SYSTEMATICS AND PHYLOGENY

The Mediterranean *Colaspidea* (Coleoptera Chrysomelidae Eumolpinae)

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Abstract

Mediterranean *Colaspidea* are reviewed with examination of type material. The following nomenclatural changes are provided: *C. nitida* Lucas, 1846 bona sp. resurrected from synonymy with *C. globosa* (Küster, 1848), *Colaspidea proxima* (Fairmaire, 1862) bona sp. resurrected from synonymy with *C. oblonga* (Fairmaire, 1862), *C. juengeri* Doguet, 1988 is raised to species, from subsp. of *C. metallica* (Rossi, 1790). The following synonymies are provided: *C. oblonga* (Fairmaire, 1862) n. syn. of *C. nitida* Lucas, 1846, *C. oblonga albanica* Schatzmayr, 1923 n. syn. of *C. nitida* Lucas, 1846. A Lectotype is designed for *C. nitida* Lucas, 1846, a Neotype is designed for *Dia oblonga* Fairmarie, 1862. The following new taxa are described: *C. algarvensis* n. sp. (Portugal: Algarve), *C. incerta* n. sp. (Algeria: Yakouren), *C. dogueti* n. sp. (Algeria: Massif du Djurdjura), *C. pallidipes* n. sp. (Morocco), *C. confinis* n. sp. (Algeria), *C. maura* n. sp. (Morocco, Algeria), *C. maghrebina* n. sp. (Algeria: Constantine). Morphological aspects are discussed, pointing out range of variability of aedeagic characters, here used in the discrimation of species. Distribution of each taxon is verified on the base of examined material and displayed on maps. A catalogue is provided.

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Key words: *Colaspidea*, revision, Mediterranean region, new species and synonyms, lectotype designation, neotype designation, distribution.

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Introduction

Colaspidea Laporte, 1866 is ranged in the tribe Adoxini and includes small metallic Eumolpinae species, diffused from Atlantic coasts of Portugal and Morocco to the Mediterranean area, reaching Greece and Crete toward East.

Colaspidea is formally present in North America (California and Southwestern U.S.A.). Relationships between Mediterranean species and Nearctic species of *Colaspidea* have been recently discussed by Flowers (2012). Based on exoskeletal and sexual characteristics, this author highlighted closer relationships between Palaearctic *Colaspidea* and *Chalcosicya* Blake, 1930 (Caribbean and Mexico) than between Palaearctic and Nearctic *Colaspidea* species: this could suggest the opportunity to insert the latter in a distinct genus. Nevertheless, I agree with Flowers (2012) considering that *correct placement of these genera must await much clearer definitions of subtribal groups in the Adoxini.*

Among the Eumolpinae Palaearctic genera, *Colaspidea* is characteristic in its body shape, small size, not emarginate tibiae, bifid claws, and can't be confused with any other genus in this area. In a strictly related genus *Colaspina* Weise, 1893 [one species: *C. saportae* (Grenier, 1863), from Southern France (Provence) and Spain (Lérida)] differences seem related to presence of wings only: more elongated body, with subparallel elytral sides, developed humeral calli, epipleura thinner at base.

A first attempt to a revision of *Colaspidea* was made by Lefèvre (1876), who first correctly recognized the relationships between *C. nitida* Lucas, 1846, *C. oblonga* (Fairmaire, 1862) and *C. proxima* (Fairmaire, 1862); this opinion was not followed - or totally ignored - by the authors that subsequently published contributions on this group.

The first, and unique publication using aedeagic characters to distinguish two taxa of *Colaspidea* is that of Doguet (1988), while other authors, publishing both in taxonomy and/or faunistics, always refer to exoskeletal characters only, for descriptions or identifications.

The present study is based on examination of more than 3000 spec-

imens of which more than 350 males and 40 females were dissected for an overview of intra-populational and geographic variations of characters in reproductive organs.

Examination of male genitalia in Mediterranean *Colaspidea* suggests the opportunity of a very different taxonomical arrangement, other than the one accepted till the present. Accordingly, a large part of literature citations are here reported and in case updated where possible. Old catalogues and faunas, where localities or restricted geographic areas are not specified, are not taken into consideration.

The provided catalogue is intended to substitute the one recently published by Moseyko & Sprecher-Uebersax (2010).

Materials and Methods

All examined specimens are preserved dried, glued on cards in the given collections.

To perform examination of genitalia, abdomen has been separated from re-hydrated specimen and cut along an epipleuron. Aedeagi have been separated from other parts immersed in water, then dried for examination and drawing; occasionally they have been shortly treated in a 10% solution of KOH. Feminine reproductive organs have been treated in water, or in lactic acid, or in a 10% solution of KOH, depending on specimen conditions, then examined and pictured immersed in water or diluted lactic acid.

All detached parts are preserved on the same card of the specimen and, where convenient, abdomen has been placed in its original position.

Length of specimens is intended from the frons (with reclined head) to the elytral apices, in dorsal view. Indications of relative length of antennomeres refer to the left antenna of holotype; this character shows an appreciable variability not only between specimens but usually also between the two antennae of the same specimen; sometimes registered values of the same antennomere have shown differences up to more than 20% in the two antennae of the same specimen.

Locality data are reported as they are written on specimen lables.

Distribution of species is given on the base of studied material, belonging to the following Institutions or private collections:

DScoll Davide Sassi collection, Castelmarte (Como), Italy;
IRSN Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium;
MDcoll Mauro Daccordi collection, Verona, Italy;
MFNB Museum für Naturkunde, Berlin, Germany;
MMcoll Matteo Montagna collection, Anzano del Parco (Como), Italy;
MNHN Musée National d'Histoire Naturelle, Paris, France;
MSNF Museo di Storia Naturale Dell'Università degli Studi di Firenze, Italy;
MSNG Museo Civico di Storia Naturale di Genova, Italy;
MSNM Museo Civico di Storia Naturale di Milano, Italy;
MVcoll Miguel Vela collection, Churriana (Málaga), España;
NHMB Naturhistorisches Museum Basel, Switzerland;
RPcoll Roberto Poggi collection, Genova, Italy;
RRcoll Renato Regalin collection, Milan, Italy;
SDcoll Serge Doguet collection, Fontenay-sous-Bois, France;
SZcoll Stefano Zoia collection, Milan, Italy;
ZISP Zoological Institute of Russian Academy of Sciences, St. Petersburg, Russia.

Results

***Colaspidea* Laporte, 1833:** 21; type species *Chrysomela aeruginea* Fabricius, 1792 (=*Chrysomela metallica* Rossi, 1790)

Plestya Gistel, 1847: 404 (date of publication is here corrected following Menke, 1976; Monros & Bechyné, 1956 erroneously referred this name to a different Gistel's publication)

Dia Chevrolat in Dejean, 1836: 411; type species *Chrysomela aeruginea* Fabricus, 1792 (=*Chrysomela metallica* Rossi, 1790)

Description

Apterous Eumolpinae of small size (1.8-3.6 mm), with sub-hemispherical or moderately elongated body, strongly convex. Integuments metallic, green or brownish, sometimes with golden, purple or bluish reflections, usually sparsely and finely pubescent. Head wide, orthognathous; frons convex, wide (Figure 1D); eyes feebly emarginated, moderately wide and prominent, without supraocular sulci; antennae moderately elongated, antennomeres 7-11 elongated, moderately widened. Pronotum strongly convex, wider than long, punctured and finely pubescent, finely bordered at sides and base, distal edge usually not bordered in the middle. Anterior setae of the prothorax arising on a level of the lateral edges of pronotum, or just above. Distal edge of hypomera straight or feebly convex; notosternal suture complete, more strongly impressed frontward. Prosternum (Figure 1C) wide, without antennal sulci, with a low carina at sides, in front of coxal cavities. Distal edge of prosternum from concave to nearly straight, in most cases feebly raised, receiving the gula of the head when retracted. Coxal cavities of prosternum ovate, nearly 1.3-1.4 times wider than long. Scutellum triangular. Elytra with sparse punctation and finely pubescent. Elytra simply joined at suture (as in *nitida* group), or - usually - more strongly connected eachother, or - in some species - definitely soldered. Meso- and metatibiae not emarginate, gradually widened from base to apex, obliquely truncate at apex (Figure 1A,B). Claws bifid. Dorsal side of abdomen slightly sclerotized. Pygidium fully sclerotized without median groove; its distal edge not serrate.

Median lobe of edeagus more or less elongate, strongly bent dorso-ventrally in its middle; the basal hood nearly straight, usually poorly sclerotized at sides of aperture, broadly attached; basal spurs lacking. Endophallus without any evident sclerotization (Figure 1E): a pair of usually poorly sclerotized subtriangular plates are present at the ostium, sometimes preceeded by very small, poorly sclerotized lines on the dorso-lateral wall of the endophallus (Figure 1F); base of endophallus usually with close micro-spicules, it exceeds the basal hood of the median lobe by nearly one third of its length (Figure 1G), or less. Tegmen H-shaped, usually poorly sclerotized, particularly at its base whose limits are in general not well defined.

Ovipositor (Figure 2A,B) relatively short, with paraprocts curved inwardly at the base (Flowers, 2012), styli single-segmented (Figure 2C,D). Spiculum gastrale long and thin. Vagina without any sclerification. Spermatheca C-shaped; basal receptacle more or less developed and sometimes partially divided in two more or less distinct parts, bearing insertions of ductus and gland respectively. Ductus spermathecae long, moderately wide, usually more or less spiralled. Spermathecal gland long, delicate, thread-like, sometimes ending in a small chamber.

Biological remarks

Jolivet & Hawkeswood (1995) report the *genus* as being polyphagus on *Erica* (Ericaceae), *Cistus* (Cistaceae), *Rosmarinus* (Lamiaceae), *Ulex* (Fabaceae), *Quercus* (Fagaceae), *Pelargonium* (Geraniaceae), *Artemisia* (Asteraceae), *Malus* (Rosaceae) and *Vitis* (Vitaceae). I have no direct informations about the possibility that adults and larvae of *Colaspidea* species really feed on all these plants.

Adults are usually collected on shrubs of *Cistus* spp., or on *Erica* spp. in Mediterranean region, as also stated by Novak, 1952: *C. oblonga* [=*C. proxima*] on *Erica arborea* and *Cistus villosus*. I personally collected large series of *C. juengeri* Doguet, 1988 on *Cistus* sp. at Portella Impiso (Palermo, Sicily), of *C. proxima* (Fairmaire, 1862) on *Cistus*

salvifolius L. in Southern France (Var: Col de Babaou, Ile de Porquerolles) (Figure 2E), and on *Erica* sp. at Punta Baffe (Liguria, Italy) and of *C. nitida* on *Cistus* sp. at Alimini Grande and Torre Guaceto (Puglia, Italy). Also, I collected *C. globosa* (Küster, 1848) on *Cistus* sp. at Le Rove (Bouches-du-Rhône, France).

I collected a small series (18 ♂♂, 4 ♀♀) of *C. nitida* on blooming *Medicago* sp. [perhaps *M. minima* (L.)] (Fabaceae), at Le Cesine (Puglia, Italy) in June: *Cistus* shrubs were faded in that period, and possibly *Medicago* could be regarded as a refuge plant for adults.

Only once, *C. proxima* was said damaging cultivations of *Medicago sativa* L. (Fabaceae) in Piedmont (Baudi, 1889).

Larvae are unknown.

Key to groups of species

By means of exoskeletal characteristics, Mediterranean *Colaspidea* can be divided into three species-groups, characteristic in their habitus and usually recognizable at a glance. Each group consists of more or less strictly related taxa, mainly distinct in aedeagic morphology only. Provided figures give details for correct species identification. Taxa with a wide distribution show significant differences in aedeagic morphology between different populations, apparently with no geographic trend.

1 - oblong species (Figure 3A-H); elytra 1.2 times longer than wide, clearly restricted proximally, suboval; elytral lateral borders moderately wide in their basal half; a low oblong humeral callus frequently present at least in females.....*nitida* group

1' - body stouter (Figures 3I-L, 4, 5); elytra usually wider, hemispherical or poorly restricted frontwards; elytral lateral borders thin all along their length; humeral callus obsolete 2

2 - pronotal sides more strongly bent (Figure 3I); pronotum strongly transverse, wide, its maximum width at mid-length, clearly wider than elytral base and nearly 1.5 times the width of the head including eyes; epipleura wide only at base, shiny, bare .....*grossa* group

2' - pronotum less wide, so wide as, or only a little wider than elytral base, its maximum width not more than 1.4 times the width of the head including eyes (1.5 times in *C. metallica*, but in this case the maximum width of pronotum at, or near its base) ..... *metallica* group

C. nitida group

Three taxa are here considered belonging to this group.

C. nitida Lucas, 1846 and *C. proxima* (Fairmaire, 1862) - both taxa here re-evaluated - are usually confused in literature under the name *oblonga*. They are clearly distinguished in shape of aedeagus tip, although this character shows differences between specimens from different populations of the same taxon (Figures 6 and 7). Also other differences in aedeagic and exoskeletal characteristics have been detected in different populations; body size and widening of pro- and mesotarsi in males are sometimes very different in specimens collected in different geographic areas, apparently with no geographic trend. Isolation of populations in these small apterous species possibly leads to differentiations, which can't be framed in a simple taxonomic arrangement.

Identification of females in this group can be usually done only *ex societate maris*, as they practically show no appreciable differences between the two species. Distributions of *C. nitida* and *C. proxima* are in large part separated, but they overlap in a part of Central Italy and in Northern Africa, while a gap in the Balcan coast is possibly due to lack of available material.

C. graeca n. sp. inhabits a restricted area of Western Greece and is mostly distinguished from *C. nitida* in its bigger size and very wide male protarsi. Its geographic position and possible coexistence with *C. nitida*, justify the distinction of these taxa.

Colaspidea nitida Lucas, 1846 (Figures 1E-G, 3A, B, E, F, 6, 8A-D, 16A)

Dia oblonga Fairmaire, 1862 n. syn.

Colaspidea nitida: Lefèvre, 1876 pars

Colaspidea oblonga: Weise, 1883 pars

Colaspidea oblonga albanica Schatzmayr, 1923 n. syn.

Lectotypus. *Colaspidea nitida* (here designated) ♂ (MNHN) (Figure 3A,B): [round blue label with 030 (unclear) handwritten on the back]; *Colaspidea nitida* Lucas (Dia, 1841 [unclear]) [handwritten white label]; Syntype [printed red label]; Muséum Paris coll. H. Lucas [printed white label]; Lectotypus *Colaspidea nitida* Lucas, 1846 S. Zoia des. 2013 [printed red label].

Neotypus. *Dia oblonga* (here designated) ♀ (MNHN) (Figure 3E,F): Sicile L Benoit 1847 [handwritten red round label]; Museum Paris 1906 coll. L. Fairmaire [printed white label]; Neotypus *Colaspidea oblonga* (Fairmaire, 1862) S. Zoia des. 2013 [printed red label]

Examined material

France: Corse: Ajaccio, Corsica (8 exx. NHMB); Ajaccio, Corse (3 exx. MNHN); Ajaccio, Corse (2 exx. SZcoll); Ajaccio P. Vodor[?] (2 exx. ZISP); Porto Vecchio, Réveliere (1 ex. MNHN); Corse [F] P.to Vecchio, Pinarellu m 10-50, VII.1991 R. Regalin leg. (1 ♂, 2 ♀♀ RRcoll); Corsica, Casta, Des. des Agriates 22/VI/92 leg. Daccordi (1 ♀ MDcoll); Corsica, Evisa - Ota 8-V-94 leg. M. Daccordi (2 ♂♂, 4 ♀♀ MDcoll); Corsica, Sagone dint., 19-06-06 leg. Daccordi - Sforzi (1 ♂ MDcoll); idem, 27-09-2006 leg. M. Daccordi (1 ♂ MDcoll); Corsica - W di Ghisonaccia, 24-VI-2010, leg. Daccordi Mauro (2 ♂♂, 1 ♀ MDcoll); Corsica (1 ♀ MSNG); Corse (5 exx. MNHN); Corse, Damry (4 exx. MNHN); Corse (3 exx. MNHN); Corsica 8472-5 (4 exx. ZISP).

Italy: Toscana: Parco Nat. Maremma (GR[Grosseto]) dint. loc. Scoglietto 8.VI.1990, M. Poggesi & L. Bartolozzi legit (1 ♂, 1 ♀ MSNF; 1 ♂ SZcoll).

Lazio: Roma, P. Luigioni (1 ex. NHMB); Is. Ponza (Latina) Campo Inglese 18.VI.1977 L. Regalin (2 ♂♂, 1 ♀ RRcoll); Isola Ponza (Latina) Ponza paese 28.6.76 L. Regalin (1 ♂ RRcoll).

Campania: Caserta (1 ♀ MSNG); Ile de Capri, R. Obethür, Mai 1876 (9 exx. MNHN); Campania (NA[Napoli]) Isola Capri, Anacapri dint. S.W., 7.V.[19]83, Liberti (4 ♀♀ MSNM; 1 ♂ SZcoll); Napoli, A. Anguissola (3 ♂♂, 1 ♀ MDcoll); Napoli, 17.IV.[18]94, A. Anguissola (1 ♀ MSNG); Napoli, Pozzuoli, Burlini (1 ♀ MSNM); Sorrento - Ital., III.1941, leg. G. Frey (1 ex. NHMB); Casal Velino (Cilento), Campania V.1965 (1 ♀ MDcoll); (SA) Marina di Camerota, 28.3.1986, Dioli P. (1 ♀ DScoll).

Calabria: Prov. di Calabria (Palizzi) dal D.r Cavanna (2 ♀♀ MSNF); Prov. di Calabria (Nicotera) Dal D.r Cavanna (1 ♂ MSNF); Prov. di Calabria (Bagnara) Dal D.r Cavanna (1 ♂ MSNF); Prov. di Calabria (Catanzaro) (1 ♂ MSNF); Gerace, Calab., Paganetti (2 ♂♂, 4 ♀♀ NHMB); Gerace, Cal[abria], Paganetti (1 ♀ MSNG); Calabria, Reggio Calabria, Adorno, 370 m s.l.m., 24.III.2010 leg. Baviera C. (1 ♂ MDcoll); Sambiase, Calabria, V-1920 C. Minozzi (8 exx. MSNG).

Puglia: Promontorio del Gargano, sud Sannicandro Garganico (Foggia) 300 m, 27.IV.2002, S. Zoia e F. Polese legg., 41°49'21"N 15°33'03"E (1 ex SZcoll); Puglie, Vico G.[Gargano] 26.V.[1]913 A. Fiori (6 exx. MSNG); Vico Gargano 26.V.1915 A. Fiori (3 ♂♂, 3 ♀♀ MSNG); Prom. Gargano, Lago Varano, 5.1948, G. Binaghi (3 exx. MSNG); S. Domino, Isole Tremiti, Maggio '48 (1 ♂ MSNM); Puglia (Foggia) 26.IV.2002, Lago di Lesina: loc. C. Zappino, S. Zoia e F. Polese leg., 41°53'N 15°21'E (45 exx SZcoll); Puglia (Foggia) Chieuti: Torre Fantine 8.VI.1991, m 10 R. Regalin leg. (3 ♂♂, 3 ♀♀ RRcoll); Puglia (Foggia) m 10, Chieuti: Torre Fantine, 8.VI.1991 S. Zoia leg. (7 exx. SZcoll); Puglia (Brindisi) Ris. Nat. Torre Guaceto, 28.IV.2002, S. Zoia e F. Polese legg. (33 exx SZcoll); Puglia (Brindisi) Ris. Nat. Torre Guaceto, 16.VI.2013, S. Zoia leg., 40°43'07"N 17°46'11"E (1 ♀ SZcoll); Puglia (Brindisi) Lido Specchiolla, 28.IV.2002, S. Zoia e F. Polese legg. (47 exx SZcoll); Puglia,

Mesagne bosco Preti, 27.V.1974 G. Binaghi (1 ♂ MSNG); Puglia, S. Pietro (TA[ranto]), 22.III.1970, leg. De Marzo (1 ♂ MSNM); Melendugno (LE) loc. San Foca, 23-IV-06, L. Diotti (2 ♂♂, 1 ♀); Puglia (Lecce) Otranto: canale tra Alimini Grande e A. Piccolo, 30.IV.2002, S. Zoia e F. Polese legg., 40°11'N 18°27'E (3 exx. SZcoll); Puglia, Alimini Grande (Otranto), 25 m, 14.VI.2013, S. Zoia leg., 40°11'30"N 18°26'46"E (3 ♂♂, 3 ♀♀ SZcoll); Puglia, Alimini Grande (Otranto), 38 m, 14.VI.2013, S. Zoia leg., 40°12'14"N 18°26'27"E (6 ♂♂, 6 ♀♀ SZcoll); Puglia (Lecce) dint. sud S. Cataldo, 29.IV.2002, S. Zoia e F. Polese legg. (52 exx. SZcoll); Puglia, sud San Cataldo (Lecce): Le Cesine, 1 m, 15.VI.2013, S. Zoia leg. 40°21'51"N 18°19'38"E (18 ♂♂, 4 ♀♀ SZ coll); Puglia (Lecce) Otranto: valle dell'Idro, 30 m, 1.V.2002, S. Zoia e F. Polese legg. 40°08'25"N 18°28'41"E (22 exx. SZcoll); Puglia (Lecce) Otranto: sponde NW Alimini Grande, 30.IV.2002, 40°12'N 18°26'E, S. Zoia e F. Polese legg. (28 exx. SZcoll); Puglia (Lecce) Otranto: Alimini Grande, 29.IV.2002, 40°12'N 18°26'E, S. Zoia e F. Polese legg. (45 exx. SZcoll); Puglia (Lecce) Otranto: Alimini Grande, 29.IV.2002, 40°12'N 18°26'E, S. Zoia e F. Polese legg. (33 exx. SZcoll); Puglia, Otranto dint. (LE[Lecce]) 22.IV.2006 leg. Diotti (3 ♂♂, 1 ♀ MDcoll).

