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Spiders of the Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (NW Italy): a faunistic synthesis with data from the "Biodiversity Monitoring Project"

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Linyphiidae - *Troglohyphantes lucifer* Isaia, Mammola & Pantini, 2017: female of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve, cave-dwelling species (Photo credits: F. Tomasinelli).

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Spiders of the Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (NW Italy): a faunistic synthesis with data from the "Biodiversity Monitoring Project"

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ABSTRACT
We present the inventory of the spiders (Arachnida, Araneae) inhabiting the Orsiera Rocciavrè Natural Park and the Foresto Ravine Natural Reserve (NW Italy). This work combines data from literature sources, unpublished material, and new samplings conducted between 2018 and 2019 as part of the "Biodiversity Monitoring Project", supplemented by verified iNaturalist observations. In total, we report 212 species belonging to 128 genera and 32 families, including 12 new records for Piemonte. Linyphiidae Blackwall, 1859 and Gnaphosidae Banks, 1892 emerged as the most represented families, consistently with other similar Alpine parks. Most species exhibit Palearctic or European distributions, with a small proportion of endemics, including rare species such as *Rhode testudinea* Pesarini, 1984, for which new morphologic illustrations are provided. The new data presented here allowed us to study species richness and abundance along altitudinal gradients, revealing different patterns across the transects. Additionally, we conducted an indicator species analysis to identify key-species within elevational zonation. Beyond the faunistic contribution, we underline the importance of faunal inventories as a baseline for future studies on spider conservation ecology, especially within protected areas.

KEY WORDS
Protected area,
Alpine environment,
spider survey,
elevational gradient,
pitfall trap,
iNaturalist,
species richness,
abundance,
Indicator Species Analysis,
Rhode testudinea,
new records.

RÉSUMÉ

Les araignées du parc naturel Orsiera Rocciavrè et de la réserve naturelle Foresto Ravine (nord-ouest de l'Italie) : synthèse faunistique avec des données du « Biodiversity Monitoring Project ».

Nous présentons un inventaire des araignées (Arachnida, Araneae) habitant le parc naturel Orsiera Rocciavrè et la réserve naturelle Foresto Ravine (NO Italie). Ce travail combine des données provenant de sources bibliographiques, de matériel non publié et de nouveaux échantillonnages réalisés entre 2018 et 2019 dans le cadre du projet "Biodiversity Monitoring Project", complétés par des observations iNaturalist vérifiées. Au total, nous signalons 212 espèces appartenant à 128 genres et 32 familles, dont 12 nouveaux signalements pour le Piémont. Les Linyphiidae Blackwall, 1859 et les Gnaphosidae Banks, 1892 sont les familles les plus représentées, comme dans d'autres parcs alpins. La plupart des espèces présentent des distributions paléarctiques ou européennes, avec une petite proportion d'endémiques, y compris des espèces rares telles que *Rhode testudinea* Pesarini, 1984, pour laquelle de nouvelles illustrations morphologiques sont fournies. Les nouvelles données présentées ici nous ont permis d'étudier la richesse et l'abondance des espèces le long des gradients altitudinaux, révélant des schémas différents entre les transects. En outre, nous avons effectué une analyse des espèces indicatrices afin d'identifier les espèces clés au sein de la zonation d'altitude. Au-delà de la contribution faunistique, nous soulignons l'importance des inventaires faunistiques comme base de référence pour les études futures sur l'écologie de la conservation des araignées, en particulier à l'intérieur des aires protégées.

MOTS CLÉS

Zone protégée, environnement alpin, étude des araignées, gradient d'altitude, piège à fosse, iNaturalist, richesse spécifique, abondance, Analyse des espèces indicatrices, *Rhode testudinea*, signalements nouveaux.

INTRODUCTION

Faunal inventories are crucial for analysing trends in species distributions and abundances and to broaden knowledge on the ecology and the natural history of the species (Tillier 2015; Isaia *et al.* 2015; Frota *et al.* 2019; Lapeva-Gjonova & Antonova 2022; Fusco *et al.* 2024; Nicolosi *et al.* 2024; Tolve *et al.* 2024). Moreover, faunistic data may help identify biodiversity hotspots, vulnerable habitats and priority conservation sites (Feest & Cardoso 2012; Malumbres-Olarte *et al.* 2018; Milano *et al.* 2021). Nevertheless, comprehensive faunal surveys are rare, particularly those focusing on invertebrates, that are frequently neglected in guiding conservation efforts, mainly due to their high taxonomic and biological diversity, which makes thorough surveys hardly feasible (Cardoso *et al.* 2011; Braby & Williams 2016; Braby 2017).

Notable exceptions pertain the "All Taxa Biodiversity Inventory" projects (ATBI) (Sharkey 2001; Langdon *et al.* 2006; Villemant *et al.* 2015; Ichter *et al.* 2022), aiming at cataloguing all living species in a specific area, generally a protected one. On a more local side, small inventories such as BioBlitz and Explor'Nature (Meeus *et al.* 2023), in which members of the public and scientists meet in a delimited area for a defined time period to record as many species as possible, may generate data of great value, including contributions published in scientific journals (Harper *et al.* 2009; King *et al.* 2018; Milano *et al.* 2019). Either on a local or a wider scale, such inventories succeed in widening knowledge, but rarely contribute on a monitoring perspective (Pauli *et al.* 2015), being isolated in time and space.

In order to address gaps in knowledge and to monitor biodiversity through time, the Gran Paradiso National Park (NW Italy) set up the "Biodiversity Monitoring Project" (BMP) (Viterbi *et al.* 2013; Cerrato *et al.* 2015). This initiative, conducted every five years, aims at assessing animal biodiversity over time across several National and Regional Alpine protected areas in Italy. Within this framework, the present work contributes to filling gaps in the knowledge of spider diversity in the protected areas of the Orsiera Rocciavrè Natural Park and the Foresto Ravine Natural Reserve (NW Italy). Specifically, we: 1) provide a checklist of the spider species known for the two areas, based on literature and new data; and 2) describe patterns of taxonomic diversity (species richness and abundance) along elevational gradients across the transects within the protected areas. Particular emphasis is dedicated to faunistic aspects, with reference to new regional records and to the occurrence of rare or poorly known species.

MATERIAL AND METHODS

Study area

This work focuses on the Orsiera Rocciavrè Natural Park within the Special Area of Conservation (SAC) and Special Protection Area (SPA) – Natura 2000 "Orsiera Rocciavrè" Code IT1110006, and the Foresto Ravine Natural Reserve within the Special Protection Area (SPA) – Natura 2000 "Oasi xerotermiche della Valle di Susa – Orridi di Chianocco e Foresto" Code IT1110030 (Fig. 1). These protected territories are included in the management entity of Parchi Alpi Cozie, created by the regional administration of Piemonte in 2012 to protect and manage a vast natural, landscape and cultural heritage in the Western Italian Alps.

