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Squamapion gardinii n. sp. from the Mediterranean Region and notes on some species belonging to the genus *Squamapion* Bokor, 1923 (Coleoptera, Apionidae)

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Abstract

Squamapion gardinii **n. sp.** from Italy, France and Spain (♂♀; type locality: Italy: Liguria: Genoa Province: Genova-Quinto al Mare: Rio San Pietro), associated with *Thymus vulgaris* L., is described. *Squamapion solariorum* (Wagner, 1908) **n. stat.**, upgraded to species rank from subspecies of *Squamapion consors* (Desbrochers des Loges, 1875), is redescribed (holotype ♀ examined). New chorological records for *Squamapion minutissimum* (Rosenhauer, 1856) and *Squamapion serpyllicola* (Wencker, 1864) are also given; the latter species is recorded for the first time from Italy and Romania. A provisional key is provided to the species of *Squamapion*, related to *Squamapion atomarium* (Kirby, 1808), present in the Mediterranean region.

Keywords: Weevils, Curculionoidea, Kalcapiini, new species, taxonomy, *Thymus vulgaris*

Introduction

The genus *Squamapion* Bokor, 1923 is represented by about 40 species inhabiting the entire Palaearctic Region, the Afrotropical Region and limited areas of the Oriental Region such as S India, SE China and Thailand (Wanat 1997). Their biology is associated with various species of Lamiaceae belonging to the genera *Clinopodium* L., *Mentha* L., *Nepeta* L., *Origanum* L., *Prunella* L., *Saccocalyx* Coss. & Durieu, *Salvia* L., *Satureja* L., *Thymbra* L. and *Thymus* L. Excluding Afrotropical and Oriental species, which are still poorly known, the Palaearctic *Squamapion* share an extremely uniform morphology and their diagnostic characters are often based exclusively on small differences in the proportion of various body parts. This uniform appearance causes, even to specialists, great taxonomic problems at the species level and surely hides a number of unrecognised sibling species even in the European fauna (Wanat 1997, Giusto 2018).

This is what I personally ascertained while I was completing the description of *Squamapion alpinum* Giusto, 2018. I noticed that the specimens from the southernmost localities, until that time thought by me to be *Squamapion atomarium* (Kirby, 1808), had a characteristic habitus and that some of their dimensions were statistically different from those of the specimens from the northernmost populations. On that occasion, I preferred to postpone addressing the problem and I limited myself to examining the most typical populations of *S. atomarium*. Now, after the study of about 1,700 specimens belonging to *S. atomarium* and close taxa, I recognize a new species whose description is the main object of this study.

Material and methods

Specimens examined and depositories. This study is based on the examination of adults personally collected or borrowed from the following institutions or private collections (in alphabetical order): **BMNH**—The Natural History Museum, London, U.K.; **CG**—Carlo Giusto collection, Recco, Italy; **CGE**—Christoph Germann collection, Rubigen, Switzerland; **CMNC**—Canadian Museum of Nature, Ottawa, Canada; **EC**—Enzo Colonnelli collection, Rome, Italy; **FS**—Francesco Sacco collection, Rome, Italy; **KS**—Karel Schön collection, Litvínov, Czech Republic;

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LD—Luciano Diotti collection, Como, Italy; **MK**—Michael Košťál collection, Brno, Czech Republic; **MNHN**—Muséum National d'Histoire Naturelle, Paris, France; **MSNG**—Museo Civico di Storia Naturale "Giacomo Doria", Genoa, Italy; **MSNM**—Museo Civico di Storia Naturale, Milan, Italy; **MT**—Michele Tedeschi collection, Milan, Italy; **MW**—Marek Wanat collection, stored in the Museum of Natural History, University of Wrocław, Poland; **NMW**—Naturhistorisches Museum Wien, Austria; **RC**—Roberto Casalini collection, Rome, Italy; **SDEI**—Senckenberg Deutsches Entomologisches Institut, Münchenberg, Germany; **TAUI**—National Collection of Insects, Zoological Museum, Tel Aviv University, Israel; **TLFN**—Tiroler Landesmuseum Ferdinandeum Naturwissenschaften, Innsbruck, Austria; **ZMHB**—Museum für Naturkunde, Berlin, Germany; **ZMUH**—Zoologisches Museum der Universität Hamburg, Hamburg, Germany.

All specimens not specifically quoted in the text are listed in Appendix 1.

Methods of measurements and abbreviations. Measurements of 100 specimens (50 ♂♂, 50 ♀♀), chosen from different populations to represent the variability range of morphometric characters, were taken using a calibrated stereomicroscopic micrometer eyepiece.

The following abbreviations are used in the text (in alphabetical order): **La**—length of antenna; **Lb**—length of body measured from base of rostrum to apex of elytra, in a position in which they are at the same level, in lateral view; **Le**—length of elytra measured from anterior margin to apex, in the position in which the base and the apex of elytra are at the same level, in dorsal view; **Ley**—maximum length of eye, in lateral view; **Lmtr**—length of metarostrum from anterior margin of eye to antennal insertion, in lateral view; **Lp**—length of prothorax measured from front margin to base along midline, in dorsal view; **Lpr**—length of prorostrum measured from apex (excluding mandibles) to antennal insertion, in lateral view; **Lr**—length of rostrum measured from apex (excluding mandibles) to fore margin of eye, in lateral view; **We**—width of elytra measured at their widest point, in dorsal view; **Web**—width of elytra measured at the level of humeral calli, in dorsal view; **Wh**— width of head measured across the middle of eyes, in dorsal view; **Wmsr**—width of mesorostrum measured at the widest point, in dorsal view; **Wp**—width of prothorax measured at the level of rounded sides, in dorsal view; **Wpa**—width of prothoracical apex, in dorsal view; **Wpb**—width of prothoracical base, in dorsal view; **Wra**—width of prorostrum measured at the widest point, in dorsal view.

Mean values are given in square brackets while measurements of the holotype are given in round brackets.

Measurements and ratios are summarized in Table 1.

Illustrations and study methods. Photos of specimens were taken with a Nikon D-3100 camera mounted on a bellow and using Nikon El-Nikkor 50 mm 1:28, Leitz Wetzlar 3.5X/0.10 170/-, Leitz Wetzlar 4X/0.12 170/- or Leitz Wetzlar 10X/0.25 170/- objectives lenses as appropriately required. Files obtained were combined using the software Zerene Stacker of Zerene Systems LLC (Richland, WA, U.S.A.) and enhanced using Adobe Photoshop CS6. All the specimens were observed and dissected under a Leica S-APO stereomicroscope. Genital drawings were realized with the aid of a Nachet drawing tube mounted on a Nachet compound microscope. Genital preparations were made according to the standard method after maceration of separated abdomen for 5–10 minutes in a hot KOH solution. After rinsing in distilled water, further separation and examination of terminal segments, membranes and genitalia were carried out in pure glycerol on a microscopic slide under both the stereomicroscope and the compound microscope. After their study, all parts were stored, together with abdominal ventrites, in glycerol in a microvial pinned beneath the specimen.

Labels. Labels are quoted as they are only for the holotype and lines and labels are separated by one or two slashes, respectively. In the other cases, the following data are listed, if available: finding locality, date, collector and host plant. All type specimens have a further label with the indication: HOLOTYPUS (or PARATYPUS) / *Squamapion* / *gardinii* Giusto / C. Giusto des. 2020.

List of localities. States, administrative subdivisions (e.g., regions, provinces, municipalities, etc.) and localities are arranged alphabetically.

Taxonomic treatment

Family Apionidae Schoenherr, 1823

Supertribe Aspidapiitae Alonso-Zarazaga, 1990

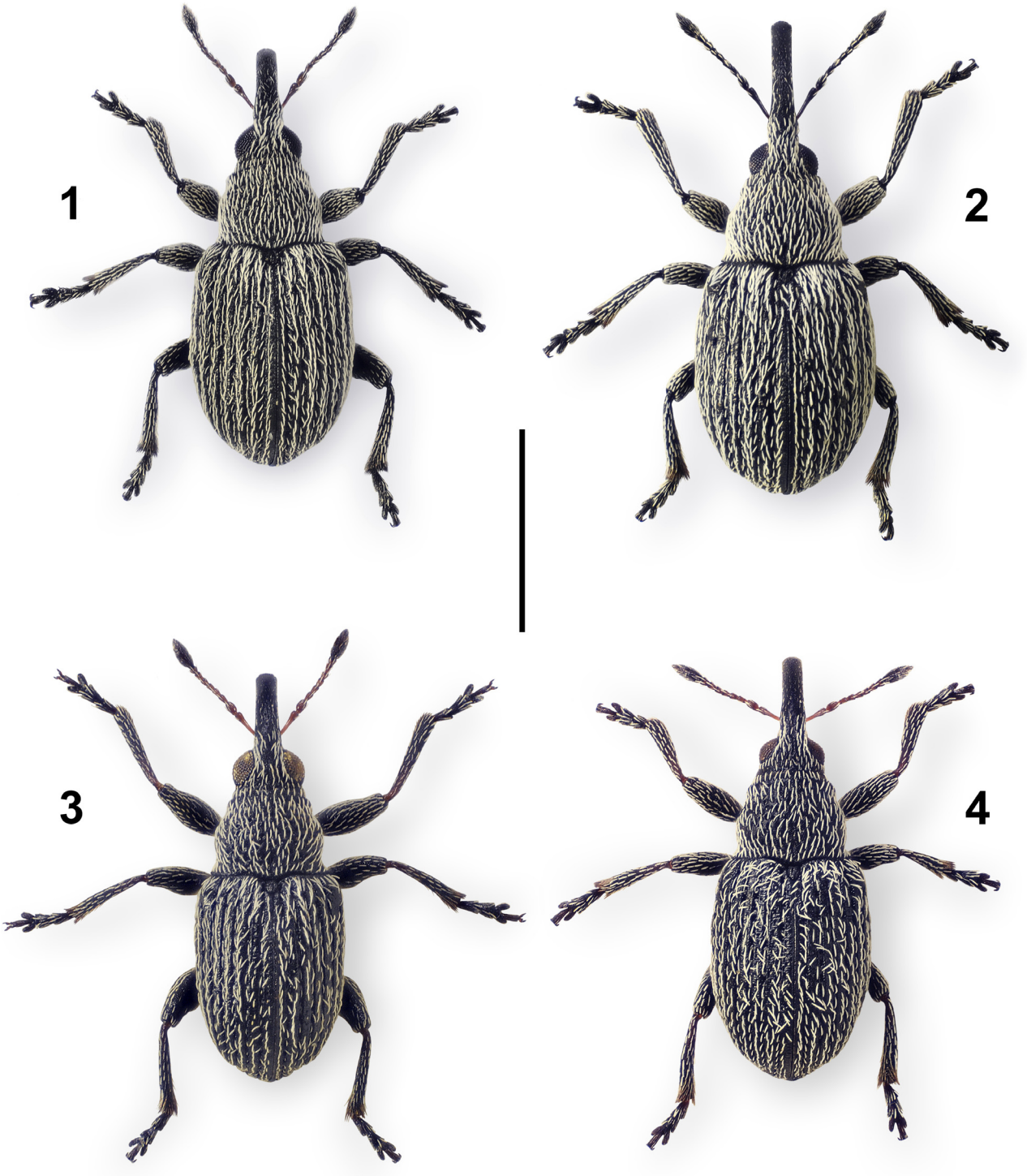
Tribe Kalcapiini Alonso-Zarazaga, 1990

Genus *Squamapion* Bokor, 1923

***Squamapion gardinii* n. sp.**
(Figs 1–2, 5–8, 13–17, 23–26, 31–34)

http://zoobank.org/urn:lsid:zoobank.org:act:974B23EA-E128-4B10-A8C7-E3AA5E9855F1

Type locality. Genova-Quinto al Mare: Rio San Pietro (Genoa Province, Liguria, Italy).



FIGURES 1–4. Habitus. 1–2: *Squamapion gardinii* n. sp., 1: ♂ holotype, 2: ♀ paratype, both from Italy: Genova-Quinto al Mare: Rio San Pietro.—3–4: *Squamapion atomarium*, 3: ♂, 4: ♀, both from Poland: Hodonín: env. Pánov. Scale bar: 1 mm.

Diagnosis. A *Squamapion* species belonging to the "*S. vicinum* group" as defined by Wanat (1997). It differs from all other Palaearctic *Squamapion* in having the following combination of characters: stocky general appearance; legs robust; vestiture dense, especially on sides of body, composed of narrowly lanceolate white scales, on elytral intervals arranged in 2 rows; rostrum long and thin, particularly in female; mesorostral dilatation dentiform in both sexes.

Type material. Holotype (♂): **ITALY—*Liguria***: *Genoa Province*: "Genova-Quinto al / Mare: Rio San Pietro / 100 m ca. 6.V.2020 / C. Giusto leg." // "on *Thymus vulgaris* L." (BMNH).

