



SHILAP Revista de Lepidopterología
ISSN: 0300-5267
avives@orange.es
Sociedad Hispano-Luso-Americana de
Lepidopterología
España

Alipanah, H.

List of the Lepidoptera type material deposited in the Hayk Mirzayans Insect Museum (HMIM), Iranian Research Institute of Plant Protection (IRIPP) (Insecta: Lepidoptera)

SHILAP Revista de Lepidopterología, vol. 44, núm. 174, junio, 2016, pp. 191-210

Sociedad Hispano-Luso-Americana de Lepidopterología

Madrid, España

Available in: <http://www.redalyc.org/articulo.oa?id=45549943002>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

List of the Lepidoptera type material deposited in the Hayk Mirzayans Insect Museum (HMIM), Iranian Research Institute of Plant Protection (IRIPP) (Insecta: Lepidoptera)

H. Alipanah

Abstract

Type material of the Lepidoptera collection housed at the Hayk Mirzayans Insect Museum (HMIM) is listed in its entirety. The present catalogue covers a list of 36 species and 47 subspecies, belonging to 18 families, 33 subfamilies and 50 genera, mostly with Iranian type localities. Full citation of the original description of each species is also provided. The treated families contain 22 Holotypes, 507 Paratypes and 8 Allotypes.

KEY WORDS: Insecta, Lepidoptera, type material, Iran.

Lista del material tipo de Lepidoptera depositados en el Hayk Mirzayans Insect Museum (HMIM), Iranian Research Institute of Plant Protection (IRIPP) (Insecta: Lepidoptera)

Resumen

Se incluye la lista completa del material tipo de Lepidoptera depositado en el Hayk Mirzayans Insect Museum (HMIM). El presente catálogo cubre una lista de 36 especies y 47 subespecies principalmente con localidades típicas iraníes, pertenecientes a 18 familias, 33 subfamilias y 50 géneros. Se proporciona una completa referencia de la descripción original de cada especie. Las familias tratadas contienen 22 holotipos, 507 paratipos y 8 alotipos.

PALABRAS CLAVE: Insecta, Lepidoptera, material tipo, Irán.

Introduction

The Hayk Mirzayans Insect Museum (HMIM) holds the most important collection of the Iranian Lepidoptera. This museum which is the largest insect museum in Iran, founded in 1945 and located within the Insect Taxonomy Research Department (ITRD) of the Iranian Research Institute of Plant Protection (IRIPP), Tehran. The HMIM contains almost four million insect specimens, including 20000 local species, hundreds of Holotypes and Paratypes, and a representative collection of exotic insects. However, the vast majority of types with Iranian localities have been deposited in several museums in foreign countries.

Prior to the current study, little was known about type material in the Lepidoptera collection of HMIM, i.e. three short reports published by ZAHIRI (2007a, b, c) in an informal newsletter listing the name of 22 species and 20 subspecies totally, including the loan specimens of seven species. Here, the first detailed type catalogue dealing with moth and butterfly families deposited in the HMIM is presented.

Materials and Methods

A list of the species for which type material is deposited in the HMIM together with their original label data is presented. The catalogue is arranged alphabetically by epithet names within the related family. For each species, abbreviated references to the original description as well as the label data are provided. The data of types are quoted verbatim and exactly as given on each label, except for the dates which are changed according to the journal instruction. Some remarks or comments on the type material are given when necessary and where appropriate. When the specimens are from two different provinces, they are separated from each other by “;”. The abbreviated and complete names of the legators are listed in Table I

Table I.– Abbreviated and complete name(s) of the legators.

abbreviated name(s)	complete name(s)	abbreviated name(s)	complete name(s)
Abai, Aba, Abaci, Abāi	M. Abāi	Manz	Sh. Manzari
Alipanah, Ālipanāh, Alip.	H. Ālipanāh	Mirz., M-z., Mirzayans	H. Mirzāyāns
Ātā	M. Āgh-Ātābāy	Moayeri	M. Moayeri
Ayat.	M. Āyatollāhi	Modj.	F. Mojābi
Badii, Bad.	M. Badii	Mof.	M. Mofidi-Neyestānak
Barāri	H. Barāri	Mogh.	M. Moghaddam
Broum., Borumand, Broumand	H. Borumand	Mortazaviha	M. Mortazavihā
Buszko	J. Buszko	Mos.	H. Mostān
Callaghan	C. Callaghan	N. Naz.	N. Nazari
Dez.	A. Dezfuliān	Naum.	C. M. Nauman
Ebert	G. Ebert	Naz. V	V. Nazari
Ebrā., Ebrahimi, Ebrāhimi	E. Ebrāhimi	Nematian	M. Nematian
Ecweiler	W. Ecweiler	Pardes	N. Pardes
Eghlidi	S. Eghlidi	Parch	M. Parchami-Arāghi
Esch.	K. Escherich	Paz., Pazouki, Pazuki, Pāz.	A. Pāzuki
F.B.	Gh. Farahbakhsh	Radj., Rajabi	Gh. Rajabi
Falkner	H. Falkner	S. B. K. GH.	M. Safavi, H. Borumand, M. Kāviān, M. Ghāzioff
Fas.	M. T. Fasihi	Sabz.	A. Sabzevāri
Gh.	R. Ghayurfar	Saf., Safavi	M. Safavi
Ghazi	M. Ghāzioff	Safz.	A. M. Sarafrazi
Gilasian, Gil.	E. Gilasiān	Shahrokhi	M. B. Shāhrokhi
Kav.	M. Kāviān	Schenasi	H. Shenāsi
Keshtkar	H. Keshtkār	Shams-Zadeh	M. Shams-Zādeh
Hasch, Hashemi	A. Hāshemi	Termeh	F. Termeh
Ilkh.	A. Ilkhāni	ten Hagen	W. ten Hagen
Ira.	M. Irānshahr	V. Naz	V. Nazari
J. Mogh	H. Javān-Moghaddam	Vakilian	M. Vakiliān
Lavali	W. H. Lavallee	Zahiri	R. Zahiri
Linna.	R. Linnavori	Zairi	M. Zairi

List of types

Superfamily Nepticuloidea Stainton, 1854
Family Nepticulidae Stainton, 1854

abaiella Klimesch, 1979; *Stigmella* [Nepticulinae]

Stigmella abaiella Klimesch, 1979; *Z. ArbGem. Österr. Entomol.*, **31**(1/2): 21.

Paratypes: 1 ♂, 1 ♀, Teheran, 20-IX-1978, *Pirus communis*, leg. Abai.

Remark: “Teheran” is an erroneous spelling of Tehrān and *P. communis* is a hostplant for *S. abaiella*.

Superfamily Gracillarioidea Stainton, 1854
Family Gracillariidae Stainton, 1854

iranica Deschka, 1979; *Phyllonorycter* [Gracillariinae]

Phyllonorycter iranica Deschka, 1979; *Z. ArbGem. Österr. Entomol.*, **31**(1/2): 13.

Paratype: 1 ♂, Mesh-Gol, 28-VI-1977, Shahrokhi.

Remark: "Mesh-Gol" indicates Mashhad, Golmakān which are located in Khorāsān-e Razavi Province.

Superfamily Pterophoroidea Zeller, 1841
Family Pterophoridae Zeller, 1841

golestanica Alipanah & Ustjuzhanin, 2005; *Calyciphora* [Pterophorinae]

Calyciphora golestanica Alipanah & Ustjuzhanin, 2005; *Entomol. Fennica*, **16**: 10.

Holotype: ♂, Maz.- Golestan F., Almeh, 1650 m., 17-25-V-1988, Paz.; Paratypes: 2 ♂♂, 1 ♀, Golestān, Golestān National Park (Golestān Prov.), Sulgerd, 1150 m., 7-V-1999, Mogh./Manz./Barāri leg.

Remark: "Maz." and "F." indicate Māzandarān Province and forest, respectively, and Ālmeh is currently considered as a rural district in Golestān National Park, Golestān Province.

iranica Alipanah & Ustjuzhanin, 2006; *Agdistis* [Agdistinae]

Agdistis iranica Alipanah & Ustjuzhanin, 2006; *Nota lepid.*, **29**(3/4): 5.

Holotype: ♂, Esfehan, 8 km. N. E. of Anarak, N 33° 22' 43.5" E 53° 43' 13.5", 1560 m., alt. mountains, semi slope, 31-V-2005, M. Fibiger/Zahiri; Allotype: 1 ♀, same data as the Holotype; Paratypes: 3 ♂♂, 1 ♀, same data as the Holotype.

Remark: "Esfehan" is an erroneous spelling of Esfahān.

Superfamily Tortricoidea Latreille, 1803
Family Tortricidae Latreille, 1803

kandovana Alipanah, 2009; *Aethes* [Tortricinae]

Aethes kandovana Alipanah, 2009; *Zootaxa*, **2245**: 22.

Holotype: ♂, Mazandaran, N. Kandovan, Khakak, 2660 m., 9-VII-1977, Pazuki, Mortazaviha; Paratype: 1 ♂ (without abdomen), same data as the Holotype.

tritofa Alipanah & Baixeras, 2011; *Hedya* [Olethreutinae]

Hedya tritofa Alipanah & Baixeras, 2011; *Zootaxa*, **2879**: 34.

Holotype: ♂, Iran- Gilan, Siahkal- Deylaman Rd., Tootki vill., N 37° 3' 37.74", E 49° 50' 56.41", 464 m., 22-VII-2010, Alipanah leg.; Paratypes: 1 ♂, Mazandaran, Ramsar- Javaherdeh Rd. (km. 6), N 36° 54' 29.3", E 50° 35' 13.2", 554 m., 23-VII-2007, Alipanah, Zahiri leg. (L.T.), 4 ♂♂, Mazandaran, Ramsar, Eshkatechal, 1200 m., 28-V-2003, Gilasian, Nematian leg., 1 ♀, Mazandaran, Behshahr, Jangal Duk, 840 m., 23-VI-1977, Pazuki, Mortazaviha; 1 ♂, Guilan: Pahlavi, Pounel, 250 m., 30 km. S. of Assalem, 12-VIII-1974- Mirz./Ilkh., 2 ♂♂, 3 ♀♀, Iran- Gilan, Siahkal- Deylaman Rd., Tootki vill., N 37° 3' 37.74", E 49° 50' 56.41", 464 m., 22-VII-2010, Alipanah leg.; 2 ♂♂, Iran- Golestan, Golestan National Park, Tang-e Gol, N 37° 22' 14.7", E 55° 56' 00.0", 718 m., 30-IX-2009, Alipanah, Buszko leg.

Remark: "Jangal" means forest.

Superfamily Pyraloidea Latreille, 1809
Family Pyralidae Latreille, 1809

iranella Alipanah & Asselbergs, 2014; *Gymnancyla* [Phycitinae]

Gymnancyla iranella Alipanah & Asselbergs, 2014; *Zootaxa*, **3794**(2): 280.

Holotype: ♂, Iran, Yazd, Abarkuh, N 31° 8', E 53° 17', 1500 m., 25-VI-2010, Shams-Zadeh leg.; Paratypes: 8 ♂♂, 9 ♀♀, Iran, Yazd, Abarkuh, same coordinates as the Holotype, 1500 m., 25-VI-2010, Shams-Zadeh leg.; 6 ♂♂, 3 ♀♀, Iran, Yazd, Abarkuh, 1500 m., same coordinates as Holotype, 1-VIII-2010, Shams-Zadeh leg.

