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In memory of Vittorio Nobile (1940-2023), apidologist

Abstract: The life and career of the Sicilian entomologist Dr. Vittorio Nobile (1940-2023), a specialist of Apoidea Anthophila and active at the University of Catania for more than forty years, are outlined. Brief biographic data and photographic references, along with essential information on his scientific contribution to the taxonomy and faunistics of Apoidea and other insects, are provided. Information on the type material of the 21 taxa described by Nobile (18 Apoidea, of which 15 species and 3 subspecies, plus 3 species of Aulacidae), a list of his forty-two publications, and a reference to the two patronymic taxa are also provided. The reference Italian bee collection realized by Vittorio Nobile includes more than 12.000 specimens in 126 entomological boxes, 124 medium-sized and 2 small-sized, representing more than 700 species (about 70% of the Italian bee fauna) and it has been donated to the University of Florence, Museum of Natural History “La Specola”, Section Entomology.

Riassunto: *In ricordo di Vittorio Nobile (1940-2023), apidologo.*

Vengono delineate la figura e la carriera dell'entomologo siciliano Dr. Vittorio Nobile (1940-2023), specialista di Apoidea Anthophila e attivo presso l'Università di Catania per più di quarant'anni. Vengono forniti brevi dati biografici, referenze fotografiche ed informazioni sintetiche sul suo contributo scientifico alla tassonomia e alla faunistica degli Apoidea e di altri insetti. Inoltre, vengono fornite informazioni sul materiale tipico dei 21 taxa descritti da Nobile (18 Apoidea, di cui 15 specie e 3 sottospecie, più 3 specie di Aulacidae), un elenco delle sue quarantadue pubblicazioni e un riferimento ai due taxa patronimici. La collezione di riferimento di api italiane realizzata da Vittorio Nobile contiene più di 12.000 esemplari contenuti all'interno di 126 scatole entomologiche, 124 di medio formato e 2 di piccolo formato, rappresentanti oltre 700 specie (circa il 70% della fauna apidologica italiana) ed è stata donata all'Università di Firenze, presso il Museo di Storia Naturale “La Specola”, Sezione Entomologia.

Key words: Hymenoptera, Anthophila, Nobile Vittorio, apidologist, biography, bee-collection.

The present contribution follows my first short memory dedicated to Vittorio Nobile (Turrisi, 2024) (Fig. 1), and wishes to expand the biographic information to also include a complete list of his scientific publications and described taxa, as well as information on his bee collection.

Vittorio Nobile was born on July 27, 1940, in Mazzarino (Caltanissetta province, Sicily, Italy), the son of Filomena Coniglio and Gesualdo Nobile, a successful businessman who first dealt in motor oils in Catania and then was a car salesman in Rome. Vittorio grew up in a broad family, in the tragic and very difficult context of the war and its aftermath in the depressed economy of his rural hometown in central Sicily. He had just completed primary school in 1952 when his father moved the family to Barriera del Bosco, a village on the northern outskirts of Catania where, by September, they had taken up residence in the prominent “Villa delle Rose” (Fig. 2). Vittorio Nobile continued his education at the prestigious Agrarian Technical High School “Filippo

Eredia”, graduating on October 10, 1962 (Fig. 2). That same year he married Antonina ‘Nina’ Spampinato with whom he had two sons, Giancarlo and Giuseppe. In early 1963, Prof. Marcello La Greca, Director of the then Department of Zoology at the University of Catania (now the Department of Biological, Geological and Environmental Sciences) gave Nobile his first job as a preparator of his collection. In early 1965, he was hired permanently as a technician and his university career then started in earnest: he immediately joined La Greca’s intense scientific research program on the Mediterranean fauna and then, in 1968, enrolled in the Faculty of Natural Science at Catania University. Despite holding down a full-time job to maintain his young family while studying and doing research, in 1973, he nonetheless found the time to co-author his first publication as a result of a broad faunistic investigation on the Aeolian Orthopteroidea [1]. The various demands on his time meant that little was left over for studying. Hence, it took him until 1980 to graduate, with a thesis

