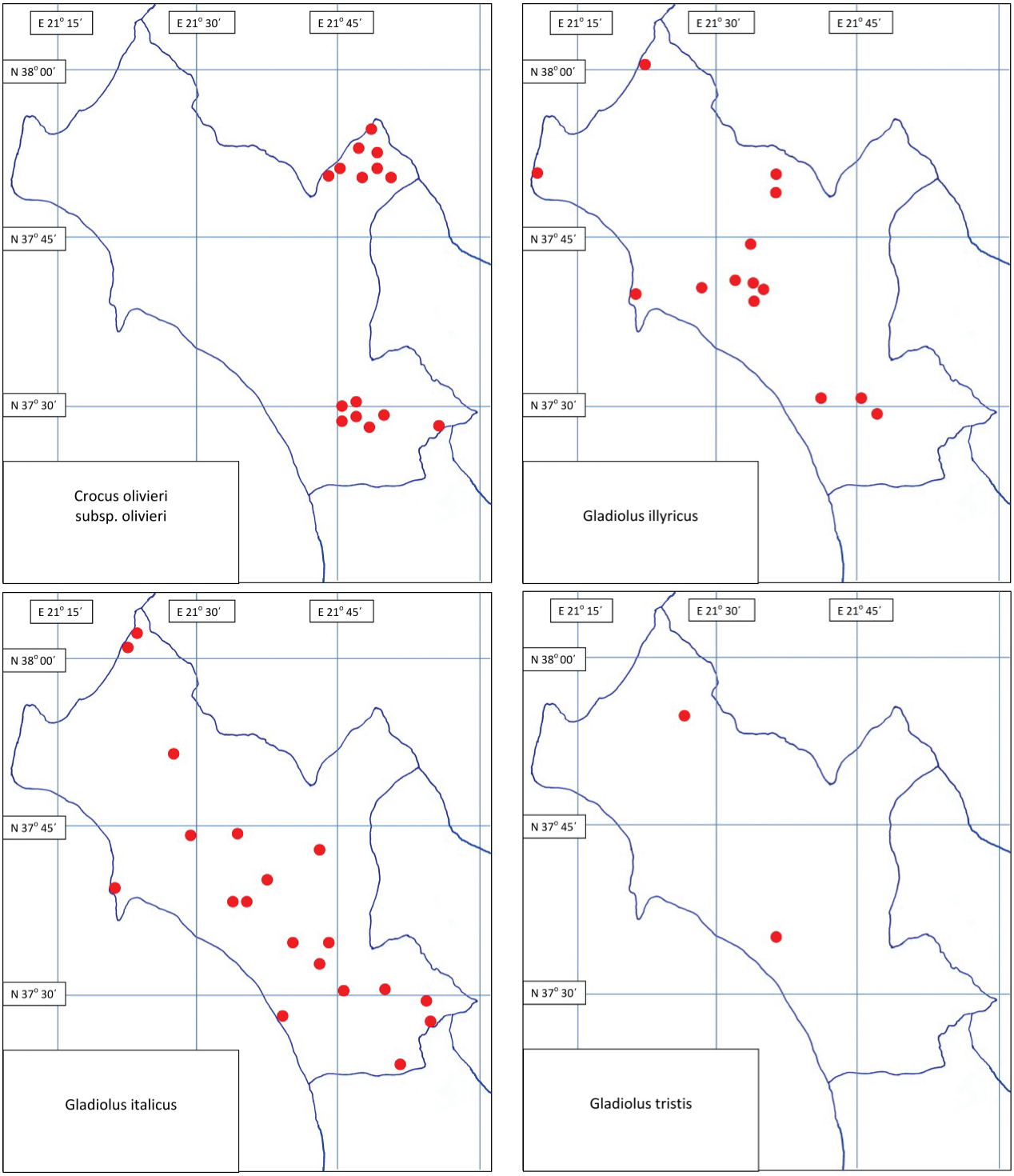

Fig. 7. Distribution of *Crocus* and *Gladiolus* in nomos Ilias.

sequent naturalization. It is frequently planted near villages and many lowland populations in Greece are certainly naturalized (Mathew in Strid & Tan 1991), whereas *Iris hellenica* is often found in small populations far from human habitation; its dwarf characters are retained in cultivation over five years.