Sardegna: M.te Turitas, Sardinia (5 exx. NHMB); Paganetti, Terra Nova S. (1 ex. NHMB); Italia, Sardinia is., Golfo Aranci (Olbia) 20.6.1978, Mourglia leg. (1 ex. SZcoll); Golfo Aranci, Sard[egna] A. Dodero (32 exx. MSNG); idem, 4.IV.1902, A. Dodero (2 exx. MSNG); idem, III-1911 (1 ♀ MSNG); Sardegna, Golfo Aranci (SS) 2.V.1995, leg. F. Angelini (1 ♂, 2 ♀♀ DScoll); Sardegna, Tempio P. dint. (SS) ca. 500 m, 30.V.1995, leg. F. Angelini (3 ♂♂, 3 ♀♀ DScoll); Tempio, Sard[egna], 7.IV.1902, A. Dodero (7 exx. MSNG); Sardegna, Lago Baratz (SS[Sassari]) 23.V.1995, leg. F. Angelini (1 ♂, 1 ♀ MSNM); Sassari, Mulino Arzecheu, 21.V.[19]72 (2 ♀♀ MSNG); Sardegna (Sassari) Argentiera 9.IV.2006 leg. Fancello (1 ♀ MMcoll); idem, 15.4.2010 leg. Fancello (1 ♀ MMcoll); Sardegna (SS [Sassari]) M.te Limbara, 23.V.1976 R. Poggi (1 ♀ RPcoll); Sardegna, M.te Limbara 10.V.94 leg. Daccordi M. (2 ♂♂, 2 ♀♀ MDcoll; 4 exx. MSNM); Sardegna (SS [Sassari]) dint. Olbia, 23.V.1976 R. Poggi (1 ♂, 2 ♀♀ RPcoll); M. 7 Fratelli, 18 Aprile 1891, A. Dodero (1 ♀ MSNG); Sardegna, Nuoro, Villanova Strisaili dintorni m 1000, 23.V.74, Rosa (1 ex. SZcoll); Pend. NE M.te Albo, Cant. di S. Anna, m 620 (Siniscola - Nuoro) 23.IV.1997, C. Giusto (1 ex. SZcoll); Dorgali, Sard[egna], V.1910, A. Dodero (9 exx. MSNG); Sardegna, Villaurbana, 13.5.1972, Leg. Leonardi (8 exx. MSNM); Sardegna (CI[Carbonia-Iglesias]) Santadi, Pantaleo, m 200, 6.VI.1997, leg. C. Meloni (3 ♂♂, 6 ♀♀ MSNG); idem, m 210, 1.VI.1997 (1 ♂, 2 ♀♀ MSNG); Sardegna (CA) Uta e dintorni, 1.VII.1992, legit Meloni C., su *Pistacia lentiscus* L. (2 exx. SZcoll); Sardegna (CA) Gonnèsa, Porto Paglia e dintorni, 14.V.1990, legit Meloni C., su *Pistacia lentiscus* L. (1 ex. SZcoll); Sar. (CA[gliari]) Chia, 1.VI.1976 leg. Meloni, Stagno di Chia (Domus de M.) su Lentisco (1 ♂ MSNG); Sardegna (CA[gliari]]) Dolianova e dintorni m 190-220 slm, 28.VI.1992 legit Meloni C. (1 ♀ MSNG); Sardegna (CA[gliari]) Silius, Su Scovizzu, m 650-670, 11.V.1998 leg. C. Meloni (2 ♀♀ MSNG); Sardegna (CA[gliari]) Silíqua - Cant. Campanasíssa, m 270-275 slm., 10.V.1998, legit Meloni C. (1 ♂, 3 ♀♀ MSNG); Sardegna (CA[gliari), S. Gregorio, Rio Longu, Sentiero Italia, m 250, 25.IV.1997 C. Meloni (4 ♂♂, 1 ♀ MSNG); Sardegna (CA[gliari]) Isola di S. Antioco - loc. Piano di Crabi, 2.VII.2004, m 140-160 slm., leg. Meloni C. (1 ♀ MSNG); Sardegna (CA[gliari] Isola di Sant'Antioco, Cala Saboni, m 20-30, 26.III.1998 C. Meloni (1 ♂ MSNG); Sardegna (CA[gliari]) Giara di Gésturi, Paúli, Oromèo, 6.VI.2004, m 581-584 slm., leg. C. Meloni (3 ♂♂ MSNG); Sardegna (CA[gliari]) Giara di Gésturi, Paúli, S'Ala de Mengianu, 6.V.2009, m 567-570 slm., leg. C. Meloni (4 ♂♂, 1 ♀ MSNG); Capoterra, Sard.[egna], 26.IV.1892, A. Dodero (12 exx. MSNG); Orri [Sardegna], 16 Aprile 1891, A. Dodero (1 ♂ MSNG); Orri, Sardinia, U. Lostia (24 exx. MSNG); idem, Aprile (3 exx. MSNG); Cagliari, Orri, 30.V.1910, A. Dodero (1 ♀ MSNG); Sardegna, Is. Asinara, V.1904, S. Folchini (1 ♂, 3 ♀♀ MSNG); Sardegna, Is. Asinara, M. Scomunica, VII.1903, S. Folchini (1 ♂ MSNG); Sardegna, Elmas, 9.V.1873 R. Gestro (1 ♀ MSNG); Sassari, Mulino di Arzachena, 21-V-72 (1 ex. MSNM); Sardegna NE (prov. SS [Sassari]) Isola d. Bisce, 11.XI.1986 R. Poggi (1 ♀ MSNG); Sardegna, Is. Maddalena, 20.5.1973, Leg. Leonardi (2 ex. MSNM); Sardegna N-E, Arcipelago di La Maddalena (prov. SS [Sassari]) Isola Spargi, Cala Granara, 25.IX.1985 R. Poggi (1 ♂ MSNG); idem, su *Cistus monspel*. (1 ♀ MSNG); idem, Cala Grano, macchia, 16.X.1989 (1 ♂ MSNG); idem, Valle di Cala Canniccio, 13.XII.1993 (1 ♂ MSNG); S. Antioco, Sardegna, 12.IV.1912, A. Dodero (7 exx. MSNG); Sardegna S-W (prov. CA [Cagliari]) Isola S. Antioco, Stagno de Cirdu, 12.VI.1989 R. Poggi (1 ♂ MSNG); Isola di S. Pietro (Sard.[egna]) dint. Capo Sandalo, 24.IV.1977 leg. Meloni (1 ♂ MSNG); Carloforte, Sard[egna], 20.V.1901, A. Dodero (3 exx. MSNG); Sardegna, A. Dodero (7 exx. MSNG); Sardinia, Assemini, U. Lostia (1 ♀ MSNG).

Sicilia: Sicilia: Colle S. Rizzo b. Messina, 700 m, V.26 (4 exx. NHMB); Messina, Holdhaus, Sammlung Stöcklein (6 exx. NHMB); Messina, Sizilien (12 exx. NHMB); Messina, 1/12.V.1906, A. Dodero (30 exx. MSNG); Sicilia, 15.V.1947, Messina, Barajon (4 exx. SZcoll); Sicilia, Messina, Peloritani, Musolino dint., 800 m ca., 28.IV.2001, leg. Baviera C. (1 ex. SZcoll); Sicilia, Peloritani, P.lla Castanea VI.1959 (2 ♀♀ MSNM); Messina, Reitter (1 ♂ MDcoll); Messina, Sicilia, F. Vitale (3 exx. MSNG); Sicilia: Messina - Peloritani, Monte Scuderi, 1100 m, 11.V.2004, leg. Baviera C. (1 ♂, 1 ♀ MDcoll); Sicilia: Messina - Peloritani, Forte S Jachiddu 375 m, 28.IV.2010, leg. Baviera C. (1 ♂, 2 ♀♀ MDcoll); Sicilia, Milazzo, G. Leoni (1 ex. MSNM); Sic[ilia] (1 ex. MNHN); C. Raisigelbi (Cefalù) Sicilia VI-1959 (1 ♂ MDcoll); Sicilie (1 ♀ MDcoll); Sicilia (3 exx. MSNG); Sicilia, ..?.. [unclear handwritten] 22.IV.[1]912, A. Fiori (2 ♂♂, 1 ♀ MSNG); Sicilia, M. ..[?].. [unclear handwritten] 20.IV.[1]912, A. Fiori (1 ♂, 1 ♀ MSNG).

Croatia: Ins. Curzola, Dalmatia, 1907 Moczarski (8 exx NHMB); Ins. Curzola, Dalmatia (6 exx NHMB); Isola Lagosta (1 ex NHMB); Salona Dalm., Ad. Hoffmann (3 exx. NHMB); Dalmatia Ragusa (10 exx NHMB); Dalmatien, Ragusa, Reitter (1 ♂ MSNM; 1 ♂ MSNG; 2 exx. ZISP); Dalmatia 5.99 (2 exx. MNHN); Dalmatia (1 ex. ZISP).

Greece: Insel Corfu (3 exx. NHMB); Balkan, Corfu, Paganetti 03 (1 ex. NHMB); Mesolongion, Graecia occ. (10 exx. NHMB); Creta (6 exx. NHMB).

Morocco: Rabat (Maroc), A. Théry (1 ex. MNHN).

Algeria: La Calle, Dr Martin (5 exx. MNHN); Philippeville (1 ex. MNHN); Philippeville, Algèrie, A. Théry (1 ex. MNHN); Edough (3 exx. MNHN); Constantine (10 exx. MNHN); Bône, Dr Martin (2 exx. MNHN); Bone (1 ex. MNHN); El Feïdja, 1886 (8 exx MNHN); Bou Mzeran, 1886 (6 exx. MNHN); S.t Charles, Algèrie, A. Théry (5 exx. MNHN); Fil-Fila, Algèrie, A. Théry (3 exx. MNHN); St-Antoine, Algèrie, A. Théry (1 ex.); Kef Kourrat, 1886 (3 exx. MNHN); Oued Mafrag Annaba (Algeria) M. Bergeal, 6.IV.[19]85 (7 ♂♂, 8 ♀♀ MSNM; 2 ♂♂, 2 ♀♀ SZcoll).

Tunisia: Tunis (2 exx. MNHN).

Literature data

Fairmaire, 1862: 591. *Dia oblonga* (Sicile) to refer to *C. nitida*.

Lefèvre, 1876: 16. *C. nitida*, partly to refer to *C. proxima*.

Marseul, 1876: 27. *C. nitida* (Sicile).

Lefévre, 1885: 126. This author erroneously reports *C. nitida* (sub *oblonga*) for Austria, misunderstanding Redtenbacher's (1858) and Desbrocher's (1871) publications.

Oertzen, 1887: 287. *C. oblonga* (Creta) to refer to *C. nitida*.

Sainte-Claire Deville, 1910: 377. *C. oblonga* (Corse) to refer to *C. nitida*.

Apfelbeck, 1916: 364. *C. oblonga* (Croatia: Gravosa, Spalato) probably to refer to *C. nitida*.

Luigioni, 1929: 794. *C. oblonga* (Isole Tremiti).

Gridelli, 1950: 248. *C. oblonga* (Isole Tremiti).

Mohr, 1966: 351. *C. oblonga* (Bosnien-Herzegowina), could possibly refer either to *C. proxima* or *C. nitida*.

Daccordi & Ruffo, 1971: 46. *C. oblonga* (Isole Ponziane, Lazio) probably to refer to *C. nitida*.
Daccordi, 1977: 86. *C. oblonga* (Crete) to refer to *C. nitida*.
Angelini & Montemurro, 1986: 590. *C. oblonga* (Southern Italy: Policoro, Matera), to refer to *C. nitida*.
Gruev, 1990: 291. *C. oblonga* (Greece) probably to refer to *C. nitida* and perhaps partly to *C. graeca* n. sp.
Legakis A., 1990: 85. *C. oblonga* (Greece) probably to refer to *C. nitida*.
Gruev, 1992: 6. This author under *C. oblonga* includes both *C. nitida* and *C. proxima*; *C. oblonga albanica* (Albania: Durazzo, Tirana) to refer to *C. nitida*.
Biondi *et al.*, 1995: 644. *C. oblonga* (Sardinia) to refer to *C. nitida* after examination of original material.

Notes

Based on Evenhuis (2012), publication date of *C. nitida* Lucas is here reported as being 1846, instead of 1849 as usually indicated by the authors.

I examined a series of five specimens of *C. nitida* labeled Syntype (coll. Lucas, MNHN). Three of them are males; they belong to two different species, corresponding to Fairmaire's *C. oblonga* (1 specimen) and *C. proxima* (2 specimens). I choose the former to be the Lectoype of *C. nitida*, in order to fix this taxon; this specimen is the only bearing an old identification label. Two specimens are females and so not identifiable for certain. Subsequently, *C. nitida* is removed from synonymy with *C. globosa* (Küster, 1848), established by Weise, 1913, and the new synonymy *C. oblonga* (Fairmaire, 1862)=*C. nitida* Lucas, 1846 is established.

Further four specimens, with no labels, belong to Lucas's collection in MNHN. The only male specimen is a *C. proxima*.

Fairmaire (1862) described *C. oblonga* with reference to an inexistent Blanchard's publication, and possibly he never designated a type, or syntypes. I here designate the only available specimen labeled *Sicily* in Fairmaire's coll. (MNHN) to be the Neotypus of this species; it does not bear any original indication by Fairmaire. The specimen agrees well with the description and is labeled with the date 1847, well in advance the date of Fairmaire's publication.

C. nitida is widely diffused in Central and Southern Mediterranean Region (Figure 16A). It is a polytypic taxon, variability interesting the male pro- and mesotarsi (more or less widened), body size, length and closeness of dorsal pubescence, feeble differences in size and in dorso-ventral bending of median lobe of aedeagus, and shape of apex of median lobe (Figure 6). These differences produce a puzzle of slightly differentiated populations, with some more differentiated ones (from Morocco, eastern Adriatic coasts, and, with less evident characteristics, Sardinia and Corsica).

Populations from Albania were described by Schatzmayr (1923) as a distinct subspecies (ssp. *albanica*), although based on exoskeletal examination of females only. Characters mentioned by Schatzmayr (l.c.) are not exclusive of specimens from this region, but males of *C. nitida* from Adriatic eastern coasts and Western Greece are distinguished from typical form in wider protarsi and median lobe of aedeagus more strongly bent dorso-ventrally (Figure 6F). However both characters show variability between different populations; examined material from Southeastern Italy, Greece and Crete is more similar to typical form, while specimens from Morocco show some similarities in the mentioned characteristics with the eastern Adriatic *C. nitida* (Figure 6F,N). As it is not possible to define a limit in this variability and to distinguish different subspecies based on morphological and geographical aspects, I propose the new synonymy: *C. oblonga* ssp. *albanica* Schatzmayr, 1923=*C. nitida* Lucas, 1846.

C. nitida is syntopic with *C. proxima* in some localities of Algeria and Tunisia and in Central Italy (Toscana, Lazio): the only shape of aedeagus permit to correctly distinguish the two taxa. Moreover, as a rule, male protarsomeres in *C. nitida* are wider than they are in *C. proxima*, although this is not the same in all examined populations. I found no valuable morphological differences between females of the two species.

Based on present knowledges, all previous citations of *C. oblonga* from Spain, France and Northern Italy must be referred to *C. proxima* (Fairmaire, 1862).

Colaspidea graeca n. sp. (Figures 3C, D, 8E, F, 16A)

Holotypus ♂. Grecia - Preveza, dint. Mitikas, 1.VI.1989, S. Zoia leg [printed white label]; *Colaspidea graeca* n. sp. S. Zoia det. 2013 [printed red label] (MNHN)

Paratypi (3 exx.). Greece: Preveza, dint. Mitikas, 1.VI.1989, S. Zoia leg. (1 ♀ SZcoll); [Grecia] Point Scropha (1 ♀ MSNG); GR - Peloponn. Elia, Vartholomio, Arkoudi, 31.05.1999, G.B. Delmastro leg. (1 ♀ MDcoll).

Diagnosis

A species of *Colaspidea* closely related to *C. nitida*, characterized by strongly widened male tarsi, and shape of median lobe of aedeagus.

Description

Habitus as in Figure 3C,D; body length of the ♂ holotype 2.7 mm, of the ♀♀ paratypes 2.9-3.0 mm.

Body dark, with metallic bronze and bluish reflections; head, pronotum and elytra dark, bronze metallic; labrum, mandibles and palpi reddish; antennae reddish, antennomeres 7th to 11th somewhat darkened distally; legs reddish with darker femora.

Frons convex, longitudinally impressed in middle; pubescence of frons and clypeus relatively long, thin, silvery, scattered; punctation fine, somewhat stronger on clypeus, sparse and spaced; surface between the punctures with evident microreticulation; clypeus not separated from the frons, flat, its distal border in a wide arch. Penultimate article of the maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly 1.5 times longer than the penultimate. First antennal antennomere nearly twice longer than wide, 1.6 the second in length and nearly twice in diameter, feebly bent on the outer side; second two times longer than wide; third 1.5 times longer than the second, three times longer than wide; fourth and fifth subequal, a little shorter than the third; sixth the shortest; seventh 2 times longer than wide; eighth to tenth subequal, shorter than the seventh; eleventh 2 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.6-1-1.5-1.3-1.3-1-1.6-1.6-1.6-1.5-2.

Pronotum 1.2-1.3 times wider than long (1.1×0.9 mm in the holotype), the maximum width at distal half; base finely bordered, a little wider than the distal edge; distal edge not bordered in middle, unpunctured, glabrous; lateral margin bordered throughout, more strongly bent frontward, nearly straight toward the base; distal angles feebly produced outwards, with a setal insertion at a level of lateral margin; surface with sparse punctation and evident microreticulation; pubescence long and thin, sparse, silvery.

Scutellum with a few punctures and fine microreticulation, bare.

Hypomeron shiny, smooth, with sparse punctures bearing fine silvery hairs; distal margin of prosternum straight in middle, bordered, of the hypomera convex; notosternal suture deep, curved; prosternum 1.5 times longer than wide between the coxae, slightly convex, punctate, with sparse silvery pubescence.

Mesoventrite short, nearly so wide as the prosternum between coxae, its distal edge nearly straight, surface punctured, with fine sparse pubescence; mesoepimera with evident microreticulation and a few punctures with short pubescence.

Metaventrite finely punctured, with silvery pubescence, the distal border incised in middle; metacoxae more spaced than the mesocoxae; metaepisterna tapering to rear, nearly 3 times longer than wide, sparsely punctured and pubescent.

Elytra regularly and strongly convex, 1.2 times longer than wide (in the

holotype: length 1.7 mm, maximum width 1.4 mm, width at base 1.0 mm); humeri distinct, small, poorly elevated in male, more evident and limited by a feeble dorsal impression in females; elytral sides regularly bent, widening from base up to nearly one third their length; the lateral border visible from above from elytral base till over its midlength; apices in a slightly acute angle; punctation moderately strong, stronger than on pronotum, sparse; surface smooth on the elytral discus, where the distance between two adjacent punctures is nearly so wide as the diameter of a puncture; punctures are closer, convergent, and the surface somewhat rugose on elytral sides and near elytral base; pubescence long, thin, sparse, silvery. In the examined females, elytral punctation is finer and elytral surface at sides is dull due to presence of a fine microreticulation. Epipleura gradually tapering to rear, smooth, with a few punctures, particularly near the elytral base, bearing some very short hairs.

Legs as in Figure 3C; femora unarmed, swollen; protibae slightly bent in male, meso- and metatibiae nearly straight, with a fine silvery pubescence. First segment of pro- and mesotarsi strongly widened in male, as long as tarsomeres second and third together, first metatarsomere clearly widened. Claws bifid, with the inner tooth shorter, the division starting at the basal third of the claw (meso- and metatarsi) or at its middle (protarsi in males).

Abdominal ventrites punctured, with a fine microreticulation and fine silvery pubescence.

Aedeagus as in Figure 8E,F.

Spermatheca as in Figure 8G.

Derivatio nominis

The name refers to the geographical provenance of the examined specimens.

Literature data

Gruev, 1990: 291. Under *C. oblonga* he could possibly include *C. graeca* n. sp. too.

Colaspidea proxima (Fairmaire, 1862) (Dia) bona sp.

(Figures 2C, 3G,H, 7, 8H-J, 16A)

Colaspidea nitida Lucas, 1846, pars

Colaspidea nitida: Lefèvre, 1876 pars

Colaspidea oblonga: Weise, 1883 pars

Syntypi (♂♂ - examined) [two specimens are mounted on the same card] (Figure 3G,H). Type [printed red label]; Dia proxima ~~oblonga~~ [sic!] n. sp. Hyeres [handwritten white label]; Museum Paris 1906 coll. L. Fairmaire [printed white label].

[Algeria], 1219, Syntype [*Colaspidea nitida* Lucas, 1846], Muséum Paris coll. H. Lucas (1 ♂ MNHN); idem, 1406 (1 ♂ MNHN).

Examined material

Spain: SP, Mallorca, Cala Bona, 8.V.2002, Rolf Rober (1 ♂ MSNM).

France: Gallia m. (1 ex. MSNM); Gallia mer. (4 exx. ZISP).

Hautes Pyrénées: Fr. mérid. (en Sénac) (1 ♂ MNHN).

Provence: Provence (6 exx. MNHN; 1 ex. SZcoll); Provence Cavalaire (2 exx. MNHN); Provence, ex coll. L. Gavoy (2 exx. MSNG); St Raphael (7 exx. MNHN); [F] Provence, 10 km N Fréjus: env. Bagnols-en-Forêt, 2.V.2003, S. et F. Zoia (61 exx. SZcoll); [F] Provence, Massif de l'Esterel. La Tour de Mare env., 120 m, 2.V.2003, S. et F. Zoia leg. (34 exx. SZcoll); [F] Provence: Massif de l'Esterel: pend sud Mt Vinaigre, 400 m, 2.V.2003, S. et F. Zoia (4 exx. SZcoll); Provence Aix (1 ex. ZISP).

Var: S.te Beaume, 6.[19]08 (1 ♂, 1 ♀ MSNM); La Seyne, Var, Tholin (6 exx. NHMB); La Seyne (1 ex. MNHN); Hyères, Dep. Var (5 exx. NHMB); Hyéres (27 exx. MNHN); France, Hyères (Var) A. Finot 1897 (133 exx. MNHN); Hyères, Delarouzee (2 exx. MNHN); Var Hyères (2 exx. MNHN); Hyéres (1 ♂ ZISP) ; Les Sablettes, Var (1 ex. NHMB); Islas Hyères (2 exx. MNHN); Ile Porteros, Var, Fagniez (1 ex. MNHN); Ile de Porquerolles, 10-50 m, 19.V.2013, C. Giusto, G. Gardini & S. Zoia leg., 43°00'00"N - 06°13'00"E (152 exx. SZcoll); Frèjus (Var) Val IV.38 F. Bernard (2 exx. MNHN); France - Var, dint. Frejus, 26.V.1988, C. Giusto leg. (5 exx. SZcoll); St Raphael, Var, 21.4.09 J. C. (1 ex. MNHN); Agav (Var) 23.04.1963 (1 ex. MNHN); France, Var, Massif des Maures, Col de Gratteloup, m 190, 18.VI.1995, C. Giusto leg. (7 exx. SZcoll); France, Var, Massif des Maures, Col de Gratteloup, m 190, 18.VI.1995, S. Zoia leg. (33 exx. SZcoll); France, Var: La-Londe-les-Maures: SE slopes Col de Babaou, 300 m ca., 19.V.2013, S. Zoia, C. Giusto & G. Gardini leg., 43°10'35"N 06°20'00"E (4 ♂♂, 9 ♀♀ SZcoll); Esterel (Var) 13-IV.1952, leg. G. Tempère (1 ♂, 1 ♀ MSNM); Pignans (Var) 19.IV.1954, G. Tempere (1 ♂ MSNM); Les Mayons, 13.V.88, M. Bergeal (17 ♂♂, 13 ♀♀ MSNM; 5 exx. SZcoll); Toulon, F. Ancey (3 exx. MNHN; 3 exx. MSNG); Toulon Ga. Zürcher 98 (4 exx. MSNM); Toulon (5 exx. ZISP); Catc..., Var, 10.V Fagniez (5 exx. MNHN); Var (8 exx. MNHN).

Alpes Maritimes: Alp. Mar. Antibes (3 exx. MNHN); Alpes Maritimes, Grasse, 10.3.33, Torre Tasso (2 exx. NHMB; 2 exx. MSNM); France, Cannes (Alpes Maritimes) A. Finot 1897 (2 exx. MNHN); Cannes (3 ex. MNHN; 2 ♂♂, 3 ♀♀ MSNM); Cannes, Chanay, 1878 (1 ♀ MSNM); Ile St Marguerite, VII.07 (2 exx. MNHN); Nizza, Gallia (8 exx. NHMB); Menton (4 exx. MNHN); Menton (Alpes Marit.es) (3 exx. MNHN); Menton 1895 (3 exx. MSNG; 4 exx. SZcoll); Antibes (1 ex. MNHN); Mandelieu, Alp. Mar., 20.IV.[19[54, Tempère (3 ♂♂, 1 ♀ MSNM).

Italy: Piemonte: Piemonte (Casale Monferrato), dono Mens. (1 ♀ MSNF); [Piemonte] Val Pesio, Alpi maritt., VII-[1]914 C. Mancini (1 ♂, 1 ♀ MSNG).

Liguria: Liguria Italia (2 exx. NHMB); Sanremo, Bussana, VI.953, Porta (5 exx. MSNM); Noli (Liguria) 12.V.1963, G. Bartoli (4 exx. SZcoll); Borghetto S. Spirito V-VI.[18]81 Vacca (1 ♀ MSNG); Spezia (38 exx. MSNG); Bergeggi (Liguria) 12.IV.1962, G. Bartoli (3 exx. SZcoll); Liguria (Savona) Finale Ligure: altopiano delle Manie, m 200, 8.VI.1996, S. Zoia leg. (3 exx. SZcoll); Finale Gorra, 29.IV.[18]97 A. Dodero (1 ♂, 2 ♀♀ MSNG); Altare (Savona) VII.63, leg. Bordoni (1 ex. SZcoll); Vado, Liguria occid., V.[1]914 C. Mancini (5 exx. MSNG); Liguria, Savona, Naldi (4 exx. MSNM); Liguria, Savona (4 exx. MSNM); Varazze (Lig.) IV.1917 F. Invrea (4 ♂♂ MSNG); idem, V.1912 F. Invrea (5 exx. MSNG); idem, V.1909 (7 exx. MSNG); Liguria occ. (Savona) dint. N Celle Ligure, m 100/300, 7.V.1995 S. Zoia leg. (38 exx. SZcoll); Celle (Savona) 5-74 lg. Pesarini (1 ♂, 5 ♀♀ RRcoll); Cogoleto, IV.09, C. Mancini (5 exx. MSNG; 3 exx. SZcoll); Arenzano, 18.5.[19]24 (2 ♀♀ MSNG); Borzoli [Genova] villa Doria, 6.6.1869, Gestro (1 ex. MNHN; 42 exx. MSNG); idem, 8.6.1869 (16 exx MSNG); idem, estate 1885, G. Doria (1 ♂ MSNG); Borzoli [Genova] V.1883, G. Doria (6 exx. MSNG); idem, 10.VI.[18]80, D. Ferrari (3 exx. MSNG); idem, V.[18]93, R. Gestro (3 exx. MSNG); Borzoli [Genova] G. Doria (4 exx. MSNG); Borzoli 20-3-[18]82 (2 exx. MSNG); idem, marzo [18]82 (1 ♂ MSNG); Genova: loc. Borzoli, m 200 ca., 10.IV.1986, C. Giusto leg. (6 exx. SZcoll); Liguria, Madonna d. Guardia (GE), 24-II-01, leg. Diotti (2 ♀♀ MDcoll); Liguria, Sestri [Genova], Giugno (5 exx. MSNM); M.te Gazzo [Genova west] 20.5.[18]71 Davidi (2 exx. MSNG); Genova, V.1937 C. Mancini (2 exx. MSNG); dint. di Genova, Pegli, V.1934 C. Mancini (1 ♀ MSNG); Dintorni di Genova, Barberi (1 ♂ MSNG), Genova 1.4.[18]75 (1 ♀ MSNG); Gênes, G. Doria (4 exx. MNHN); Liguria, Genova, Cavi, 11.1939, G. Binaghi (5 exx. MSNG); Cavi di Lavagna, Liguria orient., V-1947, G. B. Moro (8 exx. MSNG); Cavi, Riv. Orientale, V-1924, G. B. Moro (1 ♂ MSNG); Liguria (Genova) Sestri Levante: Punta Manara, 20.VI.1992, S. Zoia (13 exx. SZcoll); Liguria orient., Punta Manara (Sestri Lev. - Genova) 5.VI.1988, S. Zoia leg. (3 exx. SZcoll); Liguria, Genova, Sestri Levante, m 200, Punta Manara 20.IV.1992 R. Regalin leg. (1 ♀ RRcoll); Liguria (Sestri Lev. - Genova) Riva Trigoso: Punta Baffe, 1.V.1995, S. Zoia leg. (2 exx. SZcoll); Liguria (Sestri Lev. - Genova) m 50, Riva Trigoso: Punta Baffe, 1.V.1995, S. Zoia leg. (41 exx. SZcoll); Punta Baffe, m 100, (Sestri Levante - Genova) 10.I.1993, C. Giusto (1 ex. SZcoll); Liguria (Sestri Lev. - Genova) m 50, Riva Trigoso: Punta Baffe, 1.V.1995, S. Zoia leg. (5 exx. SZcoll); Pitelli [La Spezia] 8.VII.1951 (4 ♂♂, 2 ♀♀ MSNF); Pitelli [Liguria orient.] 8.VII.1951 (3 ♂♂ MSNM); Zignago, Spezia, IIII.[19]51, coll. A. Porta (1 ♂, 1 ♀

MSNM); Ameglia, Liguria orient., IX.1913-14, C. Mancini (1 ♂, 4 ♀♀ MSNG; 1 ex. NHMB; 9 exx. SZcoll); Ameglia, Fiori, D. Mantero 1899 (1 ex. MSNG).