Paratypes (329 ♂♂, 410 ♀♀): **FRANCE—*Provence-Alpes-Côte d'Azur***: *Alpes-Maritimes Department*: Gourdon, env. S, 700 m a.s.l., 21.V.2013, C. Giusto, G. Gardini & S. Zoia leg., on *Thymus vulgaris* L. (1 ♀ CG); Tende, Vallon du Réfrei, 30.X.2015, H. Pierotti leg. (1 ♀ LD);—*Bouches-du-Rhône Department*: Aix-en-Provence, 3.XI.1968, G. Bartoli leg., on *Thymus vulgaris* L. (4 ♀♀ MSNG);—*Hautes-Alpes Department*: Garde-Colombe, Saint-Genis: Gorges du Riou, 7.VII.2015, R. Casalini leg. (1 ♂, 1 ♀ CG; 1 ♂, 1 ♀ RC);—*Var Department*: Callas, env. N, 460 m a.s.l., 23.IV.2011, Ch. Germann leg. (1 ♀ CGE).

ITALY—*Abruzzo*: *Pescara Province*: Popoli, Sorgenti del Pescara, 250–300 m a.s.l., 22.VI.2017, C. Giusto & G. Gardini leg., on *Thymus vulgaris* L. (1 ♂ CG);—***Emilia-Romagna***: *Piacenza Province*: Ottone, Losso, 550 m a.s.l., 21.VI.2020, C. Giusto leg., on *Thymus vulgaris* L. (1 ♀);—***Liguria***: *Genoa Province*: Bogliasco, 9.VI.1961, G. Bartoli leg. (7 ♂♂, 2 ♀♀ MSNG); Bogliasco, Bric Gianesi, slopes S, 600 m a.s.l., 7.I.2018, C. Giusto leg., on *Thymus vulgaris* L. (14 ♀♀ CG); Bogliasco, Monte Santa Croce, slopes S, 500 m a.s.l., 12.I.2020, C. Giusto leg., on *Thymus vulgaris* L. (3 ♀♀ CG); Camogli, Monte di Portofino, slopes W, 11.IV.1968, G. Bartoli leg., on *Thymus vulgaris* L. (1 ♀ MSNG); Camogli, Monte Tocco, 470 m a.s.l., 25.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (3 ♂♂ CG); Camogli, San Rocco, Mortola, env. E, 350 m a.s.l., 25.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (4 ♂♂, 1 ♀ CG); Chiavari, Monte Castello, slopes S, 250 m a.s.l., 27.III.1984, C. Giusto leg., on *Thymus vulgaris* L. (1 ♀ CG); Crocefieschi, 20.IX.1905, A. Dodero leg. (2 ♀♀ MSNG); Crocefieschi, 700 m a.s.l., 16.II.2020, C. Giusto leg., on *Thymus vulgaris* L. (10 ♀♀ CG); Davagna, Canate di Marsiglia env., 450 m a.s.l., 25.IV.2016, C. Giusto leg., on *Thymus vulgaris* L. (25 ♂♂, 10 ♀♀ CG); Genova, VI.1911, C. Mancini leg. (1 ♂, 1 ♀ MSNG); Genova-Apparizione, 250 m a.s.l., 30.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (3 ♂♂, 1 ♀ CG); Genova-Bavari env., 300 m a.s.l., 31.V.2013, C. Giusto, G. Gardini & S. Zoia leg., on *Thymus vulgaris* L. (27 ♂♂, 19 ♀♀ CG); Genova-Bavari, VI.1907, C. Mancini leg. (1 ♀ MSNG); Genova-Bavari env., 300 m a.s.l., 7.VI.2017, C. Giusto & G. Gardini leg., on *Thymus vulgaris* L. (10 ♂♂, 4 ♀♀ CG); Genova-Bavari env., 250 m a.s.l., 22.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (13 ♂♂, 10 ♀♀ CG); Genova-Chiappeto, 2.VI.1953, F. Capra leg. (1 ♀ MSNG); Genova-Granarolo, 21.VII.1961, G. Bartoli leg. (3 ♂♂, 5 ♀♀ MSNG); Genova-Granarolo, 4.IV.1967, G. Bartoli leg., on *Thymus* sp. (2 ♀♀ MSNG); Genova-Molassana, 21.V.1944, G. Binaghi leg., on *Thymus vulgaris* L. (11 ♂♂, 7 ♀♀ MSNG); Genova-Molassana, 28.III.1976, G. Gardini leg. (1 ♀ MSNG); Genova-Molassana, 11.V.1982, C. Giusto leg., on *Thymus vulgaris* L. (5 ♂♂ CG); Genova-Molassana, 16.VIII.1962, L. Briganti leg. (1 ♀ CG); Genova-Molassana, V.1944, A. Baliani leg. (1 ♂ CG); Genova-Quezzi, 19.XI.1967, G. Bartoli leg., on *Thymus vulgaris* L. (5 ♀♀ MSNG); Genova-Quezzi, 29.V.1963, G. Bartoli leg., on *Thymus* sp. (1 ♀ MSNG); Genova-Quinto al Mare, Rio San Pietro, 200 m a.s.l., 15.III.2020, C. Giusto leg., on *Thymus vulgaris* L. (3 ♀♀ CG); Genova-Quinto al Mare, Rio San Pietro, 70 m a.s.l., 28.IV.2019, C. Giusto leg., on *Thymus vulgaris* L. (13 ♂♂, 11 ♀♀ CG); Genova-Quinto al Mare, Rio San Pietro, 100 m a.s.l., 6.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (3 ♂♂, 3 ♀♀ BMNH; 39 ♂♂, 43 ♀♀ CG; 3 ♂♂, 3 ♀♀ CMNC; 3 ♂♂, 3 ♀♀ EC; 3 ♂♂, 3 ♀♀ MNHN; 3 ♂♂, 3 ♀♀ MSNG; 3 ♂♂, 3 ♀♀ MSNM; 3 ♂♂, 3 ♀♀ MW; 3 ♂♂, 3 ♀♀ NMW; 3 ♂♂, 3 ♀♀ RC; 3 ♂♂, 3 ♀♀ SDEI; 3 ♂♂, 3 ♀♀ ZMHB); Genova-Righi, 30.IV.1976, G. Bartoli leg., on *Thymus vulgaris* L. (1 ♂, 1 ♀ MSNG); Genova-Righi, 5.VI.1980, G. Bartoli leg., on *Thymus vulgaris* L. (1 ♀ MSNG); Genova-San Desiderio, 16.IV.1961, G. Bartoli leg., on *Thymus* sp. (6 ♀♀ MSNG); Genova-San Desiderio, 8.IV.1962, G. Bartoli leg., on *Thymus* sp. (4 ♀♀ MSNG); Genova, Monte Fasce, 830 m a.s.l., 11.VII.2020, C. Giusto leg., on *Thymus vulgaris* L. (1 ♀ CG); Genova, Monte Fasce, slopes S, 700 m a.s.l., 11.VII.2020, C. Giusto leg., on *Thymus vulgaris* L. (2 ♂♂, 1 ♀ CG); Genova, Monte Fasce, slopes S, 300 m a.s.l., 26.X.2014, C. Giusto leg., on *Thymus vulgaris* L. (5 ♂♂, 20 ♀♀ CG); Genova, Monte Fasce, slopes W, 300 m a.s.l., 18.XI.2017, C. Giusto leg., on *Thymus vulgaris* L. (2 ♀♀ CG); Genova, Monte Fasce, slopes S, 400 m a.s.l., 6.V.2020, C. Giusto leg., on *Thymus vulgaris* L. (14 ♂♂ CG; 3 ♂♂, 3 ♀♀ CGE; 3 ♂♂, 3 ♀♀ FS; 3 ♂♂, 3 ♀♀ KS; 3 ♂♂, 3 ♀♀ LD; 3 ♂♂, 3 ♀♀ MK; 3 ♂♂, 3 ♀♀ TAUI; 3 ♂♂, 3 ♀♀ TLFN; 3 ♂♂, 3 ♀♀ ZMUH); Genova, Monte Fasce, 16.IX.1967, G. Bartoli leg., on *Thymus vulgaris* L. (1 ♀ MSNG); Genova, Monte Fasce, 25.VIII.1884, Caneva leg. (1 ♀ MSNG – *Apion atomarium*, det. J. Desbrochers des Loges); Genova, Monte Gazzo, slopes SE, 200–300 m a.s.l., 1.I.2019, C. Giusto leg., on *Thymus vulgaris* L. (13 ♀♀ CG); Genova, Monte Ratti,

slopes S, 500 m a.s.l., 14.I.2018, C. Giusto leg., on *Thymus vulgaris* L. (5 ♀♀ CG); Montoggio, Creto, 11.VII.1961, G. Bartoli leg. (1 ♂ MSNG); Montoggio, Creto, 4.X.1968, G. Bartoli leg., on *Thymus vulgaris* L. (3 ♀♀ MSNG); Montoggio, Creto, 600 m a.s.l., 16.II.2020, C. Giusto leg., on *Thymus vulgaris* L. (4 ♀♀ CG); Montoggio, Creto, 600 m a.s.l., 28.IX.2014, C. Giusto leg., on *Thymus vulgaris* L. (1 ♂, 2 ♀♀ CG); Montoggio, Creto, env. E, 650 m a.s.l., 22.V.2020, C. Giusto, G. Gardini & P. Gardini leg., on *Thymus vulgaris* L. (7 ♂♂, 10 ♀♀ CG); Rapallo, Monte Caravagli, slopes, 400 m a.s.l., 16.I.1993, C. Giusto leg., on *Thymus vulgaris* L. (2 ♀♀ CG); Rapallo, Monte Pegge, slopes S, 700 m a.s.l., 1.I.2020, C. Giusto leg., on *Thymus vulgaris* L. (4 ♀♀ CG); Rapallo, Passo della Crocetta, 550 m a.s.l., 20.VI.1992, C. Giusto leg., on *Thymus vulgaris* L. (1 ♂, 4 ♀♀ CG); Sestri Levante, Trigoso, 75 m a.sl., 1.XI.2020, C. Giusto leg., on *Thymus vulgaris* L. (4 ♀♀ CG); Sori, 9.III.1969, G. Bartoli leg., on *Thymus vulgaris* L. (1 ♀ MSNG); Sori, Canepa env., 350 m a.s.l., 9.VI.1991, C. Giusto leg., on *Thymus vulgaris* L. (17 ♂♂, 10 ♀♀ CG); Sori, Canepa env., 350–400 m a.s.l., 31.XII.2016, C. Giusto leg., on *Thymus vulgaris* L. (9 ♀♀ CG); Vobbia, 470 m a.s.l., 16.II.2020, C. Giusto leg., on *Thymus vulgaris* L. (2 ♀♀ CG);—*Imperia Province*: Ventimiglia, Capo Mortola, 50 m a.s.l., 10.V.2019, C. Giusto leg., on *Thymus vulgaris* L. (1 ♂ CG); Ventimiglia, Villatella, 400–500 m a.s.l., 10.V.2019, C. Giusto leg., on *Thymus vulgaris* L. (2 ♀♀ CG);—*La Spezia Province*: Deiva Marina, Ca' Marcone env., 475 m a.s.l., 1.XI.2020, C. Giusto leg., on *Thymus vulgaris* L. (1 ♂, 2 ♀♀ CG); Deiva Marina, Passo del Bracco, 7.VI.2006, L. Diotti leg. (1 ♂, 3 ♀♀ LD); Portovenere, Monte Muzzerone, slopes NW, 220 m a.s.l., 22.II.2020, C. Giusto leg., on *Thymus vulgaris* L. (5 ♀♀ CG);—*Savona Province*: Albenga, 25.IV.1901, A. Dodero leg. (1 ♀ MSNG); Albenga, Bastia, 31.III.1968, G. Binaghi leg. (1 ♀ MSNG); Albissola Marina, 20.X.1926, F. Capra leg. (1 ♀ MSNG); Bergeggi, Monte Mao, 400 m a.s.l., 10.IV.2017, C. Giusto, G. Gardini & A. Trotta leg., on *Thymus vulgaris* L. (1 ♀ CG); Boissano env., 150 m a.s.l., 15.V.1994, C. Giusto leg., on *Thymus vulgaris* L. (12 ♂♂, 8 ♀♀ CG); Celle Ligure, Bric dei Corvi, 250 m a.s.l., 7.V.1995, C. Giusto leg., on *Thymus vulgaris* L. (2 ♂♂ CG); Cisano sul Neva, Poggio Croce Ceresa, 700 m a.s.l., 10.VII.2002, C. Giusto leg., on *Thymus vulgaris* L. (2 ♂♂ CG); Finale Ligure, Finalmarina, 22.V.1899, A. Dodero leg. (14 ♂♂, 5 ♀♀ MSNG); Noli, Capo Noli, 3.IV.1966, G. Bartoli leg., on *Thymus* sp. (1 ♀ MSNG); Toirano, Salto del Lupo, 180–200 m a.s.l., 15.VI.2016, C. Giusto leg., on *Thymus vulgaris* L. (6 ♂♂, 11 ♀♀ CG); Villanova d'Albenga, Coasco, 54 m a.s.l., 21.XI.2015, C. Giusto leg., on *Thymus vulgaris* L. (5 ♀♀ CG);—***Piedmont***: *Alessandria Province*: Dernice env., 21.IV.2016, L. Diotti leg. (1 ♀ CG); Dernice, Costa di Montebore, 680 m a.s.l., 21.VI.2020, C. Giusto leg., on *Thymus vulgaris* L. (8 ♂♂, 8 ♀♀ CG); Dernice, Montebore, 20.I.2018, L. Diotti leg. (1 ♀ CG; 1 ♀ LD); Dernice, Montebore, 29.VIII.2014, L. Diotti leg. (2 ♀♀ LD); Dernice, Montebore, 28.IX.2016, L. Diotti leg. (2 ♂♂, 2 ♀♀ LD); Dernice, Montebore, 24.VI.2020, L. Diotti leg. (4 ♂♂, 8 ♀♀ LD); Dernice, Montebore, 24.VI.2020, M. Tedeschi leg. (3 ♂♂, 3 ♀♀ MT).