Superfamily Sesiioidea Boisduval, 1828
Family Sesiidae Boisduval, 1828

atypicum Kallies & Špatenka, 2003; *Pyropteron* [Sesiinae]

Pyropteron atypicum Kallies & Špatenka, 2003; *Linn. Belg.*, **19**(2): 90.

Paratype: 1 ♂, Iran, Prov. Fars, Shiraz W, Dasht-e-Arzhan via Serra Tshenk, 2050 m., 6-VI-1997, [34/97], A. Hofmann & P. Kautt.

Remark: "Serra Tshenk" refers to Serah-e Shenk, a local name of a place near Dasht-e Arzhan.

molleti Kallies & Špatenka, 2003; *Bembecia* [Sesiinae]

Bembecia molleti Kallies & Špatenka, 2003; *Linn. Belg.*, **19**(2): 89.

Paratypes: 1 ♂, Iran, Prov. Mazandaran, Shah Kuh (Est), versant nord, 2800-3000 m., N 36° 32' -E 54° 26', 15-17-VII-1998, Ph. B. Mollet leg.; 1 ♂, Iran, Tehran N, Elburs C, Dizin, 3200-3800 m., 30-VII-1999, leg. Andree Salk, Berlin.

Remark: Dizin presently belongs to Alborz Province.

Superfamily Zygaenoidea Latreille, 1809
Family Zygaenidae Latreille, 1809

bakhtiyari Hofmann & Tremewan, 2005; *Zygaena* [Zygaeninae]

Zygaena bakhtiyari Hofmann & Tremewan, 2005; *Linn. Belg.*, **201**: 15.

Paratypes: 1 ♂, 1 ♀, Iran, Chaharmahal-va-Bakhtiyari, Zarde-Kuh-reg. Samsami vic., Gardaneh-ye Cheri, 28-3100 m., [3/03], 9-VII-2003, A. Hofmann & J. U. Meineke leg.

Remark: Zarde-Kuh is an erroneous spelling of Zardkuh.

cambysea kamarana Hofmann & Tremewan, 2005; *Zygaena* [Zygaeninae]

Zygaena cambysea kamarana Hofmann & Tremewan, 2005; *Linn. Belg.*, **201**: 15.

Paratypes: 3 ♂♂, 2 ♀♀, Iran, Esfahan, Fereydun Shahr S, Kamaran vic., Kuh-e Ferdon, 26 -3000 m., 16-VI-2002 [28/02], A. Kallies, A. Hofmann, J. U. Meineke leg.

haberhaueri demangei Hofmann, 2005; *Zygaena* [Zygaeninae]

Zygaena haberhaueri demangei Hofmann, 2005; *Bonn. Zool. Beitr.*, **53**(1/2): 86.

Paratypes: 2 ♂♂, Iran, Prov. Zanjan, Zanjan-Gilvan, Gargovol Dag 1. Paß. ca. 1 km. N des Passes, 2400-2500 m., 26-VI-2001, A. Hofmann, J. U. Meineke leg.

Remark: "Gargovol Dag" is an erroneous spelling of Gharghāvöl Dāgh.

hindukuschi cishindukuschi Naumann, 1974; *Zygaena* [Zygaeninae]

Zygaena hindukuschi cishindukuschi Naumann, 1974; *Ent. Z. Frankf. a. M.*, **84**: 34.

Paratypes: 3 ♂♂, E-Afghanistan, Dar. -e -Pandjshir vic. Dar. -e -Shawa, Ahangaran, 3600 m., 28-VII-[19]72, Nr. 1549, leg. Pardes.

kermana Alberti, 1967; *Procris* (*Zygaenoprocris*) [Procrinae]

Procris (*Zygaenoprocris*) Alberti, 1967; *Mitt. Münch. Ent. Ges.*, **57**: 99.

Paratype: 1 ♂, Debakri, 13-VI-1967, Mirz. Paz. ["Provins Kermana, B. Alberti" in Alberti's handwriting].

Remak: “Debakri” is an erroneous spelling of Dehbakri and “Provins Kermāna” refers to Kermān Province.

Comment: This species recently treated as a subspecies of *Zygaenoprocris* (*Molletia*) *duskei* (Grum-Grshimailo, 1902) [= *Zygaenoprocris* (*Molletia*) *duskei kermāna* (Alberti, 1967)] (EFETOV & TARMANN, 2012).

nocturna meinekei Hofmann & Tremewan, 2003; *Zygaena* [Zygaeninae]

Zygaena nocturna meinekei Hofmann & Tremewan, 2003; *Linn. Belg.*, **19**(1): 13.

Paratypes: 1 ♂, 1 ♀, Iran, F1, Fars, e. o., e. l., Eqld W via Gard. Timur Gun, e.p.: 18-IV - 25-V-2002, A. Hofmann cult.

Remark: “Gard.” is an abbreviated name of Gardaneh, which means mountain pass.

nocturna nocturna Ebert, 1974; *Zygaena* [Zygaeninae]

Zygaena nocturna nocturna Ebert, 1974; *Beitr. Naturk. Forsch. Südwdtl.*, **33**: 164.

Paratype: 1 ♂, Fars, 50 km. NW Ardekan, Tange- Surkh, 2250 m., 16-VI-1972, Ebert/Pazouki leg.

Remark: “Ardekan” is presently known as Sepidan and “Tange-Surkh” is an erroneous spelling of Tang-e Sorkh.

rubricollis nasukmiri Naumann, 1974; *Zygaena* [Zygaeninae]

Zygaena rubricollis nasukmiri Naumann, 1974; *Ent. Z. Frankf. a. M.*, **84**: 34.

Paratypes: 1 ♂, 1 ♀, E- Afghanistan, Dar. -e Pandjshir, vic. Astanah (Narma), 3000 m., 26-VI-1972, leg. Pardes, Coll. C. Naumann, -Nr. 1525.

seitzi tenhageni Hofmann & Tremewan, 2003; *Zygaena* [Zygaeninae]

Zygaena seitzi tenhageni Hofmann & Tremewan, 2003; *Linn. Belg.*, **19**(1): 16.

Paratypes: 1 ♂, 1 ♀, Iran, Prov. Esfahan, Semirom vic., Kuh-e Behrouz, 2650-2900 m., 16-18-VI-2001, A. Hofmann, and J. U. Meineke leg.

tamara kendevanica Tremewan, 1977; *Zygaena* [Zygaeninae]

Zygaena tamara kendevanica Tremewan, 1977; *Entomologist's Gaz.*, **28**: 225.

Paratypes: 1 ♂, Iran, Elburs mts. Prov. Teheran, 5 km. S Kendevan- Tunnel, 2400-2600 m., 22-VII-1976, leg. Naum., Nr. 1689 (C. Naumann), 1 ♀, Iran, Elburs mts. Prov. Teheran, 5 km. S Kendevan- Tunnel, 2400-2600 m., 23-VII-1976, leg. Naum., Nr. 1691 (C. Naumann).

Remark: “Teheran” and “Kendevan” are erroneous spellings of Tehrān and Kandovān, respectively and the latter area presently belongs to Alborz Province.

Superfamily Papilionoidea Latreille, 1802

Family Lycaenidae Leach, 1815

actis artvinensis (Carbonell, 1997); *Polyommatus* (*Agrodiaetus*) [Polyommatinae]

Polyommatus (*Agrodiaetus*) *artvinensis* Carbonell, 1997; *Linn. Belg.*, **16**(4): 140.

Paratype: 1 ♂, Türki, Erzurum Tortum, Haho-Kilesi, 23-VII-1997, 1250 m., leg. W. ten Hagen.

Comment: It has originally been described as *Polyommatus* (*Agrodiaetus*) *actis artvinensis*, but later raised to the species level (OLIVIER *et al.*, 2000).

afshar tendurehensis Carbonell & Naderi, 2002; *Plebejus* (*Plebejidea*) [Polyommatinae]

Plebejus (*Plebejidea*) *afshar tendurehensis* Carbonell & Naderi, 2002; *Bull. Soc. entomol. Fr.*, **107**(4): 370.

Holotype: ♂, Iran, “Tandureh National Park”, 1800-1950 m., prov. Khorāsān, 18-VI-2000 (Naderi leg.).

Remark: The Holotype was without a collecting data label and the mentioned information is based on the original description. Also, there was a small hand written label: “118e”.

antidolus aereus Eckweiler, 1998; *Polyommatus* [Polyommatinae]

Polyommatus (Agrodiaetus) antidolus aereus Eckweiler, 1998; *Nachr. Ent. Ver. Apollo, N. F.*, **19**(3/4): 220.

Paratypes: 2 ♂♂, Iran, Azarbayjan-e-Gharbi, 10 km. E Takht-e-Soleyman, 2300 m., 24-25-VII-1998, leg. Eckweiler. 548.

arasbarani Carbonell & Naderi, 2000; *Polyommatus* [Polyommatinae]

Agrodiaetus arasbarani Carbonell & Naderi, 2000; *Linn. Belg.*, **17**(5): 218.

Holotype: ♂, Arasbaran, 1600-2200 m., Prov. d'Azarbāyējān-e-Sharghi, Iran, 7-23-VII-1997, (Naderi leg.); Allotype: 1 ♀, same data as the Holotype; Paratypes: 2 ♂♂, same data as the Holotype.

Remark: The type series were without collecting data labels and the above-mentioned informations are based on the original description of the species.

ardschira luna Eckweiler, 2002; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polyommatus (Agrodiaetus) ardschira luna Eckweiler, 2002; *Nachr. Ent. Ver. Apollo, N. F.*, **23**(1/2): 77.

Paratypes: 2 ♂♂, 1 ♀, Iran, Zanjan, 50 km. SW Zanjan, 2200-2300 m., 11-VII-1999, leg. Eckweiler. 603.

birunii Eckweiler & ten Hagen, 1998; *Polymmatu (Agrodiaetus)* [Polyommatinae]

Polymmatu (Agrodiaetus) posthmus birunii Eckweiler & ten Hagen, 1998; *Nachr. Ent. Ver. Apollo, N. F.*, **19**(2): 116.

Paratypes: 2 ♂♂, Iran, Tehran, Elburs-Geb., 15 km. E Firuzkuh (Paß), 2300-2400 m., 18-VII-1997, leg. W. ten Hagen.

callaghani Carbonell & Naderi, 2007; *Plebejus* [Polyommatinae]

Plebejus callaghani Carbonell & Naderi, 2007; *Bull. Soc. entomol. Fr.*, **112**(1): 130.

Holotype: ♂, Iran, 2400 m., Alamut rd Qazvin, Qazvin Ostan, 1-VI-2006, leg. Callaghan.

Remark: “Ostan” means Province.

ciloicus alamuticus Naderi & ten Hagen, 2006; *Polyommatus* [Polyommatinae]

Polyommatus ciloicus alamuticus Naderi & ten Hagen, 2006; *Nachr. Ent. Ver. Apollo, N. F.*, **27**(3): 171.