Toscana: Viareggio V.[18]73 D. Piccioli (1 ex. MSNG); idem, IX.[18]82 A. Dodero (7 exx. MSNG); Lucca (2 exx. SZcoll); Quiesa [Lucca] (4 exx SZcoll); Puntoni (Larciano) PT[Pistoia] Terzani F. (1 ♀ MSNF); dint. di Firenze (Giogoli), dono Piccioli (3 ♂♂, 4 ♀♀ MSNF); dint. di Firenze (Monterivecchi) maggio 1855, dono Piccioli (3♂♂, 3 ♀♀ MSNF); Dint. Firenze, 1879, A. Piccioli (1 ex. MSNG); dint. di Firenze (Careggi), dono Piccioli (2 ♀♀ MSNF); dint. di Firenze (Careggi), dono Bargagli (1 ♂, 4 ♀♀ MSNF); dint. di Firenze, dono Bargagli (2 ♀♀ MSNF); Firenze, Aprile 1960, S. Failla (2 ♂♂, 2 ♀♀ MSNF); Firenze, G. E. Rasetti (1 ♂, 1 ♀ MSNM); Firenze, Tavarnuzze, 4.10.1959 (1 ♀ MSNF); Firenze, Scopeti, 1.6.1961 Castellini (2 ♀♀ MSNM); Poggio alla Malva (Signa) FI [Firenze] 31/V/[19]76, Terzani F. (1♂, 1 ♀ MSNF); tra Pietrapiana e il Saltino (m 700-880 s.l.m.) Reggello - FI[Firenze], 14.6.1980, Terzani F. (1 ♂ MSNF); Padule di Fucecchio, XI.1964, L. Butti (1 ♂ MSNG); idem, 21.III.1965 (4 ♂♂, 1 ♀ MSNG); idem, 1.V.1965 (4 ♂♂, 6 ♀♀ MSNG); FI[renze] Padule Fucecchio, 21.6.69, Rocchi (1 ♂, 1 ♀ MSNM); prov. di Pisa (Lavajano), dal D.r Cavanna (2 ♂♂, 4 ♀♀ MSNF); Monti Pisani, G. E. Rasetti (1 ♀ MSNM); Livorno, A. Mainardi (5 exx. MSNG; 21 exx. SZcoll); Insel Elba, Moczarski (4 exx. NHMB); Ins. Elba, Holdhaus (1 ♀ MSNM; 1♀ MSNG); Ins. Elba, 1908, Paganetti (1 ex. NHMB; 6 exx. ZISP); Insel Elba, Sammlung Stöcklein (7 exx. NHMB); Elba (5 exx. NHMB); Ins. Elba, Mt. Capanne, Nordhänge (14 exx. NHMB); Toscana, Livorno, Is. d'Elba, P.ta Nera, 320 m, 10.V.1992 F. Rigato leg. (1 ♀ RRcoll); Isola d'Elba, Procchio, 21.VII.1971 G. Binaghi (2 ♂♂, 1 ♀ MSNG); Is. Elba, 17.VI.1975, lg spreafico (1 ♀ DScoll); Toscana, Castiglione della Pescaia, 25.IV.[1]966 G. Binaghi (24 exx. MSNG); Principina mare (Grosseto) 15.VI.77, leg. Daccordi M. (1 ♀ MDcoll); Italia C. Marine di Grosseto, N. Sanfilippo (1 ex. SZcoll); M.te Argentario, Italia centr. (31 exx. NHMB); Italia, M.te Argentario, Dr Stoiz, 4.907 (2 ex. NHMB); Toscana, M.te Argentario, 29.III.1913, A. Dodero (1 ♂ MSNG); Toscana, M.te Argentario, dint. Porto Ercole, 3.V.04, Cornacchia - Scaglioni (1 ♀ MDcoll); Alberese, Grosseto, 24.V.1975, leg. Kiener (1 ♀ MSNM); Toscana, Porto Ercole, 17.IV.1974, G. Binaghi (13 exx. MSNG); Lago Burano, Grosseto, Toscana, 25.IV.[19]79, M.E. Franciscolo (1 ♀ MSNG); idem, 5.V.[19]83 (4 ♂♂, 4 ♀♀ MSNG); Orbetello, Grosseto, 25.V.1975, leg. Kiener (1 ♀ MDcoll); Orbetello, GR[osseto], Stagnone, 4.V.[19]83, M.E. Franciscolo (2 ♂♂, 3 ♀♀ MSNG); Poggio Cavallo, dint. Grosseto, III/1907 D.r A. Andreini, nei muschi (1 ♂ MSNF); idem, XI.1909 (1 ♂ MSNF); idem, V/1905 (1 ♀ MSNF); idem, V/1907 (1 ♂ MSNF); Poggio Cavallo, dint. Grosseto, IV.1900 (1 ♂, 1 ♀ MSNG); Grosseto, 10.5.1980, S. Failla (1 ♀ MSNF); Lago Burano (Grosseto) 25.IV.1969 G. Binaghi (1 ♂ MSNG); Pergine, prov. di Arezzo, XI.[1]917 D.r A. Andreini (1 ♂, 5 ♀♀ MSNF); idem, 12.V.1933 (2 ♂♂, 2 ♀♀ MSNF); Toscana: NE di Sette Vene, SIC Monte Ginezzo, Cortona (AR[Arezzo]) 850 m, 2.V.2008, F. Zinetti & F. Cianferoni leg. (4 ♀♀ MSNF); prov. di Siena (Querceto), dono Bargagli (5 ♂♂, 1 ♀ MSNF); dint. di Siena (maggio 1857), dono Piccioli (2 ♂♂ MSNF); Toscana, Mt. Cetona, Marchi, ex coll. Marchi (1 ♂, 1 ♀ MSNF); Toscana, Guazzino, Marchi (10 ♂♂, 12 ♀♀ MSNF); idem, 1921 (1 ♂, 1 ♀ MSNF; 1 ♂ MSNM); idem, 1913 (1 ♀ MSNF); Guazzino (Toscana) (1 ♀ MSNM); Toscana, Italia (6 exx. NHMB); Toscana, E. Turati (4 ♂♂ MSNF); Toscana, M.e Bene, [18]79 Piccioli (1 ex. MSNG);

Umbria: Perugia (Umbria) V.1944 C. Mancini (5 exx. MSNG; 1 ♂, 4 ♀♀ RPcoll); Torricella (Umbria) 2-[1]947 C. Mancini (1 ♂ MSNG).

Lazio: Lazio, Castel Fusano, 31-V-1954 C. Mancini (1 ♂, 2 ♀♀ MSNG); Lazio, Castelfusano, 23.V.2001, Biscaccianti (2 exx. SZcoll); Lazio, Roma - Nettuno, G. Loro, 3-[19]37 (1 ♂, 3 ♀♀ MSNM; 1 ♂ SZcoll); Lazio, Acilia (Roma), 9.VII.1963 G. Binaghi (10 exx. MSNG); Capo Circeo, 5.5.[19]40 XVIII [note: 18° year of the fascist italian period] Quarto caldo (1 ♂ MSNM).

Croatia: Curilla b. Lussin 5.4.14 (1 ♂, 2 ♀♀ MSNM; 1 ♂, 1 ♀ SZcoll); Curilla (Lussin) 31.5.1914, A. Schatzmayr (1 ♀ MSNM); idem, 6.4.[19]14 (1 ♂ MSNM); Curilla, 2.VI.[19]14 (2 ♀♀ MSNM); Lussin, Curilla (2 ♀♀ MSNG).

Algeria: La Calle (23 exx. MNHN); F.et de Bainem [Algier] 23.IV.42 (21 exx. MNHN); Algérie Edough P. Lesne 1908 (9 exx. MNHN); Edough 6 Juin 24 (38 exx. MNHN; 5 exx. SZcoll); Edough 1886 (24 exx. MNHN); Edough juin-86 (1 ex. MNHN); Alger R. Oberthür 1875 (12 exx. MNHN); Alger (2 exx. ZISP); Tipasa, Algerie, 24.IV.[19]87, M. Bergeal (1 ♂ MSNM);

Tunisia: Tunisia, Bizerte Gov., Sejenane, 4 km E, str. for Mateur, 20.IV.2009, leg. F. Angelini (3 ♂♂ MDcoll); Tunisia, Jendouba Gov., Fernana, 3-6 km N str. for Ain Draham, 12.V.09, leg. F. Angelini (1 ♂, 2 ♀♀ MDcoll); Ain Draham (4 exx. MNHN); Tunisia, Ain Draham dint., 20.V.2009 R. Regalin leg. (10 ♂♂, 10 ♀♀ RRcoll; 6 ♂♂, 4 ♀♀ SZcoll); Tunisia, Ain Draham, 36°43'02 N, 8°40'41 E, 21.V.2009, M. Montagna leg. (1 ♀ MMcoll); Ain Draham, Tunis, B. v. Bodemeyer (1 ex. NHMB); Tunisia bor. occ., 20 km E Ain Draham, Ain El Hamaraya env., 7-8.6.1994 lgt. S. Becvar (25 exx. SZcoll); N Tunisia, Jendouba, Aïn Draham, 500-900 m, 10/20.VI.2008 leg. G. Sama (1 ex. SZcoll); Tunisia bor. occ., Ain el Hamaraya, 30 km SO Ain Draham, 7.VI.1994, leg. F. Kantner (5 exx. SZcoll).

Literature data

Redtenbacher, 1874: 455. *C. nitida* (Florenz) to refer to *C. proxima*.
Lefèvre, 1876: 16. *C. nitida*, partly to refer to *C. proxima*.
Baudi, 1889: 199. *C. oblonga* (Italy: Piedmont, no exact locality reported) to refer to *C. proxima*.
Della Beffa, 1911: 190. *C. oblonga* (Italy: Piedmont, no exact locality reported) probably to refer to *C. proxima*.
Sainte-Claire Deville, 1937: 351. *C. oblonga* (Hyères, Litt. de la Méditerranée) to refer to *C. proxima*.
Novak, 1952: 311. *C. oblonga* (Croatia: Primorje) probably to refer to *C. proxima*.
Jolivet, 1953: 12. *C. oblonga* (Iles Baléares: Minorque, Majorque) probably to refer to *C. proxima*.
Mohr, 1966: 351. *C. oblonga* (Bosnien-Herzegowina), could possibly be referred either to *C. proxima* or *C. nitida*.
Gruev, 1992: 6. under *C. oblonga* includes both *C. nitida* and *C. proxima*.

Notes

Following Desbrochers des Loges (1871) the taxon was considered a synonym of *C. oblonga* (=*nitida*). Examination of aedeagic characters permits a clear distinction of the two taxa.

Distributional areas of these taxa are as in Figure 16A. Specimens of both taxa, with identical locality labels, even mounted on the same pin, were examined from Algeria.

Synypes of *C. nitida* (see discussion under this species) in Lucas collection (MNHN) include also specimen/s of *C. proxima* (Figure 7M,N).

Examined specimens from Tunisia slightly differ in having darkened femora; different populations from Algeria and Tunisia show evident differences in shape of aedeagus apex (Figure 7K,M,O).

C. grossa group

One taxon is here referred to this group, characteristic in its habitus and morphology of median lobe of aedeagus.

Colaspidea grossa Fairmaire, 1866 (Figures 3I,J, 9A-E, 16B)

Syntypi (7 ♂♂, 8 ♀♀ - examined) (Figure 3I,J). Tanger [handwritten white label, under four specimens only]; Museum Paris 1906 coll. L. Fairmaire [printed white label]; Syntype [red printed label] (MNHN).

Examined material

Morocco: Tanger, Ex Musaeo Lefèvre 1894 (2 ♂♂, 1 ♀ MNHN); Tanger, ex Musaeo E. Allard 1899 (1 ♂, MNHN); Tanger, Favier (2 ♂♂, MNHN); Maroc, Ex Musaeo Mniszech (1 ♀); Tanger, Ex Musaeo S. de Uhagon 1904 (1 ♂, 1 ♀, MNHN); 5.94 Tanger, Maroc ex Musaeo H. Vaucher 1908 (3 ♂♂, 4 ♀♀ MNHN; 1 ♂, 1 ♀ SZcoll); Maroc Tanger, Ex Musaeo A. Carret 1908 (1 ♂, 2 ♀♀ MNHN); Maroc ex Musaeo H. Vaucher 1908 (1 ♀ MNHN); [without locality label] (3 ♂♂, 1 ♀ MNHN); 1897 Tanger (2 ♂♂, 1 ♀ MNHN); 5.95 Tanger (1 ♂ MNHN); Tanger G. Buchet 1901 fin mai (1 ♀ SZcoll); Maroc, 1935 coll. M. Sédillot (2 ♂♂ MNHN); Maroc (1 ♀ MNHN; 1 ♂ SZcoll); Maroc Vaucher (1 ♂ NHMB); Marokko Vaucher (2 ♂♂ NHMB); Tanger, M. Escalera (2 ♂♂ MDcoll); Marocco, Tanger 25-29.4.26 Lindberg (2 ♀♀ ZISP); Tanger, coll. Escalera (1 ♂ MSNM).

Literature data

Lefèvre, 1876: 16. *C. grossa* (Tanger).
Lefévre, 1878: L. *C. grossa* (Tanger).
Desbrochers des Loges, 1898-99: 43. *C. grossa* (Tanger).
Escalera, 1914: 521. *C. grossa* (Tanger).
Jolivet, 1967: 324. Morocco (no exact localities specified).

Notes

C. grossa seems localized in Tangeri neighborhood. Citations for Spain are likely not correct and to refer to other species.

C. grossa is quite characteristic in the shape of pronotum, swollen femora, strongly widened pro- and mesotarsi of males; all of these characteristics are usually implemented in bigger male specimens. Body size in this species is the most variable: 2.2-3.6 mm in both sexes. Aedeagus and spermatheca show peculiar features if compared with the other *Colaspidea* (Figure 9A-E).

C. metallica group

This is the more comprehensive group, including species with body shape from ovoidal, with more or less restricted prothorax, to nearly hemispherical.

In some cases (particularly *C. inflata* Lefèvre, 1876 and *C. ovulum* Fairmaire, 1866), body shape clearly differs from males to females, being the latter less wide, with a more restricted prothorax. This, together with coexistence of different taxa in the same areas, possibly led to uncorrect identifications in the past.

Species are here chiefly divided by means of morphology of median lobe of aedeagus, being the exoskeletal characteristics subject to individual variability.

Differences found in spermathecal complex morphology (spermathecal body, spermathecal ductus and gland) are subtle, and this organ needs a careful treatment for examination of fine structures; differences mostly refer to receptacle development, at the base of spermathecal body, and length of the spermathecal gland, with or without a smal chamber at its end.

Colaspidea metallica (Rossi, 1790) (*Chrysomela*)

(Figures 1A-D, 3K,L, 9F-J, 16B)

Chrysomela aeruginea Fabricius, 1792
Dia sphoeroides Fairmaire, 1862

Typus (♂ - examined) (Figure 3K,L). 50185 [printed white label]; Aeruginea n. Chrysomel. aer. Fab. Chr. metallica R. *Etrur. Rossi [handwritten white label] (MFNB, I can not state if syntypes are available).

Examined material

Italy: Italien (2 ♀♀ MSNM); Italia (1 ♀ ZISP). Toscana: dint. di Firenze (Scopeti di S. Casciano) Giugno 1873, Dono Piccioli (2 ♂♂, 1 ♀ MSNF); Firenze, VI.1924, M. Lombardi (1 ♂, 1 ♀ MSNM); P.co Reg. S. Rossore (PI[Pisa]) 19-IV-07 lg. Monzini S. (2 ♂♂, 2 ♀♀ DScoll); Littorale Tirreno (Viareggio) Dono Bargagli (1 ♂, 1 ♀ MSNF); Littorale Tirreno (Gombo) Dono Piccioli (2 ♂♂, 4 ♀♀ MSNF); Littorale Tirreno (Antignano) Dono Piccioli (1 ♂, 3 ♀♀ MSNF); Toscana, Italia (5 ♂♂, 2 ♀♀ NHMB); Toscana (3 ♂♂, 1 ♀ NHMB; 1 ♂ SZcoll); Toscana, O. Staudinger (2 ♂♂ MDcoll). Lazio: Roma, A. Tirelli (1 ♂, 4 ♀♀ MSNG); Acilia (Roma) V.1933, O. Castellani (1 ♀ MSNG); Lazio, Acilia, Castell[ani], 19-3-[19]36 (1 ♂, 2 ♀♀ MSNM); Roma, Acilia, De Maggi 23.1.1939 (1 ♂ MDcoll); Roma, Acilia, 18.3.[19]43, O. Castellani (1 ♂ SZcoll); dint. Roma, Acilia, Straneo (1♀ MSNG); Roma, Castel Porziano 14-VI-35 coll. Castell. (1 ♂, 1 ♀ NHMB); Roma, Castelporziano, dintorni di Castelporziano 14.IV.1998 E. Colonnelli (4 ♀♀ SZcoll); Castelporziano, 6-72 lg. Pesarini (1 ♀ RRcoll); Lazio, Pratica, 29.4.1938, Saccà leg., coll. Castellani (1 ♂, 1 ♀ MSNG); Lazio, Roma - Nettuno, G. Loro 5-37 (2 ♂♂, 5 ♀♀ MSNM); Capo Circeo 21-4-40 Quarto freddo piano (1 ♀ MSNM).

Literature data

Redtenbacher, 1858: 895. *Dia aeruginea* (südlichen Italien) to refer to *C. metallica*.
Redtenbacher, 1874: 455. *C. aeruginea* (südlichen Italien) to refer to *C. metallica*.
Lefèvre, 1876: 17. *C. globata*, partly to refer to *C. metallica*; *C. metallica* partly to refer to *C. globosa*.
Marseul, 1876: 27. *C. globata* (Toscane) to refer to *C. metallica*.
Lefèvre, 1878: L. *C. metallica* (Tanger) very possibly to refer to other taxon.
Lefévre, 1885: 126. reports *C. metallica* for Austria, misunderstanding Redtenbacher's (1858) publication.
Desbrochers des Loges, 1898-99: 43. *C. aeruginea* F. (Bône, Constantine) is to refer to a taxon other than *C. metallica*, it might be either *C. inflata* or *C. maghrebina* n.sp. (Constantine), or to *C. nitida* (Bône).
Razzauti, 1906: 115. *C. metallica* (Elba Island: Portoferraio and San Martino, on *Erica*): I can not confirm this datum, as from this island I could only examine specimens of *C. proxima*.
Escalera, 1914: 521. *C. metallica* (Morocco: Tanger) very probably to refer to other taxon.
Jolivet, 1957: 133. *C. metallica* (Morocco: no exact localities specified) very probably to refer to *C. globosa*.
Doguet, 1988: 303. *C. metallica* (Toscane; Toscane, Pise; Etrurie; Lazio, Maccarese; Toscane: *C. sphaeroides* Fairmaire ♂ lectotype, idem 1 ♂ and 4 ♀♀ paralectotypes, MNHN); Spain (Calatrava) possibly to refer either to *C. globosa* or to *C. algarvensis* n.sp.

Notes

Based on examined material, the species seems localized in the Tyrrhenian coasts of Central Italy (Figure 16B).

Colaspidea globosa (Küster, 1848) (Figures 4A,B, 10, 11A-E, 16B)

Colaspidea globata L. Redtenbacher, 1858
Colaspidea abbreviata Desbrochers des Loges, 1871

Holotypus (not examined). Bei Carthagena in Spanien

Examined material

Portugal: Lisbona, Lu.[Luglio].[1]910, Schatzmayr (1 ♂, 4 ♀♀ MSNG).

Spain: Espagne, Ex Musaeo Lefèvre 1894 (2 ♂♂, 2 ♀♀ MNHN); Espagne, Escalera (1 ♀ MNHN); Hispania, E. Reitter (1 ♀ NHMB).

Andalucia: Andalus. (2 ♀♀ ZISP); España, Cádiz, Conil, El Colorado, 18/5/1998, P. Coello leg. (3 ♂♂, 6 ♀♀ MVcoll); Algeciras, Thiere, Andalusiens, Rosenhauer (1 ♀ MNHN); Algeciras

16.4.[18]95, Sammlung Stöcklein (2 ♀♀ NHMB); Algeciras, Hisp. austr. 15-22.4.26 Lindberg (1 ♂ ZISP); Gibraltar (1 ♂ NHMB); Almoraima, 27.4.[18]95, Sammlung Stöcklein (2 ♂♂ NHMB); El Juanar - Ojén (MA) 11.VII.84, M.A. Alonso Z. leg. (1 ♂ MDcoll); Espana mer., Marbella, Coín, 15.5.1991, leg. Snížek (3 ♂♂, 4 ♀♀ SZcoll); Marbella, S. Spanien, G. Frey, 1967 (3 ♂♂ NHMB); Hisp. mer. 14.5.91, Coín, 1000 m, Ronda Mts., Ing. Kantner leg. (1 ♀ SZcoll); Espana mer., Malaga, 15.5.1991 (4 ♂♂, 2 ♀♀ SZcoll); España mer., Malaga, 4.5.1990 Lgt. Snížek (1 ♀ SZcoll); España, Málaga, Nerja, 26.3.94, Barranco Calaílla, Bastazo & Vela leg. (1 ♂, 4 ♀♀ MVcoll); El Juanar, Ojén (MA) 11.VII.84, M.A. Alonso Z. leg. (1 ♀ MSNM); Monte S. Antón, El Palo, Malaga, 17.V.81, J.M. Vela leg. (2 ♂♂, 1 ♀ MVcoll);

Hispania, Málaga, Sierra de Alhaurin de la Torre, 18/05/2010, Bastazo & Vela leg. (2 ♂♂, 5 ♀♀ MVcoll); Hisp., Malaga, Antequera, Sª de las Cabras, 13.5.91, Bastazo & Vela leg. (1 ♂, 1 ♀ MVcoll); Alr. Cjo. Quejigales, Sª Nieves, Ronda (MA) 1300 m, 305UF1762, G. Bastazo leg. (1 ♀ MDcoll); Carril Capileira - Veleta, a 9.4 km de Capileira, Sª Nevada, Granada, 27.7.88, M. Baena leg. (1 ♂, 1 ♀ MVcoll); Co. a Pto. Pilones, S.a Nieves, Ronda (MA) 1600 m 30SUF/862, G. Bastazo leg. (1 ♂ MSNM); Campo Dalias, Almería-Hispania, A. Cobos leg. (1 ♀ MDcoll; 1 ♂ SZcoll); Spagna, Puerto de la Ragua (Almeria) mt 1700, 29.VI.75, leg. Daccordi (1 ♂ MDcoll; 1 ♀ MSNM); Thiere, Andalusiens, Rosenhauer (1 ♀ MNHN).

Murcia: Carthagena, Thiere, Andalusiens, Rosenhauer (1 ♀ MNHN); Espagne, Cartagena, Escalera (4 ♂♂, 2 ♀♀ MNHN); Murcia, Portman 26.4.92 A. Sanchez-Ruiz leg. (9 exx MVcoll); Murcia, Algezares, 1894, M. Korb (1 ♂, 1 ♀ MNHN); Espana SE, Murcia, Pto De Jumilla, 19.5.2003, 800 m, lgt M. Snížek (2 ♂♂ SZcoll).