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on the “Translocation of chromosome 9 and onset of trisomy 9p” under the supervision of Prof. Pietro Alicata. With his degree in hand, and urged on by Prof. La Greca, who had foreseen the importance that Apoidea Anthophila would have for science, Nobile was finally free to begin collecting and studying Apoidea, a passion he would pursue for the rest of his life, soon becoming one of the very few Italian specialists of this important pollinator insect group. At the start, the literature available to him was basically offprints and old, mostly German, monographs, often scantily illustrated, which he had to translate to understand. However, his determination paid off and in 1987 (1988), he published his first paper on Apoidea [2], to be followed by forty more, the earlier ones concentrating on Sicilian and Sardinian fauna, the later ones including other Italian regions as well. Nobile pioneered the study of Apoidea long before the appearance of modern taxonomic reviews, reference checklists, and web sources, which would greatly facilitate research nowadays. His most important sources were often collections themselves, which he began studying in the early ‘80s but expanding in the ‘90s by identifying thousands of specimens in such collections as that in the former Institute of Entomology “Guido Grandi” (University of Bologna), encouraged by his friend Prof. Guido Campadelli; the Carlo Meloni collection (Cagliari), with its thousands of specimens from Sardinia, presently stored at the Museum of Natural History of Genoa; the Mario Comba collection (Cecchina, Rome), author of the first widely shared online catalog of Italian bees; that in the Museum of Natural History in Rome, thanks to Maurizio Mei who, over the course of several years, sent Nobile thousands of bees from all over Italy, particularly Latium.

In 1994, he was invited to speak at one of the earliest meetings of European apidologists, organized by Prof. Josef Banaszak at Bydgoszcz University in Poland, where Nobile gave a talk on the “Changes in Fauna of Wild Bees in Europe” which focused on the phenomenon of endemism among Sicilian bees. In 2000, he gave a talk on “The state of taxonomic and systematic studies of Italian Hymenoptera Apoidea in Italy” at a seminar organized by Prof. Gennaro Viggiani, University of Portici, Naples. From 2002 to 2010, he was a member of the *Società Entomologica Italiana*. Nobile retired in July 2005 and he and Nina promptly moved to Ragusa to join their son Giancarlo and his family, returning to Catania for a party given in his honor by the Department of Animal Biology on 7 De-

cember. In 2007, Nina succumbed to cancer, a severe blow for Vittorio and his family. Still, he kept going by his passion for Apoidea systematics, which, in his final years, included taxonomy, faunal investigations, ecology, and applied agriculture. Now plagued by persistent back pain, he continued to collaborate with colleagues and friends and served as taxonomist for new projects at the Universities of Catania, Palermo, Sassari, Bologna, Napoli, Roma and Reggio Calabria. His back pain did not prevent him from attending either the 23rd National Entomology Congress in Genoa, in 2011, or the 42nd Congress of the Italian Society of Biogeography in Trieste, in 2022, even though his back pain had been severely aggravated by an accident occurred in the ‘80s, when his car was crashed into by a driver who had fallen asleep at the wheel. Throughout his career Nobile was a mentor to many Entomology students, well-known for his innate generosity in aiding all who came to him for help, especially in identifying insects: he also supervised three doctoral theses on apidology at the Universities of Reggio Calabria (2001), Palermo (2002) and Catania (2010).

Nobile published 42 papers, 14 alone, from 1973 to 2024 (*Appendix 1*). He published primarily on the taxonomy and faunistics of the Apoidea belonging to the families Andrenidae, Apidae, Colletidae, Halictidae and Megachilidae, describing 18 new taxa (15 species and 3 subspecies) (*Appendix 2*). He cooperated on other projects, e.g., the taxonomy of the parasitoid wasp families Chalcididae (unpublished data) and Aulacidae, together with me, co-authoring the description of three new species belonging to the genus *Pristaulacus* Kieffer from the Oriental region (*Appendix 2*). Vittorio Nobile was esteemed even outside the realm of entomology at Catania University (Binda, 1969; Bruno, 1970; Loi, 1971; Turrisi & Smith, 2011). In appreciation for his support in organizing fieldwork and collecting trips for whatever Arthropods groups needed, his implementation and management of the department’s collections, and his collaboration in teaching projects, the above colleagues dedicated new taxa to him (*Appendix 3*).