The Orsiera Rocciavré Natural Park was established in 1980 by the Piemonte Region to protect approximately 11 000 hectares encompassing Chisone, Susa and Sangone Valley, with an elevation ranging from 1400 to 2890 m a.s.l. Above 2 600 m the landscape is characterized by extensive rocky outcrops, ridges and impervious walls while grasslands

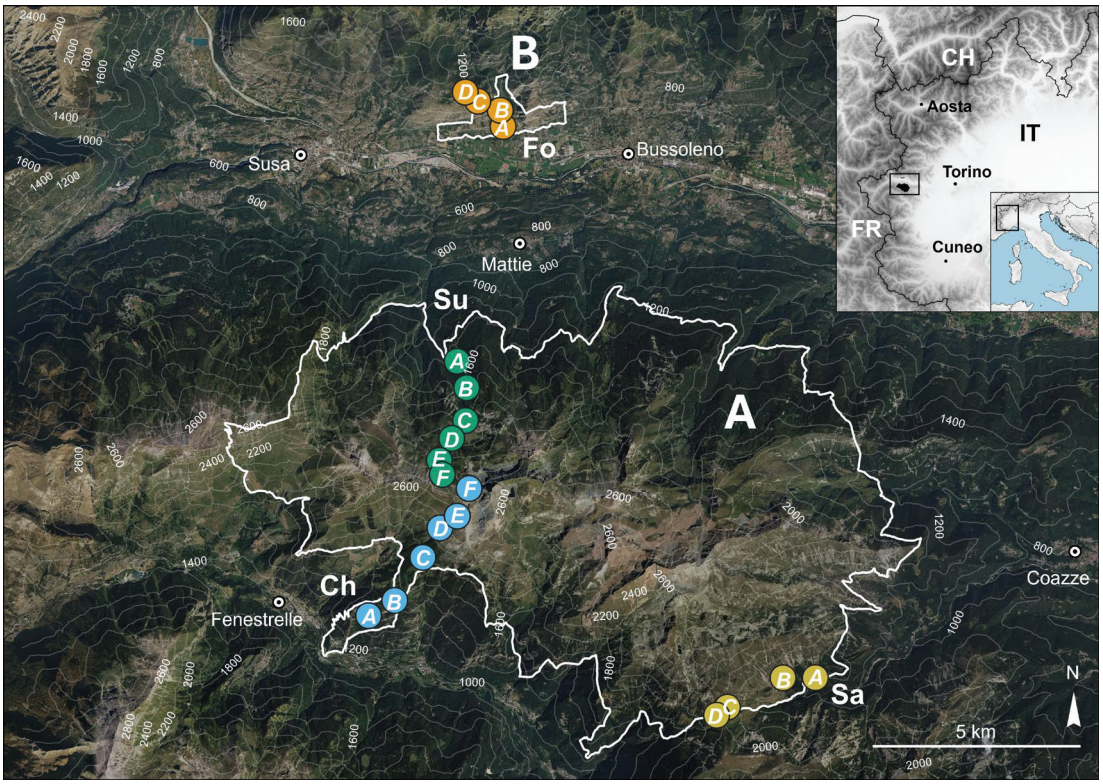

Fig. 1. — Map showing the Orsiera Rocciavrè Natural Park (**A**, below) and the Foresto Ravine Natural Reserve (**B**, above). The colored dots refer to transects and the letters within to elevational plots (see Table 2).

and pastures dominate between 2000 and 2400 m. Below the timberline, forests are dominated by larch, beech, fir and Scots pine. Fourteen habitats of community importance (Habitats Directive 92/43/EEC) are found within the protected area, the most representative being Alpine *Larix decidua* and *Pinus cembra* forest [Natura 2000 Code 9420] and *Rhododendron ferrugineum* and blueberry shrubs [Natura 2000 Code 4060]. The high-elevation areas are dominated by detrital [Natura 2000 Codes 8110 and 8120] and rupicolous environments [Natura 2000 Code 8220] and by Alpine and subalpine grasslands [Natura 2000 Codes 6170 and 6230]. Hay meadows [Natura 2000 Code 6520] are found at lower altitudes and hygrophilous tall herb fringe communities [Natura 2000 Code 6430] are widespread on the edges of the forests. Finally, acidophilic [Natura 2000 Code 9110] and eutrophic [Natura 2000 Code 9130] beech forests, *Tilio-Acerion-Fraxinus* forests [Natura 2000 Code 9180], pine (*Pinus uncinata*) [Natura 2000 Code 9430] and spruce forests (*Picea abies*) [Natura 2000 Code 9410] characterise the lower altitudes.

The Foresto Ravine Natural Reserve covers an area of around 360 hectares on the left slope of the Susa Valley, 50 km north-west from the city of Turin (NW Italy). The elevational boundaries of the site range between 450 and 1200 m a.s.l. The vegetational cover is mainly composed of downy oak woods (*Quercus pubescens*). Beech (*Fagus sylvatica*) forests are scattered in the protected area, together with Scots pine (*Pinus sylvestris*), chestnut, maple-linden-ash and larch woods. Meadows and small patches of orchards and vineyards are also present. The area has a strong xerothermic character, which is mostly due to the pronounced continentality of the climate of Val di Susa. In addition, the South facing, the scarcity of rainfall and the frequent presence of wind make this slope even drier and warmer than the annual and seasonal averages of the surrounding areas. Accordingly, this Nature Reserve represents an "enclave" in the Western Alps for several xerotermophilic plants and animal species of Mediterranean or Central Asian origin. Priority habitats are represented by xeric grasslands rich in orchids [Natura 2000 Code 6210], herbaceous formations of *Alysso-Sedion albi* [Natura 2000 Code 6110] colonising limestone cliffs and debris, hygrophilous formations of calcareous mosses [Natura 2000 Code 7220] and maple-linden-ash forests on screes and river basins [Natura 2000 Code 9180]. Additionally, several habitats of community interest, like the fruit chestnut woods [Natura 2000 Code 9260], scattered patches of beech forests [Natura 2000 Code 9150], the rock vegetation of limestone rock walls [Natura 2000 Code 8210], and the shrublands of *Juniperus communis* [Natura 2000 Code 5130].

Literature data

In order to provide an overview of the spider fauna of the two protected areas, we first investigated records of species occurrences available in scientific literature. Our bibliographic source was the online database Araneae.it, which compiles and updates all available literature on Italian spiders (Pantini & Isaia 2019, accessed Dec. 2024). Specifically, it includes all

TABLE 1. — List of the publications (Reference) referring to the spider species occurring in the Orsiera Rocciavrè Natural Park and the Foresto Ravine Natural Reserve; total number of species recorded in each publication (Species recorded) and number of new records censused therein (Of which new records), see Figure 8.

Orsiera Rocciavrè Natural Park			Foresto Ravine Natural Reserve		
Reference	**Species recorded**	**Of which new records**	**Reference**	**Species recored**	**Of which new records**
de Blauwe 1973	2	2	Fontana *et al.* 1996	1	1
de Blauwe 1975	1	–	Paschetta 2005	56	55
Brignoli 1975	2	2	Isaia *et al.* 2007	4	3
Brignoli 1985	1	–	–	–	–
Grimm 1985	3	3	–	–	–
Fontana *et al.* 1996	1	1	–	–	–
Pesarini 2001	1	1	–	–	–
Arnò & Lana 2005	3	1	–	–	–
Isaia *et al.* 2007	4	1	–	–	–
Isaia & Pantini 2010	1	–	–	–	–
Isaia *et al.* 2010	1	–	–	–	–
Isaia *et al.* 2011	2	–	–	–	–
Mammola *et al.* 2015	1	–	–	–	–
Isaia *et al.* 2017	1	1	–	–	–
Mammola *et al.* 2018	2	–	–	–	–
Mammola *et al.* 2019	2	–	–	–	–
Isaia *et al.* 2022	1	–	–	–	–
Trotta & Cherubini 2024	3	3	–	–	–
Total from literature	32	15	–	61	59
This work	151	145	–	60	36

documented records of spider species occurring in Italy, with details on the collection localities (toponyms), municipality, province and region, as reported in the scientific literature from 1868 to present. To obtain the list of previously recorded species for our study area, we filtered the database using the relevant toponyms and municipalities. Considering the study area, the available scientific literature provides a list of 74 species (60 genera and 20 families) known for the study area: 15 in the Orsiera Rocciavrè Natural Park, and 59 in the Foresto Ravine Natural Reserve. Data were scattered in 19 papers published between 1973 and 2024 (Table 1). Appendix 1 provides the complete list of the literature data.