Comunidad Valenciana: Chinorlet, Alicante, VI.[19]52, Espagne, Baraud (2 ♂♂, 2 ♀♀ MSNM); Onteniente, Valencia, col. Baguena (1 ♂, 3 ♀♀ MSNG); Albufera, Dr. Martin (4 ♂♂, 2 ♀♀ MNHN); Valencia V.1903 Escalera (24 exx: MNHN); Valencia, Hispan. (3 ♂♂, 5 ♀♀ NHMB); Valencia (1 ♂, 1 ♀ MNHN); Spain: Valencia, Alcoceber nr. Valencia, 9.5.1995 P. Pr dek leg. (3 ♀♀ DScoll); Burjasot, Valencia, F. Moroder (4 ♀♀ MSNG); 5.08 Valencia, Ex Musaeo E. Allard 1899 (1 ♂, 3 ♀♀ MNHN); Espagne (Valencia) Route de Simat de Valldigna a Jativa, alt. 300 m, 2-VI-1978, L. Matile rec. (1 ♂ MNHN); Cabanes, pr. de Castellon, 21.VI.[19]86, S. Doguet (1♀ MSNM).

Cataluña: España (Tarragona) Prades, 1.06.2002 leg. Fancello (1 ♀ MMcoll).

Aragón: Spagna, Escatron Saragozza, V-1967 (1 ♂ MDcoll; 1 ♀ MSNM).

Espagne mérid., Lag. de la Janda, Breuil, III.1916 (1 ♀ MNHN); Lapalma, Martinez (2 ♀♀ MNHN); Varna (1 ♂ MNHN).

France: Gallia M. (1 ♀ MSNM); Gall. Mer. (1 ♂, 1 ♀ ZISP).

Aude: Carcassonne (1 ♀ MSNM).

Herault: Montpᵉʳ, Ex Musaeo Lefèvre 1894 (1 ♂ MNHN); Montpell., Ex Musaeo Marquet 1900 (1 ♀ MNHN);

Gard: Grau-du-Roi, 4.82, Ex Musaeo A. Garret 1908 (4 ♀♀ MNHN);

Bouches du Rhône: Fos s/mer, VI, B. du R., Fagniez (1 ♂, 1 ♀ MNHN); Martigues, Ga. m:, 24.4.34, Tasso Schatzm. Koch (6 ♂♂, 6 ♀ MSNM); Sausset (B. du Rh.) 26.IV.1917 (1 ♂, 2 ♀♀ MNHN); Rognac (1 ♂ MNHN); Rognac, B. du R., 29-V-1935 (1 ♀ MNHN); France: Bouches-du-Rhône, Chaîne de l'Estaque: Le Rove, 200 m ca., 17.V.2013, S. Zoia, C. Giusto & G. Gardini leg. (3 ♂♂, 7 ♀♀ SZcoll); Aix, Ex Musaeo Lefèvre 1894 (1 ♂ MNHN); Aix en Provence, ex coll. L. Gavoy (1 ♂, 1 ♀ MSNG); Chaîne de l'Estaque: Le Rove, 200 m ca., 17.V.2013, C. Giusto, G. Gardini & S. Zoia leg., 43°22'02"N 05°14'24"E (4 ♂♂, 6 ♀♀ SZcoll); Provence, ex coll.L. Gavoy (1 ♂, 2 ♀♀ MSNG); Marseille (1 ♂ MNHN); Martigues (1 ♀ MNHN); Marseille (13) Las Sabliére Marzargues, 30-V-1974, L. Matile rec. (1 ♂ MNHN); Marseille, Gallia (2 ♂♂, 2 ♀♀ NHMB); La Ciotat, Gallia mer. (1 ♂, 1 ♀ NHMB).

Vaucluse: Avignon (2 exx MSNG).

Var: Faron, Nar (1 ♀ NHMB); Le Beausset, Ga., Boissy (1 ♂ MSNM); Beausset (Var) 4.06, Baizet (2 ♂♂, 3 ♀♀ MNHN).

Literature data

Rosenhauer, 1856: 311. Andalusia (sub *Dia*).
Fairmaire, 1857: 634. *Dia aeruginea* [Southern France (Hérault)].
Redtenbacher, 1858: 895. *Dia globata* (Süd-Frankreich) to refer to *C. globosa*.
Fairmaire, 1862: 591. *Dia aeruginea* (Midi de la France) and *Dia globosa* (Espagne) to refer to *C. globosa*.
Redtenbacher, 1874: 455. *C. globata* (Süd-Frankreich) to refer to *C. globosa*.
Lefèvre, 1876: 17. *C. metallica* partly to refer to *C. globosa*.
Marseul, 1876: 28. *C. metallica* (France) to refer to *C. globosa*.
Lefèvre, 1878: L. *C. metallica* (Mafra) possibly to refer to *C. globosa*.
Piccioli & Cavanna, 1882: 377. *C. sphaeroides* (Sicilia) possibly to refer to *C. juengeri*.
Paulino de Oliveira, 1893: 356. *C. metallica* (Portugal: Mafra) possibly to refer to *C. globosa*.
Bertolini, 1899: 114. Continental Italy: possibly to refer to *C. metallica*.
Luigioni, 1929: 794. *C. globosa* (Italy) partly to refer to *C. nitida* and partly to *C. proxima*.
Sainte-Claire Deville, 1937: 351. *C. globosa* (Bouches-du-Rhône, Var) and a citation for *C. metallica* (France, without locality indication), probably to refer to *C. globosa*.
Méquignon, 1948: 79. *C. metallica* (Provence: Cannes, Aix, Marignane, Rognac, Le Beausset) are possibly to refer to *C. globosa*, after examination of specimens from the same localities.
Cobos, 1954: 147. *C. metallica* (Spain: Sierra Nevada) almost surely to refer to *C. globosa*.
Kocher, 1958: 87. (Maroc méditerranéen et atlantique septentrional, entre Melilla, Tanger et Casablanca) to refer to other unidentified species.
Petitpierre, 1983: 95. Cataluña
Petitpierre, 1997: 276. Aragón
Vives, 2000: 14. Aragón
Petitpierre *et al*., 2011: 147. *C. globosa* (Cadiz prov.), identification here confirmed on examination of a part of the original material.
Jolivet, 1967: 324. *C. globosa* (Morocco: Tiflet) probably to refer to a different taxon.
Teunissen, 2002: 194. C. globosa (Southern Spain Valencia); C. globosa (Portugal: Algarve, Vilamoura) probably to refer to *C. algarvensis* n. sp.

Notes

Colaspidea nitida Lucas is here removed from synonymy and treated as a distinct species (see above).

Variation in morphology of median lobe of aedeagus is shown in Figure 10.

Colaspidea algarvensis n. sp. (Figures 4C,D, 11F-L, 16B)

Holotypus (♂) (Figure 4C,D). Portugal: Algarve, Caldas de Monchique, V-VI-1960, G. Fagel [printed white label]; Holotypus Colaspidea algarvensis n. sp. S. Zoia det. 2013 [printed red label] (IRSN).

Paratypi (133 exx.). Portugal: Bussaco Lusitan. (1♂, 1 ♀ NHMB; 1 ♂, 2 ♀♀ SZcoll); Portugal, Lissabon (1 NHMB); Port. Setubal, Serra de Arrabida 27.IV.1996, M. Bergeal leg. (3 ♂♂, 5 ♀♀ MSNM; 2 ♂♂, 1 ♀ SZcoll); E Portugal 28.4.96 P.N. Arrábida, Bastazo & Vela leg. (3 ♂♂, 2 ♀♀ MVcoll; 1 ♂, 1 ♀ SZcoll); Portugal, Evora (3 ♂♂, 7 ♀♀ NHMB; 1 ♂, 2 ♀♀ SZcoll); Evora, Portogallo (3 ♂♂, 4 ♀♀ MSNM; 1 ♂, 1 ♀ SZcol); Evora, Lu., Schatzmayr (1 ♂ MSNM); Evora (1 ♀ MSNG); Evora, Portogallo, Schatzmayr (1 ♂, 1 ♀ MSNG); Evora, Lu[glio] [1]910, Schatzmayr (3 ♂♂, 8 ♀♀ MSNG; 3 ♂♂, 2 ♀♀ SZcoll); Portugal, Evora (2 ♂♂, 1 ♀ MSNG); Portugal, Evora, 5.1910 Schatzm[air] (1 ♀ MSNG); Portogallo, Evora, A. Schatzmayr (1 ♀

MSNG; 1 ♂ MSNF); Portugal: Algarve, Caldas de Monchique, V-VI-1960, G. Fagel (1 ♂, 3 ♀♀ IRSN; 1 ♂, 1 ♀ SZcoll); Monchique (1 ♀ MSNM); Port., Algarve, Serra de Monchique Silves 26.IV.1996, M. Bergeal leg. (1 ♂, 2 ♀♀ MSNM; 1 ♀ SZcoll); Portugal, Algarve, Serra de Monchique, 500-900 m, 17.VII.1999, leg. B. & U. Arnold (1 ♀ SZcoll); Monchique (Algarbe) G. Schramm (6 ♂♂, 8 ♀♀ MSNG); Portimão (Algarbe) (3 ♀♀ MSNG); Portugal, Algarve, env. Loulé, H. Coiffait, VII.71 (1 ♀ MNHN); Portugal, Algarve, Sto Barbara de N., H. Coiffait IV.69 (1 ♀ MNHN); Port. Alentejo, Serra de Caldeiri Dogueno 26.IV.91, M. Bergeal leg. (1 ♂, 2 ♀♀ MSNM; 1 ♀ SZcoll); Portugal Castro Marim - Azinhal 23.3.91, Bastazo & Vela (1 ♂, 1 ♀ MVcoll; 1 ♂, 1 ♀ SZcoll);
Spain: Badajoz, mayo, ex Musaeo S. de Uhagon 1904 (5 ♂♂, 3 ♀♀ MNHN); Hispania 22.03.2002 Huelva, El Rompido, Bastazo & Vela leg. (3 ♂♂, 4 ♀♀ MVcoll; 1 ♂, 2 ♀♀ SZcoll); Hispania, Huelva, El Rompido 2/6/2002 Bastazo et Vela leg. (2 ♀♀ MVcoll); Hispania mer., Huelva 1.04.1999 Aljaraque, Bastazo & Vela leg. (1 ♀ SZcoll); Las Cortecillas, Sevilla 23-V-90 M. Baena leg. (1 ♂ MVcoll); Pozuelo de Calatrava (Hisp. m.) J.M. Fuente (1 ♂, 2 ♀♀ ZISP).

Other examined material (not in paratypes)

Hispania (1 ♂ MNHN); Hispania Ghiliani 834 (1 ♂ MNHN).

Diagnosis

A species of *Colaspidea* related to *C. globosa* (Küster, 1848), mainly differing in the shape of aedeagus and in the morphology of spermatheca, with not spiralled ductus spermathecae.

Description

Habitus as in Figure 4C,D; body length of the holotype 2.8 mm, of the paratypes 3.2 mm (♂), 2.8-3.2 mm (♀♀).

Body dark, with metallic golden and bluish reflections; head, pronotum and elytra dark, with bronze metallic reflections; labrum, mandibles and palpi reddish; antennae reddish, antennomeres 7th to 11th somewhat darkened distally; legs uniformly reddish, lightly metallic at knees.

Frons convex, longitudinally impressed in middle; pubescence of frons and clypeus relatively long, thin, silvery, scattered; punctation moderately fine, stronger on clypeus, sparse; surface between punctures with evident microreticulation; clypeus not separated from the frons, transversely convex, its distal border in a wide arch. Penultimate article of maxillary palp nearly so long as wide, the ultimate conical, nearly 1.7 times longer than the penultimate. First antennomere nearly twice longer than wide, 1.8 the second in length and nearly 1.5 times in diameter, feebly bent on the outer side; second 1.5 times longer than wide; third 1.3 times longer than the second, 2 times longer than wide; fourth and fifth subequal, a little shorter than the third; sixth so wide as the fifth and a little shorter; seventh to tenth more than two times longer than wide, moderately widened, the seventh the widest, less than 1.5 times wider than the sixth; eleventh twice longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.7-1-1.1-1.2-1.2-1-1.5-1.4-1.4-1.4-1.8.

Pronotum 1.3 times wider than long (1.3×1.0 mm in the holotype), the maximum width nearly at mid-length; the base a little wider than the distal edge, both finely bordered; lateral margin bordered throughout, regularly bent; distal angles feebly produced outwards, with setal insertion shortly above the lateral margin; surface with sparse punctation and strong microreticulation; pubescence long and thin, sparse, silvery.

Scutellum rounded, not punctured, with very fine microreticulation, bare.

Hypomeron shiny, smooth, with sparse punctures bearing fine silvery hairs; distal margin of prosternum nearly straight in middle, slightly protruding, of the hypomera feebly convex; notosternal suture deep; prosternum 1.5 times longer than wide between the coxae, feebly convex, strongly punctate, with sparse silvery pubescence.

Mesoventrite short, a little narrower than prosternum between the coxae, its distal edge nearly straight, surface punctured, with fine sparse pubescence; mesoepimera with evident microreticulation, not punctured, bare.

Metaventrite finely punctured, with silvery pubescence, distal border incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 3.5 times longer than wide, sparsely punctured and pubescent.

Elytra regularly and strongly convex, nearly so long as wide (in the holotype: length 1.6 mm, maximum width 1.6 mm, width at base 1.2 mm); humeri vanished; elytral sides regularly bent, widening from the base up to nearly half their length; the lateral border visible from above near the elytral base only; apices in a right angle; punctation relatively strong, stronger than on pronotum, sparse; surface smooth on elytral discus, where the distance between two adjacent punctures is nearly so wide as the diameter of a puncture; punctures are closer, less distinct and surface somewhat rugose on the elytral sides and sometimes near the elytral base too; pubescence moderately long, thin, sparse, silvery. Epipleura gradually tapering to rear, smooth, near the elytral base with a few punctures and some short hairs.

Legs as in Figure 4C; femora unarmed, moderately swollen; tibiae nearly straight, with a fine silvery pubescence. First segment of pro- and mesotarsi a little widened in males, slightly wider than the second tarsomere. Claws bifid, with the inner tooth shorter, the division starting at the basal third of the claw (meso- and metatarsi) or in the distal half (protarsi in males).

Dorsal side of abdomen moderately sclerotized, pygidium fully sclerotized; abdominal ventrites punctured, with a fine microreticulation and fine silvery pubescence.

Aedeagus as in Figure 11F-K, with a more or less pronounced asymmetry of the median lobe in dorsal view. When not everted, aedeagus was always observed laiding on the right half of abdomen (in *globosa*, aedeagus laids on the left side of abdomen)

Spermatheca as in Figure 11L; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

The name refers to Algarve region, Southern Portugal.

Notes

For the absence of humeral calli, body size, elytra without a transversal impression on the basal third, shape and punctation of pronotum and habitus, *Colaspidea algarvensis* n. sp. well resembles *C. globosa* (Küster, 1848), and can not be confused with other known species of *Colaspidea*. The two species differ at a first sight in having *C. globosa* a shorter body, with silvery metallic reflections and a feeble golden-reddish metallic hue (bronze in *C. algarvensis* n. sp.), and closer, more evident whitish pubescence; in *C. globosa*, antennomeres 7th to 11th are somewhat darker, legs are darker with a more or less evident metallic hue on the femora and sometimes dark brown tarsi. Clear differences are shown in the morphology of aedeagus, slender and clearly asymmetric in *C. algarvensis* n. sp. (Figure 11F,G,J,K), stouter in *C. globosa* (Figures 10, 11A,B). Spermatheca of *C. globosa* (Figure 11E) is bigger, with a rounded basal chamber, well distinct from the main body of the spermatheca; in *C. algarvensis* n. sp. (Figure 11L) this chamber is smaller, shortly conical; ductus spermathecae is closely spiralled all along its length in *C. globosa*, while it is folded a few times in *C. algarvensis* n. sp.

I examined a few specimens labeled *Toscana Italia* (1 ♂ NHMB) and *Corf* (1 ♂, 1 ♀ ZISP): for lack of further confirmation, in both cases I suppose a mistake in labelling.

Colaspidea juengeri Doguet, 1988 bona sp. (Figures 4E,F, 11M-Q, 16B)

Colaspidea metallica juengeri Doguet, 1988: 302.

Holotypus (♂ - examined) (Figure 4E,F). Korfu/Griechenl. 15.4/9.5.1976, Blüten, leg. Zimmermann (SDcoll).

Paratypus (♂ MDcoll - examined). Sicilia, Palermo, M. Pellegrino III/904, Destefani.

Examined material

Italy: Sicilia: Sicilien (1 ♀ NHMB); Caltagirone Siz., bosco S. Pietro 29.4.42 Leg. Frey (1 ♂, 3 ♀♀ NHMB); Mesolongion Graecia occ. (1 ♂, 2 ♀♀ NHMB; 1 ♂ SZcoll); Sicilia (Palermo) 530 m, Montelepre: P.lla Impiso, 1.V.2000 (38°06'N 13°12'E) S. Zoia e F. Polese legg. (45 ♂♂, 56 ♀♀ SZcoll); Sicilie (1 ♂, 2 ♀♀ MDcoll); Sicilia, Baudi (1 ♂, 1 ♀ MSNG).

Notes

C. juengeri was described as a subspecies of *C. metallica*; by my point of view, edeagic characteristics justify a separation of this taxon at species level. In *C. juengeri*, median lobe of aedeagus (Figure 11M,N) is shorter than in *C. metallica*, its apex is longitudinally folded with upturned sides (as a shovel), and it looks wider before apex in lateral view. In *C. metallica*, medial lobe has flat apex dorsally, apex is thin and slightly sinuate in lateral view (Figure 9F,G). Moreover, elytral pubescence in *C. juengeri* is always more evident and longer than in *C. metallica*.

Available specimens from Corfu, Sicily and Mesolongion (Greece) show no valuable differences each other. Specimens are usually metallic bronze, shiny on dorsum, surface of pronotum is nearly polished between punctures, with hardly visible microsculpture; on the contrary, several specimens from Portella Impiso (Montelepre, Northern Sicily) have metallic green elytra with denser pubescence, and surface of pronotum nearly dull for the presence of evident microreticulation between punctures.

Gruev (1993) reports *C. metallica juengeri* from Greece (Ionian Islands), giving no specific localities.

Colaspidea ovulum Fairmaire, 1866 (Figures 2A,B, 4G,H, 12A-H, 16B)

Holotypus (♂ - examined). - [Algérie (Fairmaire, 1866)]; 159 [printed white label]; Dia ovulum n. sp. [handwritten white label]; Muséum Paris 1906 coll. L. Fairmaire [printed white label] (MNHN).

Examined material

[no locality] (1 ♂, 3 ♀♀ MNHN - coll. Fairmaire); Algeria: Algerie, Ancey, Ex Musaeo Marquet 1900 (1 ♀ MNHN); Algerie (2 ♂♂, 1 ♀ MDcoll); Algeria, Merkl (2 ♂♂ MSNG); Teniet el H., Bedel (1 ♂, 13 ♀♀ MNHN; 1 ♀ NHMB; 3 ♀♀ SZcoll); Teniet el Haad Algier (1 ♀ NHMB); Teniet el H. Algeria (2 ♀♀ NHMB; 1 ♀ SZcoll); Teniet el H. (1 ♂ NHMB); Téniet, Dr Martin (2 ♂♂, 3 ♀♀ MNHN; 2 ♀♀ NHMB; 1 ♂, 1 ♀ SZcoll); Téniet (1 ♂, 1 ♀ MNHN; 1 ♂, 1 ♀ SZcoll); Teniet, Algérie M. Pic 76-97 (2 ♂♂ MNHN); Teniet 10-5-[18]55, 1930 coll. Sicard (1 ♂, 2 ♀♀ MNHN); Téniet (P. Cèdres) Desbrochers 1889 (1 ♀ MDcoll); Teniet el Haad, ex coll. L. Gavoy (1 ♂ MSNG); Algerie, Teniet (1 ♂, 1 ♀ MSNM; 1 ♀ SZcoll); Prov. d'Alger, Teniet el Haad, de Vauloger (1 ♂, 3 ♀♀ MNHN); Teniet (2 ♀♀ SDcoll); Algerie, Ouarsenis, Teniet El Had (2 ♀♀, 1 ♀ SDcoll); Province d'Alger (1 ♂ MSNM); Alger (1 ♂, 1 ♀ MNHN; 1 ♂ MSNM); G. de Kabylie, forêt d'Akfadou, Tala Kitan, 1100 m, 18.V.1953 G. Fagel (1 ♀ NHMB).

Literature data

Lefèvre, 1876: 17. *C. ovulum* (Algérie).

Desbrochers des Loges, 1898-99: 43. *C. ovulum* (Teniet, Médéah, Constantine); I examined no material from Médéah, *C. ovulum* from Constantine could be to refer either to *C. inflata* or to *C. maghrebina* n. sp.; *C. inflata* (Teniet) could be to refer to *C. ovulum*.

Notes

The exact origin of type specimen is unknown, being reported generically from Algérie by Fairmaire (1866). Between examined male specimens, only one perfectly matchs the type (Figure 12A,B) in aedeagic characteristics: it is preserved in Fairmaire's collection (MNHN), on a pin with three ♀♀, and bears no locality indication at all.

A larger series of specimens collected in Teniet el Haad (Algeria) differs in having a stouter aedeagus, with a wider tip (Figure 12E,F).

Body length: ♂ holotype 2.5 mm, ♂♂ 2.4-3.4 mm, ♀♀ 2.5-3.3 mm. Pronotum of holotype 1.9 times wider than long (1.3×0.7 mm), elytra nearly so long as wide (1.7 mm long, 1.3 mm wide at humeri, maximum width 1.7 mm). Body dark with metallic green reflections; head and pronotum dark metallic bluish or greenish, elytra dark metallic green, more rarely metallic bronze or with a bluish hue.

Colaspidea inflata Lefèvre, 1876 (Figures 4I,J, 12I-O, 16B)

Holotypus (♂ - examined) (Figure 4I,J). Constantine [printed white label]; Type [printed white label]; Ex Musaeo Lefèvre 1894 [printed white label]; inflata Ed. Lef. [handwritten white label] (MNHN).

Examined material

Algeria: Algérie, D.r Thiébault (3 ♂♂, 3 ♀♀ MNHN); Algeria (1 ♀ MDcoll); Oran, Ex Musaeo L. Reiche (1 ♀ MNHN); Alg. El Ançor, Oran, S. Doguet, 4.4.88, touffes de Thym (1 ♀ SDcoll); Massif des Mouzaia (2 ♀♀ MNHN); Alger, Ex Musaeo E. Allard 1899 (1 ♂ MNHN); Kabilie, Dr. Martin (1 ♀ MNHN); Kabylie ...?..., Ex Musaeo A. Carret 1908 (3 ♂♂, 1 ♀ MNHN); Algerie, Pte Kab. Akfadou, Adekar-Tebouche, 26.6.[19]79, S. Doguet (1 ♀ MSNM; 2 ♀♀ SDcoll; 1 ♂ SZcoll); Algeria, Kabylie, Ft. d'Akfadou m 1000, 4/7.VI.1980, G. Sama - G. Magnani (1 ♂ MDcoll; 1 ♀ MSNM); Yakouren, Dr. Martin (1 ♂, 2♀♀ MNHN; 1 ♀ SZcoll); G. de Kabylie: Yakouren, 700-850 m, V.1953 G. Fagel (1 ♀ NHMB); Philippeville, Algérie, A. Thery (1 ♀ MNHN); Philippeville, Ex Musaeo L. Reiche (1 ♀ MNHN); Bône (1 ♂ MNHN; 1 ♂ SZcoll); Constantine, Ex Musaeo Lefèvre 1894 (5 ♂♂, 2 ♀♀ MNHN); Constantine (6 ♂♂, 9 ♀♀ MNHN; 1 ♂ NHMB; 3 ♂♂, 2 ♀♀ SZcoll); Constantine Oran (1 ♂, 1 ♀ NHMB; 1 ♂ SZcoll); Constantine, H.t Djeb. Ouasch, coll. J. Chatanay 1914, 4.III.1910 (3 ♀♀ MNHN); Aïn Seur, Dr. Martin (1 ♂, 3 ♀♀ MNHN; 1 ♂, 1 ♀ SZcoll); Dj. Ouach, L. Clouet des Pesruches, à Medjez-Amar, Algérie (1 ♂ SDcoll).

Literature data

Desbrochers des Loges, 1898-99: 43. *C. ovulum* (Constantine) could be to refer either to *C. inflata* or to *C. maghrebina* n. sp.; *C. inflata* (Teniet) could be to refer to *C. ovulum*.

Notes

Body length: ♂ holotype 2.5 mm, ♂♂ 2.5-3.0 mm, ♀♀ 2.4-3.1 mm. Pronotum of holotype 2.1 times wider than long (1.5×0.7 mm), elytra a little wider than long (1.8 mm long, 1.6 mm wide at humeri, maximum width 1.9 mm). Body dark with metallic bluish reflections; head and pronotum dark metallic bronze or bluish, elytra dark metallic bronze (type) or greenish.

Based on examed material, *C. inflata* and *C. maghrebina* n. sp. are sympatric in Algeria (Constantine); the two species were not distinguished up to now and ranged under the first name in collections. *C. inflata* differs in the more transverse pronotum, and in morphology of aedeagus.