The bee collection realized by Vittorio Nobile includes more than 12.000 specimens in 126 entomological boxes, 124 medium-sized and 2 small-sized, representing more than 700 species (about 70% of the Italian bee-fauna), that have been donated to the University of Florence, Museum of Natural History “La Specola”, Section Entomology, and currently under cataloging and digitization (Fig. 3).

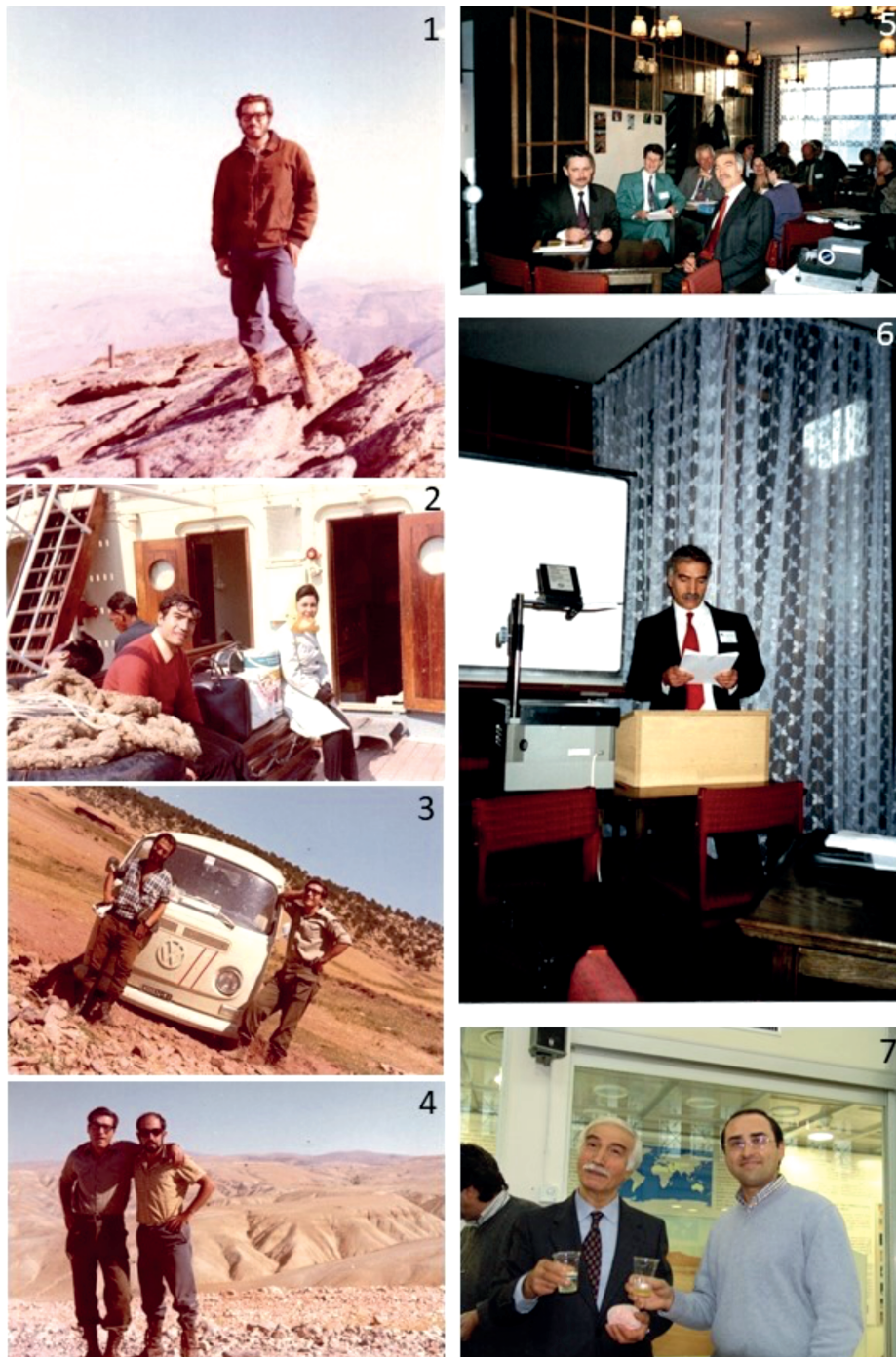


Fig. 1. Vittorio Nobile portraits. 1) in the early '70s, during a scientific expedition; 2) in the early '70s aboard ship heading to the Aeolian Archipelago for entomological researches; 3) in the early '70s, on a collecting trip with Prof. Angelo Messina (University of Catania); 4) in the early '70s, on a collecting trip with Prof. Giovanni Sichel (University of Catania); 5) in 1994, discussing with Prof. Józef Banaszak (left foreground) at the European Apidologist Congress in Warsaw, Poland; 6) in 1994, during his presentation at the same Congress; 7) in 2005, at his retirement party at the University of Catania on 7 December with Giuseppe Fabrizio Turrisi.



Fig. 2. 1) Document certifying Vittorio Nobile's transfer to Catania, 1952; 2) his high school diploma, 1962.



Fig. 3. Collection of Apoidea of Vittorio Nobile. 1) before its transfer to MZUF; 2) after its transfer to MZUF (part); 3) one of the boxes temporarily stored in the house of Turrisi Giuseppe Fabrizio.

Vittorio Nobile was a complex, lively man, intelligent, curious, and informed about all facets of nature, with many cultural interests that went well beyond the field of biology. His was a strong and rocky temperament, sometimes exuberant, his opinions inflexible but founded on solid convictions, sharply veined by a kind of anarchism. Thanks to his acumen, cheerfulness, and many interests, discussions with him were always intense and vivacious. They often centered on the ethics of the man-animal relationship, a theme about which he felt deeply, especially in reference to religion. In the mid '90s, at about age 50, Vittorio became a convinced vegetarian and fervent animal rights activist, remaining so for the rest of his life and leaving behind a trail of articles on these subjects, well-argued, acute, often with disruptive digressions. Last but by no means least, he was a music lover, especially enchanted by Mahler's symphonies.