Iris pseudacorus L. (Figs. 4:3 & 8)

Rhizome stout or slender, sparingly branched. Leaves ensiform, as long as inflorescence, with conspicuous midrib, 1–3 cm wide, glaucous-green. Stem 60–120 cm tall, branched, each branch with 1–3 flowers. Spathes pale green, herbaceous, membranous at margin. Hypanthial tube short, 1–1.5 cm. Falls bright yellow, 5–7.5 cm; limb obovate, without beard. Standards linear-oblong, shorter and narrower than falls and style branches. Capsule oblong-cylindrical, shortly beaked, pendent. Seeds dark brown, smooth.

West, central and northern parts of Ilias. Damp ground, wet ditches, partly submerged at edge of freshwater lakes, overlying limestone, 10–400 m. Plants once abundant in suitable habitats have disappeared after drainage for agricultural land. Flowering April to May. Europe and SW Asia, naturalized elsewhere.

Iris tuberosa L. [syn.: *Hermodactylus tuberosus* (L.) Mill.] (Figs. 4:4 & 8)

Rootstock tuberous. Leaves mostly basal, linear, 1.5–3 mm wide, quadrangular in cross-section, longer than stem, flaccid. Stem 20–35 cm, slender, suberect. Flowers solitary, suberect to nodding. Outer spathe sometimes overtopping flower. Hypanthial tube c. 5 mm. Falls greenish-white or pale to tawny yellow, 4–5 cm; limb shorter than claw, ovate to obovate, usually dark velvety brownish-purple. Standards erect, linear-oblanceolate, bifid. Ovary 1-locular. Capsule pendent, ellipsoid, shortly beaked. – $2n = 20$ (Snogerup 1994).

Mainly central and south Ilias. Open *Quercus* forest and scrub, meadows, dry rocky places, olive groves, abandoned terraces, archaeological sites, on limestone and *terra rossa*, 20–1100 m. Flowering March to early June. Central and East Mediterranean area.

The species was formerly treated under the monotypic genus *Hermodactylus* Mill. but now re-united with *Iris* (see Goldblatt & Manning 2008).

Iris unguicularis subsp. ***carica*** (Wern. Schultze) A. P. Davis & Jury (Figs. 4:5 & 8]

Rhizome tough, branched, producing grass-like clumps. Leaves flexuous, linear to ensiform, 1–5 mm wide, long-persistent. Stem very short or absent. Flowers usually solitary. Spathes 5–13 cm, green, herbaceous. Hypanthial tube 6–20 cm, very slender. Falls spreading, 4–6 cm; limb oblanceolate to oblong-elliptic, lavender blue to deep violet with narrow yellow stripe along midvein and white lateral stripes extending halfway to margin. Standards suberect, broadly spathulate, smaller than falls. Capsule ellipsoid. Seeds globose to ovoid, c. 5 mm, orange-brown, rugose.

Widespread in north, central and south Ilias. *Quercus* forest, *Pinus halepensis* woodland, *Cistus-Phlomis fruticosa* phrygana, olive groves, cultivated and fallow fields, archaeological sites, roadsides, on limestone, sea level to 780 m. Flowering (mid-December) February to early June; fruiting till August. East Mediterranean region, W Anatolia, W Syria and Lebanon.

All plants on mainland Greece belong to subsp. *carica*. White-flowered forms have been noted. *Iris un*. subsp. *unguicularis* is larger in all parts and restricted to NW Africa (Morocco and Algeria). *Iris un.* subsp. *cretensis* (Janka) A. P. Davis & Jury is endemic to Crete and Karpathos.