SPAIN—*Community of Madrid*: *Madrid Province*: Santa María de la Alameda, La Paradilla, 1,100 m a.s.l., 27.VI.1991, C. Giusto leg., on *Thymus vulgaris* L. (2 ♀♀ CG).

Etymology. It is a real pleasure and an honor for me to dedicate the new taxon to Giulio Gardini, pseudoscorpion specialist, friend, mentor and research partner in my first 40 years of entomology.

Description (♂♀). Body stocky; Lb: ♂ 1.20–1.77 mm [1.64 mm] (1.67 mm), ♀ 1.30–1.79 mm [1.60 mm]. Body integument black; femora black; tibiae and tarsi dark brown to nearly black; in male, antennae testaceous with darker club and sometimes with darkened distal funicular segments; in female, antennae dark brown to nearly black. Vestiture dense, composed of white scales, rarely white-greyish; hair-like on prorostrum and ventrite 5; narrowly lanceolate on metarostrum, pronotal disc, elytra and on body venter; lanceolate, with truncate apex, around eyes, on body sides and on legs; on elytral intervals, scales, only just longer than width of intervals, arranged in two quite irregular rows, partially overlapping; at base of intervals 2–4, scales more numerous forming short multiple rows; at base of interval 3, scales, with truncate apex, arranged in a more or less condensed patch; interstrial scales similar to those on intervals, barely separated from each other (Figs 1–2).

Rostrum rather long; in dorsal view, obtusely dentiform at antennal insertion, narrowed from mesorostrum to the half of prorostrum, then cylindrical up to apex; in lateral view, sometimes feebly bent at antennal insertion and with prorostrum regularly curved, less in male, more in female, narrowing at apex in male or equally high on whole length in female (Figs 5–8); rostral surface shagreened, almost matt in male, weakly shining in female; shallowly punctate; in male, up to half prorostrum with sparse, whitish, hair-like scales and then with microscopic scales up to apex; in female almost whole prorostrum clothed with microscopic and sparse scales. Head transverse; eyes, in male, moderately large and regularly convex, in female distinctly smaller; frons flat, strongly punctate and microsculptured with almost indistinct median fovea in some specimens. Antennae (Figs 13–14) inserted at basal 0.13–0.19 of rostrum, slender and with white and weakly erect setae.

TABLE 1. Measurements and ratios of *Squamapion atomarium*, *Squamapion gardinii* n. sp., *Squamapion terraesanctae*, *Squamapion bifarium*, *Squamapion kandarense* and *Squamapion solariorum*.

		male	female		male	Female
S. atomarium	*Lb*	1.33–1.72 [1.53] mm	1.27–1.72 [1.56] mm	*Wh*	0.28–0.34 [0.31] mm	0.26–0.32 [0.30] mm
S. gardinii		1.20–1.77 [1.64] (1.67) mm	1.30–1.79 [1.60] mm		0.25–0.36 [0.32] (0.33) mm	0.25–0.34 [0.30] mm
S. terraesanctae		1.57–1.60 [1.59] mm	1.62–1.70 [1.66] mm		0.31–0.34 [0.32] mm	0.31–0.32 [0.32] mm
S. bifarium		-	1.46–1.50 [1.48] mm		-	0.27–0.30 [0.29] mm
S. kandarense		-	1.64 mm		-	0.30 mm
S. solariorum		-	(1.71) mm		-	(0.32) mm
S. atomarium	*Lr*	0.36–0.44 [0.40] mm	0.44–0.60 [0.54] mm	*Ley*	0.15–0.19 [0.16] mm	0.12–0.17 [0.15] mm
S. gardinii		0.38–0.55 [0.49] (0.50) mm	0.50–0.70 [0.63] mm		0.12–0.21 [0.18] (0.20) mm	0.13–0.18 [0.15] mm
S. terraesanctae		0.48–0.50 [0.49] mm	0.66–0.71 [0.69] mm		0.18–0.19 [0.19] mm	0.16–0.17 [0.16] mm
S. bifarium		-	0.63–0.65 [0.64] mm		-	0.15–0.16 [0.16] mm
S. kandarense		-	0.68 mm		-	0.15 mm
S. solariorum		-	(0.68) mm		-	(0.16) mm
S. atomarium	*Lpr*	0.29–0.36 [0.33] mm	0.37–0.51 [0.45] mm	*Lp*	0.34–0.44 [0.39] mm	0.32–0.43 [0.40] mm
S. gardinii		0.32–0.47 [0.41] (0.42) mm	0.45–0.62 [0.55] mm		0.31–0.47 [0.44] (0.44) mm	0.32–0.49 [0.41] mm
S. terraesanctae		0.38–0.41 [0.39] mm	0.56–0.60 [0.58] mm		0.40–0.42 [0.41] mm	0.43–0.46 [0.45] mm
S. bifarium		-	0.53–0.56 [0.55] mm		-	0.35–0.38 [0.37] mm
S. kandarense		-	0.58 mm		-	0.42 mm
S. solariorum		-	(0.58) mm		-	(0.42) mm
S. atomarium	*Lmtr*	0.06–0.09 [0.08] mm	0.07–0.12 [0.10] mm	*Wpa*	0.33–0.41 [0.37] mm	0.32–0.42 [0.39] mm
S. gardinii		0.06–0.10 [0.09] (0.09) mm	0.07–0.12 [0.10] mm		0.33–0.44 [0.40] (0.40) mm	0.31–0.44 [0.40] mm
S. terraesanctae		0.09–0.10 [0.10] mm	0.12–0.13 [0.12] mm		0.38–0.39 [0.38] mm	0.39–0.42 [0.40] mm
S. bifarium		-	0.11–0.12 [0.12] mm		-	0.37–0.37 [0.37] mm
S. kandarense		-	0.11 mm		-	0.39 mm
S. solariorum		-	(0.11) mm		-	(0.41) mm
S. atomarium	*Wra*	0.08–0.11 [0.10] mm	0.08–0.11 [0.10] mm	*Wp*	0.42–0.54 [0.48] mm	0.39–0.55 [0.49] mm
S. gardinii		0.08–0.10 [0.09] (0.09) mm	0.07–0.10 [0.09] mm		0.40–0.56 [0.52] (0.50) mm	0.39–0.56 [0.50] mm
S. terraesanctae		0.10–0.11 [0.10] mm	0.10–0.10 [0.10] mm		0.48–0.51 [0.50] mm	0.51–0.53 [0.52] mm
S. bifarium		-	0.08–0.08 [0.08] mm		-	0.46–0.47 [0.47] mm
S. kandarense		-	0.09 mm		-	0.50 mm
S. solariorum		-	(0.08) mm		-	(0.50) mm

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TABLE 1. (Continued)

		male	female		male	Female
S. atomarium		0.11–0.15 [0.13] mm	0.10–0.14 [0.12] mm		0.46–0.59 [0.52] mm	0.42–0.59 [0.53] mm
S. gardinii		0.11–0.16 [0.15] (0.15) mm	0.10–0.15 [0.13] mm		0.42–0.62 [0.57] (0.56) mm	0.42–0.64 [0.55] mm
S. terraesanctae	*Wmsr*	0.13–0.15 [0.14] mm	0.14–0.14 [0.14] mm	*Wpb*	0.55–0.57 [0.56] mm	0.56–0.58 [0.57] mm
S. bifarium		-	0.11–0.12 [0.11] mm		-	0.51–0.53 [0.52] mm
S. kandarense		-	0.13 mm		-	0.57 mm
S. solariorum		-	(0.13) mm		-	(0.55) mm
S. atomarium		3.58–4.31 [3.82]	2.84–3.13 [2.95]		0.74–0.87 [0.81]	0.74–0.84 [0.81]
S. gardinii		3.00–3.70 [3.37] (3.34)	2.25–2.71 [2.54]		0.78–0.92 [0.84] (0.88)	0.74–0.98 [0.82]
S. terraesanctae	*Lb/Lr*	3.18–3.31 [3.25]	2.35–2.45 [2.42]	*Lp/Wp*	0.80–0.83 [0.82]	0.81–0.90 [0.86]
S. bifarium		-	2.31–2.32 [2.31]		-	0.76–0.81 [0.78]
S. kandarense		-	2.41		-	0.84
S. solariorum		-	(2.51)		-	(0.84)
S. atomarium		0.16–0.24 [0.20]	0.15–0.20 [0.19]		0.94–1.25 [1.09] mm	0.88–1.25 [1.13] mm
S. gardinii		0.15–0.19 [0.18] (0.18)	0.13–0.18 [0.16]		0.85–1.29 [1.21] (1.20) mm	0.94–1.32 [1.17] mm
S. terraesanctae	*Lmtr/Lr*	0.18–0.21 [0.20]	0.17–0.19 [0.18]	*Le*	1.14–1.17 [1.15] mm	1.18–1.25 [1.21] mm
S. bifarium		-	0.17–0.18 [0.18]		-	1.08–1.11 [1.10] mm
S. kandarense		-	0.16		-	1.17 mm
S. solariorum		-	(0.16)		-	(1.24) mm
S. atomarium		2.77–3.42 [3.07]	4.17–4.73 [4.35]		0.62–0.80 [0.70] mm	0.59–0.82 [0.75] mm
S. gardinii		2.94–3.85 [3.37] (3.33)	4.43–5.42 [4.88]		0.58–0.85 [0.79] (0.80) mm	0.61–0.89 [0.79] mm
S. terraesanctae	*Lr/Wmsr*	3.20–3.69 [3.40]	4.71–5.07 [4.91]	*We*	0.73–0.77 [0.75] mm	0.78–0.81 [0.79] mm
S. bifarium		-	5.42–5.73 [5.57]		-	0.70–0.75 [0.73] mm
S. kandarense		-	5.23		-	0.78 mm
S. solariorum		-	(5.23)		-	(0.82) mm

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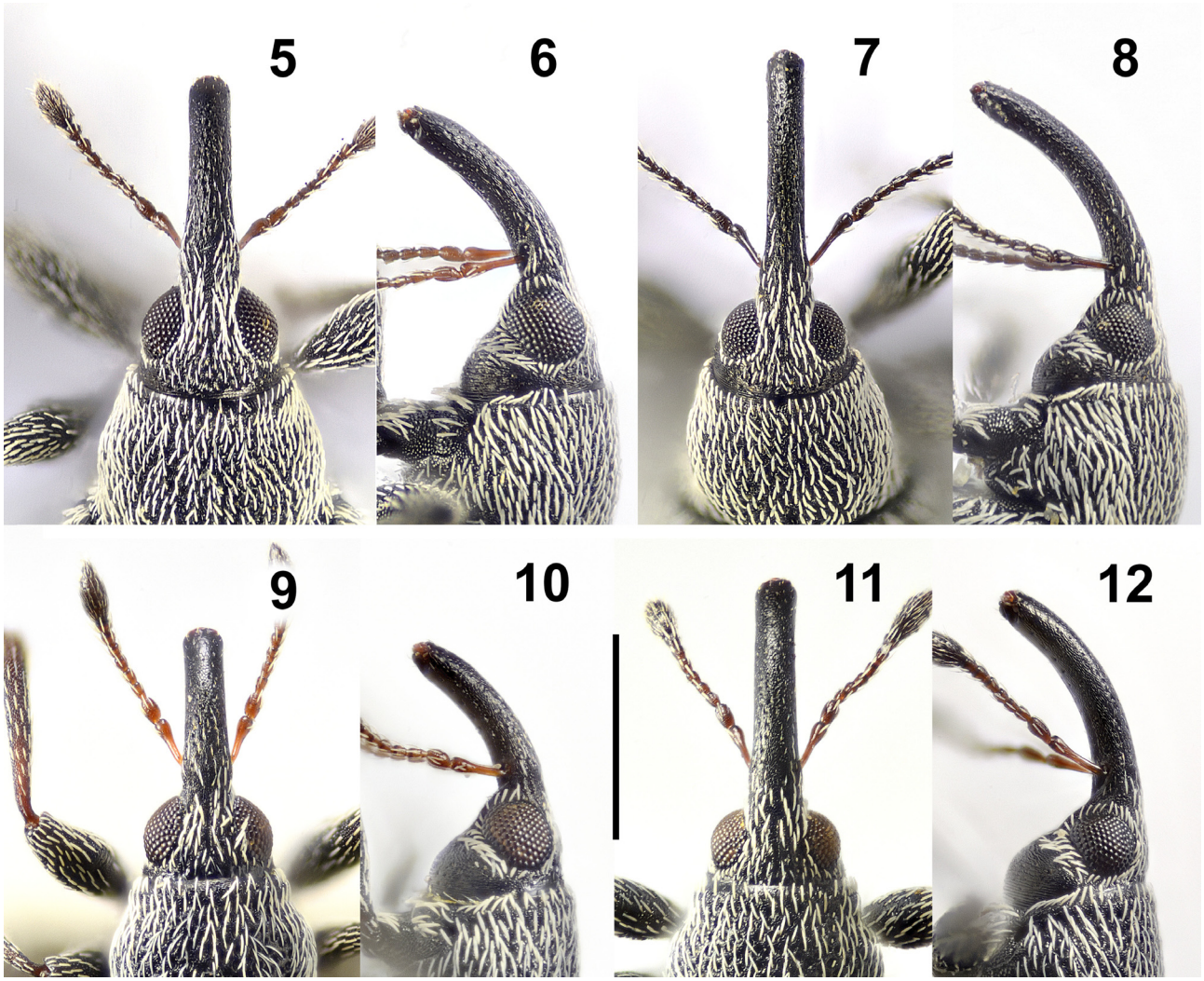
TABLE 1. (Continued)