Holotype: ♂, Iran, Qazvin prov., N. Qazvin, 2000 m., 23-V-2005, leg. A. R. Naderi.

Remark: The Holotype was without a collecting data label and the mentioned information is based on the original description. Also, there were two additional labels under the label of Holotype: “Pictured by NADERI & TEN HAGEN, 2006, *Nachr. Ent. Ver. Apollo, N. F.* 27(3): 171-175. “Fig. 1; and No. 197”.

darius Eckweiler & ten Hagen, 1998; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polymmatu (Agrodiaetus) darius Eckweiler & ten Hagen, 1998; *Nachr. Ent. Ver. Apollo, N. F.*, **19**(2): 110.

Paratypes: 2 ♂♂, Iran, Tehran, Elburs, Demavend, Polur, 2400 m., 18-VII-1997, leg. W. ten Hagen.

Remark: “Demavend” is an erroneous spelling of Damāvand.

demavendi lorestanus Eckweiler, 1997; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polyommatus (Agrodiaetus) demavendi lorestanus Eckweiler, 1997; *Nachr. Ent. Ver. Apollo, Frankfurt, Suppl.*, **16**: 8.

Paratype: 1 ♂, Iran/Lorestan, Dorud/Saravand, 2000-2300 m., 2-5-VIII-1979, leg. Eckweiler.

hazeri Karbalaye & Harandi, 2007; *Glaucopsyche* [Polyommatainae]

Glaucopsyche hazeri Karbalaye & Harandi, 2007; *Atalanta*, **38**(1/2): 177.

Allotype: ♀, 280 km. N W Kerman (Dehaj), 10 km. W Dehaj, Medvar Mountain, 4-VI-2006, leg. Karbalaye; Paratypes: 2 ♂♂, same data as the Allotype.

Remark: The type specimens had no Allotype and Paratype labels. According to the original description (KARBALAYE & HARANDI, 2007), the Holotype was deposited in PPDR (previous name of IRIPP). After comparing the material deposited in IRIPP with the figures presented in the original description, it was clear that the three specimens deposited in IRIPP included an Allotype and two Paratypes (male specimens) with the same collecting data as the original description. Therefore, the Holotype has not been deposited.

This is worth mentioning that the three specimens deposited in IRIPP had labels in Persian and the above mentioned collecting data was based on the original description.

kermani Dumont, 2004; *Iolana* [Polyommatainae]

Iolana kermani Dumont, 2004; *Linn. Belg.*, **19**(8): 345.

Paratypes: 1 ♂, Iran, Kerman, Jiroft, NW. Gardaneh Sarbishan, Shingara vic., 2700-2900 m., 3-4-VI-2002, J. U. Meineke, A. Hofmann, A. Kallies *et al.* leg., 1 ♂, Iran, Kerman, Jiroft, NW Gardaneh Sarbishan, Shingara, 2700-2900 m., 23-V-2004, A. Hofmann, J. U. Meineke, H. Rajaiy, W. G. Tremewan Leg.

Remark: An additional hand-written label was under the type label: "D. Dumont det., *Iolana kermani* ♂, Dumont 04, Paratype".

mofidii sorkhensis Eckweiler, 2003; *Polyommatus (Agrodiaetus)* [Polyommatainae]

Polyommatus (Agrodiaetus) mofidii sorkhensis Eckweiler, 2003a; *Nachr. Ent. Ver. Apollo, N. F.*, **24**(1/2): 52.

Paratype: 1 ♂, Iran, Khorasan 45 km. S. Fariman, Kallehmenar, 2300-2400 m., 15-17-VII-1998, leg. Eckweiler. 532.

morgianus badgiri ten Hagen & Schurian, 2001; *Plebejus (Vacciniina)* [Polyommatainae]

Plebejus (Vacciniina) morgianus badgiri ten Hagen & Schurian, 2001; *Nachr. Ent. Ver. Apollo, N. F.*, **21**(4): 193.

Paratypes: 1 ♀, Iran, Yazd, Shir Kuh, S Deh Bala, 3000-3300 m., 16-VII-1999, leg. W. ten Hagen, 1 ♂, Iran, Yazd, Shir Kuh, S Deh Bala, 2700-3450 m., 4-5-VII-2000, leg. ten Hagen.

phoenicurus athamantides Eckweiler & ten Hagen, 2001; *Lycaena* [Lycaeninae]

Lycaena (Phoenicurusia) phoenicurus athamantides Eckweiler & ten Hagen, 2001; *Nachr. Ent. Ver. Apollo, N. F.*, **22**(2): 49.

Paratypes: 2 ♂♂, Iran, Yazd, Shir Kuh, Sanich, 30 km. SW Taft, 2800-3000 m., 7-8-VII-1998, leg. Eckweiler. 516, 1 ♀, Iran, Yazd, Shir Kuh, S Deh Bala, 2700-3450 m., 4-5-VII-2000, leg. ten Hagen.

sartha hofmanni ten Hagen, 2006; *Hyrceanana* [Lycaeninae]

Hyrceanana sartha hofmanni ten Hagen, 2006; *Nachr. Ent. Ver. Apollo, N. F.*, **27**(3): 109.

Paratype: 1 ♂, Iran, Esfahan, Kuh-e Karkas, N vic. Tarq-e Rud, 2500 m., 26-V-2005, leg. W. ten Hagen.

sephidarensis Karbalaye, 2008; *Polyommatus (Agrodiaetus)* [Polyommatainae]

Polyommatus sephidarensis Karbalaye, 2008; *Atalanta*, **39**(1-4): 311.

Allotype: 1 ♀, Kuh-e Sepidar, 7-IV-1997, 3100 m.; Paratype: 1 ♂, same data as the Allotype but without elevation.

Remark: Based on the original description, the Holotype was deposited in PPDR (previous name of IRIPP). However, both male and female specimens deposited in IRIPP had a red label showing the name of the species but without indicating their being type material. After comparing the material deposited in IRIPP with the figures presented in the original description, it was revealed that the Allotype and one Paratype have been deposited in IRIPP (as stated in the original description) but the Holotype has not been deposited. The two specimens deposited in IRIPP had labels in Persian and the above collecting data was based on the original description.

Comment: This species has recently been considered as a subspecies of *Polyommatus (Agrodiaetus) musa* Koçak & Hosseinpour, 1996 (TSHIKOLOVETS *et al.*, 2014).

shirkuhensis ten Hagen & Eckweiler, 2001; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polyommatus (Agrodiaetus) shirkuhensis ten Hagen & Eckweiler, 2001; *Nachr. Ent. Ver. Apollo, N. F.*, **22**(2): 53.

Paratype: 1 ♂, Iran, Yazd, Shir Kuh, Sanich, 30 km. SW Taft, 2800-3000 m., 7-8-VII-1998, leg. Eckweiler. 516.

sigberti Olivier, van der Poorten, Puplesiene & de Prins, 2000; *Polyommatus* [Polyommatinae]

Polyommatus sigberti Olivier, van der Poorten, Puplesiene & de Prins, 2000; *Phegea*, **28**(2): 67.

Paratype: 1 ♂, Türkiye/Niğde, Çamardı/Ala Dağ, 2100-2500 m., 3-5-VIII-[19]83, leg. Eckweiler.

staudingeri ardakanus ten Hagen, 2008; *Cupido* [Polyommatinae]

Cupido staudingeri ardakanus ten Hagen, 2008; *Nachr. Ent. Ver. Apollo, N. F.*, **28**(3/4): 165.

Paratypes: 1 ♀, Iran, Fars, Barm-i Firuz, N Ardakan, 2700-2900 m., 29-30-V-2004, leg. W. ten Hagen; 1 ♂, Iran, Boyer- Ahmad-o Kohgiluyeh, Kuh-e Dinar, Paß E Sisakht (Westseite), 2700 m., 20-21-V-2005, leg. W. ten Hagen.

Remark: "Ardakan" is presently known as Sepidān and "Boyer-Ahmad-o Kohgiluyeh" indicates Kohgiluyeh va Boyerahmad Province.

staudingeri osirisimile ten Hagen, 2008; *Cupido* [Polyommatinae]

Cupido staudingeri osirisimile ten Hagen, 2008; *Nachr. Ent. Ver. Apollo, N. F.*, **28**(3/4): 168.

Paratype: 1 ♂, Iran, Zanjan, NE Takab, 15 km. E Takht-e Suleyman, (Paßhöhe), 2400 m., 10-VI-2003, leg. ten Hagen.

tenhageni Schurian & Eckweiler, 1999; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polyommatus (Agrodiaetus) tenhageni Schurian & Eckweiler, 1999; *Nachr. Ent. Ver. Apollo, N. F.*, **20**(2): 120.

Paratypes: 1 ♂, Iran, Khorasan, Küh-e Sorkh, 25 km. N Torbat-e-Heydariyeh, 1700-1800 m., 13-17-VII-1999, leg. Eckweiler; 1 ♂, Khorasan, Torbat-e- Heydariyeh, Küh-e Sorkh, Paß S Robot Sang, 1800 m., 29-30-VII-1998, leg. W. ten Hagen.

Remark: Küh-e Sorh is an erroneous spelling of Küh-e Sorkh.

urmiaensis Schurian & ten Hagen, 2003; *Polyommatus (Agrodiaetus)* [Polyommatinae]

Polyommatus (Agrodiaetus) urmiaensis Schurian & ten Hagen, 2003; *Nachr. Ent. Ver. Apollo, N. F.*, **24**(1/2): 1.

Paratype: 1 ♀, Iran, Azarbaygan-e Gharbi, 62 km. N Orumiyyeh, Salmas, 1700-1800 m., 11-VII-1999, leg. W. ten Hagen.

Comment: This species might be a synonym of *Polyommatus (Agrodiaetus) belovi* but needs further revision (W. ten Hagen, pers. com., 2014).

Family Nymphalidae Rafinesque, 1815

briseis falkneri Gross & Ebert, 1975; *Chazara* [Satyrinae]

Satyrus (Chazara) briseis falkneri Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 22.

Paratypes: 1 ♀, Teheran, 10-VI-[19]66, M-z., 1 ♀, Evin, 3-VII-1967, 1 ♀, Evine, 8-VII-1967, 1 ♀, Evine, 18-VII-1967, 1 ♂, Evine, 25-VI-1967, Zairi, 1 ♀, Evin, 20-VI-68, Keshtkar, 1 ♀, Evin, 25-VI-1969, Mirz., (one specimen without abdomen), 23-VI-1970, Kav., 1 ♂, Evin, 4-VII-1971, L.T., 1 ♀, Evin, 7-VII-1971, L.T., 1 ♂, Tehran, Evin, 1600 m., 22-VI-1972, light-trap, 3 ♂♂, 28-IX-[19]70, Kav., Ghazi., 2 ♂♂, 30-IX-[19]70, Kav., Ghazi., 1 ♂, Teheran, 10-VI-[19]66, Abai, 1 ♀, Tehran, Karadj, Arangueh (Alborz Prov.), 1550 m., 15-VI-1972, Mirz./Abai./Kav. Ghaz. leg.

Remark: Teheran, Evine, Karadj and Arangueh refer to Tehrān, Evin, Karaj and Arangeh, respectively. Presently Karaj is the capital of Alborz Province.