His sudden and unexpected death came as we were still working on some bee projects and a paper on the taxonomy of the parasitoid wasp family Aulacidae, published six months after his death [42], thus closing a circle of friendship which began when I first met Vittorio Nobile in 1990 while in my last year in high school. He immediately plunged me into learning the basic taxonomy of Hymenoptera, an interest that would bond us together, develop into a deep and solid friendship, and become the basis of my career.

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APPENDIX 1

Scientific publications of Vittorio Nobile

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- [2] NOBILE V., 1988 - Contributo alla conoscenza degli Apoidei (Insecta, Hymenoptera) di Sicilia. I. I generi *Habropoda* Smith, *Tetralonia* Spinola (Gruppo «*ruficornis* F.»), *Melecta* Latreille, *Eupavlovskia* Popov e *Thyreus* Panzer. *Animalia*, 14 (1-3) (1987): 73-89.
- [3] NOBILE V., 1989 - Contributo alla conoscenza degli Apoidei (Insecta, Hymenoptera) di Sicilia. II. Il genere *Osmia* Panzer, 1806. *Animalia*, 15 (1-3) (1988): 159-173.
- [4] NOBILE V., 1990 - Il genere *Anthidium* Fabricius 1804 e affini (Hymenoptera, Apoidea, Megachilidae) in Sicilia, con descrizione di *Pseudoanthidium alpinum gregoriense* subsp. n. *Animalia*, 16 (1989): 131-145.
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- [8] NOBILE V., 1993b - Gli Iblei: scrigno di tesori faunistici. Grifone, Ente Fauna Siciliana, 3: 2, 10.
- [9] NOBILE V., 1993c - Endemismi di Sicilia. *Tetralonia alticincta bindai*, nuova sottospecie di Imenottero Apoideo. Atti e Memorie dell'Ente Fauna Siciliana, Suppl. Grifone, 1: 95-98.
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- [12] NOBILE V., 1995a - The apidological situation in Sicily, with remarks on the phenomenon of endemism. In: *Changes in Fauna of Wild Bees in Europe*. Józef Banaszak (ed.). Pedagogical University, Bydgoszcz, Poland: 127-146.
- [13] NOBILE V., 1995b - Ricordo di Teodosio De Stefani-Perez a 100 anni dalla pubblicazione del suo "Catalogo degli Imenotteri di Sicilia", con dedica di una nuova specie di Imenottero Apoideo. Grifone, Ente Fauna Siciliana, 4 (3): 4-5; 4 (4): 2.
- [14] NOBILE V., 1995c - Api (Insecta, Hymenoptera) nuove o poco note di Sicilia e di Sardegna. *Bollettino dell'Accademia Gioenia di Scienze Naturali*, 28 (349): 147-159.
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APPENDIX 2