Records of spiders in literature were mainly associated with faunistic, taxonomic or ecological works focusing on cave-dwelling spiders. Specifically, 12 out of 19 works pertain five species found in caves within the Orsiera Rocciavrè Natural Park i.e., *Lepthyphantes leprosus* (Ohlert, 1865) (Brignoli 1975; Brignoli 1985; Arnò & Lana 2005), *Meta menardi* (Latreille, 1804) (Arnò & Lana 2005; Isaia *et al.* 2011), *Pimoa graphitica* Mammola, Hormiga & Isaia, 2016 (Brignoli 1975, cited as *Louisfagea rupicola* (Simon, 1884); Arnò & Lana 2005, cited as *Pimoa rupicola* (Simon, 1884); Isaia *et al.* 2011, cited as *Pimoa rupicola* (Simon, 1884)), *Troglohyphantes achillis* Isaia & Mammola, 2022 (Pesarini 2001, cited as *T. vignai* Brignoli, 1971; Isaia & Pantini 2010, cited as *T. vignai* Brignoli, 1971; Isaia *et al.* 2010, cited as *T. vignai* Brignoli, 1971; Isaia *et al.* 2011; Mammola *et al.* 2015, cited as *T. vignai* Brignoli, 1971; Mammola *et al.* 2018, cited as *T. vignai* Brignoli, 1971; Mammola *et al.* 2019, cited as *T. vignai* Brignoli, 1971; Isaia *et al.* 2022) and *T. lucifer* Isaia, Mammola & Pantini, 2017 (Isaia *et al.* 2017; Mammola *et al.* 2018, 2019). The remaining seven works are faunistic catalogues accounting for 68 species (de Blauwe 1973; de Blauwe 1975; Grimm 1985; Fontana *et al.* 1996; Paschetta 2005; Isaia *et al.* 2007; Trotta & Cherubini 2024). Among these, it is worth mentioning de Blauwe (1973) being the first contribution reporting data on this area, and the work by Paschetta (2005, cited in Isaia *et al.* 2007), an unpublished dissertation on the effect of fire disturbance reporting the highest number of spider records in the study area.

NEW DATA

New data were obtained from four elevational transects set in the frame of the BMP (Viterbi *et al.* 2013; Cerrato *et al.* 2015), i.e., a biennial multi-taxa survey based on elevational transects conducted across six natural parks in the Italian Alps. The aim of the BMP is to monitor trends in animal biodiversity over time. Rather than serving as replicates of the same elevational gradient, transects are designed as complementary replicates across different parks, with the number of transects per park depending on the size of the protected area. In this work, we specifically focus on the transects set in the Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve.

Each transect consists of plots located approximately 200 meters apart in elevation, consisting of five pitfall traps spaced 50 meters apart. Table 2 shows the attributes of the four elevational transects set within the Orsiera Rocciavré Natural Park and Foresto Ravine Natural Reserve, overall ranging from 600 to 2600 m a.s.l., encompassing four elevational zonation (submontane, montane, subalpine and Alpine according to Pignatti 1979).

Three elevational transects were placed in the Orsiera Rocciavrè Natural Park and one in the Foresto Ravine Natural Reserve (Fig. 1). The transects within the Orsiera Rocciavrè Natural Park were placed on the northern, on the southern and on the eastern slopes of Mount Orsiera, respectively in Susa Valley from 1400 to 2400 m a.s.l. (transect code:

TABLE 2. — Sampling plots set within the Biodiversity Monitoring Project (BMP) initiative (Cerrato *et al.*, 2015) in the Orsiera Rocciavrè Natural Park (**A**) and in the Foresto Ravine Natural Reserve (**B**). For each plot we indicate the relative protected area, Valley, transect, elevation (m), elevational zonation and geographical coordinates (SR EPSG: 4326 – WGS84) (see Fig. 1).

Study Area	Valley	Transect	Plot	Elevation	Elevational zonation	Geographical coordinates
A	Chisone Valley	Ch	ChA	1600	montane	45°2'9"N, 7°4'12"E
A	Chisone Valley	Ch	ChB	1800	montane	45°2'20"N, 7°4'40"E
A	Chisone Valley	Ch	ChC	2000	subalpine	45°2'56"N, 7°5'13"E
A	Chisone Valley	Ch	ChD	2200	subalpine	45°3'17"N, 7°5'31"E
A	Chisone Valley	Ch	ChE	2400	subalpine	45°3'28"N, 7°5'49"E
A	Chisone Valley	Ch	ChF	2600	Alpine	45°3'50"N, 7°6'3"E
A	Sangone Valley	Sa	SaA	1400	montane	45°1'26"N, 7°12'32"E
A	Sangone Valley	Sa	SaB	1600	montane	45°1'26"N, 7°11'56"E
A	Sangone Valley	Sa	SaC	1800	subalpine	45°1'1"N, 7°10'55"E
A	Sangone Valley	Sa	SaD	2000	subalpine	45°0'57"N, 7°10'44"E
A	Susa Valley	Su	SuA	1400	montane	45°5'31"N, 7°5'45"E
A	Susa Valley	Su	SuB	1600	montane	45°5'9"N, 7°5'56"E
A	Susa Valley	Su	SuC	1800	subalpine	45°4'44"N, 7°5'56"E
A	Susa Valley	Su	SuD	2000	subalpine	45°4'30"N, 7°5'41"E
A	Susa Valley	Su	SuE	2200	subalpine	45°4'12"N, 7°5'27"E
A	Susa Valley	Su	SuF	2400	Alpine	45°4'1"N, 7°5'31"E
B	Susa Valley	Fo	FoA	600	submontane	45°8'38"N, 7°6'32"E
B	Susa Valley	Fo	FoB	800	submontane	45°8'52"N, 7°6'28"E
B	Susa Valley	Fo	FoC	100	submontane	45°8'59"N, 7°6'3"E
B	Susa Valley	Fo	FoD	1200	montane	45°9'3"N, 7°5'49"E

Su, 6 plots), in Chisone Valley from 1600 to 2600 m a.s.l. (transect code: Ch, 6 plots) and in Sangone Valley from 1400 to 2000 m a.s.l. (transect code: Sa, 4 plots). The transect within the Foresto Ravine Natural Reserve was set on the south-eastern slope of Mount Molaras in Susa Valley (transect code: Fo, 4 plots) from 600 to 1200 m a.s.l. The data presented in this work refer to the sampling conducted in both protected areas in 2018 (from 14/06 to 9/10) and 2019 (from 17/06 to 29/10). The pitfall traps were retrieved and replaced every two weeks, resulting in nine time series per each of the two years, for a total amount of 1800 pitfall traps (1440 in the Orsiera Rocciavrè Natural Park and 360 in the Foresto Ravine Natural Reserve). Appendix 2 provides detailed information on the number of pitfall traps and plots for each transect.

All specimens were examined and identified, whenever possible, to species level using a Leica M80 stereoscopic microscope (up to 60 × magnification). When necessary, male pedipalps or female vulvas were isolated in EtOH and placed in microvials in the same tube containing the specimen. In several cases, after removal the female vulvas were treated with 10% KOH prior to examination. After observation vulva were washed in acetic acid (5%) and successively stored in 70% ethanol. Illustrations of *Rhode testudinea* Pesarini, 1984 were prepared by Alessandro Infuso directly on specimens observed under a Leica Stereozoom S8-APO stereomicroscope and from multifocus Z-stack images taken with the same instrument. For nomenclature we referred to the latest version of the World Spider Catalog (2024).

Secondarily, we also investigated photographic records available from iNaturalist (https://www.inaturalist.org, accessed on 29.II.2024). Although it is generally acknowledged that spiders cannot be reliably identified from photographs, identification is possible in some cases – for example, when the abdominal pattern exhibits a distinctive and unmistakable design. Accordingly, photographic records were filtered and verified by the authors, and only species that we unequivocally identified were considered valid records.

Ecological analyses

We analyzed patterns of taxonomic diversity across the elevational gradients of each transect using pitfall trap data, collected as part of the BMP. Specifically, we estimated species richness (S) and abundance (N) for each single pitfall trap over the course of one year. For abundance (N), each observation corresponds to the total number of individuals collected by a single trap throughout the year; for species richness (S), it represents the total number of species captured by that trap during the same period. Estimates of S and N were calculated using the "BAT" R package (Cardoso *et al.* 2015), which allows for seamless integration of biodiversity metrics as response variables in statistical models incorporating environmental, spatial, or temporal predictors.