Comment: This subspecies was synonymized with *Chazara briseis meridionalis* (Staudinger, 1886) (HESELBARTH *et al.*, 1995).

cadusia mansura Skala, 2003; *Hyponephele* [Satyrinae]

Hyponephele cadusia mansura Skala, 2003; *Linn. Belg.*, **19**(1): 45.

Paratype: 1 ♂, Iran, Kerman, Kuh-e-Segoch, ca. 20 km. E Mahan (Paß) 2600 m., 1-4-VII-1997, leg. W. ten Hagen.

Remark: "Segoch" is an erroneous spelling of Sekonj in Kermān Province.

cinxia kasyi Gross & Ebert, 1975; *Melitaea* [Nymphalinae]

Melitaea cinxia kasyi Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 43.

Paratype: 1 ♀, 50 km. NW Ardekan, Tange-Surkh, 2250 m., 16-VI-1972, Ebert/Pazouki leg.

Remark: "Ardekan" is presently known as Sepidān and "Tange-Surkh" is an erroneous spelling of Tang-e Sorkh.

Comment: This subspecies has been synonymized with *Melitaea cinxia cinxia* (Linnaeus, 1758) (HESELBARTH *et al.*, 1995).

geyeri savalanica Gross & Ebert, 1975; *Pseudochazara* [Satyrinae]

Satyrus (Pseudochazara) geyeri savalanicus Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 21.

Paratypes: 1 ♂, 1 ♀, Sabalan, 31-VII-1968, Abai- Modj.

mirza Ebert, 1971; *Euapatura* [Apaturinae]

Euapatura mirza Ebert, 1971; *Beitr. Naturk. Forsch. SüdwDtl.*, **30**: 66.

Allotype: 1 ♀, Iran, Rijab, 10-VI-[19]68, Dez. Ira.; Paratype: 1 ♂, Escandar, 22-VI-1968, Dez.

Remark: The Allotype had an additional hand-written label: "Prep. Nr. R 101 ♀". "Escandar", also known as "Sarāb-e Eskandar", is a place near Rijāb in Kremānshāh Province.

niobe demavendis Gross & Ebert, 1975; *Argynnis (Fabriciana)* [Heliconiinae]

Argynnis (Fabriciana) niobe demavendis Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 31.

Paratypes: 1 ♂, Tchalous, Valiabad, VII-1967, Moayeri, 1 ♂, Valiabad, VII-[19]67, Chalos, Moayeri, 1 ♂, Tchalus, 17-VII-[19]67, Moayeri, 1 ♂, Tchalus, Valiabad, VII-[19]67, Moayeri; 1 ♂, 1 ♀, Mygon, 29-II-[19]68, Aba, Mos., 2 ♂♂, Damavand, 9-VI-1949, Esch.

Remark: "Tchalous", "Tchalus" and "Chalos" refer to Chālūs in Alborz Province and "Mygon" is an erroneous spelling of Meygun in Tehrān Province.

niobe khuzestana Gross & Ebert, 1975; *Argynnis (Fabriciana)* [Heliconiinae]

Argynnis (Fabriciana) niobe khuzestana Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 33.

Paratypes: 1 ♂, 1 ♀, Khouzeestan, Yassoudj, Sisakht, 2250 m., 13-VI-1972, Ebert/Pazouki leg., 1 ♂, Khouzeestan, Sisakht, 2250 m., 15-18-VI-1975, Ebert/Falkner.

Remark: Yassoudj refers to Yāsuj. Presently Yāsuj and Sisakht belong to Kohgiluyeh va Boyerahmad Province.

paphia masandaranensis Gross & Ebert, 1975; *Argynnis* (*Argynnis*) [Heliconiinae]
Argynnis (*Argynnis*) *paphia masandaranensis* Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 30.

Paratypes: 2 ♂♂, 2 ♀♀, Iran, Assalem., 11-VIII-1970, Naim., 1 ♀, Guilan, Assalem., Schondol, 950 m., 9-VIII-1974, leg. Mirz. / F.B.; 1 ♂, Pahlavi 18-VI-[19]65, H. Mirzayans leg.; 1 ♀, Mazandaran, 17-VIII-[19]66, Abaei; 1 ♀, Iran, Kalardascht, 18-VIII-1969, Zairi.

Remark: Assalem., Schondol and Kalardascht refer to Asālem., Shondol and Kelārdascht, and Pahlavi is presently known as Anzali.

parisatis ismail Gross & Ebert, 1975; *Hipparchia* [Satyrinae]
Satyrus (*Hipparchia*) *parisatis ismail* Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 16.

Paratypes: 1 ♂, Evin, Tehran, VIII-[19]63, Mirzayans, 1 ♀, Evin, 24-VII-1967, 1 ♀, Evin, Inst., VIII-[19]63, Mirz., 1 ♂, Shemshak, 25-VII-[19]72, Abai.

Remarks: Inst. refers to Institute i.e., Iranian Research Institute of Plant Protection.

Comment: This subspecies was synonymized with *Hipparchia parisatis parisatis* (Kollar, [1894]) by HESSELBARTH *et al.* (1995).

persephone pseudohanifa Gross & Ebert, 1975; *Chazara* [Satyrinae]
Chazara persephone pseudohanifa Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 23.

Paratypes: 3 ♀♀, Iran, Farashband, 4-VI-1968, Mirz., 1 ♀, Fars-Darab, Karsia, 1150 m., 28-V-1973, Hasch/Zairi.

phoebe abbas Gross & Ebert, 1975; *Melitaea* [Nymphalinae]
Melitaea phoebe abbas Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 44.

Paratypes: 1 ♂, 1 ♀, 50 km. NW Ardekan, Tange-Surkh, 2250 m., 16-VI-1972, Ebert/Pazouki leg.

Remark: “Ardekan” is presently known as Sepidān and “Tange-Surkh” is an erroneous spelling of Tang-e Sorkh.

Comment: This species was considered as a synonym of *Melitaea punica telona* Fruhstorfer, 1908 by HESSELBARTH *et al.* (1995).

reducta mirzayani Gross & Ebert, 1975; *Limenitis* [Limenitidinae]
Limenitis reducta mirzayani Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 28.

Paratypes: 2 ♂♂, 1 ♀, Fars, 50 km. NW Ardekan, Tange-Surkh, 2250 m., 16-VI-1972, Pazouki leg.; 1 ♂, Khuzestan, Yassoudj, Sisakht, 2250 m., 13-VI-1972, Pazouki leg., 3 ♂♂, 1 ♀, Khuzestan, Sisakht, Tange-Sorkh, 12-15-VI-1975, Ebert/Falkner.

Remark: “Ardekan” is presently known as Sepidān and “Tange-Surkh” and Yassoudj refer to Tang-e Sorkh and Yāsuj, respectively. Presently Yāsuj belongs to Kohgiluyeh va Boyerahmad Province.

Comment: This subspecies was synonymized with *Limenitis reducta reducta* Staudinger, 1901 by HESSELBARTH *et al.* (1995). Possibly it needs a revision [W. ten Hagen, pers. com., 2013].

sadjadii Carbonell & Naderi, 2006; *Melanargia* [Satyrinae]
Melanargia sadjadii Carbonell & Naderi, 2006; *Bull. Soc. entomol. Fr.*, **111**(4): 465.

Holotype: 1 ♂, Mazandaran- Neka, 0 m., 14-VI-[20]02, leg. S. A. Sadjadi; Allotype: 1 ♀, same data as the Holotype.

Comment: This species was considered as a subspecies of *Melanargia evartianae* by NAZARI *et al.* (2010).

schakuhensis chansara Skala, Schurian & ten Hagen, 2001; *Pseudochazara* [Satyrinae]
Pseudochazara schakuhensis chansara Skala, Schurian & ten Hagen, 2001; *Nachr. Ent. Ver. Apollo, N. F.*, **22**(3): 141.

Paratype: 1 ♂, Iran, Esfahan, Kuh-e Dereoschach, SE Daran, vic. Anahoyeh, 2500-2700 m., 17-VII-2000, leg. ten Hagen.

Remark: “Dereoschach” and “Anahoyeh” are erroneous spellings of Dārābshāh and Anālojeh (both in Esfahān Province), respectively.

shirazica aryana Carbonell & Naderi, 2004; *Hyponephele* [Satyrinae]
Hyponephele shirazica aryana Carbonell & Naderi, 2004; *Bull. Soc. entomol. Fr.*, **109**(4): 360.

Holotype: ♂, Khounsar, 3000-3100 m., N 33° 10', E 50° 19' (Esfahan)- Iran, 9-VII-2003, Ali Reza Naderi leg.

Family Pieridae Swainson, 1820

aurorina rosei Gross & Ebert, 1975; *Colias* [Coliadinae]
Colias aurorina rosei Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 11.

Paratypes: 1 ♂, Tchalus, 17-VII-[19]67, Moayeri, 1 ♂, Nour, VII-[19]67, Moayeri, 1 ♂, Nour, Chalous, VII-[19]67, Moayeri.

Remark: Tchalus and Chalous, and Nour refer to Chālus and Nur in Māzandāran Province, respectively.

charlonia amseli Gross & Ebert, 1975; *Euchloe (Elphinstonia)* [Pierinae]
Euchloe charlonia amseli Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 10.

Paratypes: 1 ♂, Guenu (B. A.), 8-III-1971 (250 m.), Ayat. Paz.; 1 ♂, Borazdjan, 6-III-1970, Paz.

Remark: B. A. indicates Bandar Abbās, which is placed in Hormozgān Province, and “Guenu” and “Borazdjan” are German spellings of Geno and Borāzjān respectively; the latter one belongs to Bushehr Province.

Comment: It was considered to be a subspecies of *Euchloe (Elphinstonia) transcaspica* (Staudinger, 1892) (BACK, 1991).

chlorocoma taleshensis Eckweiler, 2003; *Colias* [Coliadinae]
Colias chlorocoma taleshensis Eckweiler, 2003b; *Nachr. Ent. Ver. Apollo, N. F.*, **24**(3): 147.

Paratype: 1 ♂, Iran, Ardabil, Talesh Mts. Aqbolaq, 2700 m., 8-VII-2003, leg. Eckweiler. 904.

Comment: This subspecies was synonymized with *Colias chlorocoma chlorocoma* by GRIESHUBER *et al.* (2012), although it probably needs a revision [W. ten Hagen, pers. com., 2013].

crataegi pazukii Gross & Ebert, 1975; *Aporia* [Pierinae]
Aporia crataegi pazukii Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 8.

Paratypes: 1 ♀, Fars, Sisakht, 2350 m., 13-16-VI-1973, Hasch./Zairi, 1 ♂, 1 ♀, Khouzeestan, Yassoudj, Sisakht, 2250 m., 13-VI-1972, Ebert/Pazouki leg.; 4 ♂♂, 1 ♀, Ahvaz, 19-X-[19]55, Eghlidi, 1 ♂, Behbahan, Vakilian, 20-V-[19]58.

Remark: Yassoudj refers to Yāsuj. Presently Yāsuj and Sisakht belong to Kohgiluyeh va Boyerahmad Province.

crataegi rhodinea Hofmann & Eckweiler, 2001; *Aporia* [Pierinae]
Aporia crataegi rhodinea Hofmann & Eckweiler, 2001; *Nachr. Ent. Ver. Apollo, N. F.*, **22**(3): 137.