Colaspidea incerta n. sp. (Figures 4K,L, 13A-D, 16C)

Holotypus ♂ (Figure 4K,L). Yakouren, Dr. Martin [printed white label]; *Colaspidea incerta* n. sp. S. Zoia det. 2013 [printed red label] (MNHN).

Diagnosis

A species of *Colaspidea* belonging to the *metallica* group, strictly related to *C. inflata* from which it mainly differs in shape of median lobe of aedeagus, which has clearly wider tip and sinuate sides. In Yakouren both *C. incerta* n. sp. and *C. inflata* occur.

Description

Habitus as in Figure 4K,L; body length of the ♂ holotype 3.0 mm.

Body dark, with metallic blue and bronze reflections; head and pronotum metallic green, darker on ♀♀, with some bronze reflection; elytra metallic green; labrum, mandibles, palpi and legs reddish; antennal segments reddish, usually antennomeres 7th to 11th somewhat darkened.

Frons convex, with an oblong feeble impression in middle; frons and clypeus with fine scattered whitish pubescence and fine and spaced punctation; surface between the punctures with dense microreticulation; clypeus not separated from frons, nearly flat, with spaced and moderately strong punctures, its distal border feebly arched. Penultimate article of maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly two times the penultimate in length. First antennomere nearly 1.8 times longer than wide, 1.5 the second in length and nearly three times in diameter; second 3 times longer than wide; third longer than the second, 4 times longer than wide; fourth and fifth subequal, a little shorter than the third; sixth the shortest; seventh nearly two times longer than wide; eighth to tenth subequal, a little shorter than the seventh; eleventh two times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.8-1.3-1.4-1.1-1.1-1-1.4-1.3-1.4-1.4-2.

Pronotum 1.9 times wider than long (1.7×0.9 mm), the maximum width at the basal fourth (♂); pronotal base finely bordered throughout, wider than the distal edge; distal edge smooth in middle, distinctly bordered at sides; lateral margin bordered throughout, regularly bent; distal angles poorly produced outwards, with a setal insertion at a level of the lateral margin; surface with sparse, moderately strong or fine punctation and distinct microreticulation; pubescence sparse, whitish, thin, absent on pronotal discus, very fine at pronotal sides.

Scutellum impunctate, smooth, bare, metallic bluish.

Hypomeron shiny, smooth, with a few punctures and fine microreticulation, with fine white pubescence distally; distal margin of prosternum lightly concave, bordered, of hypomera feebly convex; notosternal suture impressed distally; prosternum 1.4 times longer than wide between coxae, slightly convex, strongly punctate, with white pubescence.

Mesoventrite short, nearly so wide as prosternum between coxae, surface punctured, with a white pubescence; mesoepimera with fine microreticulation.

Metaventrite punctured subrugose, with fine white pubescence, distal border lightly incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 3 times longer than wide, punctured, with fine pubescence and microreticulation.

Elytra regularly and strongly convex, oval, slightly longer than wide (length 2.0 mm, maximum width 2.2 mm, width at base 1.7 mm); humeri vanished; elytral sides regularly bent, widening from base up to less than half elytral length; lateral border visible from above in basal fourth; apices in a slightly acute angles; punctation relatively strong on discus, distance between two adjacent punctures nearly so wide as diameter of a puncture, surface smooth, shining, with light microeticulation; on apical slope punctation is closer and partially confused with stronger microreticulation; pubescence white, very fine, short and scarce. Epipleura moderately wide at base, gradually tapering to rear.

Legs as in Figure 4K; femora unarmed, moderately swollen; tibiae gradually widened distally; protibiae distinctly bent, meso- and metatibiae nearly straight, all with a fine white pubescence. Pro- and mesotarsi distinctly widened, first segment the widest, first protarsomere nearly so wide as apex of tibia. Claws bifid, with the inner tooth short, the division starting at the basal third of the claw (meso- and metatarsi) or at its middle (protarsi).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclerotized; abdominal ventrites punctured, with evident microreticulation and moderately long white pubescence.

Aedeagus as in Figure 13A,B; wider at basal third of median lobe, with sides distinctly sinuate and more strongly sclerotized at sides of ostium, apex wide.

Female unknown.

Derivatio nominis

From the Latin adjective *incertus* (uncertain): at a first sight, I was doubtful about the opportunity to describe this taxon based on a single specimen. Yet, by my point of view, its peculiar aedeagic characteristics fully justify the choiche to describe it as a distinct species.

Colaspidea dogueti n. sp. (Figures 5A,B, 13E-I, 16C)

Holotypus ♂ (Figure 5A,B). - Algérie, Massif du Djudjura - Tikdja, 19 5 1970 S. Doguet [printed white label]; Colaspidea dogueti n. sp. S. Zoia det. 2013 [printed red label] (MNHN).

Paratypi (6 exx). Algérie, Massif du Djudjura - Tikdja, 19 5 1970 S. Doguet (4 ♂♂, 1 ♀ SDcoll; 1 ♂ SZcoll).

Diagnosis

A species of *Colaspidea* belonging to the *metallica* group, strictly related to *C. inflata* from which it mainly differs in shape of the median lobe of aedeagus, which has a nearly triangular tip with straight sides. *C. dogueti* n. sp. differs from both *C. incerta* n. sp. and *C. inflata* in the thicker lateral border of pronotum, which is shortly interrupted distally, so that it doesn't reach the pronotal distal angles. Moreover it differs from *C. incerta* in its smaller size.

Description

Habitus as in Figure 5A,B; body length of the ♂ holotype 2.7 mm, of the paratypes 2.5-2.7 mm (♂♂), 2.9 mm (♀).

Body dark, with metallic greenish reflections; head, pronotum and elytra dark blue or green, metallic, shiny in ♂♂, duller in ♀; labrum, mandibles, palpi and legs reddish; antennal segments reddish, usually antennomeres 7th to 11th somewhat darkened apically.

Frons convex, with an oblong impression in middle; frons with moderately strong, scattered and spaced punctation and whitish, thin, relatively long pubescence; surface between the punctures with dense microreticulation; clypeus not separated from frons, nearly flat, with spaced and moderately strong punctures, its distal border feebly impressed in middle. Penultimate article of maxillary palp relatively short, nearly so long as wide, the last conical, nearly two times the penultimate in length. First antennomere nearly 1.5 times longer than wide, 1.5 the second in length and nearly 2.5 times in diameter; second 3 times longer than wide; third longer than the second, 4 times longer than wide; fourth and fifth subequal to the third; sixth the shortest; seventh nearly 1.5 times longer than wide; eighth to tenth subequal, a little shorter than the seventh; eleventh 1.7 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 2-1.3-1.1-1.1-1.1-1-1.6-1.5-1.5-1.5-1.6.

Pronotum 1.8 times wider than long in ♂♂ (1.4×0.8 mm in the holotype), 1.6 times wider than long in ♀, the maximum width at basal third; pronotal base finely bordered throughout, wider than distal edge; distal edge distinctly bordered at sides only; lateral margin regularly bent, with a relatively thick border which ends shortly before the distal angles of pronotum; distal angles poorly produced outwards, with a setal insertion at a level of lateral margin; surface with sparse, fine punctation and distinct microreticulation; pubescence sparse, whitish, thin, scarce on pronotal discus, more evident on pronotal sides.

Scutellum impunctate, smooth, bare, metallic bluish.

Hypomeron shiny, smooth, with fine microreticulation, with fine white pubescence distally; distal margin of prosternum lightly concave, bordered, of hypomera feebly convex; notosternal suture impressed distally; prosternum 1.7 times longer than wide between coxae, slightly convex, strongly punctate, with white pubescence.

Mesoventrite short, thinner than prosternum between coxae, surface finely punctured; mesoepimera with fine microreticulation.

Metaventrite punctured subrugose, with fine white pubescence, distal border lightly incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 3 times longer than wide, punctured, with fine, moderately long pubescence and microreticulation.

Elytra regularly and strongly convex, oval, nearly so long as wide (in holotype: length 1.9 mm, maximum width 1.8 mm, width at base 1.4 mm); humeri vanished; elytral sides regularly bent, widening from base up to less than half elytral length; lateral border visible from above only near elytral base; apices in a nearly right angle; punctation on discus relatively fine, distance between two adjacent punctures so wide as, or a little wider than diameter of a puncture, surface smooth, shining in ♂♂, less so in ♀, with light but evident microeticulation; on apical slope punctation is partially confused with a stronger microreticulation; in ♂♂, a white, fine, short pubescence is present on elytral apical slope only; in ♀ a somewhat longer pubescence is present nearly on the whole elytral surface. Epipleura wide at base, gradually tapering to the distal apices of metaepisterna, very thin from that point to the elytral apices.

Legs as in Figure 5A, slender; femora unarmed, moderately swollen; tibiae gradually widened distally; protibiae feebly bent, meso- and metatibiae nearly straight, all with a fine white pubescence. Pro- and mesotarsi distinctly widened in ♂, 1st segment nearly so wide as the 2nd, first protarsomere nearly so wide as apex of tibia. Claws bifid, with the inner tooth short, the division starting at basal third of the claw (meso- and metatarsi) or at its middle (male protarsi).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclerotized; abdominal ventrites punctured, with evident microreticulation and moderately long white pubescence.

Aedeagus as in Figure13E,F; wider at basal third of median lobe, with sides nearly straight and regularly restricted, the apex distinctly more restricted in a triangle.

Spermatheca as in Figure 13I; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

I am pleased naming this species after Serge Doguet, who collected the examined specimens and whose description of *C. juengeri* is the only recent contribution to the knowledge of the Mediterranean *Colaspidea*.

Colaspidea pallidipes n. sp. (Figures 5C, 13J-N, 16C)

Holotypus ♂ (Figure 5C,D). - Bou Skoura, Mar.[Morocco] 30.3.35 [printed white label]; Colaspidea pallidipes n. sp. S. Zoia det. 2013 [printed red label] (NHMB).

Paratypi (21 exx). Morocco: Tanger, Maroc (1 ♀ SZcoll); Maroc, Tanger, Ex Musaeo A. Carret 1908 (1 ♀ MNHN); Martin Tetuan, Mar. [Morocco] s. 11.5.33 (1 ♀ SZcoll); O.[Oued] Melha 13-2-77, ex coll. Olivella (Casablanca) (1 ♂, 2 ♀♀ RRcoll; 1 ♀ SZcoll); Maroc, Sebou, A. Théry (1 ♂ MNHN); Sale, Mar., 5.4.33 (1 ♀ NHMB); Rabat 6.[18]98, Maroc, ex Museo H. Vaucher 1908 (1 ♂ MNHN); Maroc, Rabat, A. Théry (1 ♂ SZcoll); Mamora, Maroc, Coll. Thery (2 ♀♀ MNHN); Foret de Mamora, Environs de Salé, Maroc, ex Musaeo H. Vaucher 1908 (2 ♀♀ MNHN); [Casablanca] O.[Oued] Nefifikh 10-4-77, ex coll. Olivella (Casablanca) (1 ♀ RRcoll); Mogador, Maroc, Coll. Thery (1 ♂ MNHN); Bou Skoura, Mar.[Morocco] 30.3.35 (1 ♂ NHMB; 2 ♂♂ SZcoll); Marocco, Chefchaouen Prov., loc. Bab Berred dint., 16.V.2013, M. Montagna leg. (1 ♀ MMcoll). Spain: Cadiz, Thiere Andalusiens, Rosenhauer (1 ♂ MNHN).

Diagnosis

A species of *Colaspidea* belonging to the *metallica* group, characteristic in its small size and in the peculiar shape of median lobe of aedeagus.

Description

Habitus as in Figure 5C,D; body length of the ♂ holotype 2.1 mm, of the paratypes 2.1-2.6 mm (♂♂), 2.0-2.6 mm (♀♀).

Body dark, with metallic bronze and greenish reflections; head, pronotum and elytra dark, bronze metallic, sometimes with bluish or golden reflections, some specimens with metallic green elytra; labrum, mandibles, palpi, antennae and legs reddish; sometimes antennomeres 7th to 11th somewhat darkened.

Frons convex, longitudinally impressed in middle; pubescence of frons and clypeus long, whitish, scattered; punctation moderately strong, somewhat finer on clypeus, sparse, spaced; surface between the punctures strongly microreticulated; clypeus not separated from frons, nearly flat, its distal border in a wide arch. Penultimate article of maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly two times the penultimate in length. First antennomere nearly 2 times longer than wide, 1.6 the second in length and nearly 2 times in diameter, impressed on the outer side; second 2 times longer than wide; third as long as the second, 2.5 times longer than wide; fourth and fifth subequal, a little longer than the third; sixth the shortest; seventh 2 times longer than wide; eighth to tenth subequal, shorter than the seventh; eleventh 2 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.7-1.1-1.1-1.1-1.3-1-1.6-1.4-1.5-1.4-1.9.

Pronotum 1.5 times wider than long (0.9×0.6 mm in holotype), the maximum width shortly before the base of pronotum (holotype) or in the basal third (some paratypes); base finely bordered, wider than distal edge; distal edge finely bordered; lateral margin bordered throughout, regularly bent; distal angles feebly produced outwards, with setal insertion at a level of lateral margin; surface with sparse punctation and strong microreticulation; pubescence long and thin, sparse, white.

Scutellum triangular, not punctured or with a few very small punctures, and very fine microreticulation, bare.

Hypomeron shiny, with a very fine microreticulation and sparse punctures bearing fine white hairs; distal margin of prosternum straight in middle, bordered, of hypomera convex; notosternal suture deep, curved; prosternum 1.7 times longer than wide between coxae, slightly convex, punctate, with long white pubescence.

Mesoventrite short, nearly so wide as prosternum between coxae, its distal edge nearly straight, surface punctured, with a white sparse pubescence; mesoepimera with evident microreticulation and a few punctures with pubescence.

Metaventrite finely punctured, with white pubescence, distal border incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 3 times longer than wide, sparsely punctured, pubescent, with a fine microreticulation.

Elytra regularly and strongly convex, oval, nearly so wide as long or a little longer than wide (in the holotype: length 1.3 mm, maximum width 1.3 mm, width at base 1.0 mm); humeri vanished; elytral sides regularly bent, widening from base up to nearly one third elytral length; the lateral border visible from above near elytral base only; elytral sides, in lateral view, bent at level of the distal third of mesoepimera; apices in a right angle; punctation moderately strong, stronger than on pronotum, finer on apical slope, sparse; distance between two adjacent punctures nearly so wide as diameter of a puncture on elytral discus; surface smooth between punctures, with a hardly visible microsculpture; pubescence moderately long, thin, sparse, white. Some populations are characterized by the presence of three more or less evident, not punctured, glabrous longitudinal strips on elytral surface. Epipleura wide at base, gradually restricted till the level of distal third of metaepisterna, very thin from that point and vanishing toward elytral apex.

Legs as in Figure 5C; femora unarmed, moderately swollen; tibiae distinctly widened distally in males; protibae slightly bent, meso- and metatibiae nearly straight, with a fine white pubescence. Pro- and mesotarsi moderately widened in male, tarsomeres 1st to 3rd subequal in width. Claws bifid, with inner tooth shorter, division starting at basal third of the claw (meso- and metatarsi) or at its middle (protarsi in males).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclero-

tized; abdominal ventrites punctured, with a fine microreticulation and fine white pubescence.

Aedeagus as in Figure 13J,K, with apex of median lobe truncated and impressed in middle.

Spermatheca as in Figure 13N; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

The name refers to the light reddish color of legs.

Colaspidea confinis n. sp. (Figures 5E,F, 14A-E, 16C)

Holotypus ♂ (Figure 5E,F). Nemours [Western Algeria], Dr Martin [printed white label]; Dia [handwritten white label]; Museum Paris 1938 J. Berlioz [printed + handwritten white label]; Colaspidea confinis n. sp. S. Zoia det. 2013 [printed red label] (MNHN).
Paratypi (8 exx). Nemours, Dr Martin (1 ♂, 4 ♀♀ MNHN; 1 ♂, 1 ♀ SZcoll); L[alla] Marnia [=Maghnia], Dr Martin [Algeria] (1 ♀ MNHN).

Other examined material (not in paratypes)

[without any label] (1 ♂, 1 ♀ MNHN).

Diagnosis

A species of *Colaspidea* belonging to *metallica* group, characteristic in peculiar shape of median lobe of aedeagus and in bilobed basal part of spermatheca.

Description

Habitus as in Figure 5E,F; body length of ♂ holotype 2.6 mm, of paratypes 2.2-2.7 mm (♂♂), 2.5-3.0 mm (♀♀).

Body dark, with metallic bronze and greenish reflections; head, pronotum and elytra dark, metallic bronze, sometimes with feeble reddish or golden reflections; labrum, mandibles, palpi and legs reddish; antennal segments 1st to 6th yellowish or pale reddish, antennomeres 7th to 11th reddish, somewhat darkened distally.

Frons convex, longitudinally impressed in middle, impression widened in a V-shape toward the frontoclypeus; frons nearly bare in middle, sides of frons and clypeus with fine scattered whitish pubescence; punctation fine, stronger on clypeus, sparse, spaced; surface between punctures with evident microreticulation; clypeus not separated from frons, nearly flat, its distal edge feebly arched. Penultimate article of maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly 2 times the penultimate in length. First antennomere nearly 1.6 times longer than wide, 1.6 the second in length and nearly twice in diameter; second 2 times longer than wide; third longer than the second, 2.5 times longer than wide; fourth and fifth subequal, a little longer than the third; sixth the shortest; seventh nearly 2 times longer than wide; eighth to tenth subequal, shorter than the seventh; eleventh 2 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.8-1-1.5-1-1.1-1-1.6-1.5-1.3-1.5-1.8.

Pronotum 1.5/1.6 times wider than long (1.4×0.9 mm in the holotype), the maximum width near midlength of pronotum, or in the basal third (in a paratype); base finely bordered, a little wider than distal edge; distal edge finely bordered; lateral margin bordered throughout, regularly bent; distal angles feebly produced outwards, with setal insertion at a level of the lateral margin; surface with sparse punctation and evident microreticulation; pubescence moderately long and thin, sparse, white.

Scutellum triangular, with a few small punctures, and very fine microreticulation, bare.

Hypomeron shiny, with a very fine microreticulation and sparse punctures bearing fine white pubescence; distal margin of prosternum straight in middle, bordered, of hypomera convex; notosternal suture moderately deep; prosternum 1.5 times longer than wide between coxae, slightly convex, punctate, with long white pubescence.

Mesoventrite short, a little narrower than prosternum between coxae, its distal edge impressed in middle, surface punctured, with a white sparse pubescence; mesoepimera with evident microreticulation and sparse pubescence.

Metaventrite finely punctured, with white pubescence, distal border incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 2 times longer than wide, sparsely punctured, pubescent, with a fine microreticulation.

Elytra regularly and strongly convex, oval, a little longer than wide (in holotype: length 1.6 mm, maximum width 1.72 mm, width at base 1.35 mm); humeri vanished; elytral sides regularly bent, widening from base up to nearly half of elytral length; lateral border visible from above near the elytral base only; elytral sides, in lateral view, bent at level of the distal third of mesoepimera; apices in a slightly acute angle; punctation moderately strong, so strong as on pronotum, finer on apical slope, sparse; distance between two adjacent punctures nearly so wide as diameter of a puncture on elytral discus; surface smooth between punctures, without or with a hardly visible microsculpture; pubescence moderately long, thin, sparse, white. Epipleura wide at base, gradually restricted to the level of distal border of first abdominal ventrite, very thin from that point and vanishing toward elytral apex.

Legs as in Figure 5E; femora unarmed, moderately swollen; tibiae moderately widened distally; pro- and mesotibiae slightly bent, metatibiae nearly straight, with a fine white pubescence. Pro- and mesotarsi moderately widened in male, tarsomeres 1st to 3rd subequal in width, narrower than apex of related tibiae. Claws bifid, with inner tooth shorter, division starting at basal third of the claw (meso- and metatarsi) or at its middle (protarsi in males).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclerotized; abdominal ventrites punctured, with a fine microreticulation and fine white pubescence.

Aedeagus as in Figure 14A,B, apex of median lobe flat and widened at sides.

Spermatheca as in Figure 14E, with basal chamber partially divided into two lobes, the first with insertion of the spermathecal ductus, the second with insertion of spermathecal gland; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

The name *confinis* (bordering) refers to the geographic area where the specimens were collected, in Northwestern Algeria near the boundary with Morocco.

Colaspidea maura n. sp. (Figures 5G,H, 14F,J, 16C)

Holotypus ♂ (Figure 5G,H). 5.[18]94 Larache [handwritten white label]; Maroc ex Musaeo Vaucher 1908 [printed white label]; Colaspidea maura n. sp. S. Zoia det. 2013 [printed red label] (MNHN).
Paratypi (9 exx.). 5.[18]94 Larache, Maroc ex Musaeo Vaucher 1908 (1 ♂ SZcoll); idem, 5.[1]900 (1 ♀ SZcoll); idem, 2.[18]99 (2 ♀♀ MNHN); Museum Paris, Maroc, Collection Léon Fairmaire 1906 (2 ♂♂ MNHN); 8.[18]93, *Jad Kabir* [?handwritten, Arabic characters], Maroc ex Musaeo Vaucher 1908 (2 ♂♂ MNHN); Algérie, Ex Musaeo Lefèvre 1894 (1 ♂ MNHN).

Diagnosis

A species of *Colaspidea* belonging to the *metallica* group, characteristic in the peculiar shape of median lobe of aedeagus; it is strictly related to *C. maghrebina* from which it mainly differs in the shape of the aedeagal apex, with slightly sinuate sides and downwards directed tip.

Description

Habitus as in Figure 5G,H; body length of ♂ holotype 2.3 mm, of paratypes 2.1-2.2 mm (♂♂), 2.5 mm (♀♀).

Body dark, with metallic coppery and/or bluish reflections; head,

pronotum and elytra dark, metallic, with feeble coppery reflections, sometimes greenish; frontoclypeus sometimes with a distinct coppery hue; labrum, mandibles, palpi and legs reddish; antennal segments yellowish or pale reddish, usually antennomeres 7th to 11th somewhat darkened distally.

Frons convex, with a moderately wide longitudinal impression in middle; frons and clypeus with fine scattered whitish pubescence and fine spaced punctation; surface between punctures with evident microreticulation; clypeus not separated from frons, nearly flat, its distal border feebly arched. Penultimate article of maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly 2 times the penultimate in length. First antennomere nearly 1.6 times longer than wide, 1.5 the second in length and nearly 2 times in diameter; second 2 times longer than wide; third longer than the second, 2.5 times longer than wide; fourth and fifth subequal, a little longer than the third; sixth the shortest; seventh nearly 2 times longer than wide; eighth to tenth subequal, shorter than the seventh; eleventh 2 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 1.8-1.2-1.2-1.2-1.2-1-1.6-1.4-1.4-1.4-2.

Pronotum 1.5 times wider than long (1.1×0.7 mm in the holotype), the maximum width in basal third of pronotum (holotype), which is shortly restricted from that point toward the base; base distinctly bordered throughout, wider than distal edge; distal edge smooth in middle, finely bordered at sides; lateral margin bordered throughout, regularly bent; distal angles feebly produced outwards, with setal insertion at a level of lateral margin, or immediately above; surface with sparse punctation, stronger than on head, and evident microreticulation; pubescence moderately long and very thin, sparse, whitish.

Scutellum triangular, impunctate, smooth, bare.

Hypomeron shiny, with a very fine microreticulation and sparse punctures bearing fine white pubescence; distal margin of prosternum concave, bordered, of hypomera slightly convex; notosternal suture moderately deep; prosternum 1.6 times longer than wide between the coxae, slightly convex, punctate, with long white pubescence.

Mesoventrite short, slightly narrower than prosternum between coxae, its distal edge impressed in middle, surface punctured, with a white short pubescence; mesoepimera with fine microreticulation, bare.

Metaventrite punctured, with white pubescence, distal border incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 2 times longer than wide, nearly unpunctured, with very fine pubescence and microreticulation.

Elytra regularly and strongly convex, short, oval, so long as wide (in holotype: length 1.5 mm, maximum width 1.5 mm, width at base 1.1 mm); humeri vanished; elytral sides regularly bent, widening from base up to nearly half of elytral length; lateral border visible from above near elytral base only; apices in a slightly acute angle; punctation moderately strong, stronger and denser than on pronotum, finer and subrugose on elytral apical slope, sparse; distance between two adjacent punctures shorter than diameter of a puncture on elytral discus; surface between punctures smooth, without microsculpture; pubescence relatively short, thin, sparse, white. Epipleura wide at base, restricted to the level of distal border of metaepisterna, gradually tapering from that point toward elytral apex.

Legs as in Figure 5G; femora unarmed, moderately swollen; tibiae gradually widened distally; protibiae slightly bent in males, nearly straight in females, mesotibiae slightly bent, metatibiae nearly straight, with a fine white pubescence. Pro- and mesotarsi moderately widened in male, segment 1st the widest, the first protarsomere nearly so wide as apex of tibia. Claws bifid, with inner tooth shorter, division starting at basal third of the claw (meso- and metatarsi) or at its middle (protarsi in males).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclerotized; abdominal ventrites punctured, with fine microreticulation and fine white pubescence.