		male	female		male	Female
S. atomarium	*Lr/Wra*	3.82–4.78 [4.19]	5.09–6.00 [5.58]	*Web*	0.57–0.74 [0.65] mm	0.53–0.73 [0.67] mm
S. gardinii		4.70–5.78 [5.26] (5.56)	6.20–7.78 [7.05]		0.53–0.79 [0.72] (0.72) mm	0.53–0.79 [0.70] mm
S. terraesanctae		4.45–5.00 [4.79]	6.00–7.10 [6.88]		0.67–0.70 [0.69] mm	0.72–0.75 [0.73] mm
S. bifarium		-	7.88–8.13 [8.00]		-	0.65–0.67 [0.66] mm
S. kandarense		-	7.56		-	0.72 mm
S. solariorum		-	(8.50)		-	(0.73) mm
S. atomarium	*Lr/Lp*	0.92–1.14 [1.04]	1.21–1.46 [1.37]	*Le/We*	1.45–1.63 [1.55]	1.47–1.60 [1.52]
S. gardinii		1.00–1.23 [1.12] (1.14)	1.39–1.68 [1.53]		1.38–1.64 [1.51] (1.51)	1.42–1.57 [1.49]
S. terraesanctae		1.17–1.20 [1.19]	1.46–1.61 [1.54]		1.50–1.58 [1.53]	1.49–1.54 [1.52]
S. bifarium		-	1.71–1.80 [1.76]		-	1.48–1.54 [1.51]
S. kandarense		-	1.62		-	1.50
S. solariorum		-	(1.62)		-	(1.51)
S. atomarium	*Lr/La*	0.63–0.73 [0.69]	0.82–0.96 [0.90]	*Le/Lp*	2.58–3.03 [2.82]	2.71–3.05 [2.86]
S. gardinii		0.71–0.86 [0.80] (0.79)	0.94–1.06 [0.99]		2.56–2.87 [2.73] (2.75)	2.67–3.10 [2.85]
S. terraesanctae		0.76–0.82 [0.79]	1.02–1.06 [1.05]		2.71–2.88 [2.79]	2.57–2.77 [2.70]
S. bifarium		-	0.97–1.02 [0.99]		-	2.92–3.09 [3.00]
S. kandarense		-	1.00		-	2.79
S. solariorum		-	(1.11)		-	(2.95)
S. atomarium	*La*	0.52–0.65 [0.59] mm	0.46–0.69 [0.60] mm	*We/Wp*	1.36–1.50 [1.47]	1.45–1.53 [1.49]
S. gardinii		0.47–0.69 [0.61] (0.63) mm	0.51–0.72 [0.64] mm		1.40–1.70 [1.52] (1.60)	1.51–1.78 [1.57]
S. terraesanctae		0.59–0.62 [0.64] mm	0.65–0.67 [0.66] mm		1.47–1.52 [1.49]	1.49–1.57 [1.53]
S. bifarium		-	0.62–0.67 [0.65] mm		-	1.52–1.60 [1.56]
S. kandarense		-	0.68 mm		-	1.56
S. solariorum		-	(0.61) mm		-	(1.64)

Prothorax (Figs 1–2) in dorsal view transverse, campanulate, moderately rounded at sides, widest at base with prominent hind angles; disc weakly convex, densely punctate; punctures round, 16–22 µm in diameter, separated by less than one third of their diameter; interspaces strongly microreticulate; prescutellar fovea as broad as discal punctures or weakly broader, not longer than three punctures. Scutellum triangular with curved sides, weakly depressed on disc and with two rudimentary keels at base, glabrous, microsculptured. Elytra (Figs 1–2) in dorsal view subrectangular, with slightly curved sides in male, more rounded in female; intervals 1.4–1.8 times as wide as striae, flat, rugosely microsculptured and with two rows of shallow punctures; striae sharply margined with septa between punctures distinctly deepened. Legs robust; in male, hind femora thickened; tibiae straight, relatively short, strongly widened from base to apex; protarsi robust; 1st segment 1.27–1.50 times as long as wide; 2nd 1.00–1.21 times as long as wide, 0.80–0.87 times as long as 1st; 3rd 0.72–0.86 times as long as wide, 0.84–0.93 times as long as 2nd, with narrow lobes; onychium robust, 1.09–1.33 times as long as 2nd.

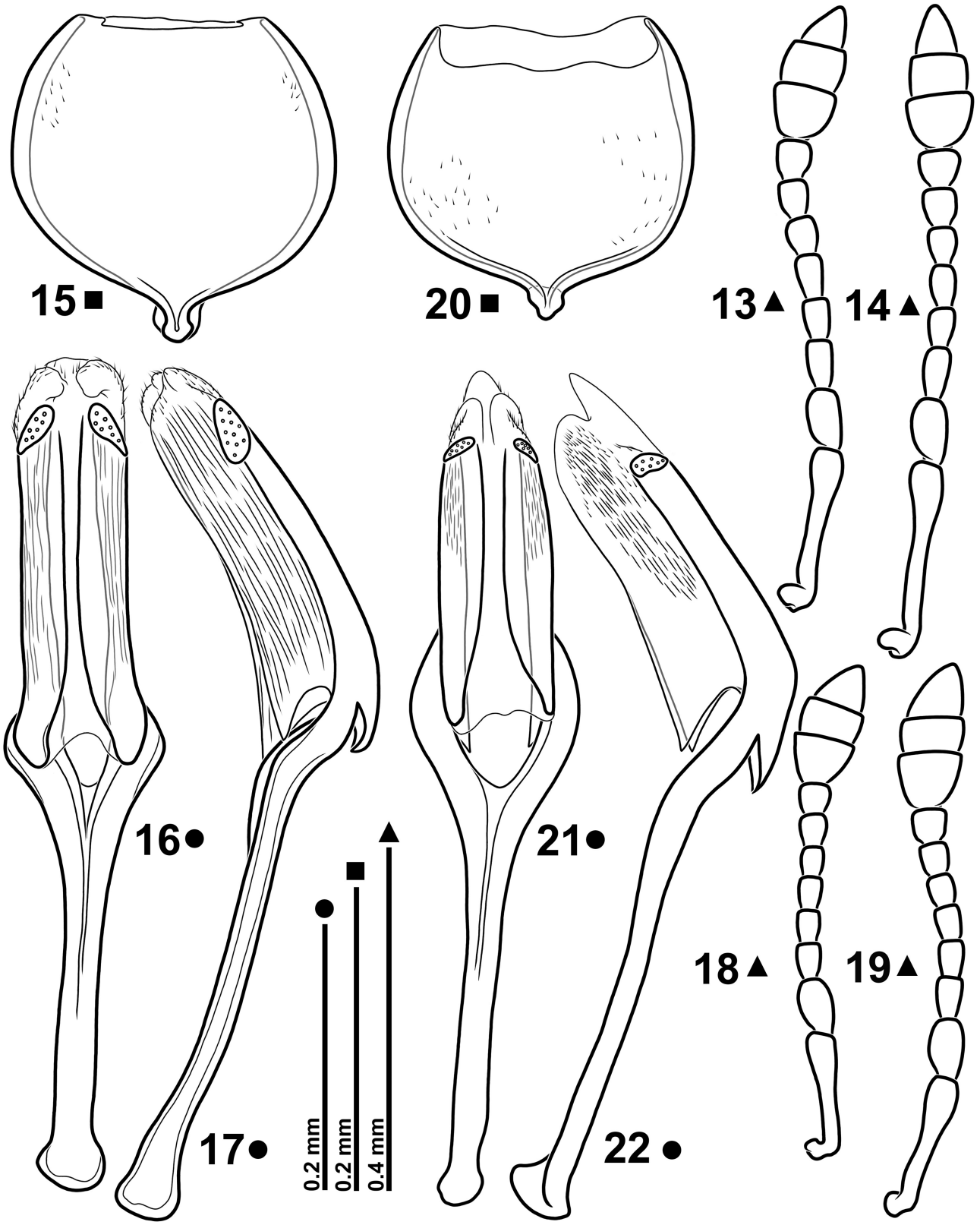


FIGURES 5–12. Head in dorsal and lateral view. 5–8: *Squamapion gardinii* n. sp., 5–6: ♂ paratype, 7–8: ♀ paratype, both from Italy: Genova-Quinto al Mare: Rio San Pietro.—9–12: *Squamapion atomarium*, 9–10: ♂, 11–12: ♀, both from Poland: Hodonín: env. Pánov. Scale bar: 0.5 mm.

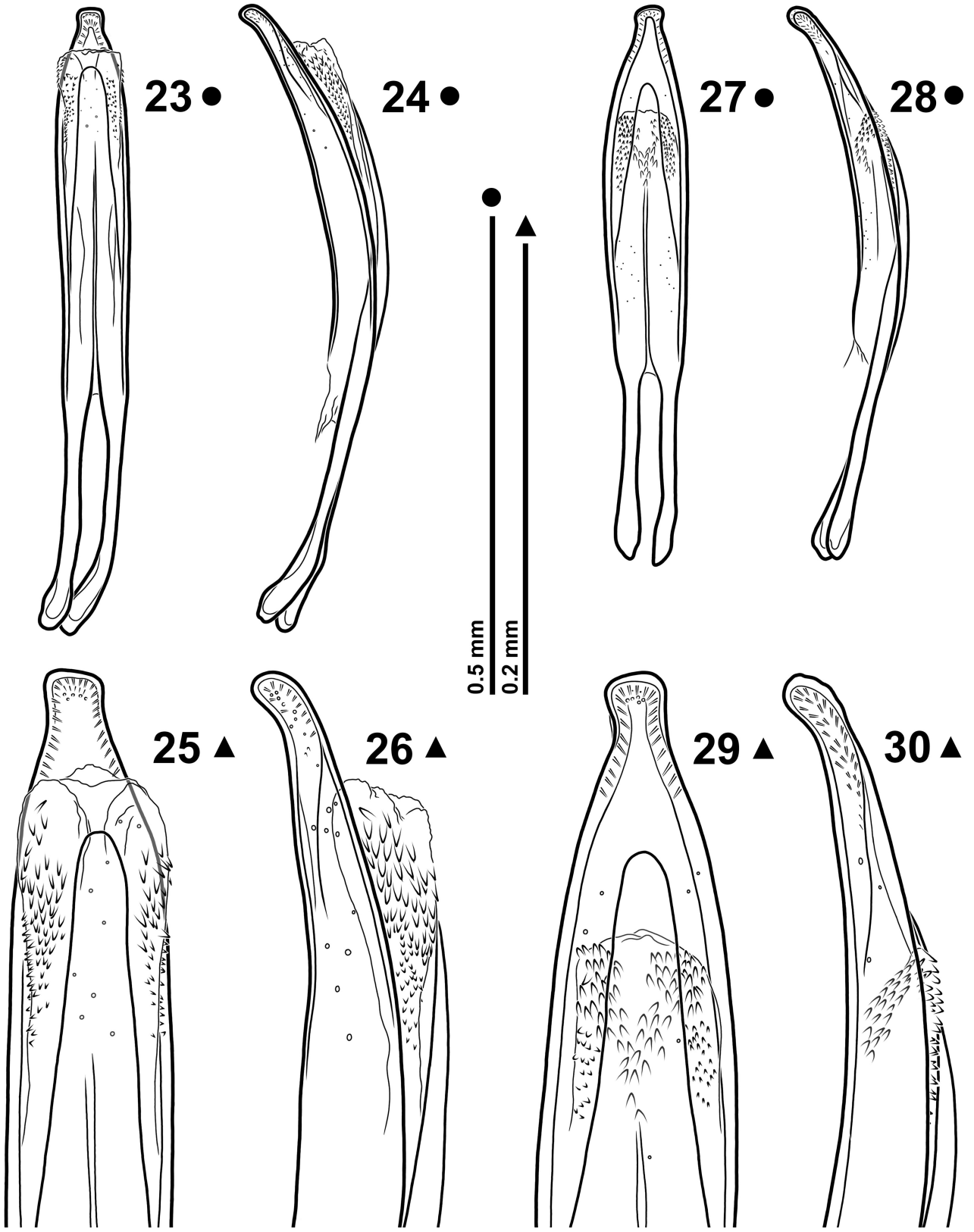
Sternite IX as in Fig. 15. Tegmen (Figs 16–17); phallobase Y-shaped with tegminal apodeme slightly longer than forked basal piece; parameral plate with median carinae moderately separated, vanishing just behind the suprafenestral sclerites; each suprafenestral sclerite bears 7–10 pores; apical membranous lobes well developed, united, margined with microchaetae; whole folded margins of parameral plate with very fine and dense longitudinal carinae. Penis (Figs 23–26) in dorsal view more or less slender, variably narrowed in distal half and ending in a slightly asymmetrical blunt tip; endophallus with a more or less defined M-shaped aggregation of spines in orificial region; basal spines small, distal ones bigger. Female sternite VIII as in Fig. 31. Spermatheca (Fig. 32) C-shaped with cornu

more or less recurved; spermathecal gland inserted on a just sketched ramus; nodulus slightly protruding. Ovipositor as in Fig. 33; foretube densely clothed with long microtrichia; gonocoxites (Figs 33–34) about 4 times as long as wide; styli inserted latero-apically, cylindrical, 2.25–2.42 times as long as wide, with 7–8 apical setae.