Hymenoptera described by Vittorio Nobile

The taxa are listed in chronological order, with the indication of the family, under their original name and status; in squared brackets is the number of the publication describing it; in round parentheses at the end is the capitalized acronym of the actual depository. Subsequent amendments by Vittorio Nobile are included under remarks.

Type depository acronyms according to Evenhuis (2024):

Di3A: Dipartimento di Agricoltura, Alimentazione e Ambiente, Università degli Studi di Catania.

IEBB: Istituto di Entomologia «Guido Grandi», Università di Bologna, Bologna, Italy.

MRNH: Naturalis Biodiversity Centre, Leiden, Netherlands.

MZUF: Museo di Storia Naturale La Specola, Entomologia, Università di Firenze, Italy.

NHMUK: The Natural History Museum, London, United Kingdom.

SZSM: Senckenberg Zoologische Staatssammlung, Munich, Germany.

Pseudoanthidium alpinum gregoriense Nobile, 1990 (Megachilidae) [4]

Type material. Holotype ♂: “Catania: S. Gregorio (WB05), 16.VIII.1989” (MZUF); 1 paratype ♀: same data of holotype; 9 paratypes ♂: same data of holotype, except 3.IX.1989 (MZUF).

Remarks. Nobile subsequently raised this taxon to full species rank [14].

Nomada lagrecai Nobile, 1991 (Apidae) [5]

Type material. Holotype ♂: “Siracusa: F. Manghisi (WA08), Noto, 19.IV.1989” (MZUF).

Tetralonia hyblaea Nobile, 1993 (Apidae) [8]

Type material. Holotype ♀: “M. Iblei: M. Lauro, m 750 (VB80), 30.VII.1986”; 1 paratype ♀: same data of holotype except 30.VIII.1988 (MZUF).

Remarks. Nobile subsequently synonymized this taxon under *Tarsalia* (*Tarsalia*) *ancyliformis* Popov, 1935 [35].

Tetralonia alticincta bindai Nobile, 1993 (Apidae) [9]

Type material. Holotype ♂: “M. Nebrodi: Caserma Moglia, m 1350 (VB59)” (MZUF).

Rophitoides epiroticus nebrodensis Nobile, 1994 (Halictidae) [11]

Type material. Holotype ♂: “M. Nebrodi: C.da Pomarazzo, m 1550 (U.T.M. VB89), 25.VI.1986” (MZUF); 4 paratypes, 2♂ and 2♀: same data of holotype (MZUF).

Chelostoma stefanii Nobile, 1995 (Megachilidae) [13]

Type material. Holotype ♀: “M. Nebrodi, C.da Pomarazzo, m 1550 (U.T.M. VB89), 25.VI.1986” (MZUF).

Sphecodes aetnensis Nobile, 1995 (Halictidae) [14]

Type material. Holotype ♂: “Etna: Tremestieri Etneo, m 300, 20.X.1992 (Collezione Turrisi)” (MZUF).

Spatulariella moniae Nobile & Tomarchio, 1997 (Colletidae) [19]

Type material. Holotype ♂: “M. Etna: Monterosso, m 450 (WB11), 23.VIII.1996 (su *Mentha piperita* L.; n. 2253 collez. Tomarchio)” (MZUF).

Parandrena iohannescaroli Nobile, 2000 (Andrenidae) [22]

Type material. Holotype ♂: “Sicilia: Piazza Armerina (Enna), La Greca leg.” (MZUF).