Paratypes: 2 ♂♂, Iran, Yazd, Shir Kuh, Deh Bala, 2200-2500 m., 10-V-2001, leg. Eckweiler. 770.

vestalis nadir Gross & Ebert, 1975; *Colotis* [Pierinae]
Colotis vestalis nadir Gross & Ebert, 1975; *J. Ent. Soc. Iran, Suppl.*, **1**: 11.

Paratypes: 1 ♀, Bandar Abbas, 3-IV-1949, Fas., 1 ♀, Bandar-abbas, 29-III-[19]65, Safavi, 1 ♂ and one specimen without abdomen, Bandar Langeh, 23-III-[19]65, Safavi; (one specimen without abdomen), Espake, 24-IV-1969, Paz. Hasch.; 1 ♂, Baluchestan, Tanguihsarheh, 10-IV-1973, Saf./Broum., 2 ♂♂, Baluchestan, Rask, Bahoukalat, 4-IV-1973, Broum./Saf., 1 ♂, Chabahar, 8-IV-[19]65, Safavi. With an additional male specimen without collecting data label.

Remark: Bandar Langeh and Tanguihsarheh are erroneous spellings of Bandar Lengeh (in Hormozgān Province) and Tang-e Sarheh (in Sistān va Baluchestān Province). Espake also belongs to Sistān va Baluchestān Province.

ziayani karkasica Mark, ten Hagen & Back, 2008; *Euchloe* (*Elphinstonia*) [Pierinae]

Euchloe (*Elphinstonia*) *ziayani karkasica* Mark, ten Hagen & Back, 2008; *Nachr. Ent. Ver. Apollo, N. F.*, **29**(1/2): 1.

Holotype: 1 ♂, Iran, Esfahan, Kuh-e Karkas, NW Natanz, E. Abyaneh (Prov.), 1700-2050 m., 9-10-V-2007, leg. W. ten Hagen.

Family Papilionidae Latreille, 1809

apollinaris bostanchii de Freina & Naderi, 2003; *Archon* [Parnassiinae]

Archon apollinaris bostanchii de Freina & Naderi, 2003; *Atalanta*, **34**(3/4): 431.

Holotype: ♂, Iran, Provinz Lorestan, env. Pol-e Dokhtar, 900 m., 9-IV-2003, leg. A. R. Naderi.

Remark: "Provinz" is German translation of Province. There is also an additional label under the label of type: "abgebildet in *Atalanta*, **34**(3/4) Farbtafel Abb. 1".

Comment: It has originally been described as *Archon apollinaris bostanchii*, but later raised to the species level (CARBONEL & MICHEL, 2007; NAZARI & SPERLING, 2007).

Superfamily Drepanoidea Boisduval, 1828

Family Drepanidae Boisduval, 1828

caspica Ebert, 1976; *Tethea* [Thyathirinae]

Tethea caspica Ebert, 1976; *J. Ent. Soc. Iran*, **3**(1-2): 101.

Paratypes: 1 ♀, Schahsavār, 6-VIII-1971, Ghazioff; 1 ♂, 2 ♀♀, Rascht, Sefidroud, 15-21-V-1973, Schenasi, 1 ♂, Rascht, Sefidroud, 20-X-1973, Schenasi, 1 ♂, Gonbad-Ghabous, 11-V-1964; 1 ♂, Gorgan, 8-VIII-1970.

Remark: Schahsavār and Rascht are German spellings of Shahsavār (in Māzandarān Province) and Rasht (in Gilān Province), respectively. The Shahsavār is presently known as Tonekābon and Gonbad Kāvous (in Golestān Province) is also known as Gonbad Ghābus.

Family Cimeliidae Chrétien, 1916

theresia schellhornae Amsel, 1979; *Axia*

Axia thesiae schellhornae Amsel, 1979; *Atalanta*, **10**: 72.

Paratypes: 2 ♂♂, Azarbaijan: Rezayieh, Band, 3-VI-1975, Abai, 1 ♂, Azarbaijan, 15 km. Rezayieh, 11-VI-1975, Abai.

Remark: Rezayieh is presently known as Orumiyeh in Āzarbāijān-e Gharbi Province. Orumiyeh is also spelled as Urmīā.

Comment: *Axia thesiae defreinai* Witt, 1982 was synonymized with *Axia thesiae schellhornae* Amsel, 1979 by de FREINA (1994).

Superfamily Lasiocampoidea Harris, 1841

Family Lasiocampidae Harris, 1841

mirzayani Ebert, 1971; *Trichiura* [Poecilocampinae]

Trichiura mirzayani Ebert, 1971; *Beitr. Naturk. Forsch. SüdWdtl.*, **30**: 70.

Paratypes: 9 ♂♂, Amol, 28-X-1970, Mirz. Ebert.

parallela iranica Zolotuhin & Zahiri, 2008; *Malacosoma* [Lasiocampinae]

Malacosoma parallela iranica Zolotuhin & Zahiri, 2008; *Zootaxa*, **1791**: 20.

Holotype: ♂, Khorassan, Schahroud- Schahkouh, 2150 m., 15-VI-1974, leg: Radj./Paz.; Paratypes: 4 ♂♂, Gorgan: Jangal Golestan - Dasht, 960 m., 18-VI-1977, Pazuki, Abai. 2 ♂♂, Golestān, Pār-k-e Melli-e Golestān, Ālmeh, 1650 m., 17-18-VII-1996, Ebrā./Naz. V., 4 ♂♂, Golestān, P. M. Golestān, Ālmeh, 1630 m., 12-VI-2000, Mogh./Ebrā./Badii/Mof., 1 ♀, Golestān, P. M. Golestān, Tang-e Gol, 930 m., 7-V-2000, Mogh./Badii/Mof./Ebrā., 1 ♂, Golestān, P. M. Golestān, Koylar, 1250 m., 16-VI-2000, Badii/Ebrā./Mogh./Mof., 1 ♂, Golestān, P. M. Golestān, Dasht-e Shād, 1300 m., 9-V-2000, Badii/Mogh./Mof., 20 ♂♂, 1 ♀, Golestān, Dasht-e Shād, 1500 m., 9-VI-2000, Mogh./Mof./Ebrā./Badii; 1 ♂, Khorassan; 30 Km. S Bojnurd, Asadly, 1970 m., 17-VI-1977, Pazuki, Abai, 2 ♂♂, Khorassan, Kopedagh, Allahakbar, 1950 m., 16-VI-1974, leg: Radj./Paz., 7 ♂♂, Gonbad-Kavous, Golestan forest, 21-VI-1974-paz./Rabj.; 20 ♂♂, 1 ♀, Khorassan, Schahroud, Schahkouh, 2150 m., 15-VI-1974, leg: Radj./Paz.; 7 ♂♂, Semnān, P. M. Golestān, Dasht-e Shād, 1400 m., 9-V-2000, Badii/Mogh./Mof./Ebrā., 1 ♂, Semnan, Shahrud, Shahkuh-e Pain, 2700 m., 18-VII-2003, Ebra./ Alip.; 1 ♀, Tchalous, 5-VI-1973, Termeh, 1 ♂, Māzandarān, Yush, 2100 m., 26-VI-1998, Mof., 1 ♀, Mazandaran, Polur/ Nava Mt., 13-VII-1976, Zairi, Lavalı, 1 ♀, Mazandaran, Sari, 28-IX-1375, Abai, 1 ♀, Mazandaran, Sari, 28-IX-1975, L.T. Abai; 1 ♀, Karadj, 1 ♂, Karaj, Kandovan, Sarchal, 2800 m., 4-8-VII-1977, Pazuki, Mortazaviha, 2 ♂♂, Polemun, 20-VII-1971, leg. A. Hasch. Zairi, 1 ♂, Māzandarān, Kandovān, 2600 m., 3-4-VII-1995, Safz./Linna./Badii; 3 ♂♂, 3 ♀♀, Asara, 40 km. N. K., 27-VI-1971, S. B. K. GH., 6 ♂♂, Tehrān, Taleghān, 31-VII-1971, Abāi, 3 ♂♂, Tehrān, Karaj, Āzādbar, 2400 m., 7-9-V-1995, Safz./Badii/Linna., 6 ♂♂, Tehran: Taleghan; Parachan, 2200 m., alt., 27-VI-1991, Ebrahimi / Badii, 3 ♂♂, 2 ♀♀, Tehran: Taleghan; Kalanak, 1800 m., alt. 26-VI-1991, Ebrahimi / Badii, 1 ♂, Tehrān, Tāleghān, Kalānak, 1950 m., 26-VI-1994, Ebrāhimi; 1 ♂, Garmsar, 25-VI-1971, paz.; 1 ♂, Tehrān, Tāleghān, 31-VII-1971, Abāi; 1 ♂, Damavand, Ab-ask, 2500 m., 19-VIII-1981, Hashemi; 1 ♂, Evin, 18-VI-1973, L.T., 1 ♂, Tehran, Shahrestanak, Cheshmeh kil-kola, 2400 m., 20-VII-1988, Mirz.Badii, 1 ♀, Schemschak, 26-VII-1969, Mirz-Abai, 1 ♂, Damavand, 8-VII-1961, Sabz., 4 ♂♂, Damavand, 1910 m., 21-27-VI-1976, Rajabi, 1 ♂, Tehran, S. Slop Damavand M. 2720 m., 23-VII-1988, Mirz. Badii, 1 ♂, Tehrān, Rudbār Ghasrān, Garmābdar, 2370 m., 28-29-V-1991, Ebrā./Badii, 7 ♀♀, Lavasan, 10-VI-[19]73, Sabz.; 1 ♂, E. Āzarbāijān Kaleibar, Vāyeghān, 1440 m., 5-6-VIII-1992, Parch./Badii, 1 ♀, Azarbaijan, 62 km. Khalkhal, 1500 m., 29-VII-1976, Pazuki/ Broumand; 2 ♂♂, Hormozgan: Issin, 150 m., alt., 6-III-1985, Borumand / Hashemi; 1 ♀, Gilān, Astārā, Fandoghposhteh, 726 m., 18-VI-2001, Gh.

Remark: Schahroud, Schahkouh, Khorasan, Tchalous, Schemschak and Issin refer to Shāhrud, Shāhkuh, Khorāsān, Chālus, Shemshak and Isin, respectively. N. K. indicates North of Karaj in Alborz Province. Āsārā, Karaj and Tāleghān presently belong to Alborz Province; and Shāhkuh, Bojnurd and Kopetdāgh belong to Khorāsān-e Shomāli Province.

In the label with the following information: "Sari, 28.9.1375", an error has apparently been made when typing 1375 instead of 1975, i.e. the correct date.

Superfamily Bombycoidea Latreille, 1802

Family Spingidae Latreille, 1802

suellus kashgoulii Ebert, 1971; *Deilephila* [Macroglossinae]

Deilephila suellus kashgouli Ebert, 1976; *J. Ent. Soc. Iran*, **3**(1,2): 91

Paratypes: 7 ♂♂, 1 ♀, Fars, 50 km. NW Ardekan, Tange-Surkh, 2250 m., 16-VI-1972, Ebert/Pazouki leg.

Remark: "Ardekan" is presently known as Sepidān and "Tange-Surkh" is an erroneous spelling of Tang-e Sorkh.