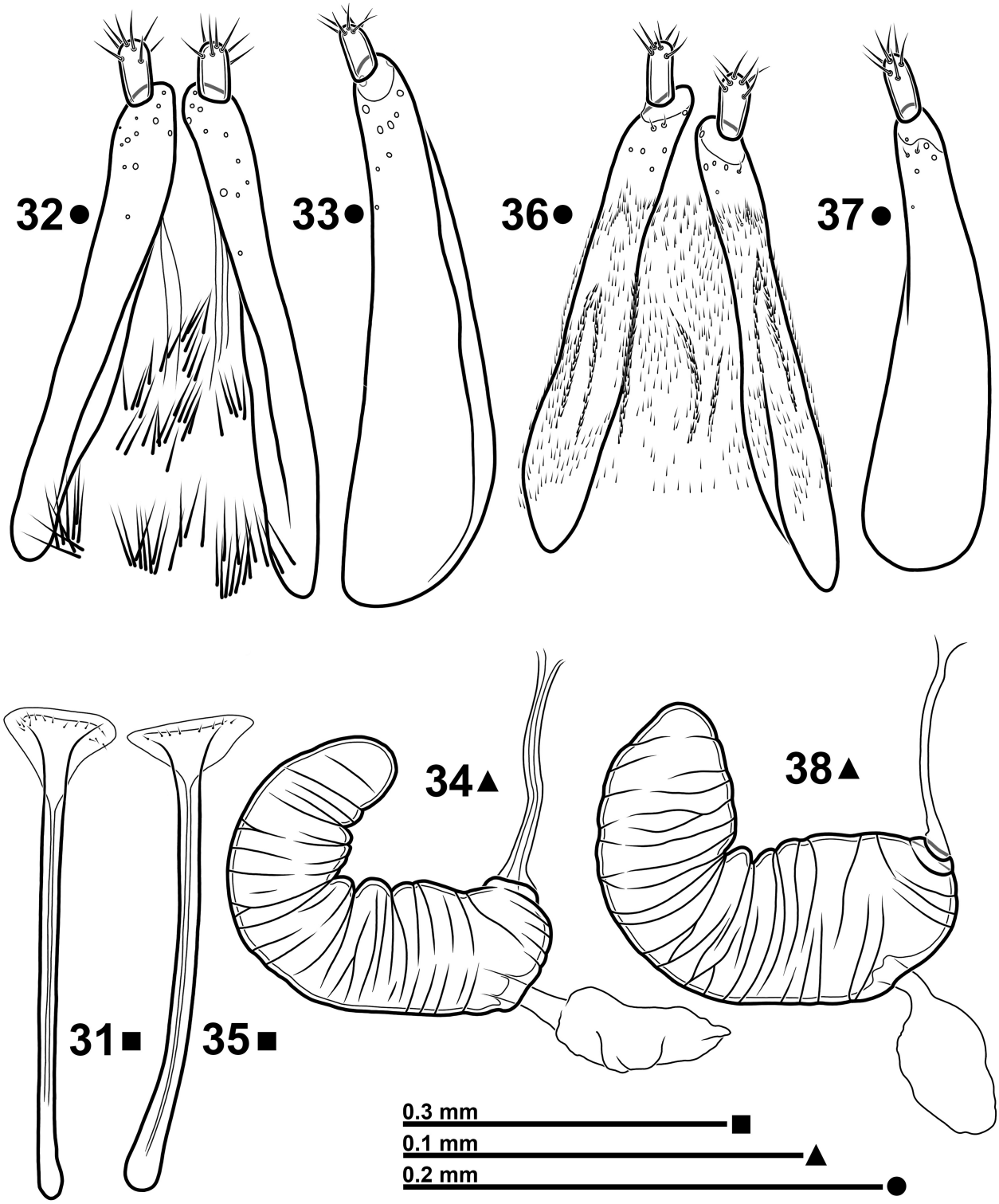
Distribution. Spain, France, Italy.



FIGURES 13–22. Antenna, sternite IX and tegmen in dorsal and lateral view. 13–17: *Squamapion gardinii* n. sp., 13, 15–17: ♂ paratype, 14: ♀ paratype, both from Italy: Genova-Quinto al Mare: Rio San Pietro.—18–22: *Squamapion atomarium*, 18, 20–22 ♂, 19: ♀, both from Poland: Hodonín: env. Pánov.



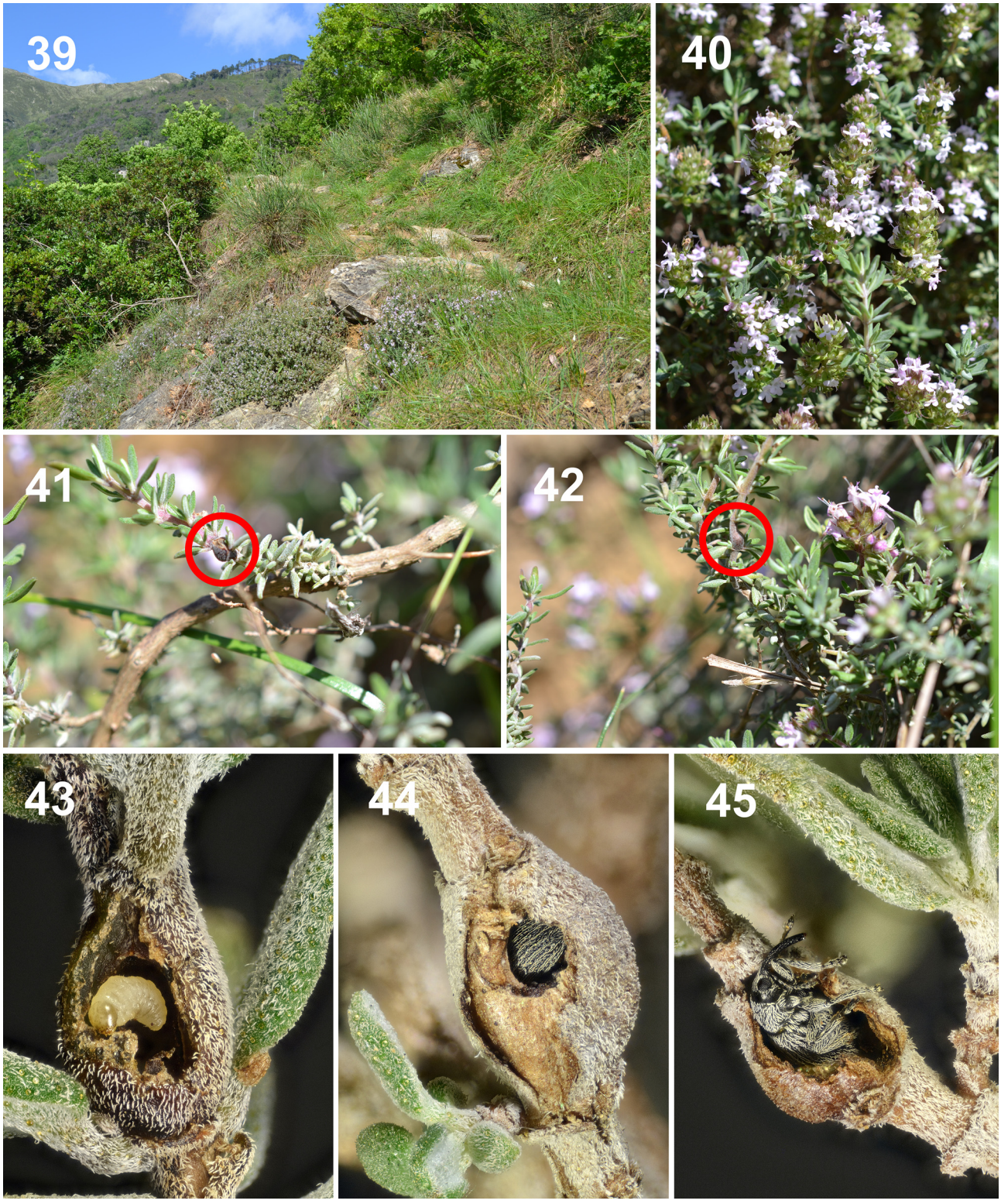
FIGURES 23–30. Penis and penal apex in ventral and lateral view. 23–26: *Squamapion gardinii* n. sp., holotype, from Italy: Genova-Quinto al Mare: Rio San Pietro.—27–30: *Squamapion atomarium*, from Poland: Hodonín: env. Pánov.



FIGURES 31–38. Sternite VIII, spermatheca and gonocoxites in ventral and lateral view. 31–34: *Squamapion gardinii* n. sp., paratype, from Italy: Genova-Quinto al Mare: Rio San Pietro.—35–38: *Squamapion atomarium*, from Italy: W slopes Monte Alpesisa: Gola di Sisa.

Host plant. *Thymus vulgaris* L. (Figs 40–42).

Bionomy. *Squamapion gardinii* prefers the garrigue and the arid meadows of the Mediterranean calcareous or siliceous/calcareous slopes, approximately from sea level (Italy, Ventimiglia, Capo Mortola, 50 m a.s.l.) up to 1,100 m a.s.l. (Spain, Santa María de la Alameda, La Paradilla); it is particularly abundant between 100 and 500 m above sea level (Fig. 39).



FIGURES 39–45. Habitat and host plant. 39: the type locality, Genova-Quinto al Mare: Rio San Pietro.—40—45: *Thymus vulgaris* and galls on its stems, all from the type locality.

Plants that host *S. gardinii* show little damage caused by the adults: small damage is visible on the leaves while it is possible to observe the galls—inside which the insects develop—on the stems (Figs 41–45). No galls were found on roots.

Adults are present on the host plant all year round, but they are particularly numerous from April to June and again quite frequent from October to December.

Remarks. Some authors had already noted in the past that the southernmost populations of *S. atomarium* were a little different from those of central Europe. Indeed, it is worth remembering what was written by Sainte-Claire Deville (1924): *"J'ai capturé çà et lâ l'A. atomarium dans des montagnes sèches du Midi de la France où le Thymus serpyllum n'existait pas et où par contre Ie T. vulgaris était abondant; les individus de cette provenance sont plus robustes et leur pubescence est plus apparente"*, observations also quoted later by Hoffmann (1929, 1958). Just two years before, Schatzmayr (1922) had already observed some differences within different populations of *S. atomarium* underlining the extraordinary body length of the specimens from Montoggio (Liguria, Italy), *"sino a 2,4 mm"*.

At first glance, thanks to its dense vestiture, *S. gardinii* appears whitish whilst, probably due to its stocky body, it seems much larger than it really is. Measurements specified in Table 1, in fact, show that *S. gardinii* on average is just a little bit larger than *S. atomarium* and that dimensions of the two species are rather similar (cfr. Figs 1–2 with Figs 3–4). The analysis of rostral morphology reveals the most useful characters to discriminate *S. gardinii* from *S atomarium*: both sexes of the new species show—on average—a longer and thinner rostrum and a dentiform mesorostral dilatation, whereas the rostrum of *S. atomarium* is thicker and the mesorostral dilatation is dentiform in males and obtusely rounded in females (cfr. Figs 5–8 with Figs 9–12).

Among the other species of *Squamapion*, only *Squamapion solariorum* (Wagner, 1908) **n. stat.** (see below), *Squamapion bifarium* (Balfour-Browne, 1944), *Squamapion kandarense* (Hustache, 1946) and *Squamapion terraesanctae* Friedman & Freidberg, 2007 share with *S. gardinii* the long and thin rostrum. Despite the small number of specimens examined of some of these species (see Appendix 1) and the fact that their measurements and their ratios overlap abundantly, it is easy to observe that, regardless of the curvature of rostrum—more recurved in *S. solariorum*, *S. bifarium* and *S. kandarense*, less in *S. terraesanctae*—all their female mesorostra are obtusely rounded in dorsal view. Moreover, their vestiture differs from that of *S. gardinii* being composed of piliform scales ordered in a single row on elytral intervals, sometimes forming 2–3 short confused rows at base of intervals 2–4, and often arranged in a poorly condensed patch at base of interval 3. The body outlines of all of them are stout, but less than in *S. gardinii*; their humeral calli are more prominent, their pronotal surfaces are slightly less densely punctate and the interspaces are microreticulate and weakly shiny.

A further, although partial, aid for recognizing these species comes from the knowledge of their host plants: *S. atomarium* is oligophagous on some *Thymus* species, mainly on taxa belonging to "*Thymus serpyllum* L." and "*Thymus pulegioides* L." groups; also *S. gardinii* is associated to *Thymus*, but it is monophagous on *Thymus vulgaris* L. *Squamapion terraesanctae* lives on *Satureja thymbra* L. and *Origanum syriacum* L. Raf. whilst *Mentha longifolia typhoides* (Briq.) Briq. (= *Mentha longifolia cyprica* (Heinr. Braun) Harley) is doubtfully quoted as the host plant of *S. bifarium* by Friedman & Freidberg (2007). Unfortunately, no data about host plants of *S. solariorum* and *S. kandarense* are available, even though their association with *Thymus* is predictable.