Sphecodes annae Campadelli & Nobile, 2000 (Halictidae) [24]

Type material. Holotype ♂: “Toscana: Quadalto, m 450 (Firenze), 20.VIII.1998, Campadelli leg.” (MZUF).

Sphecodes banaszaki Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy: Lazio, Albani hills, Communal forest of Albano, 480 m, 23.VI.1995, M. Comba leg.” (ZSM).

Sphecodes campadellii Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy: Emilia Romagna, Zocca (Modena), 8.VIII.1962” (IEGG).

Sphecodes combai Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy: Latium, Albani hills, Cecchina, Poggio Ameno, 280 m, 1.X.1990, M. Comba leg., on *Hedera helix* L.” (ZSM).

Sphecodes iosephi Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy, Sicily, Mount Etna, south slope, c.da Milia, 1400 m (Ragalna), 10.VIII.1999, S. Tomarchio leg.” (ZSM).

Sphecodes marcellinoi Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy, Sicily: Mount Etna, Piano Vetore, 1700 m (Ragalna), 2.V.1999, S. Tomarchio leg.” (ZSM).

Sphecodes tomarchioi Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy, Sicily, Mount Etna, south slope, c.da Milia, 1400 m (Ragalna), 10.VIII.1999, S. Tomarchio leg.” (ZSM).

Sphecodes walteri Nobile & Turrisi, 2004 (Halictidae) [27]

Type material. Holotype ♂: “Italy, Sicily, Mount Etna south slope, c.da Milia, 1500 m (Ragalna), 10.VIII.1999, S. Tomarchio leg.” (ZSM).

Pristaulacus leleji Turrisi & Nobile, 2016 (Aulacidae) [33]

Type material. Holotype ♀: Thailand, “Museum Leiden, C. Siam 150 m, Kwae Noi Riv. Exp. Niki, 23.IV–5.V, J.K. Jonkers, 1946/*Pristaulacus leleji* Turrisi & Nobile sp. nov. ♀ Holotypus” (RMNH).

Eucera (Tetralonia) gennargentui Nobile, Catania, Bella, 2021 (Apidae) [38]

Type material. Holotype ♀: “Italy, Sardinia, Fonni (Nuoro province), Gennargentu Massif, Bruncu Spina, 1540 m a.s.l.; 6–8.VIII.2020; S. Bella and R. Catania leg.” (Di3A). Paratypes 9♀, 1♂: same data of Holotype (in MZUF, remaining in Di3A and private collections of Salvatore Bella and Roberto Catania).

Pristaulacus iuliae Turrisi & Nobile, 2024 (Aulacidae) [42]

Type material. Holotype ♀: “S. INDIA, Mysore State Balehonnur, 1956, Coffee Research Inst. N°. 7/Pres. By Com Inst Ent BM 1958-174/COM. INST. ENT. COLL. NO 14733/*Aulacostethus* sp. ♀, det. J.F. Perkins. 1956/*Pristaulacus* sp. D.R. Smith”/*Pristaulacus iuliae* sp.n. ♀ Turrisi G.F. & Nobile V. Holotypus” (NHMUK).

Pristaulacus ninae Turrisi & Nobile, 2024 (Aulacidae) [42]

Type material. Holotype ♀: MALAYSIA, “PAHANG F.M.S., Cameron Highlands. Ginting Kial 5000 ft: 23.5.1989 [perhaps 1899]/Ex F.M.S. Museum, B.M., 1955-354.”/*Pristaulacus ninae* sp.n. ♀ Turrisi G.F. & Nobile V. Holotypus” (NHMUK).

APPENDIX 3

Patronymic taxa

Diphascon nobilei (Binda, 1969) (Tardigrada, Parachela: Hypsibiidae)

Locus typicus. Italy, Caltanissetta: Gela; Catania, Etna: Pietra Cannone) (Binda, 1969).

Remarks. Described as *Hypsibius (Diphascon) nobilei*.

Pristaulacus nobilei Turrisi & Smith, 2011 (Arthropoda, Hymenoptera: Aulacidae)

Locus typicus. China: (Guangdong and Jiangsu provinces) (Turrisi & Smith, 2001).