Moraea Mill.

Formerly treated under *Gynandriris* Parl., a small genus now included with the mainly South African genus *Moraea* Mill. (see Goldblatt & Manning 2008). The generic name *Moraea* does not allude to Morea (an ancient name for the Peloponnese), but to Johan Moraeus (1672–1742), father of Sara Elisabeth Moræa, wife of Linnaeus.

Moraea sisyrinchium (L.) Ker Gawl. [syn.: *Gynandriris sisyrinchium* (L.) Parl.; *Iris sisyrinchium* L.] (Figs. 5:1 & 8)

Corm ovoid-globose; outer tunics coarsely reticulate-fibrous. Leaves (1–) 2, flexuous, sheathing

at base, linear, 3–6 mm wide, greyish-green. Stem erect, 10–45 cm tall. Flowers 2–5, delicate, opening in succession, fading by evening, lasting less than a day. Spathes 4–6 cm, dry, scarious. Hypanthial tube absent. Falls 20–40 mm; limb obovate, pale blue to bluish-violet, white or yellow towards base and sometimes with dark spots along midvein. Standards suberect, lanceolate, narrower than falls. Style branches petaloid, 2-fid. Capsule cylindrical-fusiform, c. 20 × 4 mm (excl. beak). Seeds angular-pyriform, c. 1.5 mm, dark brown. – 2*n* = 24 (Snogerup 1996, Bareka & al. 2002).

Mainly central and south Ilias. *Pinus* woodland, macchie, olive groves, edge of cultivated fields, abandoned terraces, roadsides, archaeological sites, on limestone, 120–1310 m. Flowering March to April. Mediterranean region, SW to Central Asia.

Romulea Maratti

Named after Romulus, according to mythology, the first king of Rome. The centre of diversity is mainly South Africa, with a few species occurring in Macaronesia and the Mediterranean region.

1. Stigmas overtopping anthers; perianth segments (20–) 25–45 mm ..... *bulbocodium*
- Stigmas not overtopping anthers; perianth segments 9–16 mm 2
2. Perianth segments white to pale lilac, with yellow throat ..... *columnae*
- Perianth segments deep violet-purple, concolorous ..... *linaresii*

Romulea bulbocodium (L.) Sebast. & Mauri
[syn.: *Romulea grandiflora* Tineo] (Figs. 5:2 & 9)

Corm asymmetrical, obliquely ovoid; tunics hard, smooth, brown. Leaves 3–7, linear-filiform, subterete, 4-grooved, appearing before flowers. Scape 1–4-flowered; pedicels slender, elongating and recurved in fruit. Bracts and bracteoles scarious. Hypanthial tube infundibular, 4–8 mm. Perianth segments spreading, elliptic to oblanceolate, (20–) 25–45 mm, subacute, white or pale lilac veined purplish, yellow in lower third; outer segments streaked brownish-purple without. Filaments hairy below; anthers yellow. Stigmas white, usually overtopping anthers. Capsule oblong, nodding. Seeds globose, brown. – 2*n* = 33, triploid; 44, tetraploid (Liveri & al. 2019).

Widespread in north, central and south Ilias. *Quercus coccifera–Phlomis fruticosa* phrygana, seasonally damp meadows, grassy slopes, archaeological sites, on limestone and coastal sand, sea level to 1122 m. Flowering in early spring from February to March. Widespread in Mediterranean region.

Romulea columnae Sebast. & Mauri
[syn.: *Romulea parlatorei* Tod.] (Figs. 5:3 & 9)

Resembling *R. bulbocodium*, but flowers smaller; perianth segments 9–15 mm, almost white to pale lilac, usually darker-veined, with yellow throat; filaments usually glabrous; stigmas not overtopping anthers. Capsule nodding. Seeds globose, pale reddish-brown.