Subsequently, we tested the relationships of S and N with elevation for each transect by means of Generalized Linear Models (GLMs) with the "stats" R package (R Core Team, 2023). In R notation, the structure of model was:

$$X \sim E + E^2 + Y + offset(log(n))$$

Where the explanatory variables E and E^2 represent linear and quadratic effects of elevation and Y is the year of collection. n is the number of replacements of pitfall traps used as offset. X represents species richness (S) and abundance (N) as dependent variables estimated on each single pitfall trap during an entire year.

We also estimated the preferential occurrence of the species in each elevational zone (submontane, montane, subalpine and Alpine) through Indicator Species Analysis (ISA) with the "indicspecies" R package (De Cáceres & Legendre 2009). The "indicspecies" package allowed us to handle multiple groups, making it ideal for complex ecological data.

TABLE 3. — Chorotypes, abbreviations and relative number of species of the study areas (**A**, Orsiera Rocciavrè Natural Park; **B**, Foresto Ravine Natural Reserve) and corresponding groups of chorotypes used in Figure 9B, D. All chorotypes and abbreviations follow Vigna Taglianti *et al.* (1992, 1999) and Stoch & Vigna Taglianti (2005).

Study area	Chorotype	Abbreviation	N° of species	Group (Fig. 9B, D)
A	Asiatic-European	ASE	20	Palaearctic
	Palaearctic	PAL	15	
	Centralasiatic-European	CAE	9	
	Siberian-European	SIE	9	
	Centralasiatic-European-Mediterranean	CEM	2	
	West Paleartic	WPA	2	
	European	EUR	41	European
	Central European	CEU	5	
	European-Mediterranean	EUM	1	
	Holarctic	OLA	20	Holarctic
	Alpine endemic	ALP	7	Endemic
	W-Alpine endemic	ALPW	5	
	SW-Alpine endemic	ALSW	4	
	W-Alpine-N-Appenninic endemic	AWNA	2	
	Turanic-European	TUE	9	Turanic-European-Mediterranean
	Turanic-European-Mediterranean	TEM	4	
	Mediterranean	MED	1	Mediterranean
	Introduced in Europe	–	1	Alien
B	Palaearctic	PAL	16	Palaearctic
	Asiatic-European	ASE	12	
	Centralasiatic-European	CAE	10	
	Siberian-European	SIE	7	
	Centralasiatic-European-Mediterranean	CEM	3	
	West Paleartic	WPA	2	
	European	EUR	17	European
	European-Mediterranean	EUM	4	
	Central European	CEU	1	
	South European	SEU	1	
	Turanic-European	TUE	6	Turanic-European-Mediterranean
	Turanic-European-Mediterranean	TEM	3	
	Turanic-Mediterranean	TUM	1	
	Holarctic	OLA	4	Holarctic
	W-Alpine-N-Appenninic endemic	AWNA	1	Endemic
	W-Alpine endemic	ALPW	1	
	Mediterranean	MED	1	Mediterranean
	West Mediterranean	WME	1	
	Introduced in Europe	–	2	Alien

Appendix 3A and B provides detailed information on Generalized Linear Models (GLMs) and Indicator Species Analysis (ISA) respectively.

MATERIAL

For each species we provide details on new material (MATERIAL EXAMINED), previous published records (LITERATURE), distribution according to World Spider Catalog (2024) (DISTRIBUTION), chorological category (CHOROTYPE according to Vigna Taglianti *et al.* (1992, 1999) and Stoch & Vigna Taglianti 2005) (see Table 3) and the elevational zonation in which the species was collected (ELEVATIONAL ZONATION, for new data only). Where necessary, we add taxonomical or faunistic remarks (NOTES).

Concerning new data, we provided the number and sex of the specimen, municipality and the toponym of closest locality, habitat, elevation, collecting method (if not mentioned: pitfall traps with an interval of approximately 15 days) and date of collection.

Appendix 4 provides a complete list of the new data and Appendix 5 provides a complete list of the species for the area, including new data, the literature species list and iNaturalist observations.

ABBREVIATIONS

BMP Biodiversity Monitoring Project.

Institutions

MCSNB Museo di Scienze Naturali Enrico Caffi, Bergamo;
Coll. MI Marco Isaia's collection, Department of Life Sciences and Systems Biology of the University of Turin.

TAXONOMIC RESULTS

Family AGELENIDAE C. L. Koch, 1837

Coelotes pastor Simon, 1875

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 3♀; Coazze: Lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; MCSNB • 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 14.VIII.2018; MCSNB • 1♂; 19.VIII.2019; MCSNB • 1♀; 29.IX.2018; MCSNB • 1♂; 30.VII.2019; MCSNB • 2♂; 30.VIII.2018; Coll. MI • 1♀, 1♂; 31.VII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), meadow; 2400 m; 17.IX.2019; MCSNB • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m;

1.VII.2018; MCSNB • 1♀; 2.VII.2019; MCSNB • 2♂; 4.IX.2019; MCSNB • 1♂; 15.VIII.2018; MCSNB • 1♀, 2♂; 29.IX.2018; Coll. MI • 1♂; 30.VII.2019; MCSNB • 1♀; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 1.VII.2018; MCSNB • 1♀; 21.VIII.2019; MCSNB.

LITERATURE. — De Blauwe 1973; de Blauwe 1975; Isaia *et al.* 2007.

DISTRIBUTION. — Italy, France.

CHOROTYPE. — ALPW.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Coelotes poweri Simon, 1875

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Mattie: Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 30.VII.2019; MCSNB • 1♂; 2.VIII.2018; MCSNB • 2♂; 14.IX.2018; MCSNB • 1♀, 2♂; 16.VIII.2018; MCSNB • 1♂; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 2.VIII.2018; MCSNB • 2♂; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 2.VIII.2018; MCSNB • 1♀; 2.X.2018; Coll. MI • 1♂; 4.IX.2019; MCSNB • 1♀, 3♂; 16.VIII.2018; MCSNB • 1♀, 3♂; 29.VIII.2018; Coll. MI.

DISTRIBUTION. — Italy, France.

CHOROTYPE. — ALSW.

ELEVATIONAL ZONATION. — Montane.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Eratigena agrestis (Walckenaer, 1802)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe to Central Asia. Introduced to USA, Canada.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Montane.

Histopona leonardoi Bolzern, Pantini & Isaia, 2013

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 8.IX.2018; MCSNB • 1♀, 1♂; 10.VIII.2018; MCSNB • 1♀, 5♂; 20.VIII.2019; MCSNB • 1♂; 24.VIII.2018; MCSNB • 1♀; 25.VI.2018; MCSNB • 1♂; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 3.IX.2019; MCSNB • 1♀, 3♂; 8.IX.2018; MCSNB • 1♂; 10.VIII.2018; MCSNB • 2♂; 20.VIII.2019; MCSNB • 1♀, 2♂; 24.VIII.2018; MCSNB • 1♂; 30.IX.2019; MCSNB • 2♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB • 1♂; 14.IX.2018; MCSNB • 1♀; 16.X.2019; MCSNB • 2♂; 17.IX.2019; MCSNB • 1♀, 3♂; 30.VIII.2018 ; MCSNB • 1♀; Mattie: Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 2.VII.2018; MCSNB • 3♂; 2.X.2018; MCSNB • 2♂; 4.IX.2019; MCSNB • 1♀; 14.IX.2018; 11♂; MCSNB • 1♀, 2♂; 16.VIII.2018; MCSNB • 1♀; 18.VI.2018; MCSNB • 1♂, 6♂; 19.IX.2018; MCSNB • 2♀, 4♂; 20.IX.2019; MCSNB • 1♀; 21.VI.2019; MCSNB • 1♀, 6♂; 21.VIII.2019; MCSNB • 4♂; 29.IX.2018; MCSNB • 1♀; 30.VII.2019; MCSNB.

DISTRIBUTION. — Switzerland, Italy.