Comment: This subspecies was synonymized with *Deilephila porcellus* (Linnaeus, 1758) by KITCHING & CADIOU (2000).

Superfamily Noctuoidea Latreille, 1809
Family Notodontidae Stephens, 1829

kautti Schintlmeister, 2008; *Cerura* [Notodontinae]

Cerura kautti Schintlmeister, 2008; *Palaeartic Macrolepidoptera*, **1**: 118.

Paratype: 1 ♂, Iran, Kerman, Bam SW, 2000 m., Dehbakri vic., 1-12-VI-2002, J. U. Meineke/A. Hofmann, A. Kallies.

Remark: There is an additional label under the label of the Paratype: "photo done by A. Schintlmeister #9.932".

Family Erebidae Leach, [1815]

caja mazandarana Dubatolov & Zahiri, 2005; *Arctia* [Arctiinae]

Arctia caja mazandarana Dubatolov & Zahiri, 2005; *Atalanta*, **36**(3/4): 493.

Holotype: ♂, Valiabad, VII-[19]67, Chalous, Moayeri; Paratypes: 1 ♂, 1 ♀, Tchalous- Valiabad, VIII-1967, Moayeri.

Remark: "Chalous" and "Tchalous" refer to Chālus.

deserta elbursica Dubatolov & Zahiri, 2005; *Watsonarctia* [Arctiinae]

Watsonarctia deserta elbursica Dubatolov & Zahiri, 2005; *Atalanta*, **36**(3/4): 498.

Holotype: ♂, Iran, Mazandaran, Elburs Mts., Sefid-Ab, 36° 40' N, 51° 01' E, 360 m., 7-VII-1978, anonymous leg.; Paratypes: 2 ♂♂, 1 ♀, Iran, Mazandaran, Elburs Mts., Siahbisheh, 36° 13' N, 51° 19' E, 2130 m., 10-VI-1966, anonymous leg.

Remark: The labels indicating the collecting data of the Holotype and all Paratypes are in Persian, so the above-mentioned information is based on the original description of the subspecies.

festiva hormozgana Dubatolov & Zahiri, 2005; *Eucharia* [Arctiinae]

Eucharia festiva hormozgana Dubatolov & Zahiri, 2005; *Atalanta*, **36**(3/4): 496.

Paratype: 1 ♂, Hormozgan, Sirik, 18-II-1998, Mof./Atā.

placida mirzayansi Dubatolov & Zahiri, 2005; *Phragmatobia* [Arctiinae]

Phragmatobia placida mirzayansi Dubatolov & Zahiri, 2005; *Atalanta*, **36**(3/4): 505.

Holotype: ♂, Tehrān, Karaj, Shahrestānak, Sarak, 2100 m., 31-V-1991, Ebrā./Badii; Paratypes: 1 ♂, same data as the Holotype, 1 ♂, Tehrān, Dizin, Velāyatrud, 2250 m., 30-V-1991, Ebrā./Badii; 1 ♂, Tehrān, Rudbār Ghasrān, Garmābdar, 2370 m., 28-29-V-1991, Ebrā./Badii.

Remark: Presently Karaj and Dizin belong to Alborz Province.

puerperoides Zahiri *et al.*, 2008; *Catocala* [Erebiinae]

Catocala puerperoides Zahiri *et al.*, 2008; *Acta Zool. Lit.*, **18**(1): 44.

Holotype: ♂, Lorestan, Oshtorankuh, Narmian, 4-5-VIII-1975, 2400 m., Pazouki; Paratypes: 1 ♂, 2 ♀♀, Tehran, Karaj, Arangeh, Sijan, Kohnebagh, 2300 m., 11-VIII-1999, Mof./Bad./Ebra., 1 ♀, 30 km. N. Karadj, 11-IX-1969, Mirz.-Abai; 1 ♀, Tehran, Rudbar-e Ghasran, 2300 m., 13-IX-2000, Ebra./Mof., 1 ♂, Tehran, Fasham, 5-IX-1987, 1450 m., Hashemi, 1 ♀, Tehran, Firuzkuh, Chehelcheshmeh, 1950 m., 13-VIII-1998, Mof./V. Naz., 1 ♂, Lavasan, Kamarb, 1940 m., 19-IX-1981, Pazouki; 1 ♀, Lorestan: Aligudarz, Ghalikuh, 2300 m., alt. 30-31-VI-1990, Hashemi / Ebrahimi, 1 ♂, Lorestan, Oshtorankuh, Narmian, 4-5-VIII-1975, 2400 m., Pazouki, 1 ♂, Lorestan, Oshtorankuh, Kogah, 29-30-VII-1975, 2350 m., Pazouki, 13 ♂♂, 5 ♀♀, Lorestan, Oshtorankuh, Partche-Kabud, 2800 m., 1-2-VIII-1975, Pazouki, 4 ♂♂, 2 ♀♀, Lorestan, Oshtorankuh, Gahar Sea,

2350 m., 31-VII-1975, Pazouki, 1 ♂, 6 ♀♀, Lorestan, Oshtorankuh, Gahar Sea, 2350 m., 3-VIII-1975, Pazouki; 1 ♂, Khuzestan, Dezful, Baladieh, 400 m., 1-VI-1998, Mof./Ebrā.

Remark: "Karadj" and "Partche-Kabud" are German spellings of Karaj in Alborz Province and Parche Kabud, respectively. The specimen collected in Oshtorānkuh, Gahar Sea, 31.7.1975 has a hand-written label for genitalia slide: "480 ♀ gen., genitalia puerperoides".

wiltshirei Collenette, 1938; *Leucoma* [Lymantriinae]

Leucoma wiltshirei Collenette, 1938; *Ann. Mag. Nat. Hist.*, (11)2(20): 369.

Allotype: 1 ♀, Kermanshahan, 30-VI-[19]72, Mirz-Abai; Paratypes: (one specimen without abdomen), Kermanshahan, Schahabad, Tcharzbar, 1-VII-1972, 1600 m., Mirz./Abai leg.; (one specimen without abdomen), Kordestan, Marivan, Miandagh, 6-VII-1972, 2000 m., Mirz./Abai leg.

Remark: "Tcharzebar" and "Schahabad" are German spellings of Chāhārzebar and Shāhābād, respectively and the latter is presently known as Eslāmābād-e Gharb.

Family Noctuidae Latreille, 1809

brunnea Fibiger, Zahiri & Kononenko, 2007; *Margelana* [Noctuinae]

Margelana brunnea Fibiger, Zahiri & Kononenko, 2007, *Zootaxa*, **1503**: 14.

Holotype: ♂, Maz.- Golestan F. Almel, 1650 m., 2-12-X-1988 Paz.; Paratypes: 1 ♂, 30 ♀♀, (one specimen without abdomen), same data as the Holotype, 2 ♀♀, Māzandarān, Golestān, Ālmeḥ, 1650 m., 3-X-1994, Mirz./Badii/Ebrā., 4 ♀♀, Golestān, P. M. Golestān, Ālmeḥ, 1600 m., 30-IX-2000, Gh./Gil., 1 ♀, Golestān, P. M. Golestān, Ālmeḥ, 1650 m., 30-X-1998, Mogh./N. Naz./Manz.

Remark: Maz. and F. indicate Māzandarān and forest, respectively. Ālmeḥ is currently considered as a rural district in Golestān National Park, Golestān Province.

chalcophanes Dufay, 1963; *Euchalcia* [Plusiinae]

Euchalcia chalcophanes Dufay, 1963; *Bull. Mens. Soc. Linn. Lyon*, **32**: 69.

Paratype: 1 ♂, Persia sept. Elburs mts. c. s., Tacht i Suleiman, Sārdab Tal (Vandarban), 25-2700 m 14-18-VII-[19]37, E Pfeiffer and W. Forster München leg. C. Dufay det., 1963; (coll. ZSM from box-no.: 113N/51); Allotype: 1 ♀, same data as Paratypes (Voir genitalia prep. C. Dufay N 1430) C. Dufay det., 1963.

Remark: "Vandarban" is an erroneous spelling of Vandārbon in Māzandarān Province.

farsiensis Fibiger & Zahiri, 2005; *Luperina* [Noctuinae]

Luperina farsiensis Fibiger & Zahiri, 2005; *Noct. Eur.*, **8**: 68.

Holotype: ♂, Fars, Kazerun, Gaw-Koshak, 17-21-XI-1976, Abai L.T.

Remark: The specimen has an additional label for the genitalia slide: "gen. Prep. 5395 M. Fibiger".

golestanensis Fibiger & Zahiri, 2006; *Gortyna* [Amphipyridae]

Gortyna golestanensis Fibiger & Zahiri, 2006; *Nota lepid.*, **29**(3/4): 215.

Holotype: ♂, Golestān, P. M. Golestan, Ālmeḥ, 1600 m., 30-IX-2000, Gh./Gil.; Paratypes: 6 ♂♂, Golestān, P. M. Golestan, Ālmeḥ, 1600 m., 30-IX-2000, Gh./Gil. (gen. Prep. 201), 5 ♂♂, 1 ♀, Maz.- Golestan F., Almel, 1650 m., 2-12-X-1988, Paz., 10 ♂♂, Māzandarān, Golestān, Ālmeḥ, 1700 m., 2-3-X-1992, Ebrā./Badii, 4 ♂♂, Golestān, Pārk-e Melli-e Golestān, Ālmeḥ, 1600 m., 2-6-X-1994, Mirz./Ebrā./Badii, 6 ♂♂, Māzandarān, Golestān, Ālmeḥ, 1650 m., 3-X-1994, Mirz./Badii/Ebrā., 10 ♂♂, 1 ♀, Golestān, Pārk-e Melli-e Golestān, Ālmeḥ, 1650 m., 3-5-X-1994, Mirz./Badii/Ebrā., 1 ♂, Golestān, P. M. Golestan, Ālmeḥ, 1650 m., 30-X-1998, Mogh./N. Naz./Manz. (gen. Prep. 5394 M. Fibiger); 1 ♂, Mazandarān, Elika, 2100 m., 23-IX-1987, Hasch.

Remark: Maz. and F. indicate Māzandarān and forest, respectively. Ālmeḥ is currently considered as a rural district in Golestān National Park, Golestān Province. One of the Paratypes

collected in Ālmeh (30-IX-2000), has an additional hand-written label: “*Gortyna golestanensis*, Gen. prep. 201, paratype”.

hyrcaniae Dufay, 1963; *Euchalcia* [Plusiinae]

Euchalcia hyrcaniae Dufay, 1963, *Bull. Soc. Linn. Lyon*, **1963**: 69.

Paratype: 1 ♂, Persia sept. Elburs mts. c. s., Tacht i Suleiman, Sārdab Tal, (Vandarban), 25-2700 m., 14-18-VII-1937, E Pfeiffer and W. Forster München leg. (Coll. ZSM, box Nr. 113N/51). C. Dufay det., 1963; 1 ♂, Persia sept. Elburs mts. C. s., Tacht I Suleiman, Sārdab Tal, (Vandarban), 25-2700 m., 14-18-VII-1937, E Pfeiffer and W. Forster München leg. No. 11160, W. Forster Munchen.