West and south central Ilias. Damp places in open woodland, phrygana, open soil pockets and compacted clay, on limestone and coastal sand, sea level to 610 m. Flowering February to March (–April). Macaronesia, west Europe to East Mediterranean region.

Romulea linaresii subsp. ***graeca*** Beg.
(Figs. 5:4 & 9)

Resembling *R. bulbocodium*, but smaller in all parts; scape produced only slightly above ground at anthesis; leaves often procumbent; perianth segments 10–16 mm, acute, deep violet-purple, concolorous; filaments purple; anthers yellow; stigmas not overtopping anthers. – 2*n* = c. 39 (Goldblatt & Takei 1997).

Mainly north and south Ilias. Open deciduous oak forest with *Erica arborea* and *Pteridium aquilinum* under layer, lower montane grassy slopes, abandoned terraces, coastal sand, sea level to 1250 m. Flowering February to March (–April). Greece, Bulgaria and W Turkey; subsp. *linaresii* occurs on coastal sands in Sicily and Tunisia.

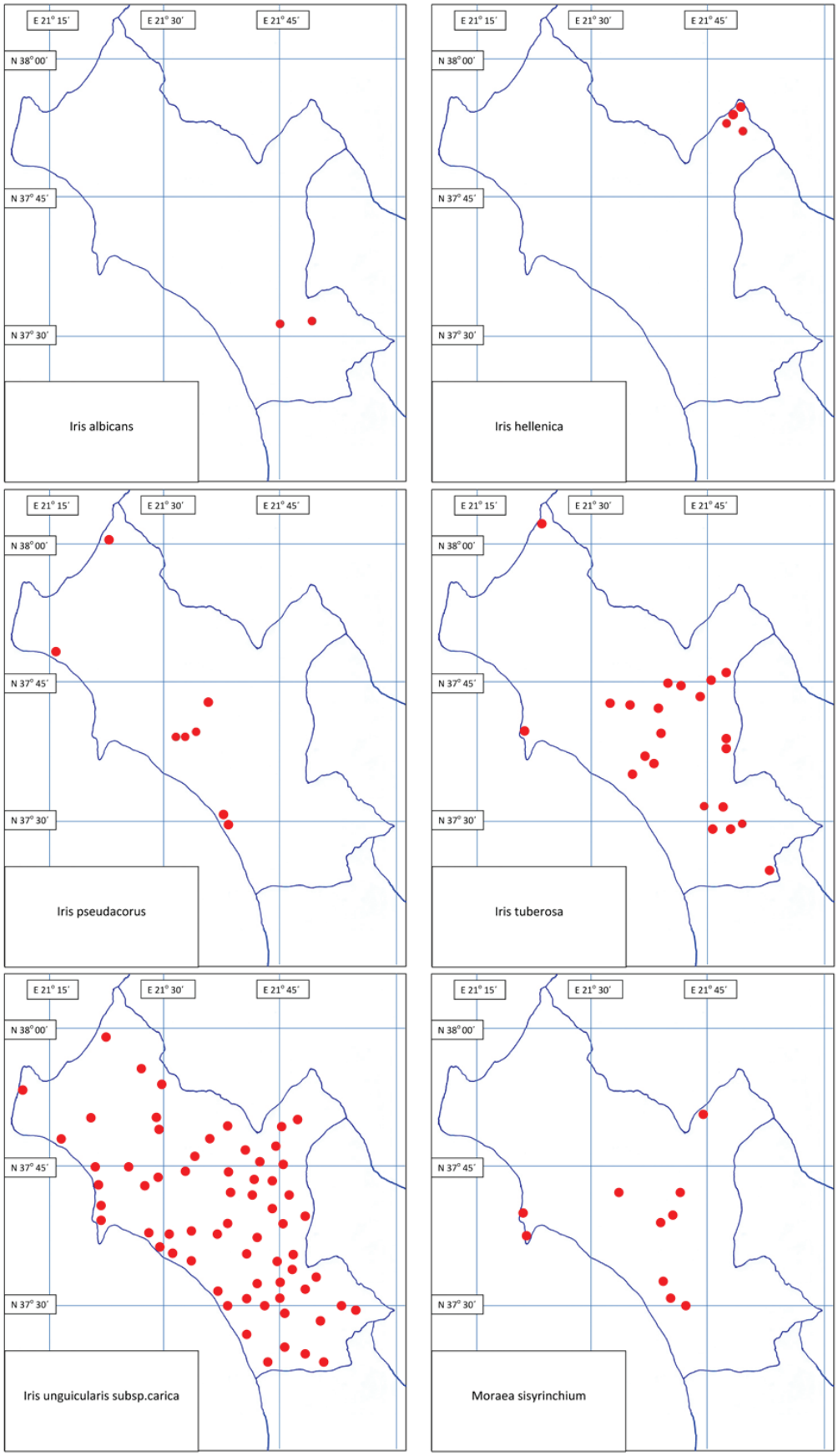

Fig. 8. Distribution of *Iris and Moraea* in nomos Ilias.