Aedeagus as in Figure 14F,G, with sides of median lobe gradually tapering to the apex of median lobe, apex with sides slightly sinuate and tip directed downwards.

Spermatheca as in Figure 14J, with the basal chamber well developed; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

The adjective *maura* refers to the ancient geographic name Mauritania, *i.e.* the area from the Atlantic coasts of Morocco to the provinces of Oran and Algeri.

Colaspidea maghrebina n. sp. (Figures 5I,J, 15, 16C)

Holotypus ♂ (Figure 5I,J). Constantine [printed white label]; Colaspidea maghrebina n. sp. S. Zoia det. 2013 [printed red label] (MNHN).

Paratypi (39 exx.). Constantine (18 ♂♂, 10 ♀♀ MNHN; 2 ♂♂, 2 ♀♀ SZcoll); Constantine Oran (1 ♂, 1 ♀ NHMB; 1 ♂ SZcoll); Bône (2 ♂♂, 1 ♀ MNHN; 1 ♂ SZcoll).

Other examined material (not in paratypes)

Rostrogordo, Melilla Marruecos, A. Cobos leg. (1 ♂ MSNM); Oran, Ex Musaeo Marquet 1900 (1 ♂, 1 ♀ MNHN; 1 ♀ SZcoll); Oran.coq (1 ♂, 1 ♀ MNHN; 1 ♂ SZcoll); Oran (Alg.) P. Nathim 99 (3 exx. ZISP); Oranais, L. Maghrina, Ex Musaeo A. Carret 1908 (2 ♂♂, 1 ♀ MNHN); [Algeria] Arzeu (1 ♂ MNHN); Algerie, Oran (3 ♂♂, 1 ♀ MSNG).

Diagnosis

A species of *Colaspidea* belonging to *metallica* group, characteristic in the peculiar shape of median lobe of aedeagus; it is strictly related to *C. maura* n. sp. from which it mainly differs in shape of aedeagus apex, regularly restricted and with tip not directed downwards. Distinct from *C. inflata* from the same locality in pronotum less transverse and more restricted toward base, less wide elytra and morphology of aedeagus.

Description

Habitus as in Figure 5I,J; body length of ♂ holotype 2.7 mm, of paratypes 2.5-3.0 mm (♂♂), 2.5-2.9 mm (♀♀).

Body dark, with metallic green (♂♂) or bronze (♀♀) reflections; head, pronotum and elytra metallic green (♂♂) or metallic dark green to bronze (♀♀); sometimes the region near the antennal insertion with a coppery hue; labrum, mandibles, palpi and legs reddish; antennal segments reddish, usually antennomeres 7th to 11th somewhat darkened.

Frons convex, with an oblong impression in middle; frons and clypeus with fine scattered whitish pubescence and fine spaced punctation; surface between punctures with strong dense microreticulation; clypeus not separated from frons, nearly flat, its distal border feebly arched. Penultimate article of maxillary palp relatively short, nearly so long as wide, the ultimate conical, nearly 2 times the penultimate in length. First antennomere nearly 1.7 times longer than wide, 1.5 the second in length and more than twice in diameter; second twice longer than wide; third longer than the second, 3 times longer than wide; fourth and fifth subequal, a little shorter than the third; sixth the shortest; seventh nearly 2 times longer than wide; eighth to tenth subequal, a little shorter than the seventh; eleventh 1.5 times longer than wide, a little longer than the tenth. Relative lengths of antennomeres (left antenna of holotype): 2.2-1.3-1.4-1.1-1.3-1-1.6-1.4-1.6-1.4-2.

Pronotum 1.6-1.7 times wider than long (1.4×0.8 mm in the holotype), maximum width at basal third (♂♂) or between the basal third and mid-length (♀♀); pronotal base finely bordered throughout, wider than distal edge; distal edge smooth in middle, finely bordered at sides; lateral margin bordered throughout, regularly bent; distal angles poorly produced outwards, with setal insertion at a level of lateral margin; sur-

face with sparse fine punctation and fine or moderately strong microreticulation; pubescence moderately long and thin, sparse, whitish, sometimes absent on discus, particularly in ♂♂.

Scutellum impunctate, smooth, bare.

Hypomeron shiny, with a fine microreticulation, punctured and with fine white pubescence distally; distal margin of prosternum lightly concave, bordered, of the hypomera feebly convex; notosternal suture moderately deep; prosternum 2.5 times longer than wide between coxae, slightly convex, punctate, with white pubescence.

Mesoventrite short, nearly so wide as prosternum between coxae, surface punctured, with white pubescence; mesoepimera with fine microreticulation.

Metaventrite punctured subrugose, with white pubescence, distal border lightly incised in middle; metacoxae more spaced than mesocoxae; metaepisterna tapering to rear, nearly 3 times longer than wide, finely punctured, with fine pubescence and microreticulation.

Elytra regularly and strongly convex, oval, slightly longer than wide, a little wider in males (in holotype: length 1.9 mm, maximum width 1.8 mm, width at base 1.4 mm); humeri vanished; elytral sides regularly bent, widening from base up to less than half elytral length; lateral border visible from above only at humeri; apices in a slightly acute angle; punctation moderately strong in ♂♂, with distance between two adjacent punctures wider than diameter of a puncture on elytral discus, surface smooth, shining, with light microeticulation on elytral sides and apical slope; punctation stronger and closer in ♀♀, microreticulation more evident and diffuse; pubescence white, fine and short in ♂♂, somewhat longer and closer in ♀♀. Epipleura moderately wide at base, gradually tapering to rear, very thin from mid-length to apex.

Legs as in Figure 5I; femora unarmed, moderately swollen; tibiae nearly straight, with a fine white pubescence; tibiae gradually widened distally, meso- and metatibiae wider near apex than protibie. Pro- and mesotarsi widened in male, segment 1st the widest, first protarsomere slightly wider than apex of tibia. Claws bifid, with inner tooth short, division starting near base of claw (meso- and metatarsi) or at its middle (protarsi in males).

Dorsal side of abdomen slightly sclerotized, pygidium fully sclerotized; abdominal ventrites finely punctured, with microreticulation and moderately long white pubescence.

Aedeagus as in Figure 15A,B, wider at base of median lobe, with sides feebly sinuate at mid-length, more sclerotized at sides of ostium, apex in a triangle with the tip nearly straight dorso-ventrally.

Spermatheca as in Figure 15E, with small basal chamber and thin apex; spermathecal gland moderately long; styli short, conical, sclerotized; spiculum gastrale long and thin; vagina without any sclerotization.

Derivatio nominis

The name refers to the geographic area of Maghreb, this species being collected inside this area, in Northern Morocco and Algeria.

Notes

Specimens from Oran region (not in paratype series) slightly differ from typical *C. maghrebina* n. sp. in on average smaller size [2.3-2.6 mm (♂♂), 2.3-3.1 mm (♀♀)], color of pronotum and elytra which is similar in both sexes (dark, metallic, with bronze reflections), more oblong body in males, a slightly different shape of median lobe of aedeagus (Figure 15F,G), spermatheca with a more developed receptacle and wider apex (Figure 15J).

Doubtful identifications

A ♀ labeled *Sicilien* (NHMB) seems strictly related, or cospecific with *C. ovulum*. No other specimens are available.

A ♂ labeled *Austria* (MNHN) is very alike *C. inflata*. The origin of this specimen is far from the other known localities for the genus, and particularly from the known distribution of the mentioned species. An accidental introduction could justify the finding.

A ♂ labeled *Var* (MSNM) can be identify as *C. maghrebina* n. sp., leaving doubts on its origin.

Catalogue

genus *Colaspidea* Laporte, 1833: 21; type species *Chrysomela aeruginea* Fabricius, 1792 (=*Chrysomela metallica* Rossi, 1790)
- *Plestya* Gistel, 1847: 404
- *Dia* Chevrolat in Dejean, 1836: 411; type species *Chrysomela aeruginea* Fabricus, 1792 (=*Chrysomela metallica* Rossi, 1790)

algarvensis n. sp. (Portugal, Spain)
confinis n. sp. (Algeria)
dogueti n. sp. (Algeria)
globosa (Küster, 1848) (Portugal, Spain, Southern France)
- *globata* L. Redtenbacher, 1858
- *abbreviata* Desbrochers des Loges, 1871

graeca n. sp. (Greece)
grossa Fairmaire, 1866 (Morocco)
incerta n. sp. (Algeria)
inflata Lefèvre, 1876 (Algeria)
juengeri Doguet, 1988 (Corfu, Sicily)
- *metallica juengeri* Doguet, 1988: 302.

maghrebina n. sp. (Algeria)
maura n. sp. (Morocco, Algeria)
metallica (Rossi, 1790) (*Chrysomela*) (Central Italy)
- *Chrysomela aeruginea* Fabricius, 1792
- *Dia sphoeroides* Fairmaire, 1862

nitida Lucas, 1846 (Corse, Central and Southern Italy, Sardinia, Sicily, Croazia, Corfu, Greece, Crete, Morocco, Algeria, Tunisia)
- *Dia oblonga* Fairmaire, 1862 n. syn.
- *nitida*: Lefèvre, 1876 pars
- *oblonga*: Weise, 1883 pars
- *oblonga albanica* Schatzmayr, 1923 n. syn.

ovulum Fairmaire, 1866 (Algeria)
pallidipes n. sp. (Morocco, Spain)
proxima (Fairmaire, 1862) (Dia) (Spain, Southern France, Northern and Central Italy, Croazia, Algeria, Tunisia)
- *nitida* Lucas, 1846, pars
- *nitida*: Lefèvre, 1876 pars
- *oblonga*: Weise, 1883 pars

Conclusions

At present Mediterranean *Colaspidea* comprehends sixteen strictly related taxa, very similar in morphology and color. Closeness of species, together with an individual morphological variability inside each taxon, in many cases does not permit a correct identification of taxa without examination of the median lobe of aedeagus.

The highest species diversity is observed in Northern Africa and it is supposed a fragmentation of habitats could have had a main role in this. Nearly all examined species show more or less evident differences in exoskeletal, aedeagic and spermathecal characteristics in different populations; this is more evident in taxa having a wider distribution, as it can be expected in consideration of the morphological characteristics of *Colaspidea* together with their environmental demand and geographical aspects.

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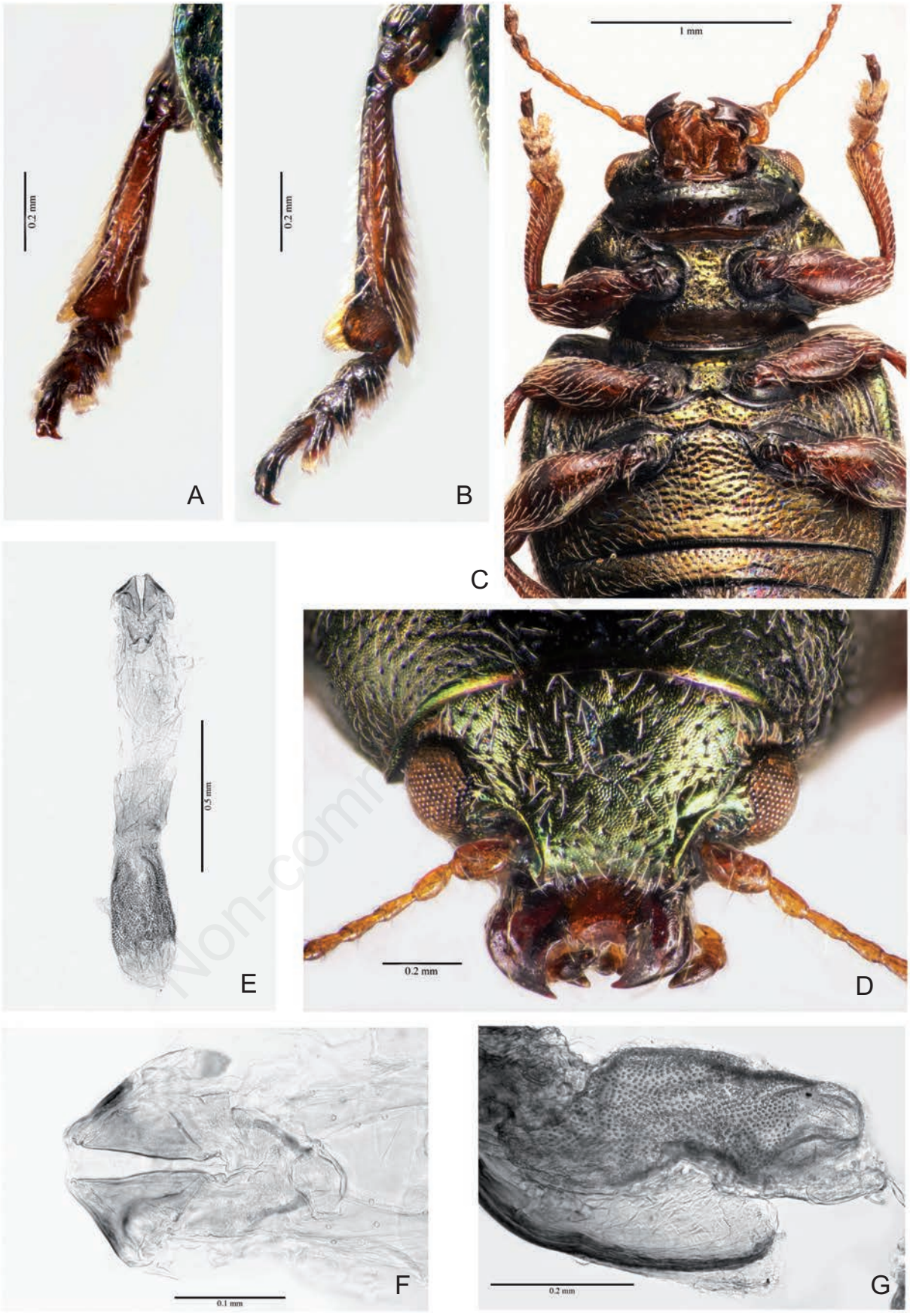

Figure 1. A) ***C. metallica*****, ♀ (Italy: Toscana), mesotibia and mesotarsus; B) idem, metatibia and metatarsus; C) idem, ventral view; D) idem, head; E)** ***C. nitida*****, ♂ (Italy: Puglia: Alimini Grande), endophallus, dorsal view; F) idem, distal portion of endophallus; G) idem, base of aedeagus and endophallus, lateral view.**

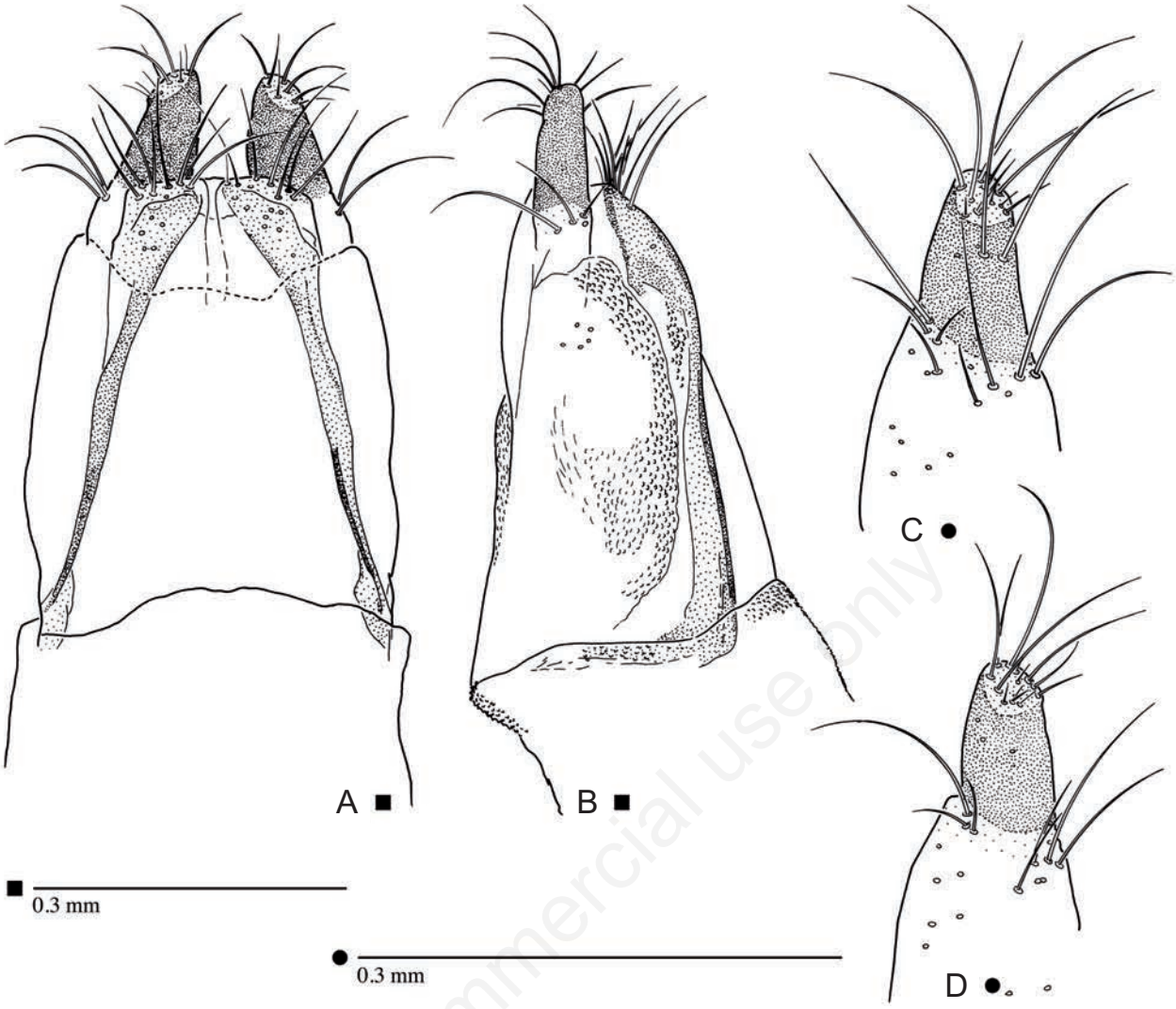

Figure 2. A) ***C. ovulum*****, ♀ (Algérie: Téniet), apical segment of ovipositor; B) idem, lateral view; C)** ***C. proxima*****, ♀ (Italy: Liguria: Punta Baffe), stylus; D)** ***C. nitida*****, ♀ (Italy: Sicilia: Mt Ciccia), stylus; E)** ***C. proxima*** **on** ***Cistus salvifolius*** **(France: Var: I. Porquerolles).**

Figure 3. Habitus, dorsal and lateral view, of: A,B) *C. nitida*, lectotype; C,D) *C. graeca* n. sp., holotype; E,F) *C. oblonga*, neotype (=*C. nitida*); G,H) *C. proxima*, syntype; I,J) *C. grossa*, syntype; K,L) *C. metallica*, type (scale bars=2 mm).

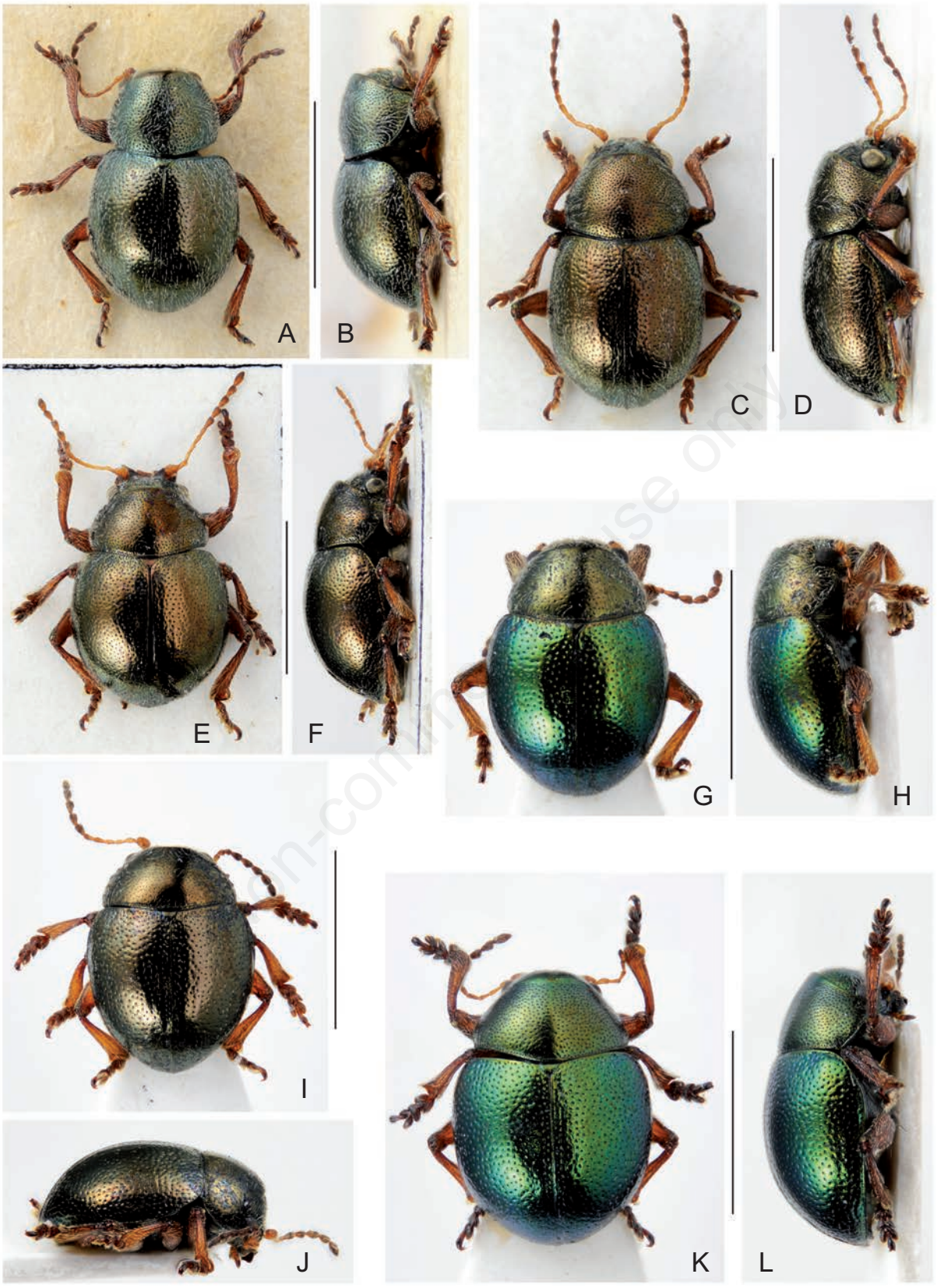

Figure 4. Habitus, dorsal and lateral view, of: A,B) *C. globosa* (Spain: Murcia: Cartagena); C,D) *C. algarvensis* n. sp., holotype; E,F) *C. juengeri*, holotype; G,H) *C. ovulum*, holotype; I,J) *C. inflata*, holotype; K,L) *C. incerta* n. sp., holotype (scale bars=2 mm).

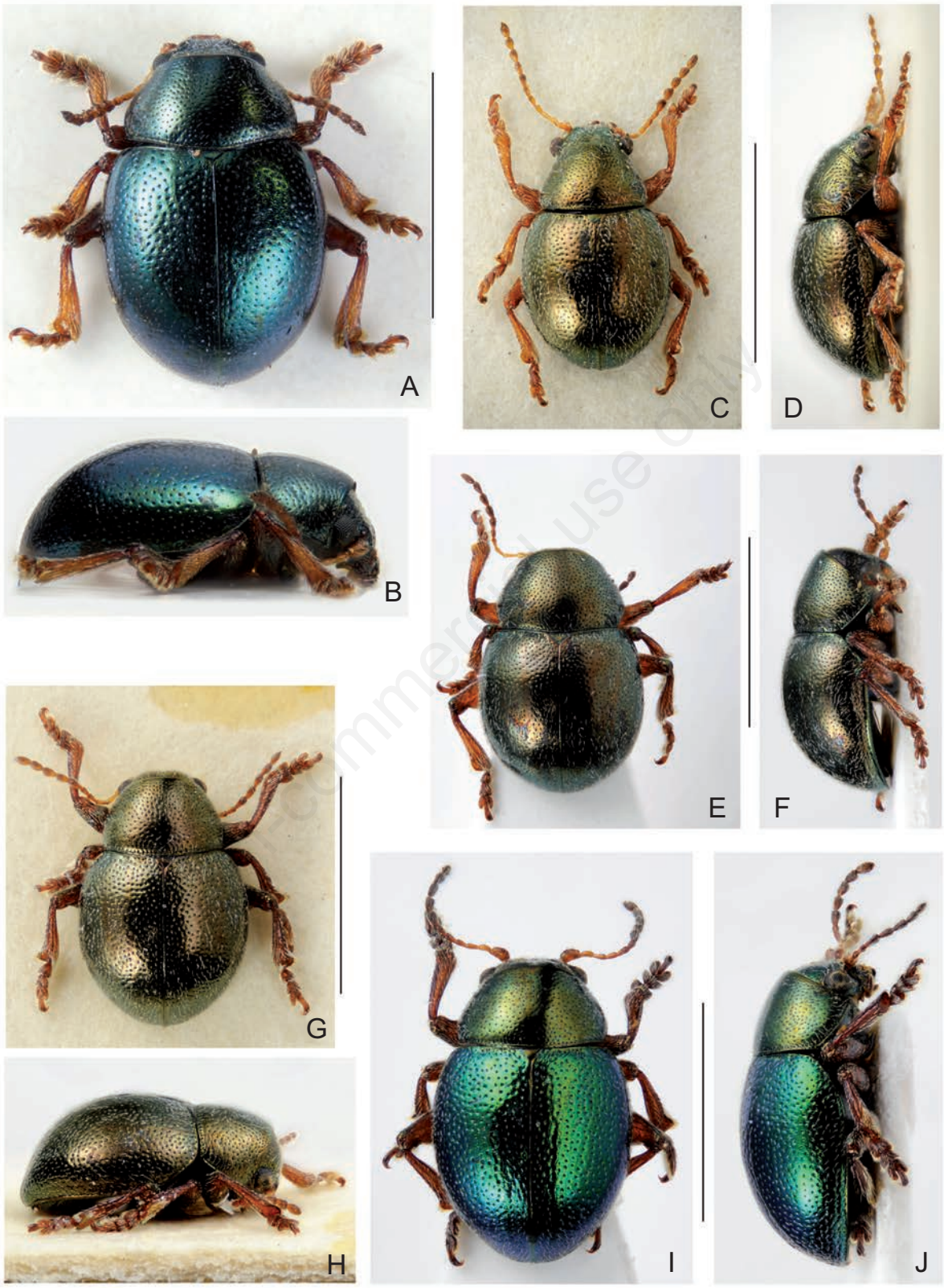

Figure 5. Habitus, dorsal and lateral view, of: A,B) *C. dogueti* n. sp., holotype; C,D) *C. pallidipes* n. sp., holotype; E,F) *C. confinis* n. sp., holotype; G,H) *C. maura* n. sp., holotype; I,J) *C. maghrebina* n. sp., holotype (scale bars=2 mm).