CHOROTYPE. — AWNA.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Tegenaria silvestris L. Koch, 1872

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 25.VI.2018; MCSNB • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; MCSNB • 1♀; 17.VII.2019; Coll. MI • 1♀; 31.VII.2018; MCSNB.
Italia. Foresto Ravine Natural Reserve • 1♂; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 30.VI.2018; MCSNB.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Family AMAUROBIIDAE Thorell, 1869

Amaurobius erberi (Keyserling, 1863)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Canary Is., Algeria, Europe (not in UK and northern Europe), Turkey, Caucasus, Iran.

CHOROTYPE. — TEM.

Amaurobius fenestralis (Ström, 1768)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♂; Mattie: Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 20.IX.2019; MCSNB.
Italia. Foresto Ravine Natural Reserve • 2♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 30.IX.2019; MCSNB • 1♂; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 23.IX.2018; MCSNB.

DISTRIBUTION. — Europe to Central Asia.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Montane.

Amaurobius similis (Blackwall, 1861)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 19.IX.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus. Introduced to North America.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

NOTES. — New record for Piemonte.

Family ANYPHAENIDAE Bertkau, 1878

Anyphaena accentuata (Walckenaer, 1802)
(Fig. 3F)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°1'28"N, 7°5'10"E; 25.II.2020; A. Pane leg., photo observation, https://www.inaturalist.org/observations/39246537.

DISTRIBUTION. — Europe to Central Asia, Iran.

CHOROTYPE. — TUE.

Family ARANEIDAE Clerck, 1757

Aculepeira carbonaria (L. Koch, 1869)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°3'0"N, 7°8'53"E; 24.VII.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/7188704 • 1♀; San Giorio di Susa: Susa Valley; 45°3'27"N, 7°8'45"E; 15.VI.2022; D. Giuliano leg., photo observation, https://www.inaturalist.org/observations/121837441.

DISTRIBUTION. — Alps, southern Europe, Turkey, Russia (Europe and Central Asia), Kazakhstan, China.

CHOROTYPE. — CAE.

Aculepeira ceropegia (Walckenaer, 1802)
(Fig. 2C)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Villar Focchiardo: Susa Valley; 45°5'45"N, 7°11'17"E; 17.VII.2022; S. Vuillermoz leg., photo observation, https://www.inaturalist.org/observations/126787483 • 1♀; Coazze: Sangone Valley; 45°2'27"N, 7°12'0"E; 4.VIII.2020; S. Vuillermoz leg., photo observation, https://www.inaturalist.org/observations/55403643 • 1♀; Roure: Chisone Valley; 45°3'26"N, 7°8'24"E; 18.VII.2019; E. Giacone leg., photo observation, https://www.inaturalist.org/observations/29061618.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to West Siberia), Kazakhstan.

CHOROTYPE. — EUR.

Agalenatea redii (Scopoli, 1763)
(Fig. 2A)

NEW OBSERVATION. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Susa Valley; 45°8'54"N, 7°7'39"E; 22.VI.2020 juv., A. Pane leg., photo observation, https://www.inaturalist.org/observations/54073633.

DISTRIBUTION. — Azores, Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia, China.

CHOROTYPE. — PAL.

Araneus diadematus Clerck, 1757
(Fig. 2F)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Villar Focchiardo: Susa Valley; 45°5'45"N, 7°11'41"E; 23.VIII.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/104525995 • 1♀; Coazze: Sangone Valley; 45°2'48"N, 7°14'24"E; 23.IX.2020; S. Vuillermoz leg., photo observation, https://www.inaturalist.org/observations/60497295 • 1♀; Fenestrelle: Chisone Valley; 45°2'4"N, 7°4'10"E; 19.VIII.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/7570446.
Foresto Ravine Natural Reserve • 1♀; Mompantero: Susa Valley; 45°10'13"N, 7°5'41"E; 15.VIII.2022; G. Ferrero leg., photo observation, https://www.inaturalist.org/observations/130984043.

DISTRIBUTION. — Europe, Middle East, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China, Japan. Introduced to North America.

CHOROTYPE. — ASE.

Araneus marmoreus Clerck, 1757

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°0'59"N, 7°9'14"E; 30.VIII.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/7750701 • 1♂; Villar Focchiardo: Susa Valley; 45°5'48"N, 7°11'23"E; 22.VIII.2020; S. Vuillermoz leg., photo observation, https://www.inaturalist.org/observations/57241502.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, India, China, Korea, Japan.

CHOROTYPE. — OLA.

Araneus quadratus Clerck, 1757
(Fig. 2B)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Usseaux: Chisone Valley; 45°3'58"N, 7°2'17"E; 16.VIII.2023; D. Giuliano leg., photo observation, https://www.inaturalist.org/observations/178825374.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to Far East), Iran, Central Asia to China, Japan.

CHOROTYPE. — ASE.

Fig. 2. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (Araneidae): **A**, *Agalenatea redii* (Scopoli, 1763): female with prey; **B**, *Araneus quadratus* Clerck, 1757: female; **C**, *Aculepeira ceropegia* (Walckenaer, 1802): female; **D**, *Argiope bruennichi* (Scopoli, 1772): female; **E**, *Cyclosa conica* (Pallas, 1772): female; **F**, *Araneus diadematus* Clerck, 1757: male. Photo credits: A, F, A. Girodo; B-D, A. Pane.

Argiope bruennichi (Scopoli, 1772)
(Fig. 2D)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°2'23"N, 7°3'14"E; 22.VIII.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/7616021
Italia. Foresto Ravine Natural Reserve • 1♀; Bussoleno: Susa Valley; 45°8'36"N, 7°6'53"E; 20.IX.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/105510298.

DISTRIBUTION. — Europe, Turkey, Israel, Russia (Europe to Far East), Caucasus, Iran, Central Asia to China, Korea, Japan.

CHOROTYPE. — PAL.

Cyclosa conica (Pallas, 1772)
(Fig. 2E)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°0'51"N, 7°9'16"E; 18.X.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/8454273.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China. Introduced to South Africa.

CHOROTYPE. — OLA.

Gibbaranea bituberculata (Walckenaer, 1802)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°1'23"N, 7°6'57"E; 2.V.2023; A. Pane leg., photo observation, https://www.inaturalist.org/observations/162653272;

DISTRIBUTION. — North Africa, Europe, Turkey, Israel, Russia (Europe to Far East), Caucasus, Iran, Central Asia to China, Japan, India.

CHOROTYPE. — PAL.

Nuctenea umbratica (Clerck, 1757)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°1'28"N, 7°5'11"E; 8.X.2015; A. Pane leg., photo observation; http://www.inaturalist.org/observations/2103785.

DISTRIBUTION. — Europe to Azerbaijan, Iran.

CHOROTYPE. — TEM.

Family ATYPIDAE Thorell, 1870

Atypus affinis Eichwald, 1830
(Fig. 3D)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1 juv.; Bussoleno: Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 9.IX.2018; MCSNB.

DISTRIBUTION. — Europe (Britain and Portugal to Ukraine), North Africa.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane.

Family CHEIRACANTHIIDAE Wagner, 1887

Cheiracanthium mildei L. Koch, 1864

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Azores, Europe, North Africa, Turkey, Middle East, Caucasus, Russia (Europe) to Central Asia. Introduced to North America, Argentina.

CHOROTYPE. — PAL.

Family CLUBIONIDAE Simon, 1878

Clubiona comta C. L. Koch, 1839

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 20.VIII.2019; MCSNB.

DISTRIBUTION. — Europe, North Africa, Turkey, Caucasus.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Clubiona corticalis (Walckenaer, 1802)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus.

CHOROTYPE. — TUE.

Clubiona diversa O. Pickard-Cambridge, 1862

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 8.IX.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus, Russia (Europe to Far East), Kazakhstan, Korea, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — New record for Piemonte.