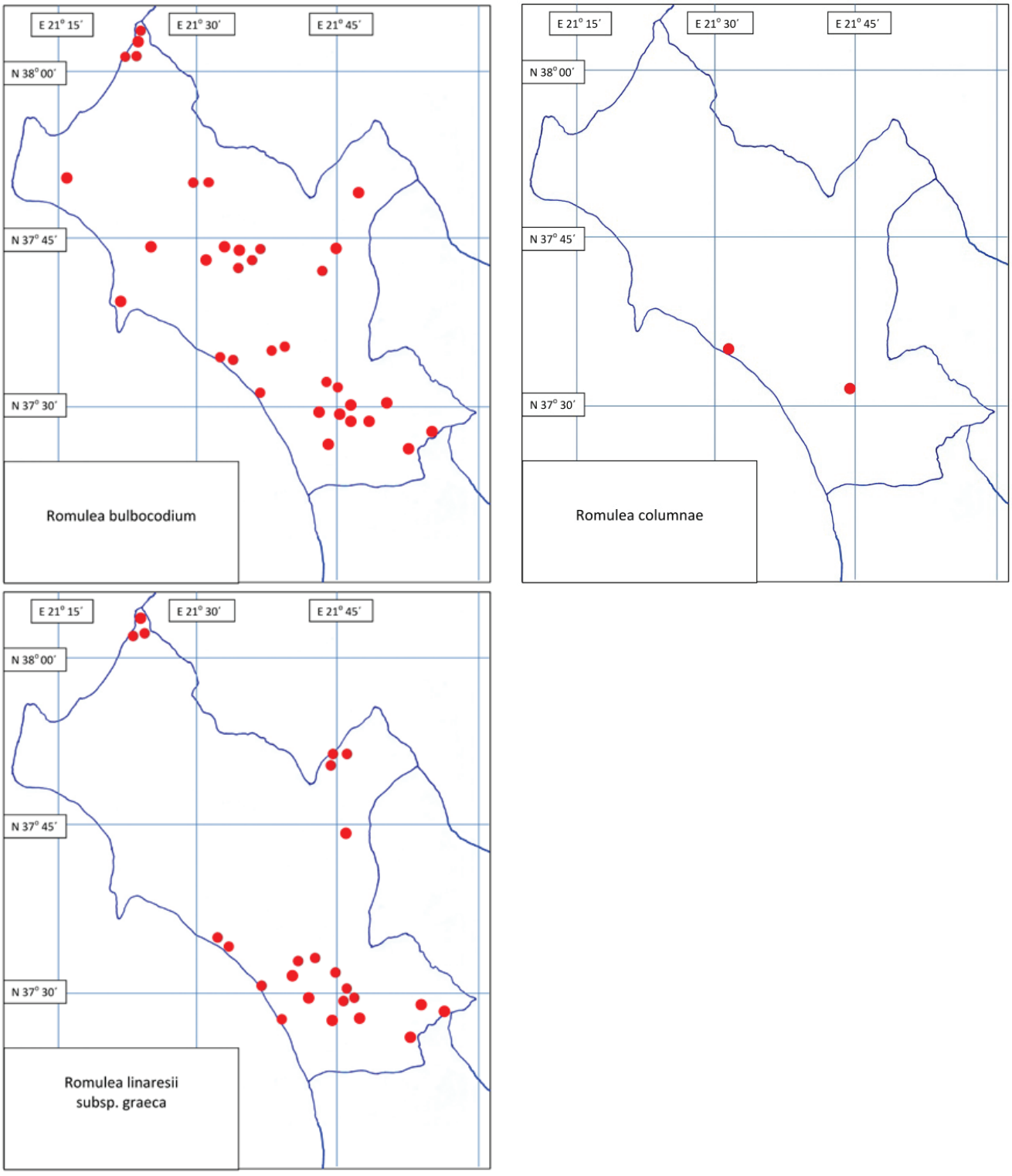

Fig. 9. Distribution of *Romulea* in nomos Ilias.

References

Bareka, E.-P., Kapasa, M. & Kamari, G. 2002. Karyological study of some plant taxa from Cephalonia island (Greece). – In: **Kamari, G. & al.** (eds), Ellinini Votaniki Eteria. 9 Panelliniko Epistimoniko Sinedrio. Praktika, 198-205.

Giannopoulos, K. & Tan, Kit 2021a. Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Asphodelaceae*, *Colchicaceae*, *Fumariaceae* and *Geraniaceae*. – Phytol. Balcan., **27**(2): 231-237.

Giannopoulos, K. & Tan, Kit 2021b. Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Hyacinthaceae*. – Phytol. Balcan., **27**(3): 331-344.

Giannopoulos, K., Tan, Kit & Vold, G. 2021a. Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Alliaceae*. – Phytol. Balcan., **27**(1): 85-95.

Giannopoulos, K., Tan, Kit & Vold, G. 2021b. Contributions to the bulb flora of Ilias (NW Peloponnese, Greece): *Amaryllidaceae*, *Araceae* and *Aristolochiaceae*. – Phytol. Balcan., **27**(1): 97-106.

Goldblatt, P. & Manning, J.C. 2008. The Iris family. Natural history and classification. Portland & London, Timber Press.