Remark: “Tacht i Suleiman” is the same as Takht-e Soleymān and “Vandarban” is an erroneous spelling of Vandārbon.

jahannamah Fibiger, Stangelmaier, Wieser & Zahiri, 2008; *Dichonia* (*Gripusia*) [Cuculliinae]

Dichonia jahannamah Fibiger, Stangelmaier, Wieser & Zahiri, 2008; *Nachr. Ent. Ver. Apollo, N. F.*, **28**(3/4): 121.

Paratypes: 1 ♂, 2 ♀♀, Māzandarān, Golestān forest, Tang-e Gol, 600 m., 27-30-X-1979, Pāz./Badii, 1 ♀, Golestān, P. M. Golestān, Tang-e Gol, 29-30-X-1998, Manz./Mogh./N. Naz., 1 ♂, Māzandarān, Golestān, Ālmeh, 1650 m., 17-X / 26-X-1989, Pāz./Badii.

Remark: Tang-e Gol and Ālmeh are currently considered as rural districts in Golestān National Park, Golestān Province.

maryamae Zahiri & Fibiger, 2006; *Amphipoea* [Noctuiinae]

Amphipoea maryamae Zahiri & Fibiger, 2006; *Zootaxa*, **1244**: 34.

Holotype: ♂, Rezaiyeh, 20-22-VII-[19]73, L. T. Mostaan; Paratypes: 3 ♂♂, Rezaiyeh, Sep. 1974, L. T. (J. Mogh) + additional male without any collecting data label but with a label “No. 14”.

Remark: Presently Rezaiyeh is known as Orumiyeh which is also spelled as Urmiā. There is an additional label under the label of Holotype: “gen. prep. M. Fibiger 5397, *Amphipoea maryamae* sp. n.”.

Acknowledgements

I would like to express my gratitude to Vazrik Nazari (Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Canada), Wolfgang ten Hagen (Mömlingen, Germany) and Ali Reza Naderi (Natural History Museum of Iran, Tehran, Iran) for their advice, comments and critical review of the Rhopalocera part; to Axel Hofmann (Breisach-Hochstetten, Germany) for his useful suggestions towards the improvement of the Zygaenidae part; to Josef J. de Freina (ZSM Museum Munich, Germany) for his taxonomic proposition on the genus *Axia*; to Reza Zahiri (Biodiversity Institute of Ontario, University of Guelph, Ontario, Canada) for his helpful suggestions to the Noctuidae part; to Axel Hausman (ZSM Museum Munich, Germany) for donation of two Paratypes to HMIM; and to Shahab Manzari (Iranian Research Institute of Plant Protection, Tehran, Iran) for linguistic revision of the manuscript.

BIBLIOGRAPHY

- ALBERTI, B., 1967.– Eine neue Procris-Art aus Persien (Lep., Zygaenidae).– *Mitteilungen der Münchner Entomologischen Gesellschaft*, **57**: 99-101, figs 1, 2.
- ALIPANAH, H., 2009.– Synopsis of the Cochylini (Tortricidae: Tortricinae: Cochylini) of Iran, with description of a new species.– *Zootaxa*, **2245**: 1-31.
- ALIPANAH, H. & USTJUZHANIN, P., 2005.– An annotated list of the Pterophorinae (Oidaematophorini and Pterophorini) of Iran (Lepidoptera: Pterophoridae).– *Entomologica Fennica*, **16**: 129-143.
- ALIPANAH, H. & USTJUZHANIN, P., 2006.– A new species, new synonymy and new distribution records of

- the genus *Agdistis* Hübner, [1825] in Iran (Lepidoptera, Pterophoridae: Agdistinae).– *Nota lepidopterologica*, **29**(3/4): 177-184.
- ALIPANAH, H., ASSELBERGS, J. & SHAMS-ZADEH, M., 2014.– *Gymnancyla* (*Gymnancyla*) *iranella* (Lepidoptera: Pyralidae, Phycitinae), a new species from Iran.– *Zootaxa*, **3894**(2): 279-289.
- ALIPANAH, H. & BAIXERAS, J., 2011.– A new species of *Hedya* Hübner from Iran with proposed rearrangement of some species currently assigned to *Metendothenia* Diakonoff (Lepidoptera: Tortricidae).– *Zootaxa*, **2879**: 33-44.
- AMSEL, H. G., 1979.– Zur Unterartbildung bei *Axia theresiae* (Korb, 1900) (Lepidoptera: Axiidae).– *Atalanta*, **10**: 70-77.
- BACK, W., 1991.– Die Praimaginalstadien von *Euchloe charlonia* (Donzel, 1842) im Vergleich zu *Euchloe penia* (Freyer, 1852) und *Euchloe transcaspica* ssp. *amseli* (Gross & Ebert, 1975).– *Atalanta*, **22**(2/4): 357-363, 383-388.
- CARBONELL, F., 1997.– Contribution à la connaissance du genre *Agrodiaetus* Hübner (1822), *Agrodiaetus actis artvinensis* n. ssp. en Turquie orientale, (Lepidoptera: Lycaenidae).– *Linneana Belgica*, **16**(4): 139-142.
- CARBONELL, F. & MICHEL, M., 2007.– Une espèce jumelle méconnue du genre *Archon* Hübner, 1822 (Lepidoptera, Papilionidae). – *Bulletin de la Société Entomologique de France*, **112**(2): 141-150.
- CARBONELL, F. & NADERI, A., 2000.– Contribution à la connaissance du genre *Agrodiaetus* Hübner (1822), *A. arasbarani* nouvelle espèce dans le nord-ouest de l'Iran (Lepidoptera, Lycaenidae).– *Linneana Belgica*, **17**(5): 218-220.
- CARBONELL, F. & NADERI, A., 2002.– *Plebeius afshar tandurehensis* n. ssp. dans le nord-est de l'Iran (Lep., Lycaenidae).– *Bulletin de la Société Entomologique de France*, **107**(4): 369-370.
- CARBONELL, F. & NADERI, A., 2004.– *Hyponephele shirazica aryana* n. ssp. de l'ouest de l'Iran (Lep., Nymphalidae, Satyrinae).– *Bulletin de la Société Entomologique de France*, **109**(4): 360.
- CARBONELL, F. & NADERI, A., 2006.– *Melanargia sadjarii* n. sp., du nord de l'Iran (Lepidoptera, Nymphalidae).– *Bulletin de la Société Entomologique de France*, **111**(4): 465-468.
- CARBONELL, F. & NADERI, A., 2007.– *Plebeius callaghani* n. sp. dans le nord de l'Iran. – *Bulletin de la Société Entomologique de France*, **112**(1):130.
- COLLENETTE, C. L., 1938.– New Palaearctic and Indo-Australian Lymantriidae in the British Museum collection.– *Annals & Magazine of Natural History*, (**11**)**2**(20): 368-386.
- DE FREINA, J. J., 1994.– 9 - Beitrag zur systematischen Erfassung der Bombyces- und Sphinges-Fauna Kleinasiens. Weitere Kenntnisse über Artenspektrum, Systematik und Verbreitung von Cossidae, Psychidae, Cochlididae, Syntomidae, Saturniidae, Brahmaeidae, Drepanidae, Axiidae, Hepialidae, Dilobidae und Nolidae (Insecta, Lepidoptera).– *Atalanta*, **25**(1/2): 317-349.
- DE FREINA, J. J. & NADERI, A., 2003.– Beschreibung einer neuen Unterart von *Archon apollinaris* (Staudinger, [1892]) aus dem südwestlichen Zentral-Zagros, *bostanichii* subspec. nov., mit ergänzenden Angaben zur Gesamtverbreitung der Art (Lepidoptera: Papilionidae).– *Atalanta*, **34**(3/4):429-434.
- DESCHKA, G., 1979.– Blattminierende Lepidopteren aus dem Nahen und Mittleren Osten. III. Teil.– *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen*, **31**(1/2): 13-16.
- DUBATOLOV, V. V. & ZAHIRI, R., 2005.– Tiger-moths of Iran (Lepidoptera, Arctiidae: Arctiinae).– *Atalanta*, **36**(3/4): 481-525.
- DUFAY, C., 1963.– Descriptions de trois nouvelles espèces d'*Euchalcia* Hb. d'Asie antérieure (Lep. Noctuidae Plusiinae).– *Bulletin Mensuel de la Société Linnéenne de Lyon*, **32**: 68-72.
- DUMONT, D., 2004.– Revision du genre *Iolana* Bethune-Baker 1914 (Lepidoptera: Lycaenidae). Description d'une nouvelle espèce: *kermani* n. sp.– *Linneana Belgica*, **19**(8): 332-358.
- EBERT, G., 1971.– Drei neue Macrolepidoptera-Arten aus Iran.– *Beiträge zur Naturkundlichen Forschung in Südwestdeutschland*, **30**: 65-71.
- EBERT, G., 1974.– Zwei neue Taxa der Gattung *Zygaena* (*Mesembrynus*) aus Iran nebst einigen Bemerkungen zur Problematik nachtaktiven Verhaltens.– *Beiträge zur Naturkundlichen Forschung in Südwestdeutschland*, **33**: 163-168.
- EBERT, G., 1976.– Beiträge zur kenntnis der Bombyces und Sphinges Irans. 2. Beiträge: Eine neue *Tethea*- Art aus Iran (Lep./ Thyatiridae).– *Journal of Entomological Society of Iran*, **3**(1/2): 101-104.
- ECKWEILER, W., 1997.– Neue Taxa von *Polyommatus* (*Agrodiaetus*) (Lepidoptera: Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo*, Supplement, **16**: 7-22.