The ecology and the phenology of *S. gardinii* and *S. atomarium* are also different: the latter species inhabits arid meadows on hills and mountains with calcareous or siliceous soils from 250 to 2,450 m a.s.l. being particularly common from 500 to 1,500 m a.s.l. with adults on the host plants from April to December, but the peak attendance is recorded between June and September (especially in September).

***Squamapion solariorum* (Wagner, 1908) n. stat.**

(Figs 46–48)

Apion consors; Wagner 1908a: 311 [in part, Algeria: Aïn Touta]
Apion consors solariorum Wagner, 1908b: 105; Schatzmayr 1922: 43
Apion [(*Catapion*)] *consors var. Solariorum*; Wagner 1910: 20; Wagner 1912: 52
Apion (*Squamapion*) *consors Solariorum*; Winkler & Wagner 1930: 1391
Apion consors var. solariorum; Kocher 1953: 112
Apion (*Thymapion*) *consors* var. *solarianum*; Hoffmann 1958: 1590, 1591, 1831 [incorrect spelling]
Apion consors (?) *solariorum*; Kocher 1961: 20
Squamapion consors solariorum; Alonso-Zarazaga 2011: 161; Alonso-Zarazaga *et al.* 2017: 80

Type locality. Aïn Touta (Aïn Touta District, Batna Province, Algeria).

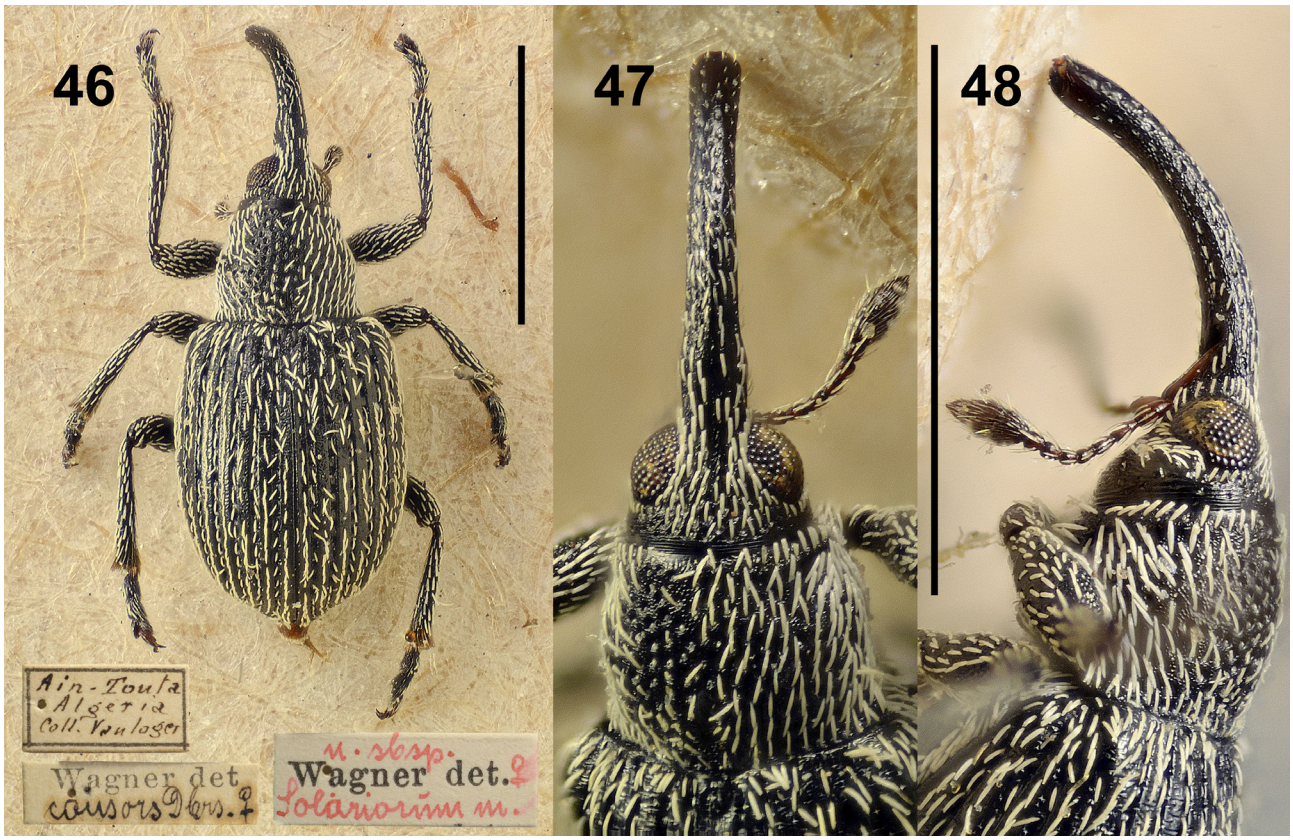
Diagnosis. A *Squamapion* species belonging to the "*vicinum* group" as defined by Wanat (1997). Among the Mediterranean *Squamapion* species, it differs in having the following combination of characters: long and slender

rostrum with obtusely rounded mesorostrum; parallelsided elytra with well developed humeral calli; vestiture, on elytral intervals, arranged in a single regular row. No close affinity seems to exist with *Squamapion consors* (Desbrochers des Loges, 1875); female of the latter species mainly differs in having thicker and less curved rostrum (Lr: 0.63–0.68 mm [0.65 mm]; Lpr: 0.53–0.56 mm [0.54 mm]; Lmtr: 0.12–0.14 mm [0.13 mm]; Wra: 0.11–0.12 mm [0.12 mm]; Wmsr: 0.15–0.18 mm [0.16 mm]; Lr/Wmsr: 3.78–4.20 [4.01]; Lr/Wra: 5.42–5.73 [5.60]); elytral profile, in dorsal view, distinctly rounded; body vestiture composed of yellow-gold, lanceolate scales; vestiture, on elytral intervals, arranged in 2–3 irregular rows. For its relationships with *S. kandarense*, see the remarks below.

Type material examined. Holotype (♀): **ALGERIA—*Batna***: *Aïn Touta District*: "Ain-Touta / Algeria / Coll. Vauloger" // "Wagner det / consors Dbrs. ♀" // "n. sbsp. / Wagner det. ♀ / Solariorum m." (MSNM).

Redescription (♀). Lb: 1.71 mm. Body integument black; femora black; tibiae and tarsi nearly black; antennae brown. Vestiture composed of cream-white lanceolate scales; on elytral intervals, scales are arranged in a single regular row, partially overlapping, as long as interval width; at base of intervals 2–4, few scales are arranged in short multiple confused rows; at base of interval 3 few scales, with truncate apex, are arranged in a loosely condensed patch; interstrial scales similar to those on intervals, barely separated from each other (Fig. 46).

Rostrum rather long, thin; in dorsal view obtusely rounded at antennal insertion, just narrowed from mesorostrum to half of prorostrum, then cylindrical up to apex; in lateral view distinctly and regularly curved, equally high on whole length (Figs 47–48); rostrum weakly shagreened, shining in the apical quarter; shallowly punctate; in basal half sparsely clothed with lanceolate scales with truncate apex; in apical half with sparser piliform scales up to apex. Head transverse; eyes rather small, regularly convex; frons flat, strongly punctate and microsculptured with almost indistinct median fovea. Antennae inserted at basal 0.16 of rostrum, slender with white and weakly erect setae.



FIGURES 46–48. Habitus and head in dorsal and lateral view of *Squamapion solariorum*, ♀ holotype, from Algeria: Aïn Touta. Scale bar: 1 mm.

Prothorax (Fig. 46) transverse, campanulate, moderately rounded at sides, widest at base and with prominent posterior angles; disc weakly convex, densely punctate; punctures round, 16–23 µm in diameter, separated by less than one third of their diameter; interspaces microreticulate; prescutellar fovea as broad as disc punctures, not longer than three punctures. Scutellum subrounded, weakly depressed on disc and with two rudimentary keels, glabrous,

microsculptured. Elytra (Fig. 46), in dorsal view, subrectangular, with slightly curved sides; intervals about 1.5 times as wide as striae, flat, rugosely microsculptured and with one row of shallow punctures; striae sharply margined with septa between punctures distinctly deepened. Tibiae rather slender, feebly widened from base to apex; protibiae feebly outcurved, meso- and metatibiae straight; protarsi with 1st segment 2 times as long as wide; 2nd 1.00 times as long as wide, 0.65 times as long as 1st; 3rd 0.71 times as long as wide, 0.92 times as long as 2nd, with narrow lobes; onychium robust, 1.23 times as long as 2nd.

Genitalia not examined.

Distribution. Algeria, Morocco.

Host plant. Unknown.

Remarks. This taxon was described based on a single female as a subspecies of *Apion consors* and to which, as far as I know, to date only a further specimen from Asni (Morocco, Al Haouz province, Marrakech-Safi region) has been doubtfully attributed (Kocher 1953, 1961). The diagnostic characters and the main differences with the typical *S. consors,* highlighted above, allow full species status to be proposed for *Squamapion solariorum* (Wagner, 1908) **n. stat.**

The single examined specimen of *S. kandarense* fits perfectly with the rough description provided by Hustache (1946) and with the short redescription given by Hoffmann (1957). It differs from the holotype of *S. solariorum* almost exclusively in having a feebly rounded elytral profile and imperceptibly less slender rostrum (to compare measurements and ratios, see Table 1). In light of this and on the basis of the scanty distributional data, a possible synonymy between the two species cannot be excluded; only the examination of additional material of both sexes can help address this question.

Provisional key to the species of *Squamapion*, related to *S. atomarium*, present in the Mediterranean Region

Although for three species I was able to examine only single females (*S. solariorum* and *S. kandarense*) or a single pair of females (*S. bifarium*), I still believe it appropriate to propose, below, a provisional key to the species of *Squamapion*, related to *S. atomarium*, present in the Mediterranean Region.

1 Rostrum stout, thick and moderately curved; Lr/Wmsr: ♂ 2.61–3.07 [2.85], ♀ 3.78–4.20 [4.01]. Vestiture yellow-gold, conspicuous, composed of long piliform scales; on elytral intervals arranged in multiple rows, particularly confused at base of intervals 2–4; meso- and metanepisterna and episterna almost completely concealed by vestiture. Oligophagous on *Mentha*. Distribution: France (Corse), Italy (Sardinia) . . . . . ***S. consors* (Desbrochers des Loges, 1875)**

\- Rostrum slender and more curved; Lr/Wmsr: ♂ 2.71–3.85, ♀ 4.13–5.73. Vestiture white to cream-white or greyish, inconspicuous to evident, composed of hair-like to lanceolate scales; on elytral intervals arranged in 1 or 2 rows and, at base of intervals 2–4, forming short and confuse multiple rows or arranged in more or less condensed patch; meso- and metanepisterna and episterna never almost completely concealed by vestiture 2

2 Elytral humeral calli well developed and prominent. Base of prothorax clearly narrower than elytral width measured at level of humeral calli; on average, Web/Wpb > 1.34 3

\- Elytral humeral calli developed, but less prominent. Base of prothorax narrower than elytral width measured at level of humeral calli; on average, Web/Wpb < 1.34 4

3 Blackish appearance. Vestiture inconspicuous, composed of short hair-like scales. Prothorax, in dorsal view, bell-shaped, apically constricted to form a sort of neck. Protibiae long and, especially in female, visibly outcurved. Oligophagous on *Mentha*. Distribution: European-Asiatic species, widespread from East Siberia to almost whole Europe and North Africa . . . . . ***S. vicinum* (Kirby 1808)**

\- Greyish appearance. Vestiture clearly visible, composed of piliform scales. Prothorax, in dorsal view, subtrapezoidal with rounded sides, apically constricted but not forming a sort of neck. Protibiae short and straight. Monophagous on *Origanum vulgare*. Distribution: Spain, France, Luxembourg, The Netherlands, Sweden, Germany, Switzerland, Austria . . . . . ***S. origani* (Planet, 1918)**

4 Vestiture dense, especially on body sides, mostly composed of narrowly lanceolate white scales, on elytral intervals arranged in 2 rows. Mesorostral dilatation dentiform in both sexes. Legs robust. Monophagous on *Thymus vulgaris*. Distribution: Spain, France, Italy . . . . . ***S. gardinii* Giusto n. sp.**

\- Vestiture sparse, composed of piliform scales ordered in a single row on elytral intervals. Mesorostral dilatation obtusely rounded at least in female. Legs slender 5

5 Rostrum, on average, less slender, moderately curved; Lr/Wmsr: ♂ 2.77–3.42 [3.07], ♀ 4.17–4.73 [4.35]. Oligophagous on *Thymus* spp. Distribution: European-Asiatic specie, widespread from Mongolia to whole Europe and North Africa . . . . . ***S. atomarium* (Kirby, 1808)**

\- Rostrum, on average, slender, curved; Lr/Wmsr: ♂ 3.40, ♀ > 4.91 6

6 Elytral outline weakly rounded. Humeral calli slightly prominent 7
- Elytral outline more or less parallel-sided. Humeral calli well developed and prominent. 8
7 Rostrum slender; Lr/Wmsr: ♀ 5.42–5.73 [5.57]. Vestiture white to greyish, sparse, composed of piliform scales. Doubtfully associated with *Mentha longifolia typhoides*. Distribution: Cyprus . . . . . ***S. bifarium*** **(Balfour-Browne, 1944)**
- Rostrum less slender; Lr/Wmsr: ♂ 3.20–3.69 [3.40], ♀ 4.71–5.07 [4.91]. Vestiture white, denser, composed of piliform to narrowly lanceolate scales. Oligophagous on *Origanum syriacum* and *Satureja thymbra*. Distribution: Israel .. . . . . ***S. terraesanctae*** **Friedman & Freidberg, 2007**
8 Female protibiae feebly outcurved. Vestiture composed of lanceolate scales, often truncate on elytra. Host plant: unknown. Distribution: Morocco . . . . . ***S. solariorum*** **(Wagner, 1908)**
- Female protibiae straight. Vestiture composed of narrowly lanceolate scales not truncate on elytra. Host plant: unknown. Distribution: Morocco . . . . . ***S. kandarense*** **(Hustache, 1946)**

Squamapion minutissimum (Rosenhauer, 1856) and *Squamapion serpyllicola* (Wencker, 1864)

At the beginning of my entomological studies, in a short faunistic note, I reported the first finding of *Squamapion minutissimum* (Rosenhauer, 1856) in the Ligurian Apennines, Italy (Giusto 1986). Years later, I realized that the material with which I compared my specimens had been incorrectly determined and, therefore, the specimens I misidentified must be attributed to *Squamapion serpyllicola* (Wencker, 1864). All specimens stored in my collection and belonging to these two species are listed in Appendix 1. The presence in Italy of *S. minutissimum* is in any case confirmed on the basis of five females from western Liguria while *S. serpyllicola* is recorded for the first time from Italy and Romania.