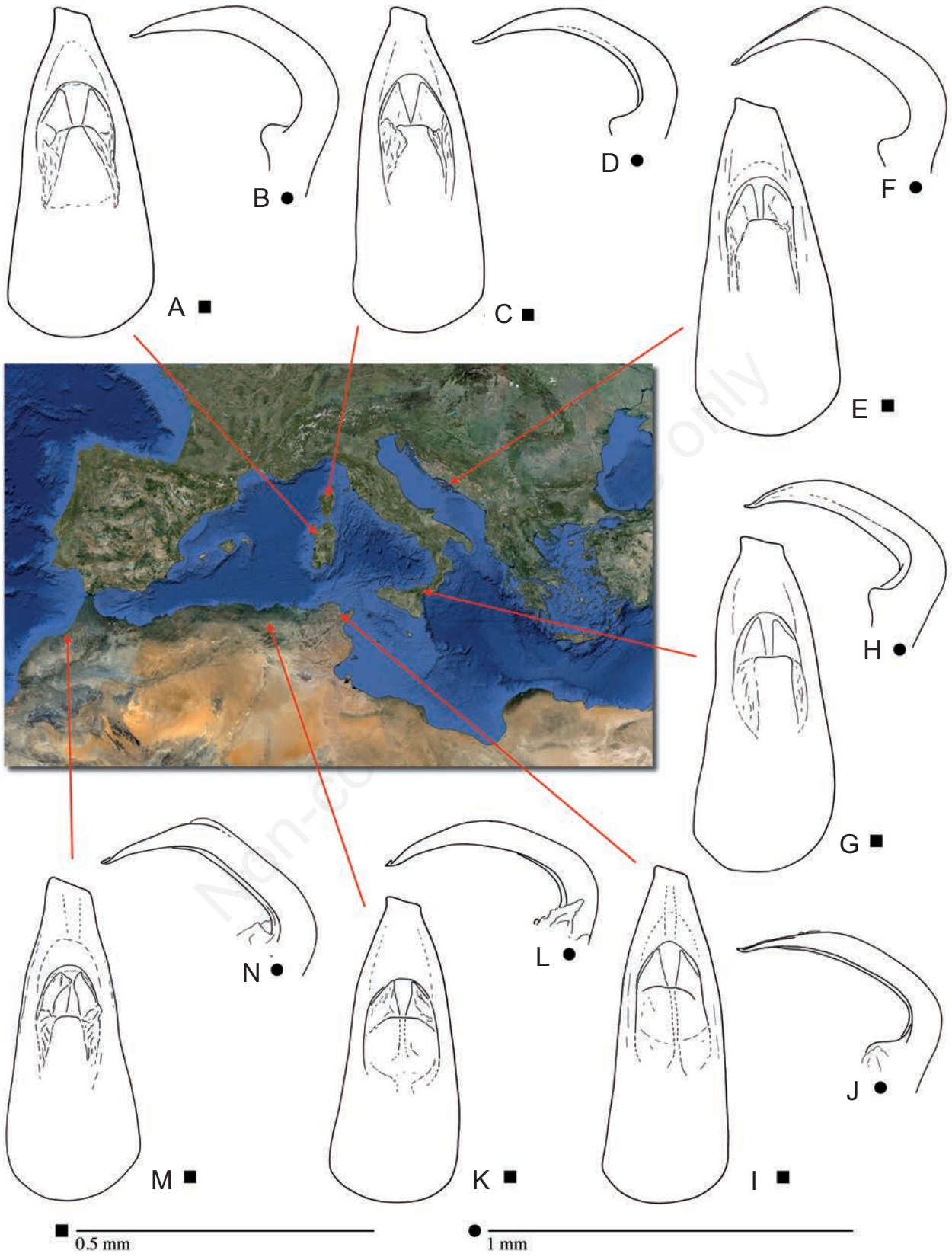

Figure 6. Median lobe of aedeagus (dorsal and lateral view) in different populations of *C. nitida*: A,B) Italy, Sardegna, Mt Turitas; C,D) France, Corse; E,F) Croatia, I. Lagosta; G,H) Italy, Sicilia, Mt Ciccia; I,J) Tunisia, Tunis; K,L) Algeria (lectotype); M,N) Maroc, Rabat.

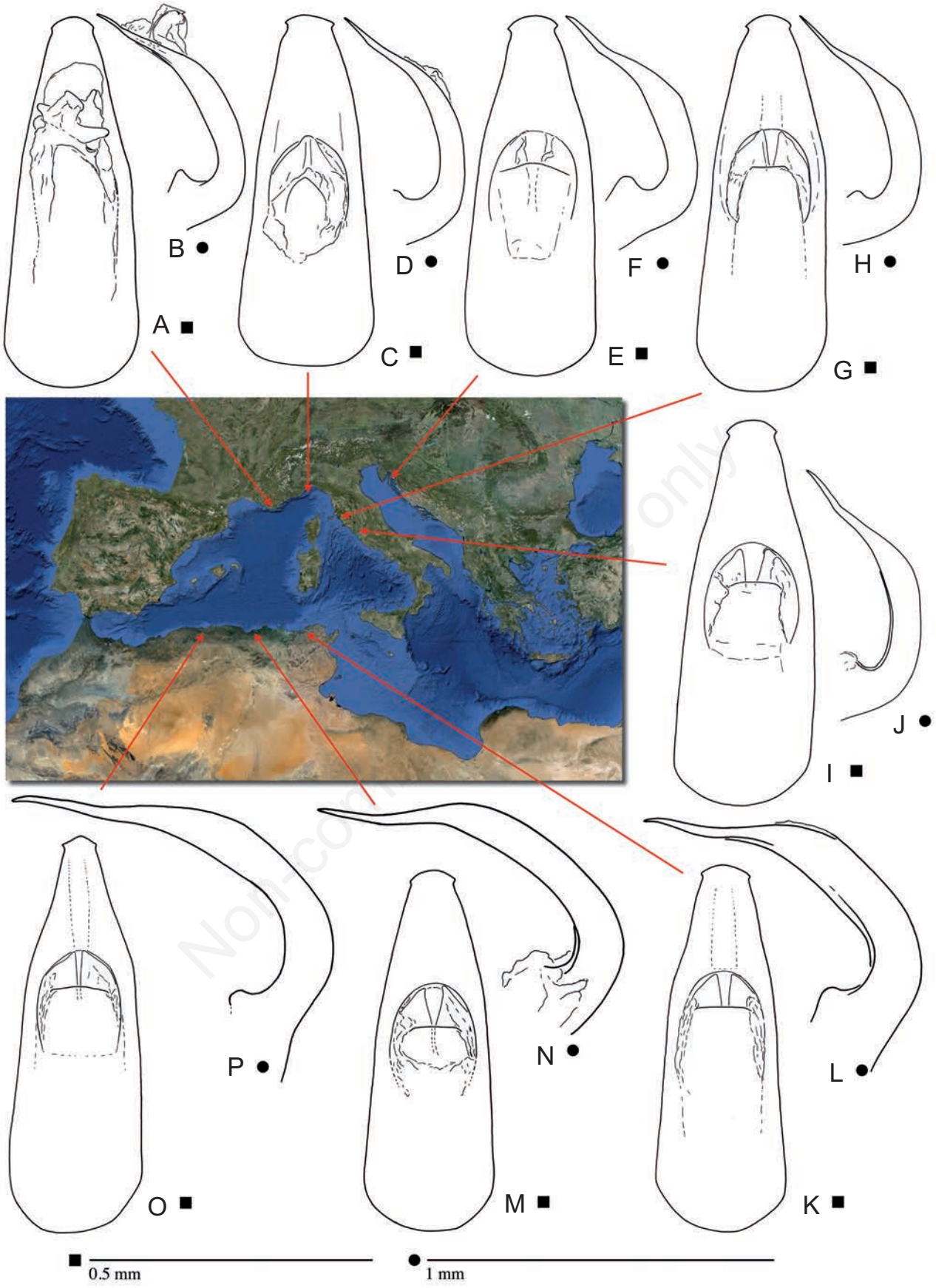

Figure 7. Median lobe of aedeagus (dorsal and lateral view) in different populations of *C. proxima*: A,B) France, Var, Hyeres; C,D) Italy, Liguria, Celle Ligure; E,F) Croatia, Curilla; G,H) Italy, Toscana, I. Elba; I,J) Italy, Lazio, Castelfusano; K,L) Tunisia, Ain El Hamaraya; M,N) Algerie; O,P) Algerie, Foret de Bainem.

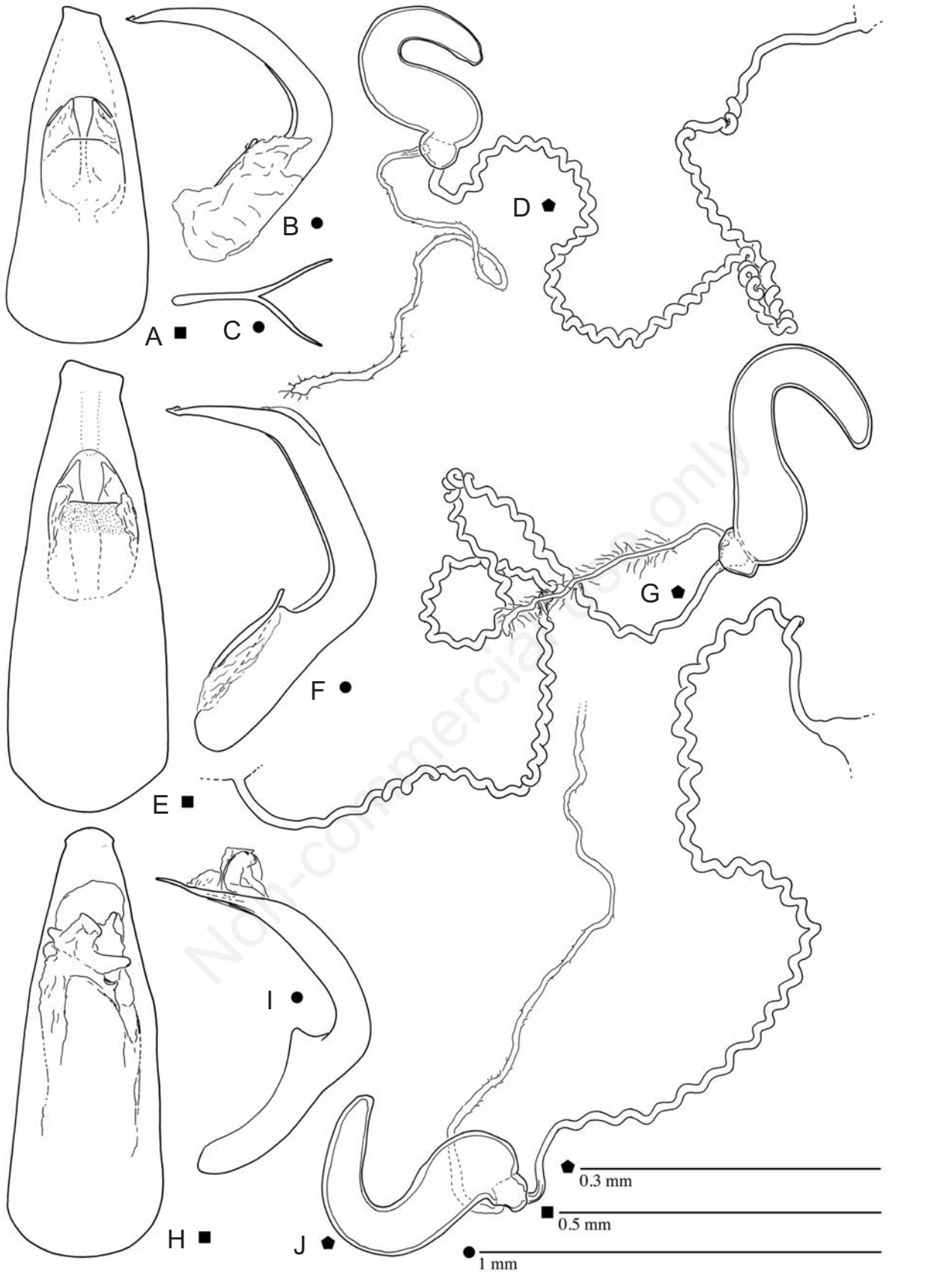

Figure 8. A) ***C. nitida***, ♂ **lectotype (Algeria), aedeagus, dorsal view; B) idem, lateral view; C) ventral sclerite of sternite IX; D)** ***C. nitida***, ♀ **(Italy: Sicilia: Messina), spermatheca; E)** ***C. graeca*** **n. sp.,** ♂ **holotype (Greece: Preveza: Mitikas), aedeagus, dorsal view; F) idem, lateral view; G) idem,** ♀ **paratype, spermatheca; H)** ***C. proxima***, ♂ **(France: Var: Hyéres), aedeagus, dorsal view; I) idem, lateral view; J)** ***C. proxima***, ♀ **(Italy: Liguria: Punta Baffe), spermatheca.**

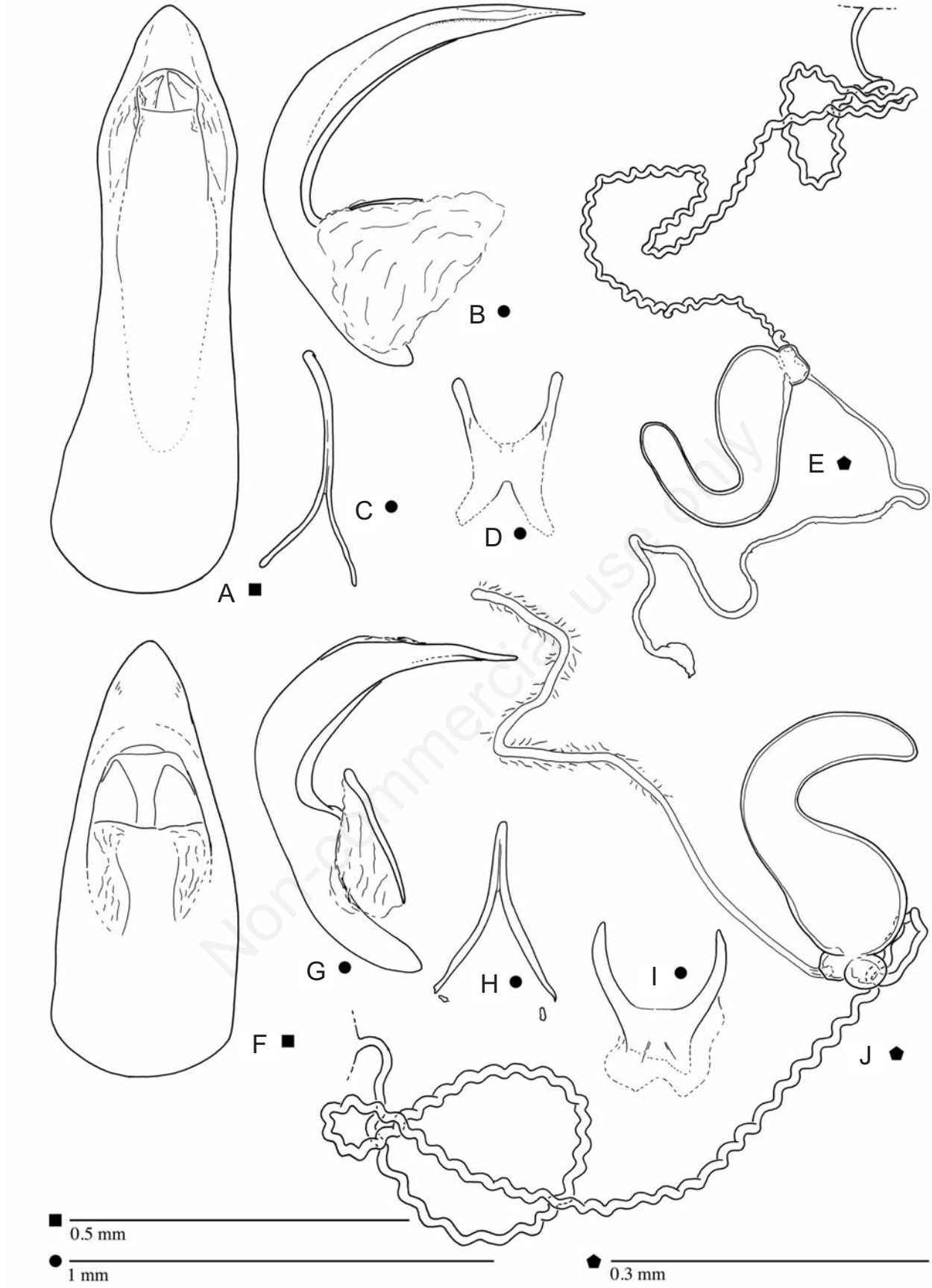

Figure 9. A) ***C. grossa*****, ♂ syntype (Morocco: Tanger), aedeagus, dorsal view; B) idem, lateral view; C) idem, ventral sclerite of sternite IX; D) idem, ♂ (same locality), tegmen; E) idem, ♀ (same locality), spermatheca; F)** ***C. metallica*****, ♂ (Italy: Toscana), aedeagus, dorsal view; G) idem, lateral view; H) idem, ventral sclerite of sternite IX; I) idem, tegmen; J) idem, ♀ (Italy: Toscana), spermatheca.**

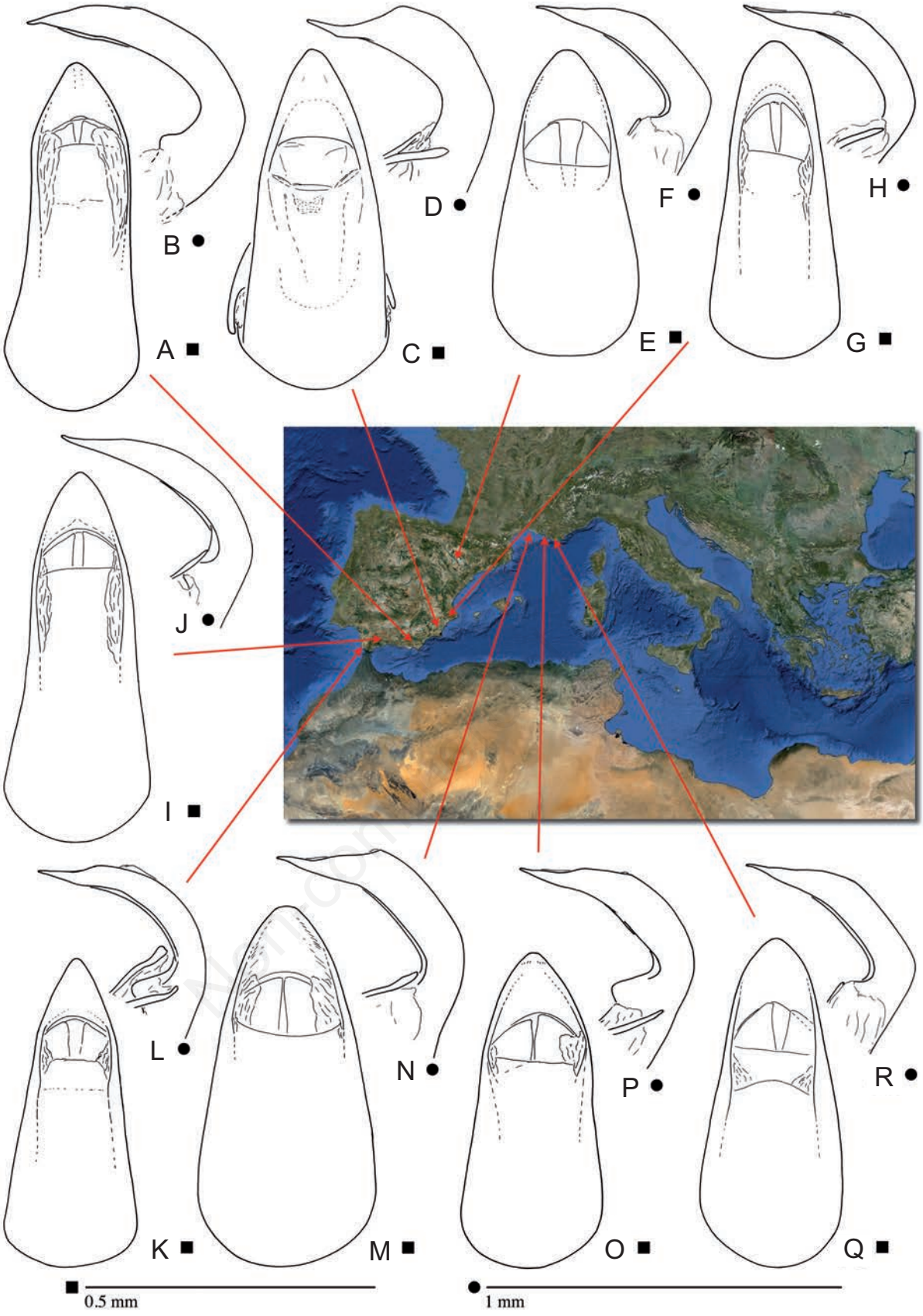

Figure 10. Median lobe of aedeagus (dorsal and lateral view) in different populations of *C. globosa*: A,B) Spain: Andalucia: Campo Dalias; C,D) Spain: Murcia: P.to de Jumilla; E,F) Spain: Aragón: Escatron; G,H) Spain: Comunidad Valenciana: Chinorlet; I,J) Spain: Andalucia: Coín; K,L) Spain: Andalucia: El Colorado; M,N) France: Herault: Montpellier; O,P) France: Bouches du Rhône: Fos-sur-Mer; Q,R) France: Bouches du Rhône: Marseille.