Goldblatt, P. & Takei, M. 1997. Chromosome cytology of *Iridaceae* – Patterns of variation, determination of ancestral base numbers, and modes of karyotype change. – Ann. Missouri Bot. Gard., **84**: 285-304.

Kapasa, M., Nikolaidi, Th., Bareka, E.-P. & Kamari, G. 2001. Reports (1236–1243). – In: **Kamari, G. & al.** (eds), Mediterranean chromosome number reports. – Fl. Medit., **11**: 448-454.

Liveri, E., Katopodi, E. & Kamari, G. 2019. Karyosystematic study of some taxa from the Ionian floristic region (Greece). II. – In: **Kamari, G. & al.** (eds), Mediterranean plant karyological data 29. – Fl. Medit., **29**: 308-320.

Snogerup, S. 1994. Reports (267–284). – In: **Kamari, G. & al.** (eds), Mediterranean chromosome number reports 4. – Fl. Medit., **4**: 254-258.

Snogerup, S. 1996. Reports (491–517). – In: **Kamari, G. & al.** (eds), Mediterranean chromosome number reports 5. – Fl. Medit., **5**: 331-334.

Strid, A. & Tan, Kit. (eds). 1991. Mountain Flora of Greece. Vol. **2**. Edinburgh, Edinburgh Univ. Press.

Tutin, T.G., Heywood, V.H., Burges, N.A., Moore, D.M., Valentine, D.H., Walters, S.M. & Webb, D.A. (eds). 1980. Flora Europaea. Vol. **5**. Cambridge, Cambridge Univ. Press.