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APPENDIX 1

A complete list of studied material is listed below where *S. atomarium* and *S. consors* specimens already listed by Giusto (2017) are not repeated.

Squamapion atomarium (Kirby, 1808)

BOSNIA AND HERZEGOVINA—***Federacija Bosne i Hercegovine***: *Sarajevo Canton*: Trnovo, Bjelašnica, 1901, Leonhard leg. (1 ♂, 4 ♀♀ CG).

BULGARIA—*Blagoevgrad Province*: Sandanski, Melnik, 250 m a.s.l., 9.VII.1998 (1 ♀ CG);—*Sofia Province*: Samokov, Raduil, 2.VIII.1970, P. Angelov leg. (1 ♂ CG);—*Stara Zagora Province*: Stara Zagora, 24.V.1977 (1 ♀ CG).

CZECH REPUBLIC—***Central Bohemian Region***: *Příbram*: Sedlčany, Týnčany, 27.VIII.2010 (1 ♂ CG).

FRANCE—***Provence-Alpes-Côte d'Azur***: *Alpes-de-Haute-Provence Department*: Jausiers, Lans env., 1,500 m a.s.l., 2.VIII.1998, C. Giusto leg. (2 ♂♂, 3 ♀♀ CG); Larche, Col de Larche env., 2,000 m a.s.l., 2.XI.1996, C. Giusto leg. (1 ♂ CG);—*Alpes-Maritimes Department*: Tourette-du-Château, Mont Vial, 1,500 m a.s.l., 10.VII.1999, C. Giusto leg. (1 ♂ CG); Vence, Col de Vence, 970 m a.s.l., 24.VIII.1997, C. Giusto leg. (1 ♀ CG);—*Hautes-Alpes Department*: Garde-Colombe, Gorges du Riou, 7.VII.2015, R. Casalini leg. (1 ♂, 1 ♀ RC); Guillestre env., 1,600 m a.s.l., 2.VIII.1998, C. Giusto leg. (1 ♂, 3 ♀♀ CG);—***Auvergne-Rhône-Alpes***: *Drôme Department*: Bouvante, Forêt de Lente, 1,400 m a.s.l., 9.X.2012, C. Giusto leg. (1 ♀ CG); Chamaloc, Col de Rousset env., 1,400 m a.s.l., 11.VIII.1996, C. Giusto leg. (5 ♂♂, 4 ♀♀ CG); Chamaloc, Col de Rousset env., 1,400 m a.s.l., 21.VIII.1997, C. Giusto leg. (3 ♂♂, 4 ♀♀ CG); Val-Maravel, La Bâtie Crémezin, 5.VII.2014, R. Casalini leg. (1 ♀ CG); Vassieux-en-Vercors, Col de la Chau, 1,330 m a.s.l., 22.VIII.1997, C. Giusto leg. (17 ♂♂, 12 ♀♀ CG);—*Isère Department*: La Salette-Fallavaux, Notre-Dame de La Salette env., 1,600 m a.s.l., 23.VIII.1997, C. Giusto leg. (4 ♂♂, 2 ♀♀ CG)—***Occitanie***: *Hautes-Pyrénées Department*: Cadéac, 29.VII.1920 (1 ♂, 1 ♀ MSNG); *Pyrénées-Orientales Department*: Prats-de-Mollo-la-Preste, 10.VIII.1904, A. Dodero leg. (1 ♂, 1 ♀ MSNG).

GERMANY—***Berlin***: Berlin, Spandau, Großer Kienhorst, 8.VIII.2006, H. Winkelmann & Köck leg. (1 ♂, 2 ♀♀ CG).

GREECE—***Autonomous Region of Mount Athos***: Mount Athos, A. Schatzmayr leg. (1 ♀ MSNG);—***Central Greece***: *Phocis*: Delphi, Parnass, Paganetti leg. (1 ♂, 1 ♀ CG);—***Central Macedonia***: *Serres*: Sintiki, Achladohori, 600 m a.s.l., 15.V.2005, H. Winkelmann leg. (1 ♀ CG);—***Western Macedonia***: *Kozani*: Kozani, Mount Askio, 1,900 m a.s.l., 24.VIII.1994, M. Meregalli leg. (1 ♂ CG).

ITALY—***Abruzzo***: *Chieti Province*: Altopiano delle Cinquemiglia, Stazione di Palena, 1,250 m a.s.l., 4.VIII.2015, R. Casalini leg. (1 ♂ CG);—*L'Aquila Province*: Assergi, Monte Cristo, slopes W, Prato Grande, 1,450 m a.s.l., 9.VI.1993, C. Giusto leg. (1 ♀ CG); Gran Sasso d'Italia, Gran Sasso, VII.1896, A. Fiori leg. (2 ♂♂, 2 ♀♀ MSNG); Pacentro, Passo San Leonardo, env. E, 1,300–1,400 m a.s.l., 22.VI.2017, C. Giusto leg. (1 ♀ CG); Pizzoli, Monte San Franco, slopes S, 1,800–2,000 m a.s.l., 10.VI.1993, C. Giusto leg. (1 ♀ CG); Pizzoli, Monte San Franco, sorgente del San Franco, 1,650 m a.s.l., 7.VII.1990, E. Colonnelli leg. (1 ♀ CG); Pizzoli, Passo delle Capannelle, 1,300 m a.s.l., 21.IX.1999, C. Giusto leg. (1 ♀ CG); Rocca di Mezzo, Monte Velino, 1.800 m, 12.VII.1909, G. Binaghi leg. (1 ♀ MSNG); Secinaro, Monte Sirente, Valle Puzzilli, 1,850 m a.s.l., 8.VII.1990, E. Colonnelli leg. (1 ♂ CG);—***Campania***: *Caserta Province*: San Giorgio Matese, Lago del Matese, 1,100 m a.s.l., 17.V.2001, F. Angelini leg. (1 ♀ CG);—***Emilia-Romagna***: Emilia-Romagna, VI.1974, A. Fiori leg. (1 ♀ MSNG);—*Modena Province*: Pievepelago, Le Tagliole, 22.VII.2020, L. Diotti leg. (3 ♂♂, 3 ♀♀ LD);—*Parma Province*: Corniglio, Passo di Cirone, 1.255 m, 28.VII.2008, L. Diotti leg. (1 ♂, 2 ♀♀ LD);—*Rimini Province*: Talamello, Monte Pincio, slopes, 600–900 m a.s.l., 10.IX.1988, G. Platia leg. (1 ♀ CG);—***Friuli-Venezia Giulia***: *Trieste Province*: Trieste, Trieste-Opicina, 15.V.1970, R. Caldara leg. (1 ♀ CG);—*Udine Province*: Resia, Sella Carnizza, env. E, 900 m a.s.l., 13.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂, 1 ♀ CG); Venzone, Monte Plauris, slopes S, Graunes, 1,350–1,400 m a.s.l., 11.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂, 2 ♀♀ CG);—***Lazio***: *Frosinone Province*: Filettino, 21.VII.1908, R. Gestro leg. (1 ♀ MSNG – *Apion atomarium*, det. Solari);—*Rieti Province*: Antrodoco, Monte Giano, Prati di Cinno, 1,450 m a.s.l., 4.VIII.1990, E. Colonnelli leg. (1 ♀ CG); Micigliano, Monte Terminillo, slopes W Monte i Porcini, Costa Ghiaiosa, 1,800 m a.s.l., 24.VI.2017, C. Gi-

usto leg. (1 ♀ CG);—***Liguria***: *Genoa Province*: Casella, VII–IX.1932, C. Mancini leg. (1 ♂, 1 ♀ MSNG); Fontanigorda, VII.1897, A. Dodero leg. (1 ♀ MSNG); Genova-Voltri, Fiorino, 5.X.2019, L. Diotti leg. (2 ♂♂ LD); Genova-Voltri, Fiorino, 1.IX.2007, L. Diotti leg. (2 ♀♀ LD); Montoggio, Creto, 4.X.1968, G. Bartoli leg. (1 ♀ MSNG); Montoggio, Monte Alpesisa, slopes W, Gola di Sisa, 750 m a.s.l., 28.IX.2014, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (3 ♂♂, 6 ♀♀ CG);—*Savona Province*: Monte Galero, slopes SW, 1,500–1,700 m a.s.l., 13.IX.1997, C. Giusto leg. (1 ♂ CG);—***Lombardy***: *Bergamo Province*: Oltre il Colle, Pizzo Arera, 7.XII.2011, L. Diotti leg. (2 ♂♂, 2 ♀♀ LD);—***Molise***: *Isernia Province*: Carovilli env., 19–22.VIII.2009, F. Montemurro leg. (3 ♀♀ CG);—***Piedmont***: *Alessandria Province*: Cassano Spinola, IX.1937, G.B. Moro leg. (1 ♀ MSNG); Molare, Olbicella env., 400 m a.s.l., 1.VIII.1992, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (6 ♂♂, 5 ♀♀ CG);—*Biella Province*: Biella, Oropa, Santuario, IX.1927, A. Dodero leg. (2 ♂♂, 6 ♀♀ MSNG); Piedicavallo, VII–VIII, G. Bartoli leg. (1 ♂ MSNG);—*Cuneo Province*: Acceglio, Vallone dell'Infernetto, 4.VIII.2009, L. Diotti leg. (2 ♂♂, 3 ♀♀ LD); Alto, Madonna del Lago, 1,000 m a.s.l., 20.IX.1994, C. Giusto leg. (1 ♂ CG); Alto, Madonna del Lago, 1,000 m a.s.l., 29.IX.1996, C. Giusto leg. (2 ♂♂, 1 ♀ CG); Caprauna, Monte Armetta, 1,700 m a.s.l., 29.VII.1986, C. Giusto leg. (2 ♀♀ CG); Caprauna, Monte Armetta, 1,700 m a.s.l., 29.VII.1989, C. Giusto leg. (1 ♂ CG); Caprauna, Colle di Caprauna env., 1,400 m a.s.l., 8.VIII.1994, C. Giusto leg. (2 ♂♂, 1 CG); Chiusa di Pesio, Val Pesio, VIII.1907, A. Dodero leg. (1 ♂, 1 ♀ MSNG); Chiusa di Pesio, Val Pesio, VIII.1907, A. Dodero leg. (1 ♀ MSNG – *Apion atomarium*, det. J. Desbrochers des Loges); Chiusa di Pesio, Val Pesio, VIII.907, R. Gestro leg. (1 ♂ MSNG); Chiusa di Pesio, Val Pesio, VIII.907, R. Gestro leg. (2 ♂♂, 3 ♀♀ MSNG – *Apion atomarium*, det. Solari); Elva, Colle di Sampéyre, env. S, 1,800 m a.s.l., 5.VIII.2007, C. Giusto leg. (1 ♂ CG); Pamparato, Monte Alpet, slopes, 1,200 m a.s.l., 26.VIII.1995, C. Giusto leg. (1 ♂ CG); Pontechianale, Chianale, 1.790 m, 4.IX.2005, L. Diotti leg. (4 ♂♂, 1 ♀ LD); Roburent, San Giacomo, 1,000 m a.s.l., 26.VIII.1995, C. Giusto leg. (1 ♂ CG); Sambuco, 1,200 m a.s.l., 8.XII.2016, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂ CG); Sampeyre, 1,000 m a.s.l., 13.VIII.1996, C. Giusto leg. (1 ♀ CG); Sampeyre: Becetto: Pian Ciattiva, 1,900 m 7.VIII.2020, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂, 3 ♀♀ CG); Sampeyre: Becetto: Meire Ruà, env., 1,500–1,600 m a.s.l., 7.VIII.2020, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♀ CG); Stroppo, San Martino, 1,300 m a.s.l., 23.VII.2003, C. Giusto leg. (1 ♂ CG); Valdieri, Sant'Anna, 8.X.1967, G. Bartoli leg., on *Thymus* sp. (1 ♀ MSNG); Vinadio, Vallone di Sant'Anna, 1,500 m a.s.l., 23.VII.2003, C. Giusto leg. (2 ♂♂ CG);—*Turin Province*: Meana di Susa, 7.VIII.1907, A. Dodero leg. (1 ♀ MSNG); Villar Pellice, 4.VIII.1971, G. Bartoli leg. (1 ♀ MSNG); Villar Pellice, Villar Pellice, 5.VIII.1963, G. Bartoli leg. (1 ♀ MSNG); Villar Pellice, 6.VIII.1961, G. Bartoli leg., on *Thymus* sp. (1 ♂ MSNG);—***Trentino-Alto Adige***: *Bolzano Province*: Brunico, VII.1934, G. Binaghi leg. (1 ♀ MSNG – *Apion atomarium*, det. F. Solari); Castelrotto, Siusi allo Sciliar, Schuster leg. (1 ♂ CG); Rio di Pusteria, Valle di Valles, 960 m a.s.l., 3.VIII.2014, A. Paladini leg. (4 ♂♂, 4 ♀♀ CG);—*Trento Province*: Avio, Monte Baldo, Prà Alpesina, 1,500 m a.s.l., 2.VIII.2016, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂ CG); Brentonico, Monte Altissimo di Nago, road to Rifugio Chiesa, 9.IX.2014, L. Diotti leg. (1 ♂, 2 ♀♀ CG); Folgaria, 25.VIII.1937 (1 ♂ MSNG); Lavarone, 13–20.VIII.1899, A. Dodero leg. (2 ♀♀ MSNG); Valdaora, 24.VIII.1964, G. Bartoli leg., on *Thymus* sp. (1 ♂, 1 ♀ MSNG); Valdaora, 10.VIII.1965, G. Bartoli leg. (3 ♂♂, 1 ♀ MSNG); Valdaora, 12.VIII.1966, G. Bartoli leg. (2 ♂♂ MSNG);—***Tuscany***: *Pistoia Province*: Abetone Cutigliano, Boscolungo, VII–VIII.1891, A. Dodero leg. (1 ♂ MSNG);—***Veneto***: *Belluno Province*: Voltago Agordino, 850 m, 12.VIII.1967, I. Mercati leg. (1 ♀ MSNG); Voltago Agordino, 850 m, 25.VIII.1979, I. Mercati leg. (1 ♀ MSNG); —*Verona Province*: Erbezzo, Passo delle Fittanze della Sega, 1,350 m a.s.l., 1.VIII.2016, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂ CG).