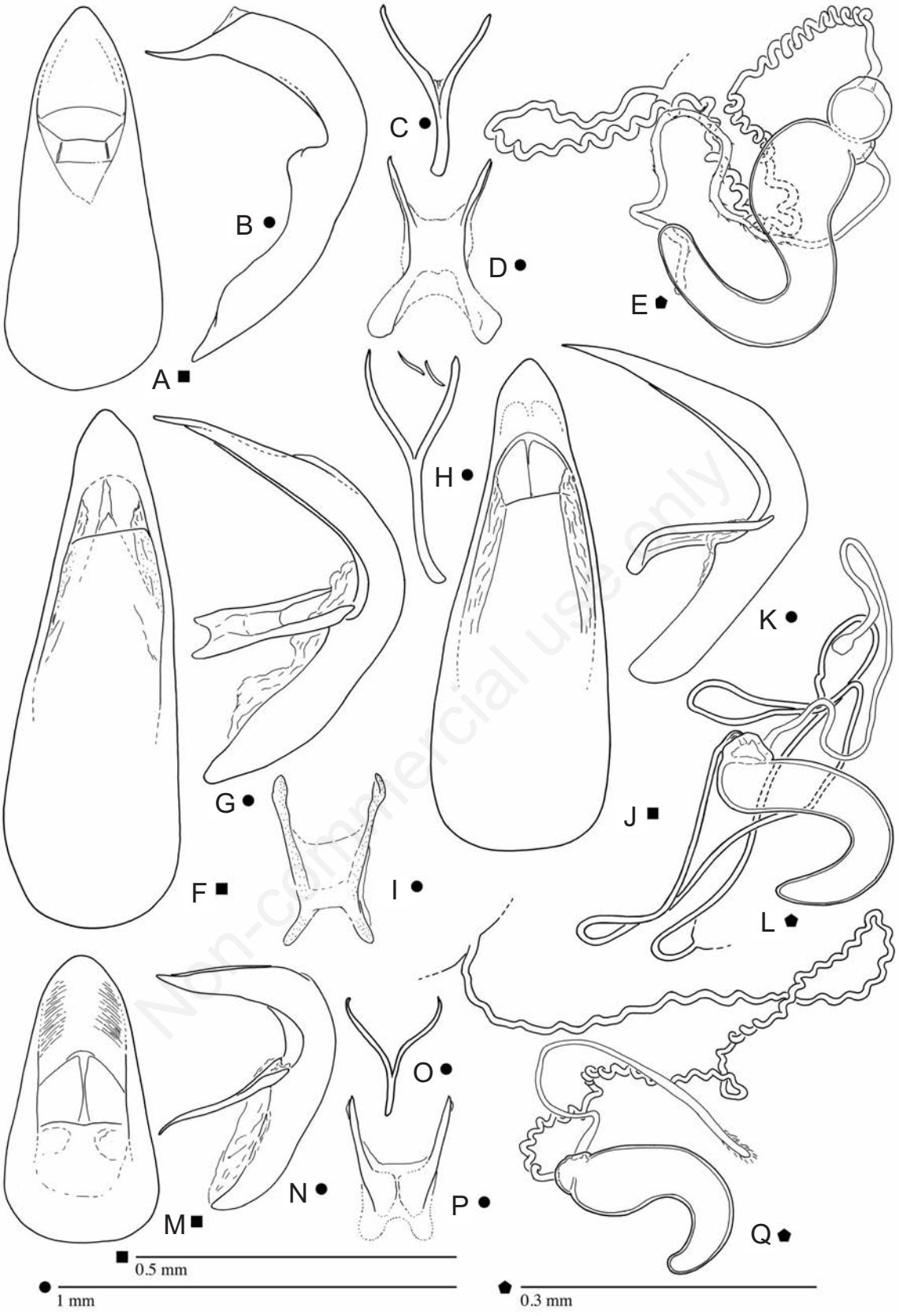

Figure 11. A) ***C. globosa*****, ♂ (Spain: Murcia: Cartagena), aedeagus, dorsal view; B) idem, lateral view; C) idem, ventral sclerite of sternite IX; D) idem, tegmen; E)** ***C. globosa*****, ♀ (Spain: Andalucia: Malaga), spermatheca; F)** ***C. algarvensis*** **n. sp., ♂ holotype (Portugal: Algarve: Caldas de Monchique), aedeagus, dorsal view; G) idem, lateral view; H) idem, ventral sclerite of sternite IX; I) idem, ♂ paratype, tegmen; J) idem, ♂ paratype (Spain: Huelva: El Rompido), aedeagus dorsal view; K) idem, lateral view; L) idem, ♀ paratype (Portugal: Algarve: Caldas de Monchique), spermatheca; M)** ***C. juengeri*****, ♂ (Italy: Sicilia: Portella Impiso), aedeagus, dorsal view; N) idem, lateral view; O) idem, ventral sclerite of sternite IX; P) idem, tegmen; Q) idem, ♀, spermatheca.**

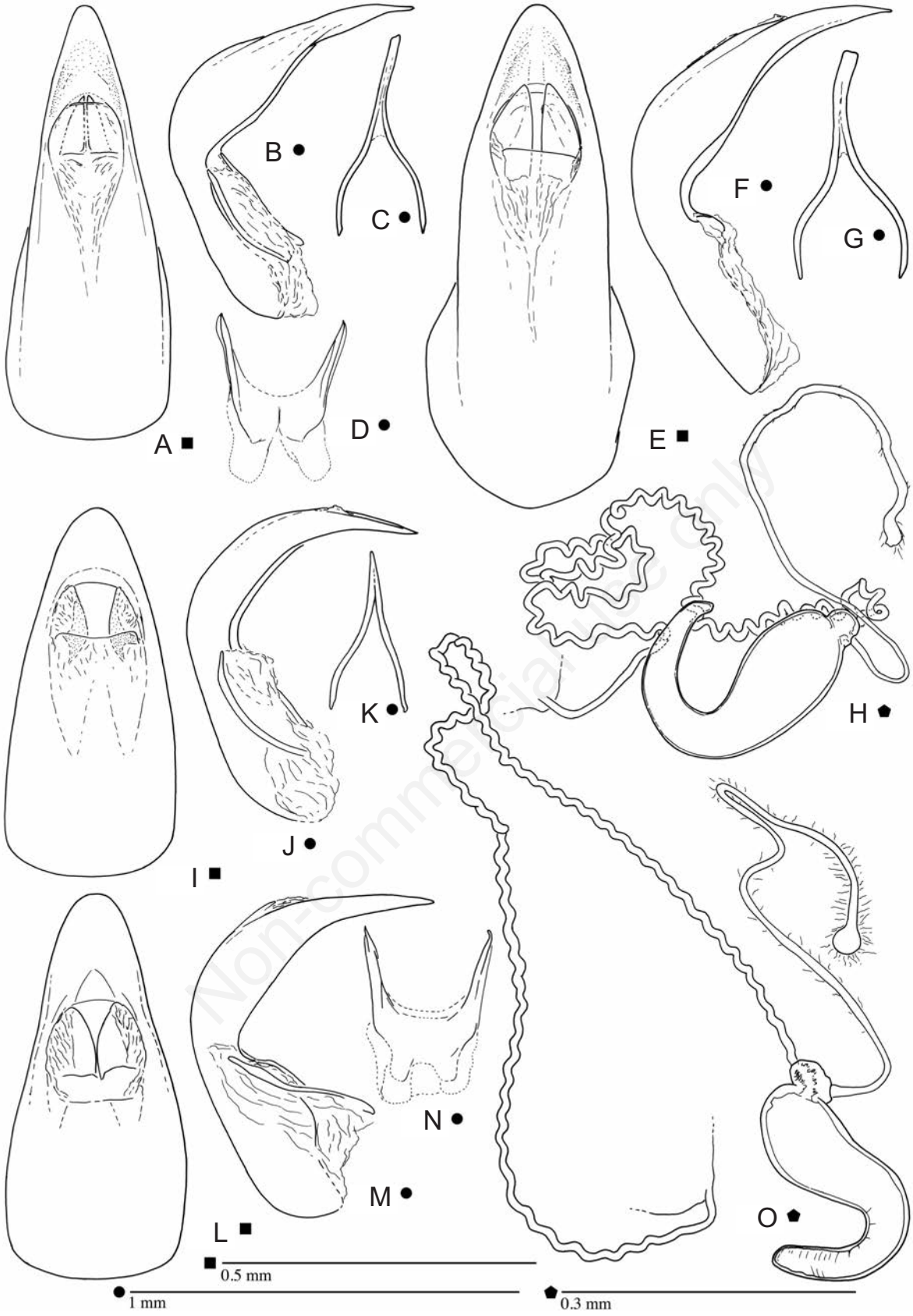

Figure 12. A) ***C. ovulum***, ♂ **holotype (Algeria), aedeagus, dorsal view; B) idem, lateral view; C) idem, ventral sclerite of sternite IX; D) idem,** ♂ **(Algeria: Teniet), tegmen; E)** ***C. ovulum***, ♂ **(Algerie: Teniet), aedeagus, dorsal view; F) idem, lateral view; G) idem, ventral sclerite of sternite IX; H) idem,** ♀ **(Algerie: Teniet), spermatheca; I)** ***C. inflata***, ♂ **holotype (Algeria: Constantine), aedeagus, dorsal view; J) idem, lateral view; K) idem, ventral sclerite of sternite IX; L)** ***C. inflata***, ♂ **(Algerie: Yakouren), aedeagus dorsal view; M) idem, lateral view; N) idem, tegmen; O) idem,** ♀ **(Algerie: Constantine), spermatheca.**

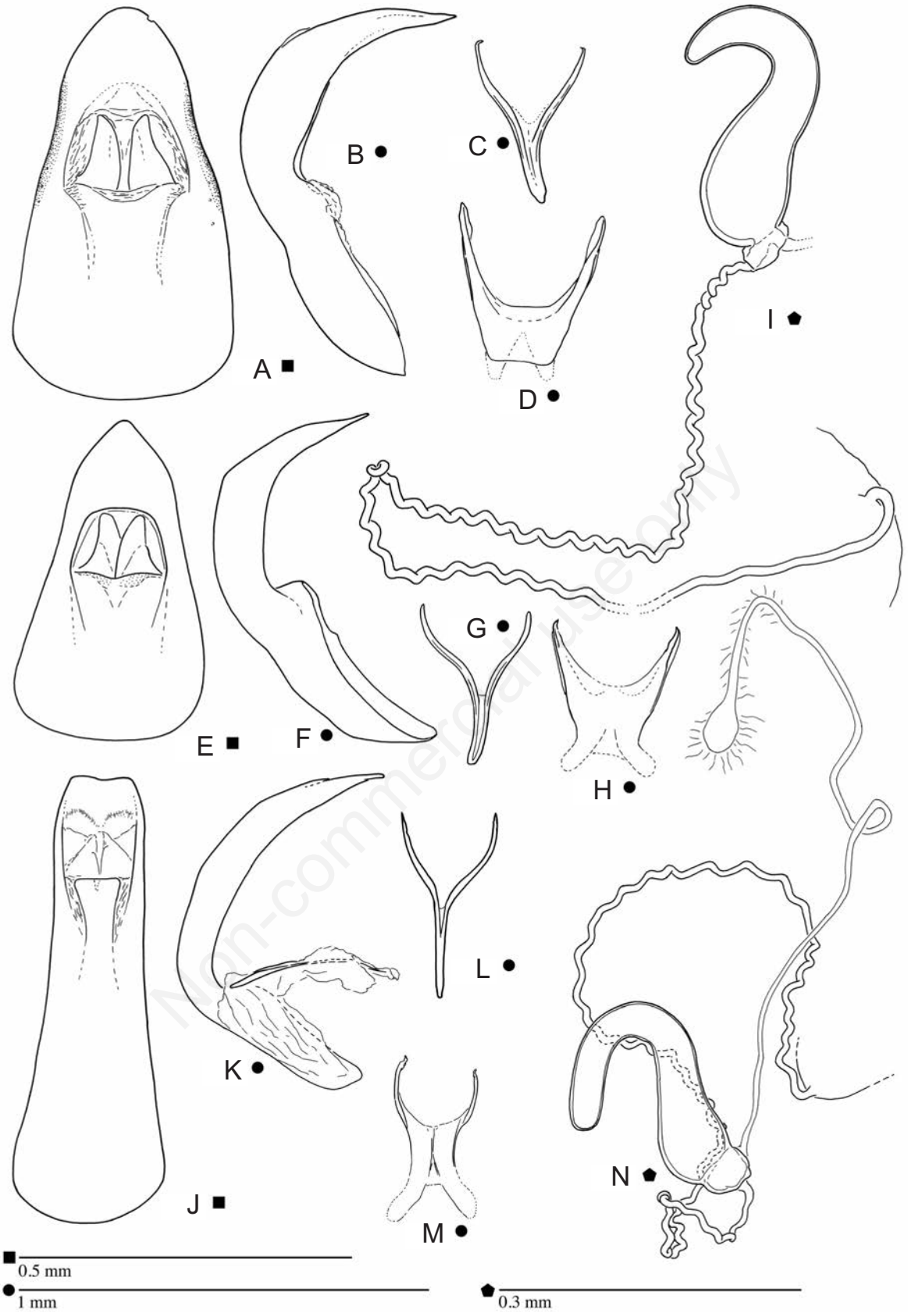

Figure 13. A) ***C. incerta*** **n. sp., ♂ holotype (Algeria: Yakouren), aedeagus, dorsal view; B) idem, lateralview; C) idem, ventral sclerite of sternite IX; D) idem, tegmen; E)** ***C. dogueti*** **n. sp., ♂ holotype (Algeria: Massif du Djurdjura), aedeagus, dorsal view; F) idem, lateral view; G) idem, ventral sclerite of sternite IX; H) idem, tegmen; I) idem, ♀ paratype (same locality), spermatheca; J)** ***C. pallidipes*** **n. sp., ♂ holotype (Morocco: Bou Skoura), aedeagus, dorsal view; K) idem, lateral view; L) idem, ventral sclerite of sternite IX; M) idem, ♂ paratype (same locality), tegmen; N) idem, ♀ (Morocco: Tetuan), spermatheca.**

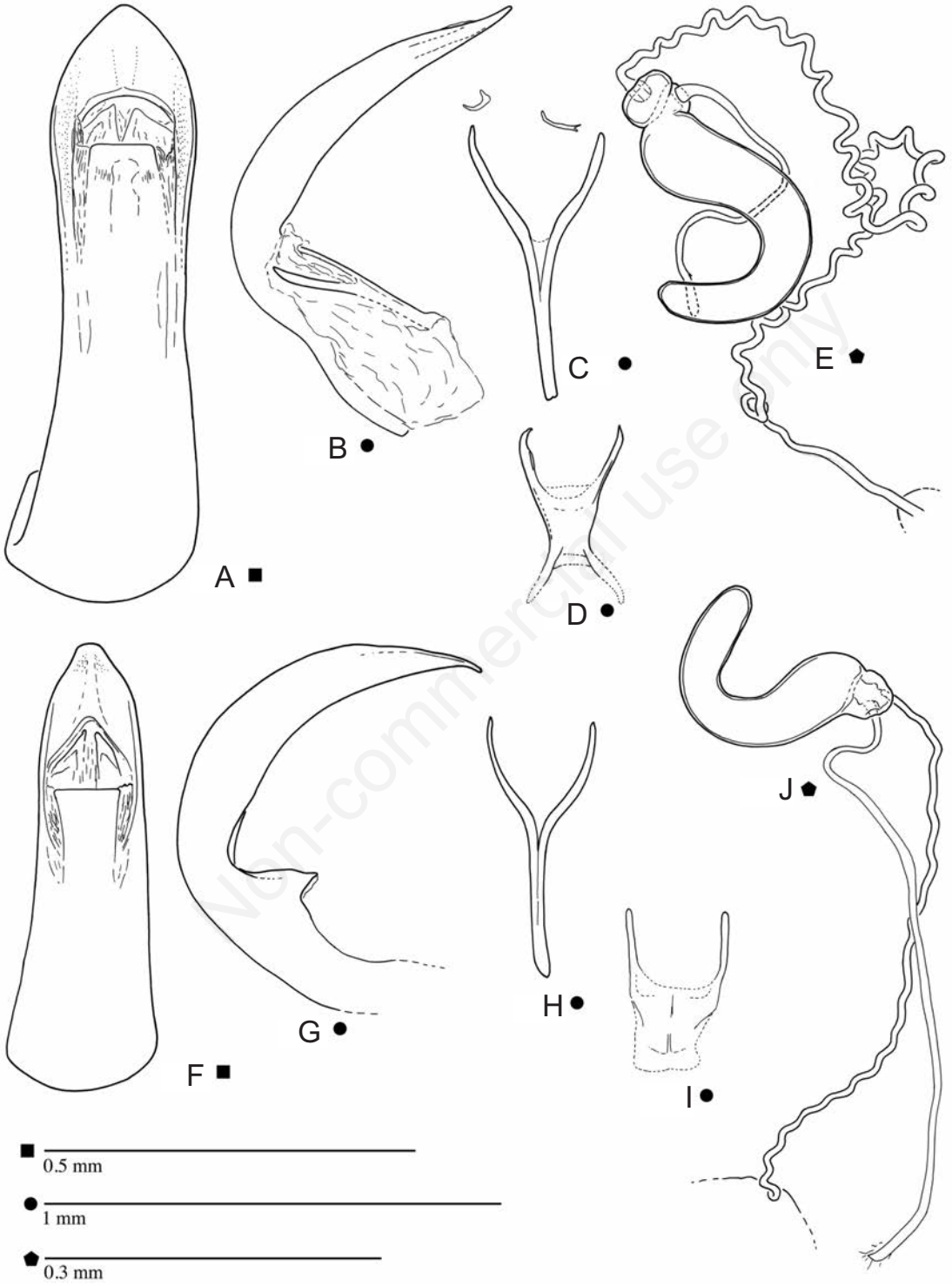

Figure 14. A) ***C. confinis***, ♂ **holotype (Algeria: Nemours), aedeagus, dorsal view; B) idem, lateral view; C) idem, ventral sclerite of sternite IX; D) idem,** ♂ **paratype (same locality), tegmen; E) idem,** ♀ **paratype (same locality), spermatheca; F)** ***C. maura*** **n. sp.,** ♂ **holotype (Morocco: Larache), aedeagus, dorsal view; G) idem, lateral view; H) idem, ventral sclerite of sternite IX; I) idem,** ♂ **paratype (same locality), tegmen; J) idem,** ♀ **paratype (same locality), spermatheca.**

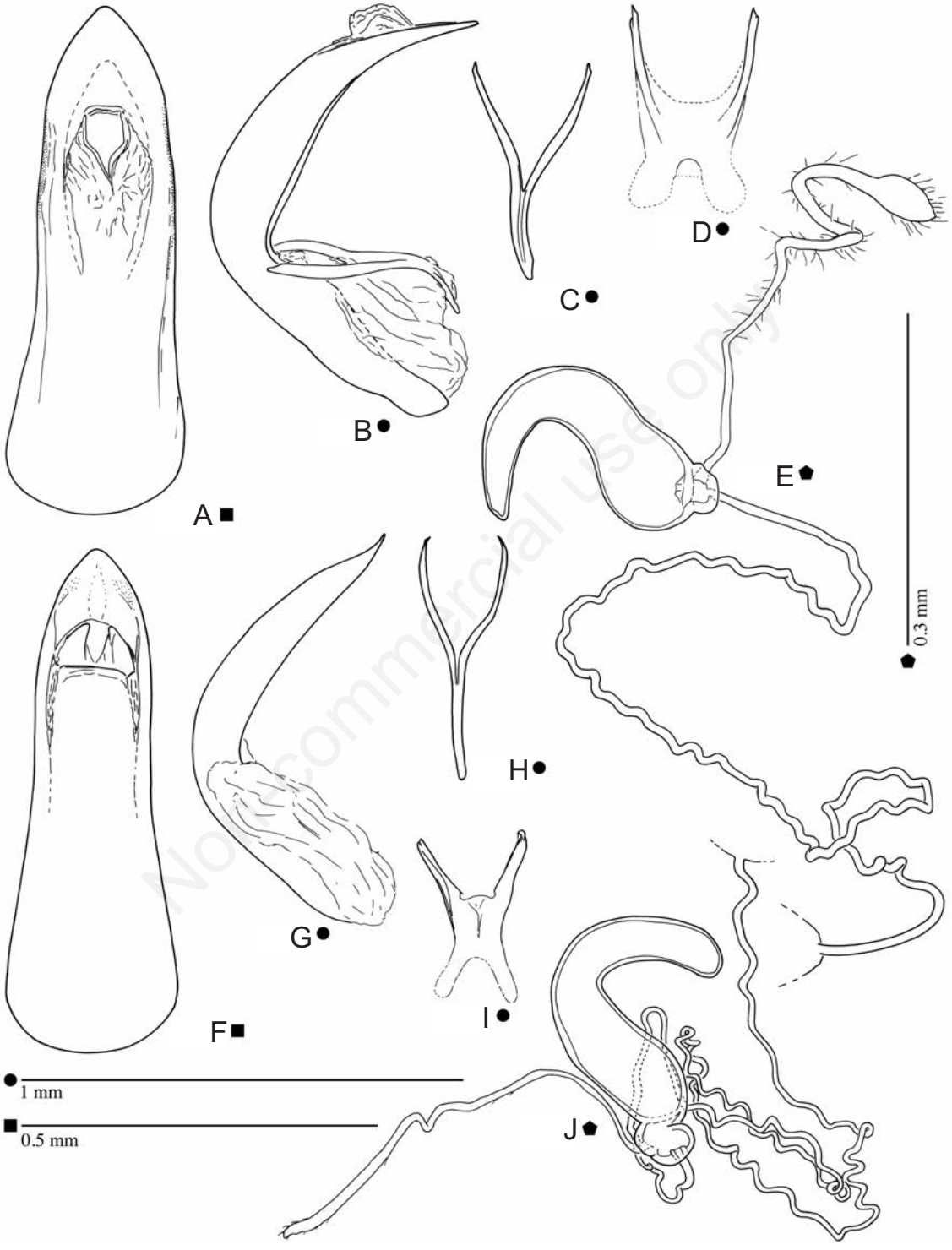

Figure 15. A) ***C. maghrebina*** **n. sp., ♂ holotype (Algeria: Constantine), aedeagus, dorsal view; B) idem, lateral view; C) idem, ventral sclerite of sternite IX; D) idem, ♂ paratype (same locality), tegmen; E) idem, ♀ paratype (same locality), spermatheca; F)** ***C. maghrebina*****, ♂ (Algeria: Oran), aedeagus, dorsal view; G) idem, lateral view; H) idem, ventral sclerite of sternite IX; I) idem, tegmen ♀; J) idem, ♀ (Algeria: Oran), spermatheca.**

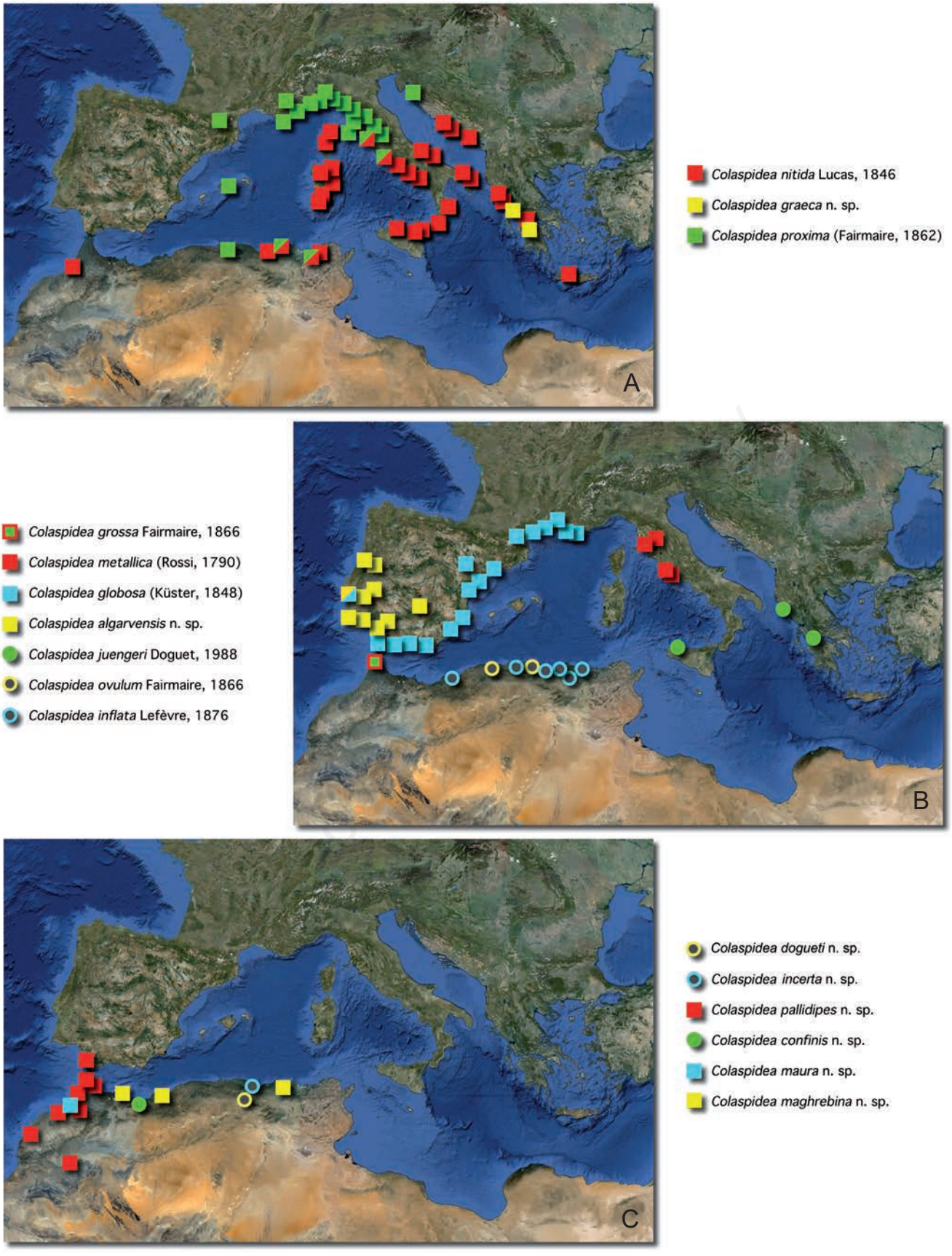

Figure 16. Distribution maps of mediterranean *Colaspidea* species, based on the material examined in the present study. In A) bicolored signs mean the presence in the same area of both *C. nitida* and *C. proxima*. In B) the bicolored blue and yellow square means the presence of both *C. globosa* and *C. algarvensis* n. sp., based on examined label data.