Family CYBAEIDAE Banks, 1892

Cryphoeca silvicola (C.L. Koch, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 2♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 24.VIII.2018; Coll. MI • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 19.IX.2018; MCSNB • 1♂; 29.VIII.2018; MCSNB • 1♀, 1♂;

FIG. 3. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve: **A**, Pisauridae Simon, 1890 – *Pisaura mirabilis* Clerck, 1757: male; **B**, Sparassidae Bertkau, 1872 – *Micrommata virescens* (Clerck, 1757): male; **C**, Thomisidae Sundevall, 1833 – *Thomisus onustus* Walckenaer, 1805: female; **D**, Atypidae Thorell, 1870 – *Atypus* sp.: female; **E**, Filistatidae Ausserer, 1867 – *Filistata insidiatrix* (Forsskål, 1775): female; **F**, Anyphaenidae Bertkau, 1878 – *Anyphaena accentuata* (Walckenaer, 1802): female. Photo credits: A, B, E, F, A. Pane; C, D, A.Girodo.

Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VII.2018; MCSNB • 1♀; 2.X.2018; MCSNB • 1♂; 18.VI.2018; MCSNB • 1♀; 19.IX.2018; Coll. MI • 1♂; 21.VI.2019; MCSNB • 2♂; 29.VIII.2018; MCSNB • 1♂; Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 4.X.2019; MCSNB • 1♀; 16.VIII.2018; MCSNB • 1♂; 19.VIII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to Far East), Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Cybaeus intermedius Maurer, 1992

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 2♂; Coazze: Below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VIII.2018; MCSNB • 1♀; 16.IX.2019; MCSNB • 1♂; 20.VIII.2019; MCSNB • 1♀, 1♂; 24.VIII.2018; MCSNB • 1♂; 27.VII.2018; MCSNB • 2♀; 30.IX.2019; Coll. MI • 1♀, 3♂; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 3.IX.2019; MCSNB • 12♂; 10.VIII.2018; MCSNB • 1♀; 16.IX.2019; MCSNB • 1♂; 18.VII.2019; Coll. MI • 2♂, 2♀; 20.VIII.2019; MCSNB • 1♀; 24.VIII.2018; MCSNB • 9♂; 25.VII.2018; MCSNB • 2♀, 3♂; 29.VII.2019; MCSNB • 1♀; 30.IX.2019; Coll. MI • 4♂; Lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VIII.2018; MCSNB • 4♂; 20.VIII.2019; MCSNB • 1♀, 1♂; 24.VIII.2018; MCSNB • 6♂; 25.VII.2018; MCSNB • 1♂; 29.VII.2019; Coll. MI • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.VIII.2018; MCSNB • 2♂; 31.VII.2018; MCSNB • 1♀; Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 14.VIII.2018; MCSNB • 1♂; 17.VII.2019; MCSNB • 2♂; 19.VIII.2019; MCSNB • 6♂; 30.VII.2019; MCSNB • 6♂; 31.VII.2018; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 19.VIII.2019; Coll. MI • 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 2.IX.2019; MCSNB • 1♂; 14.VIII.2018; MCSNB • 1♂; 30.VIII.2018; MCSNB • 1♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 2.VIII.2018; Coll. MI • 3♀; 10♂; 16.VIII.2018; MCSNB • 3♀, 7♂; 21.VIII.2019; MCSNB • 2♂; 30.IX.2019; MCSNB • 1♀, 4♂; 30.VII.2019; Coll. MI • 1♀; 10♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.VIII.2018; MCSNB • 1♂; 13.VII.2018; MCSNB • 1♂, 3♂; 16.VII.2019; MCSNB • 1♀; 29.VIII.2018; MCSNB • 8♂; 30.VII.2019; MCSNB • 1♂; 2.VIII.2018; MCSNB • 1♂; 13.VII.2018; MCSNB • 1♂; 16.VIII.2018; MCSNB • 1♂; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m, 2.VIII.2018; MCSNB • 1♂; 19.IX.2018; MCSNB • 5♂; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 2.VIII.2018; MCSNB • 2♂; 16.VIII.2018; MCSNB • 1♀; 29.IX.2018; MCSNB • 5♂; 30.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VII.2018; MCSNB • 1♀, 4♂; 27.VII.2018; MCSNB • 1♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 11.VII.2018; MCSNB • 1♂; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VII.2018; MCSNB • 1♂; 11.VIII.2018; MCSNB • 2♂; 27.VII.2018; MCSNB.

DISTRIBUTION. — France, Switzerland, Italy.

CHOROTYPE. — AWNA.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Family DYSDERIDAE C. L. Koch, 1837

Dysdera sp.

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 3.IX.2019; MCSNB • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB.

ELEVATIONAL ZONATION. — Montane.

NOTES. — Damaged specimens, probably *Dysdera crocata* C. L. Koch, 1838.

Harpactea hombergi (Scopoli, 1763)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 5♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB • 1♀, 3♂; 5.VII.2019; MCSNB • 1♂; 14.VII.2018; Coll. MI • 2♀; 14.IX.2018; MCSNB • 1♂; 17.IX.2019; MCSNB • 2♀, 2♂; 17.VI.2018; Coll. MI • 1♂; 20.VI.2019; MCSNB • 1♂; 30.VII.2019; MCSNB • 2♀, 1♂; 30.VIII.2018; MCSNB.
Foresto Ravine Natural Reserve • 4♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 15.VI.2018; MCSNB • 1♂; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 15.VI.2018; MCSNB • 1♀; Mompantero: Cima Molaras (Susa Valley- FoD), Scots pine forest; 1200 m; 14.X.2019; Coll. MI • 1♂; 30.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane; montane.

Harpactocrates drassoides (Simon, 1882)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 25.VII.2018; MCSNB • 1♀; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 6.X.2018; MCSNB • 1♀, 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; MCSNB • 1♂; 17.VI.2019; MCSNB • 1♂; 30.IX.2019; Coll. MI • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 18.VI.2018; MCSNB • 1♀; Bergerie dell'Orsiera Nord (Susa Valley – SuC), rocky debris; 1800 m; 21.VI.2019; MCSNB • 1♀; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 14.IX.2018; MCSNB • 1♀; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 4.X.2019; MCSNB • 1♀; 1.VII.2019; MCSNB • 1♂; 18.VI.2018; MCSNB • 1♀; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 4.X.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 30.IX.2019; MCSNB.

DISTRIBUTION. — Western Europe.

CHOROTYPE. — ALPW.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Rhode testudinea Pesarini, 1984
(Figs 10-12)

MATERIAL EXAMINED. — **Italia. Italy, Piemonte** • 1♀, 1juv.; San Damiano Macra (CN), 2009, Coll. MI, Rosso leg.; Coll. MI • 1♂; Pragelato (TO): Villardamont; 2010 m; VII.2011; D. Chamberlain leg.; Coll. MI.
Orsiera Rocciavrè Natural Park • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 21.IX.2018; Coll. MI • 1♀; 25.VI.2018; Coll. MI • 1♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 18.VII.2019; Coll. MI • 1♂; 25.VII.2018; Coll. MI.

DISTRIBUTION. — Italy.

CHOROTYPE. — ALSW.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — Italian endemic species (Pantini & Isaia 2019, accessed on Dec. 2024). Two unpublished occurrences from outside the protected areas considered in this work are also added to the material. The new records significantly widen the known distribution range of the species (Fig. 10), which was previously uniquely known for the type locality.

Family ERESIDAE C. L. Koch, 1845

Eresus sp.

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1 juv.; Bussoleno: Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 27.VII.2018; MCSNB.

ELEVATIONAL ZONATION. — Submontane.

NOTES. — Juvenile specimen undeterminable at a specific level, probably *Eresus kollari* Rossi, 1846.

Family FILISTATIDAE Ausserer, 1867

Filistata insidiatrix (Forsskål, 1775)
(Fig. 3E)

NEW OBSERVATION. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Susa Valley; 45°8'43"N, 7°7'26"E; 20.IV.2019; A. Pane leg., photo observation, https://www.inaturalist.org/observations/22992759.

DISTRIBUTION. — Mediterranean to Turkmenistan. Introduced to Azores, Cape Verde, Angola, Yemen (Socotra), Venezuela.

CHOROTYPE. — TUM.

Family GNAPHOSIDAE Banks, 1892

Callilepis schuszteri (Herman, 1879)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 11.VII.2018; MCSNB • 1♂; 15.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), China, Korea, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Submontane.