SLOVENIA—***Goriška Regija***: Nova Gorica, Nova Gorica, Lokve, VIII.1992, M. Franciscolo leg. (1 ♂ CG);—***Notranjsko-kraška Regija***: Cerknica, Cerkniška Dolina, 550 m a.s.l., 18.VI.1996, C. Giusto leg. (1 ♀ CG).

SPAIN—***Andalusia***: *Granada Province*: Sierra de Baza, E slopes, Santa Barbara, 2,400 m a.s.l., 24.VI.1986, M. Meregalli leg. (1 ♀ CG);—*Malaga Province*: Sierra de Ronda, 850 m a.s.l., 24.IV.1980, M. Meregalli leg. (1 ♀ CG);—***Catalonia***: *Lleida Province*: Sant Llorenç de Morunys, Port del Compte, La Bòfia, 2,450 m a.s.l., 25.VI.1979, M. Meregalli leg. (1 ♀ CG).

SWITZERLAND—***Canton of Valais***: *Goms*: Binn, Giesse, 1,480 m a.s.l., 4–5.VII.2015, C. Germann & C. Giusto leg. (3 ♂♂, 3 ♀♀ CG); Ernen, Ausserbinn, 1,290 m a.s.l., 6.VII.2015, C. Giusto leg. (6 ♂♂, 3 ♀♀ CG);—*Westlich Raron*: Ausserberg, 1,000 m a.s.l., 5.VII.2015, C. Giusto leg. (1 ♀ CG).

***Squamapion bifarium* (Balfour-Browne, 1944)**

CYPRUS—"Cypro", Baudi leg. (2 ♀♀ MSNG); Troódos, Mesa Potamos, Krios River, picnic area, 11.VIII.2005, L. Friedman & Y. Antoniou leg. (2 ♀♀ CG).

***Squamapion kandarense* (Hustache, 1946)**

MOROCCO—*Meknes*: *Ifrane Province*: Ain Leuh, 11.VI.2013, F. Angelini leg. (1 ♀ CG).

***Squamapion terraesanctae* Friedman & Freidberg, 2007**

ISRAEL—*Central District of Israel*: Shoham Park, 130 m a.s.l., 10.IV.2014, C. Giusto leg., on *Origanum syriacum* L. (34 ♂♂, 25 ♀♀ CG);—***Jerusalem District***: Ramat Razi'el, 11.III.2001, L. Friedman leg. (1 ♀ Paratype CG).

***Squamapion minutissimum* (Rosenhauer, 1856)**

FRANCE—*Auvergne-Rhône-Alpes*: *Drôme Department*: Saint-May, Gorges de Saint-May, 600 m a.s.l., 17.VII.2015, R. Casalini leg. (2 ♂♂, 2 ♀♀ CG; 14 ♂♂, 10 ♀♀ RC);—***Occitanie***: *Aude Department*: Aude (12 ♀♀ MSNG); Montagne d'Alaric, 6.X.1901 (2 ♀♀ MSNG);—***Provence-Alpes-Côte d'Azur***: *Alpes-Maritimes Department*: La Brigue, Chapelle Notre-Dame-des-Fontaines, 3.VIII.2016, L. Diotti leg. (1 ♀ CG);—*Vaucluse Department*: Beaumont-du-Ventoux, Mont Ventoux, 8.VII.2015, R. Casalini leg. (5 ♂♂, 5 ♀♀ CG; 10 ♂♂, 4 ♀♀ RC).

ITALY—*Liguria*: *Imperia Province*: Sanremo, Monte Bignone, 4.VIII.2016, L. Diotti leg. (1 ♀ CG, 1 ♀ LD); Ventimiglia, Passo del Cornà, slopes E, 550–650 m a.s.l., 11.V.2019, C. Giusto leg., on *Tyhmus vulgaris* L. (1 ♀ CG);—*Savona Province*: Castelbianco, Monte Peso Grande, slopes S, 1,000 m a.s.l., 5.IX.1994, C. Giusto leg. (3 ♀♀ CG);

SPAIN—*Andalusia*: Andalusia, Baudi leg. (1 ♂, 1 ♀ MSNG);—*Malaga Province*: Atajate env., 25.IV.1980, M. Meregalli leg. (2 ♀♀ CG); Sierra de Ronda, 850 m a.s.l., 24.IV.1980, M. Meregalli leg. (2 ♀♀ CG);—***Comunidad de Madrid***: *Madrid Province*: Santa María de la Alameda, La Paradilla, 1,100 m a.s.l., 27.VI.1991, C. Giusto leg., on *Tyhmus vulgaris* L. (1 ♀ CG).

***Squamapion serpyllicola* (Wencker, 1864)**

FRANCE—*Auvergne-Rhône-Alpes*: *Drôme Department*: Vassieux-en-Vercors, Col de la Chau, 1,330 m a.s.l., 22.VIII.1997, C. Giusto leg. (5 ♀♀ CG);—***Provence-Alpes-Côte d'Azur***: *Alpes-Maritimes Department*: Gourdon, env. S, 700 m a.s.l., 21.V.2013, C. Giusto, G. Gardini & S. Zoia leg. (1 ♀ CG);—***Occitanie***: *Hérault Department*: Montpellier, H. Lavagne leg. (1 ♀ MSNG).

ITALY—*Emilia-Romagna*: *Parma Province*, Bedonia, Passo del Tomarlo, 20.VII.2005, L. Diotti leg. (4 ♂♂, 2 ♀♀ CG);—*Reggio Emilia Province*: Carpineti, Montelago, 700 m a.s.l., 8.V.1993, C. Giusto leg. (1 ♀ CG);—***Friuli-Venezia Giulia***: *Udine Province*: Resia, Sella Carnizza, env. E, 900 m a.s.l., 13.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (3 ♂♂, 2 ♀♀ CG); Venzone, Monte Plauris, Malga Confin env., 1,100–1,200 m a.s.l., 10.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (3 ♂♂, 3 ♀♀ CG); Venzone, Monte Plauris, Malga Confin env., 1,400–1,500 m a.s.l., 10.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (3 ♀♀ CG); Venzone, Monte Plauris, slopes S, Graunes, 1,350–1,400 m a.s.l., 11.VII.2019, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (4 ♂♂, 1 ♀ CG); Venzone, Stazione di Carnia, 18.X.1953, Springer leg. (1 ♂ CG);—***Lazio***: *Rieti Province*: Antrodoco: Monte Giano, Prato Lungo, 1,450 m a.s.l., 12.VII.1990, E. Colonnelli leg. (4 ♂♂, 3 ♀♀ CG); Micigliano: Monte Terminillo, slopes W Monte i Porcini, Costa Ghiaiosa, 1,800 m a.s.l., 24.VI.2017, C. Giusto leg. (8 ♂♂, 3 ♀♀ CG);—*Roma Province*: Rocca di Papa Monte Cavo, 900 m a.s.l., 28.X.1988, C. Giusto leg. (1 ♀ CG);—***Liguria***: *Genoa Province*: Favale di Malvaro, Passo della Scoglina, 900 m a.s.l., 3.VII.1993, C. Giusto leg.,

on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂, 1 ♀ CG);—*Savona Province*: Urbe, Martina Olba, 484 m a.s.l., 1.VI.1986, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♀ CG); Urbe, Martina Olba, 484 m a.s.l., 10.IX.1986, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (4 ♀♀ CG); Urbe, Martina Olba, 484 m a.s.l., 11.VII.1983, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♀♀ CG); Urbe, Martina Olba, 484 m a.s.l., 13.VIII.1994, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♀ CG); Urbe, Martina Olba, 484 m a.s.l., 20.VIII.1983, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂, 1 ♀ CG); Urbe, Martina Olba, 484 m a.s.l., 25.VII.1983, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂ CG); Urbe, Martina Olba, 484 m a.s.l., 28.VII.1981, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂ CG);—***Piedmont***: *Biella Province*: Piedicavallo, VII–VIII, G. Bartoli leg. (2 ♂♂ MSNG);—*Cuneo Province*: Caprauna, Colle di Caprauna env., 1,400 m a.s.l., 8.VIII.1994, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (5 ♂♂, 7 ♀♀ CG); Caprauna, Monte Armetta, 1,700 m a.s.l., 29.VII.1989, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (9 ♂♂, 14 ♀♀ CG); Caprauna, Monte Armetta, 1,700 m a.s.l., 8.VIII.1994, C. Giusto & G. Gardini leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂, 1 ♀ CG); Montaldo Mondovì, Sant'Anna Collarea, 1,000 m a.s.l., 6.VIII.1995, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (7 ♂♂, 1 ♀ CG); Ormea, Prale env., 800 m a.s.l., 28.VI.2003, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (1 ♂, 1 ♀ CG); Sampeyre: Becetto: Pian Ciattiva, 1,900 m 7.VIII.2020, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (6 ♂♂, 5 ♀♀ CG); Stroppo, San Martino, 1,300 m a.s.l., 23.VII.2003, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (2 ♂♂, 3 ♀♀ CG); Vinadio, Vallone di Sant'Anna, 1,500 m a.s.l., 23.VII.2003, C. Giusto leg., on *Thymus* sp. cfr. *T. pulegioides* L. (12 ♂♂, 9 ♀♀ CG)—*Turin Province*: Val Pellice, Comba Liussa, 15.VIII.1961, G. Bartoli leg. (4 ♂♂, 2 ♀♀ MSNG).

POLAND—*Łódź Voivodeship*: *Skiernewice District*: Rogów, 28.VII.1976, M. Wanat leg. (1 ♂ CG);

ROMANIA—*Arad District*: Milova, 200 m a.s.l., 19.IV.1983, M. Košťál leg. (1 ♀ CG).

SLOVAKIA—*Košice Region*: *Sobrance District*: Podhorod', 8.VII.1980, M. Košťál leg. (1 ♀ CG);—***Prešov Region***: *Snina District*: Nová Sedlica, 15.VII.1979, M. Košťál leg. (1 ♀ CG);

SWITZERLAND—Canton of Valais: *Goms*: Binn, Giesse, camping, 1,500–1,550 m a.s.l., 4–5.VII.2015, C. Germann & C. Giusto leg., on *Thymus* sp. cfr. *T. serpyllum* L. (11 ♂♂, 9 ♀♀ CG); Ernen, Ausserbinn, 1,290 m a.s.l., 6.VII.2015, C. Giusto leg., on *Thymus* sp. cfr. *T. serpyllum* L. (7 ♂♂, 3 ♀♀ CG).