- ECKWEILER, W., 1998.– Neue Taxa der Gattungen *Polyommatus* Latreille, 1804 und *Plebeius* Kluk, 1780 aus dem Iran (Lepidoptera, Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **19**(3/4): 219-238.
- ECKWEILER, W., 2002.– Zwei neue Unterarten des Subgenus *Agrodiaetus* Hübner, 1822 aus Nordwest-Iran (Lepidoptera: Lycaenidae, Gattung *Polyommatus*).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **23**(1/2): 77-79.
- ECKWEILER, W., 2003a.– Zwei neue Unterarten des Subgenus *Agrodiaetus* Hübner, 1822 aus Ostiran (Lepidoptera: Lycaenidae, Gattung *Polyommatus*).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **24**(1/2): 51-54.
- ECKWEILER, W., 2003b.– Eine neue Unterart von *Colias chlorocoma* Christoph, 1888 aus dem iranischen Talesh (Lepidoptera: Pieridae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **24**(3): 147-152.
- ECKWEILER, W. & TEN HAGEN, W., 1998.– Zur Taxonomie von *Polyommatus (Agrodiaetus) phyllis* (Christoph, 1877), *P. posthumus* (Christoph, 1877) und *P. darius* spec. nov. (Lepidoptera: Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **19**(2): 109-118.
- ECKWEILER, W. & TEN HAGEN, W., 2001.– Eine neue Unterart von *Lycaena (Phoenicurusia) phoenicurus* (Lederer, 1871) aus Zentraliran (Lepidoptera: Lycaenidae).– *Nachrichten des entomologischen Vereins Apollo, N. F.*, **22**(2): 49-52.
- EFETOV, K. A. & TARMANN, G. M., 2012.– *A Checklist of the Palaearctic Procridinae (Lepidoptera: Zygaenidae)*: 108 pp., 15 figs. Crimean State Medical University Press, Simferopol - Innsbruck.
- FIBIGER, M. & ZAHIRI, R., 2005.– Describe a new species of Noctuidae: Xyleninae: *Luperina farsiensis* Fibiger & Zahiri, sp. n.– *In* A. ZILLI, L. RONKAY & M. FIBIGER (ed.). *Noctuidae Europaeae. Apameini*, **8**: 68, 196-197, 230, 272, Entomological Press, Sorö.
- FIBIGER, M. & ZAHIRI, R., 2006.– A new species of *Gortyna* Ochsenheimer, 1816 from Golestan forests of Iran (Lepidoptera: Noctuidae).– *Nota lepidopterologica*, **29**(3/4): 215-220.
- FIBIGER, M., STANGELMAIER, G., WIESER, C. & ZAHIRI R., 2008.– *Dichonia jahannamah*, a new species from Iran in the subgenus *Griposia* Tams, 1939 (Lepidoptera, Noctuidae, Xyleninae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **28**(3/4): 121-124.
- FIBIGER, M., ZAHIRI, R. & KONONENKO, V., 2007.– Description of a new species of the Central Palaearctic genus *Margelana* Staudinger (Lepidoptera: Noctuidae) from northeastern Iran.– *Zootaxa*, **1503**:13-19.
- GRIESHUBER, J., WORTHY, B. & LAMAS, G., 2012.– *The genus Colias Fabricius, 1807. Jan Haugum's annotated catalogue of the old world Colias (Lepidoptera, Pieridae)*: x + 438 pp., 25 maps, 32 pls. Tshkolovets Publications, Pardubice.
- GROSS, F. J. & EBERT, G., 1975.– Beiträge zur kenntnis der Rhopaloceren Irans 2. Beiträge: Neue taxa der Pieridae, Satyridae und Nymphalidae.– *Journal of Entomological Society of Iran*, Supplement **1**: 8-45.
- HESSELBARTH, G., VAN OORSCHOT, H. & WAGENER, S., 1995.– *Die Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder*: 2201 pp. Goecke & Evers Verlag, Selbstverlag Sigbert Wagener, Bocholt.
- HOFMANN, A., 2005.– Neue *Zygaena*-Taxa aus Südosteuropa, Vorder- und Zentralasien (Lepidoptera: Zygaenidae).– *Bonner Zoologische Beiträge*, **53**(1/2): 81-97.
- HOFMANN, P. J. & ECKWEILER, W., 2001.– Eine neue Unterart von *Aporia crataegi* (Linnaeus, 1758) aus Zentraliran (Lepidoptera: Pieridae).– *Nachrichten des entomologischen Vereins Apollo, N. F.*, **22**(3): 137-140.
- HOFMANN, A. & TREMEWAN, W. G., 2003.– Contribution to the knowledge of the genus *Zygaena* Fabricius, 1775 in Iran (Lepidoptera, Zygaenidae. Part VI: *Zygaena nocturna*, *Z. aisha*, *Z. rubricollis* and *Z. fredii* (addenda based on results of fieldwork in 2001 and 2002).– *Linneana Belgica*, **19**(1): 9-20.
- HOFMANN, A. & TREMEWAN, W. G., 2005.– Contribution to the knowledge of the genus *Zygaena* Fabricius, 1775, in Iran Lepidoptera: Zygaenidae Part VII: Records from the Zarde Kuh region with the description of a new species.– *Linneana Belgica*, **201**: 15-21.
- KALLIES, A. & ŠPATENKA, K., 2003.– The Clearwing Moths of Iran (Lepidoptera, Sesiidae) (1st part).– *Linneana Belgica*, **19**(2): 81-94.
- KARBALAYE, A., 2008.– A new species of the subgenus *Agrodiaetus* Hübner, 1822 from Iran: *Polyommatus (Agrodiaetus) sephidarensis* spec. nov. (Lepidoptera, Lycaenidae).– *Atalanta*, **39**(1/4): 311-313.
- KARBALAYE, A. & HARANDI, A. H., 2007.– The description of a new species of *Glaucopsyche* Scudder, 1872 from Iran (Lepidoptera: Lycaenidae).– *Atalanta*, **38**(1/2): 177-179.

- KITCHING, I. J. & CADIOU, J. M., 2000.– *Hawkmoths of the world: an annotated and illustrated revisionary checklist (Lepidoptera: Sphingidae)*: 227 pp. Cornell University Press, Ithaca.
- KLIMESCH, V. J., 1979.– Beitrage zur kenntnis der Nepticuliden. Beschreibung zweier neuer arten [*Stigmella abaiella* n.sp. und *Trifurcula (Fedalimia) sanctibenedicti* n. sp.] (Lepidoptera, Monotrysia).– *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen*, **31**(1/2): 21-27.
- MARK, H. G., TEN HAGEN, W. & BACK, W., 2008.– Eine neue Unterart von *Euchloe (Elphinstonia) ziyani* Leestmans & Back, 2001 in Zentraliran: *karkasica* ssp. n. (Lepidoptera: Pieridae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **29**(1/2): 1-8.
- MÜLLER, G. C., KRAVCHENKO, V. D., WITT, T. J., JUNNILA, A., MOOSER, J., SALDAITIS, A., RESHÖFT, K., IVINSKIS, P., ZAHIRI, R., & SPEIDEL, W., 2008.– New Underwing taxa of the group of *Catocala lesbia* Christoph, 1887 (Lepidoptera, Noctuidae).– *Acta zoologica Lituanica*, **18**: 30-49.
- NADERI, A. & TEN HAGEN, W., 2006.– Description of a new subspecies of *Polyommatus ciloicus* de Freina & Witt, 1983: *alamuticus* ssp. n. from North Iran (Alburz Mts.) (Lepidoptera: Lycaenidae).– *Nachrichten des entomologischen Vereins Apollo, N. F.*, **27**(3): 171-175.
- NAUMANN, C. M., 1974.– Neue *Zygaena*-Unterarten aus Afghanistan (Lep., Zygaenidae).– *Entomologische Zeitschrift, Frankfurt am Main*, **84**: 29-36.
- NAZARI, V. & SPERLING, F. A. H., 2007.– Mitochondrial DNA divergence and phylogeography in western palaeartic Parnassiinae (Lepidoptera: Papilionidae): How many species are there? – *Insect Systematics and Evolution*, **38**(2): 121-138.
- NAZARI, V., TEN HAGEN, W. & BOZANO, G. C., 2010.– Molecular systematics and phylogeny of the “marbled whites” (Lepidoptera: Nymphalidae, Satyrinae, *Melanargia* Meigen).– *Systematic Entomology*, **35**(1):132-147.
- OLIVIER, A., VAN DER POORTEN, D., PUPLESIENE, J. & DE PRINS, W., 2000.– *Polyommatus (Agrodiaetus) artvinensis* stat. nov. and *P. (A.) sigberti* sp. nov., two vicariant species known so far only from Turkey (Lepidoptera: Lycaenidae).– *Phegea*, **28**(2): 57-74.
- SCHINTLMEISTER, A., 2008.– Notodontidae.– *Palaearctic Macrolepidoptera*, **1**: [3] + 482 pp., 40 pls. Apollo Books, Stenstrup.
- SCHURIAN, K. G. & ECKWEILER, W., 1999.– Eine neue Art des Subgenus *Agrodiaetus* Hubner, 1822 aus Ost-Iran (Lepidoptera: Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **20**(2): 119-126.
- SCHURIAN, K. G. & TEN HAGEN, W., 2003.– *Polymmatius (Agrodiaetus) urmiaensis* sp. n. aus Nordwestiran (Lepidoptera: Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **24**(1/2): 1-5.
- SKALA, P., 2003.– New taxa of the genus *Hyponephele* Muschamp, 1915 from Iran and Turkey (Lepidoptera, Nymphalidae).– *Linneana Belgica*, **19**(1): 41-50.
- SKALA, P., SCHURIAN, K. G. & TEN HAGEN, W., 2001.– A new subspecies of the genus *Pseudochazara* de Lesse, 1951 from Iran: *Pseudochazara schakuhensis chansara* ssp. n. (Lepidoptera: Nymphalidae, Satyrinae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **22**(3): 141-144.
- TSHIKOLOVETS, V., NADERI, A., ECKWEILER, W., 2014.– The Butterflies of Iran and Iraq (Lepidoptera, Rhopalocera).– *The Butterflies of Palaearctic Asia*, **10**: 440 pp., 72 pls. Tshikolovets Publications, Pardubice.
- TEN HAGEN, W., 2006.– *Hyrceanana sartha* (Staudinger, 1886) in Zentraliran: *hofmanni* ssp. n. (Lepidoptera: Lycaenidae, Lycaeninae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **27**(3): 109-114.
- TEN HAGEN, W., 2008.– Taxonomie von *Cupido staudingeri* (Christoph, 1873) in Iran (Lepidoptera, Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **28**(3/4): 165-171.
- TEN HAGEN, W. & ECKWEILER, W., 2001.– Eine neue Art von *Polyommatus (Agrodiaetus)* aus Zentraliran (Lepidoptera: Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **22**(2): 53-56.
- TEN HAGEN, W. & SCHURIAN, K. G., 2001.– Ein Beitrag zur Kenntnis von *Plebeius (Vacciniina) morgianus* (Kirby, 1871) (Lepidoptera, Lycaenidae).– *Nachrichten des Entomologischen Vereins Apollo, N. F.*, **21**(4): 193-200.
- TREMEWAN, W. G., 1977.– On *Zygaena* Fabricius (Lep., Zygaenidae) collected in Iran in 1976.– *Entomologist's Gazette*, **28**: 223-227.
- ZAHIRI, R., 2007a.– Lepidoptera type specimens in the Hayk Mirzayans Insect Museum of the Insect Taxonomy Research Department.– *Newsletter of Entomological Society of Iran*, **34**: 1. [in Persian]

- ZAHIRI, R., 2007b.– Lepidoptera type specimens in the Hayk Mirzayans Insect Museum of the Insect Taxonomy Research Department.– *Newsletter of Entomological Society of Iran*, **35**: 2. [in Persian]
- ZAHIRI, R., 2007c.– Lepidoptera type specimens in the Hayk Mirzayans Insect Museum of the Insect Taxonomy Research Department.– *Newsletter of Entomological Society of Iran*, **36**: 2-3. [in Persian]
- ZAHIRI, R. & FIBIGER, M., 2006.– A new *Amphipoea* Billberg, 1820 from northwestern Iran (Lepidoptera: Noctuidae).– *Zootaxa*, **1244**: 33-39.
- ZOLOTUHIN, V. & ZAHIRI, R., 2008.– The Lasiocampidae of Iran (Lepidoptera).– *Zootaxa*, **1791**: 1-52.

H. A.
Insect Taxonomy Research Department
Iranian Research Institute of Plant Protection
P. O. Box 1454
19395 Teheran
IRÁN / IRAN
E-mail: halipanah@gmail.com

(Recibido para publicación / *Received for publication* 17-VII-2014)
(Revisado y aceptado / *Revised and accepted* 18-VIII-2014)
(Publicado / *Published* 30-VI-2016)