Civizelotes caucasius (Herman, 1879)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 1.VII.2019; Coll. MI • 1♂; 12.VII.2019; Coll. MI.

DISTRIBUTION. — Europe, Turkey, Caucasus, Kazakhstan, Iran, Central Asia, China.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Submontane.

NOTES. — New record for Piemonte.

Civizelotes pygmaeus Miller, 1943

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 11.VII.2018; Coll. MI.

DISTRIBUTION. — Europe to Kazakhstan.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Submontane.

Drassodes lapidosus (Walckenaer, 1802)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 2♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 10.VII.2018; MCSNB • 4♂; 25.VII.2018; MCSNB • 1♀, Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 3♂; 10.VII.2018; MCSNB • 1♀; 19.VII.2019; Coll. MI • 2♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 1.VII.2019; MCSNB • 1♂; 10.VII.2018; MCSNB • 1♂; 17.VI.2019; MCSNB • 1♀; 24.VIII.2018; MCSNB • 1♀; 25.VII.2018; MCSNB • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 30.VII.2019; Coll. MI •1♂; Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 15.VII.2018; MCSNB • 2♀, 1♂; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 2.IX.2019; Coll. MI • 3♂; 5.VII.2019; MCSNB • 1♀; 17.VII.2019; MCSNB • 1♀; 19.VIII.2019; MCSNB • 1♀; 30.VIII.2018; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 1.VII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 2.X.2019; Coll. MI • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), rocky debris; 1800 m; 2.VII.2018; MCSNB • 1♂; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 1.VII.2018; MCSNB • 1♀; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 2.VIII.2018; MCSNB • 1♀; 16.IX.2019; MCSNB • 1♀; 20.IX.2019; Coll. MI • 1♀; 23.X.2019; Coll. MI • 1♂; 30.VII.2019; MCSNB • 1♀, 1♂; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 14.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 17.VI.2019; MCSNB • 1♂; Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 15.VI.2018; MCSNB.

LITERATURE. — De Blauwe 1973; Paschetta 2005.

DISTRIBUTION. — Azores, Europe, Turkey, Caucasus, Russia (Europe to Far East), Israel, Iran, Central Asia, China, Korea, Japan.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine; Alpine.

Drassodex heeri (Pavesi, 1873)

LITERATURE. — Grimm 1985; Isaia *et al.* 2007.

DISTRIBUTION. — Alps (Switzerland, Italy, Germany, Austria).

CHOROTYPE. — ALP.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Drassodex hypocrita (Simon, 1878)

LITERATURE. — Isaia *et al.* 2007.

DISTRIBUTION. — Europe, Turkey.

CHOROTYPE. — EUR.

Drassyllus praeficus (L. Koch, 1866)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe to Central Asia.

CHOROTYPE. — CAE.

Drassyllus pusillus (C.L. Koch, 1833)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 6.X.2018; MCSNB • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 13.VII.2018; MCSNB • 1♂; 30.VIII.2018; MCSNB • 1♀; 31.VII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 30.VIII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Drassyllus villicus (Thorell, 1875)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Azerbaijan.

CHOROTYPE. — TUE.

Echemus angustifrons (Westring, 1861)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe to Central Asia.

CHOROTYPE. — CAE.

Gnaphosa badia (L. Koch, 1866)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 30.VII.2019; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 1.VII.2018; MCSNB • 1♀; 2.IX.2019; MCSNB • 2♂; 5.VII.2019; MCSNB • 1♂; 12.VII.2019; MCSNB • 2♂; 14.VIII.2018; MCSNB • 2♀; 20.VI.2019; MCSNB • 1♂; 30.VII.2019; MCSNB • 1♂; 30.VIII.2018; MCSNB • Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 1♀; 29.VII.2019; MCSNB.

DISTRIBUTION. — Europe to Azerbaijan.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

Gnaphosa bicolor (Hahn, 1833)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 14.VI.2018; Coll. MI.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to West Siberia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

NOTES. — New record for Piemonte.

Gnaphosa leporina (L. Koch, 1866)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 5.VII.2019; Coll. MI • 2♂; 13.VII.2018; MCSNB • 1♀; 14.IX.2018; MCSNB • 1♂; 19.VIII.2019; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 30.VIII.2018; MCSNB • 2♂; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 2.VIII.2018; MCSNB • 2♂; 15.VIII.2018; Coll. MI • 2♀, 2♂; 29.VIII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 19.IX.2018; MCSNB.

LITERATURE. — Grimm 1985.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia, China.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

FIG. 4. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (Lycosidae Sundevall, 1833): **A**, *Hogna radiata* (Latreille, 1817): female; **B**, *Pardosa nigra* (C. L. Koch, 1834): female with cocoon; **C**, *Pardosa monticola* (Clerck, 1757): female (Photo credits: A, M. Rosso; B, C, A. Pane).

Gnaphosa lugubris (C. L. Koch, 1839)

Literature. — Paschetta 2005.

Distribution. — Europe to Central Asia.

Chorotype. — CAE.

Haplodrassus signifer (C.L. Koch, 1839)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 1.VII.2019; MCSNB • 1♂; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 18.VII.2019; MCSNB • 1♂; 25.VII.2018; MCSNB • 1♀; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 1.VII.2019; MCSNB • 1♀; 16.VII.2019; MCSNB • 1♂; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 5.VII.2019; Coll. MI • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 1.VII.2018; MCSNB • 1♀; 13.VII.2018; MCSNB • 1♀, 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 31.VII.2018; MCSNB • 1♀, 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 5.VII.2019; MCSNB • 1♀; 19.VIII.2019; MCSNB.

Distribution. — North America, Europe, North Africa, Turkey, Caucasus, Russia (Europe to Far East), Israel, Iran, Central Asia, China, Korea.

Chorotype. — OLA.

Elevational zonation. — Montane; subalpine.

Haplodrassus silvestris (Blackwall, 1833)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 13.VII.2018; MCSNB.

Literature. — Paschetta 2005.

Distribution. — Europe, Turkey, Caucasus.

Chorotype. — EUR.

Elevational zonation. — Subalpine.

Kishidaia conspicua (L. Koch, 1866)

Literature. — Isaia *et al.* 2007.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Kazakhstan, Central Asia, China.

Chorotype. — SIE.

Micaria aenea Thorell, 1871

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 20.VI.2019; MCSNB.

Distribution. — North America, Europe, Russia (Europe to Far East), Kazakhstan.

Chorotype. — OLA.

Elevational zonation. — Subalpine.

Micaria fulgens (Walckenaer, 1802)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 1.VII.2019; MCSNB • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 25.VII.2018; Coll. MI • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 2.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 2.VII.2019; MCSNB.

Literature. — Paschetta 2005.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia, China.

Chorotype. — CAE.

Elevational zonation. — Submontane; montane; subalpine.

Micaria pulicaria (Sundevall, 1831)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 30.VII.2019; MCSNB.

Distribution. — USA, Canada, Europe, Georgia, Russia (Europe to Far East), Kazakhstan, China, Japan, Turkey (doubful record), Iran (doubful record), Central Asia (doubful record).

Chorotype. — OLA.

Elevational zonation. — Subalpine.

Micaria rossica Thorell, 1875

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 5.VII.2019; MCSNB.

Distribution. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, Mongolia, China.

Chorotype. — OLA.

Elevational zonation. — Subalpine.

Nomisia exornata (C.L. Koch, 1839)

Material examined. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 15.VI.2018; MCSNB • 1♀; 30.VI.2018; MCSNB • 1♀; Piani (Susa Valley – FoA), meadow; 600 m; 11.VII.2018; MCSNB • 1♀; 17.VI.2019; MCSNB • 1♀, 1♂; 30.VI.2018; MCSNB • 1♂; Piani (Susa Valley – FoA), shrubland; 600 m; 15.VI.2018; MCSNB • 1♀; 30.VI.2018; MCSNB.

Literature. — Paschetta 2005.

Distribution. — Europe, North Africa, Turkey, Caucasus, Kazakhstan, Central Asia.

CHOROTYPE. — WPA.

ELEVATIONAL ZONATION. — Submontane.

Scotophaeus scutulatus (L. Koch, 1866)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Algeria, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia.

CHOROTYPE. — PAL.

Trachyzelotes pedestris (C. L. Koch, 1837)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Caucasus, Turkey, Iran.

CHOROTYPE. — TUE.

Zelotes aeneus (Simon, 1878)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 24.VIII.2018; Coll. MI • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 30.VII.2019; MCSNB • 2♂; Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB • 1♀; 14.IX.2018; MCSNB • 1♂; 19.VIII.2019; MCSNB • 1♂; 30.VIII.2018; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 19.VIII.2019; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 2.IX.2019; MCSNB.

DISTRIBUTION. — Madeira, Europe, Turkey, Azerbaijan.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Zelotes apricorum (L. Koch, 1876)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 3.IX.2019; Coll. MI • 1♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 1.VII.2018; MCSNB • 1♀, 1♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.VII.2018; MCSNB • 2♀, 3♂; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 1.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 20.VIII.2019; Coll. MI • 1♀; 25.VIII.2018; MCSNB • 2♀; 30.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Kazakhstan, Iran.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

Zelotes oblongus (C.L. Koch, 1833)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 9.IX.2018; MCSNB • 1♀; 11.VII.2018; Coll. MI • 2♀; 11.VIII.2018; MCSNB • 1♀; Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 30.VI.2018; MCSNB • 2♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 11.VIII.2018; MCSNB • 1♂; 16.IX.2019; Coll. MI • 1♀; 25.VIII.2018; MCSNB • 1♀; 27.VII.2018; MCSNB • 1♀; Piani (Susa Valley – FoA), meadow; 600 m; 27.VII.2018; MCSNB.

LITERATURE. — Paschetta 2005; Isaia *et al.* 2007.

DISTRIBUTION. — Europe, Turkey.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane; montane.

Zelotes petrensis (C.L. Koch, 1839)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VIII.2018; MCSNB • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 2.IX.2019; Coll. MI • 1♀; 17.IX.2019; Coll. MI • 1♀; 29.IX.2018; Coll. MI • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 20.IX.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Central Asia.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Zelotes subterraneus (C.L. Koch, 1833)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 3.IX.2019; MCSNB • 2♀; 10.VII.2018; MCSNB • 1♀, 1♂; 10.VIII.2018; MCSNB • 1♀, 1♂; 20.VIII.2019; MCSNB • 1♀; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 30.IX.2019; Coll. MI • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 14.IX.2018; MCSNB • 1♂; 19.VIII.2019; MCSNB • 1♀; 30.VIII.2018; MCSNB • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 30.VII.2019; Coll. MI • 1♀; 16.VIII.2018; MCSNB • 1♀, 1♂; 29.VIII.2018; MCSNB • 2♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.VII.2019; Coll. MI • 1♂; 16.VII.2019; 1♀; MCSNB • 1♀; 19.IX.2018; MCSNB • 1♂; 21.X.2019; MCSNB • 1♀, 2♂; 29.VIII.2018; MCSNB • 1♀, 4♂; 30.VII.2019; MCSNB • 1♀; Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 18.VI.2018; MCSNB • 1♀; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 4.IX.2019; Coll. MI • 1♂; 6♀; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 2.VII.2019; MCSNB • 1♂; 14.VII.2018; 2♀; MCSNB • 1♀, 1♂; 15.VIII.2018; MCSNB • 1♀, 1♂; 16.VII.2019; Coll. MI • 2♂; 21.VIII.2019; MCSNB • 2♂; 29.VIII.2018; MCSNB • 1♂; 30.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 29.VII.2019; MCSNB.

LITERATURE. — Grimm 1985; Isaia *et al.* 2007.

DISTRIBUTION. — Europe, Cyprus, Turkey, Caucasus, Russia (Europe to Far East), Central Asia, China.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine; Alpine.

Zelotes talpinus (L. Koch, 1872)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; 2♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 8.IX.2018; MCSNB • 1♀; 20.VIII.2019; Coll. MI • 1♀, 1♂; 24.VIII.2018; MCSNB • 1♂; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 2.IX.2019; Coll. MI • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 19.VIII.2019; MCSNB • 1♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 16.VIII.2018; MCSNB • 2♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 29.IX.2018; MCSNB • 2♂; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 4.IX.2019; MCSNB • 2♀; 21.VIII.2019; MCSNB • 1♀, 2♂; 29.VIII.2018; MCSNB • 2♀; 30.VII.2019; MCSNB.

DISTRIBUTION. — Western to Central Europe, Italy.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

Family HAHNIIDAE Bertkau, 1878

Hahnia nava (Blackwall, 1841)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Russia (Europe to Far East), Turkey, Israel, Caucasus, Iran, Korea, Japan.

CHOROTYPE. — PAL.

Hahnia ononidum Simon, 1875

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 17.IX.2019; MCSNB.

DISTRIBUTION. — Canada, USA, Europe, Turkey, Russia (Europe to Far East), Kazakhstan, China.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — New record for Piemonte.

Family LEPTONETIDAE Simon, 1890

Leptoneta crypticola franciscoloi di Caporiacco, 1950 (Fig. 7B)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VII.2018; Coll. MI • 1♀; 14.X.2019; Coll. MI • 1♀; 21.IX.2018; Coll. MI • 1♂; 25.VI.2018; Coll. MI • 1♀, 1♂; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 10.VII.2018; Coll. MI • 1♀; 19.VII.2019; Coll. MI • 1♀; 25.VI.2018; Coll. MI • 1♂; 25.VII.2018; Coll. MI • 1♀; 29.VII.2019; MCSNB • 1♂; 30.IX.2019; Coll. MI.

DISTRIBUTION. — Italy.

CHOROTYPE. — ALSW.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — Italian endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Family LINYPHIIDAE Blackwall, 1859

Agyneta affinis (Kulczyński, 1898)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Russia (Europe to Far East), China.

CHOROTYPE. — SIE.

Agyneta cauta (O. Pickard-Cambridge, 1903)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 30.VII.2019; MCSNB • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 4.IX.2019; Coll. MI; MCSNB.

DISTRIBUTION. — Europe, Russia (Europe to South Siberia), Kyrgyzstan.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

NOTES. — New record for Piemonte.

Agyneta innotabilis (O. Pickard-Cambridge, 1863)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 5.VII.2019; Coll. MI.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Agyneta mollis (O. Pickard-Cambridge, 1871)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VII.2018; MCSNB.

DISTRIBUTION. — USA (Alaska), Canada, Europe, Morocco, Caucasus, Russia (Europe to Far East), Iran, China, Japan.

FIG. 5. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (Thomisidae Sundevall, 1833): **A**, *Misumena vatia* (Clerck, 1757): female, yellow habitus; **B**, *Misumena vatia* (Clerck, 1757): female with prey, white habitus (Photo credits: A. Girodo).

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Agyneta rurestris (C.L. Koch, 1836)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 18.VII.2019; MCSNB • 1♂, 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 29.IX.2018; MCSNB • 1♂; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.VII.2018; MCSNB • 1♀; 17.IX.2019; MCSNB • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 20.IX.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 17.VI.2019; MCSNB • 1♂; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 9.IX.2018; MCSNB • 1♂; Piani (Susa Valley – FoA), meadow; 600 m; 15.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Egypt, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia, China, Korea.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine; Alpine.

Anguliphantes monticola (Kulczynski, 1881)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 5.VII.2019; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Alpine.

Bathyphantes gracilis (Blackwall, 1841)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VII.2018; MCSNB.

DISTRIBUTION. — North America, Europe, Northern Africa, Turkey, Caucasus, Russia (Europe to Far East), Iran, Kazakhstan, China, Korea, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Subalpine.

Bathyphantes setiger F.O. Pickard-Cambridge, 1894

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 1.VII.2019; Coll. MI.

DISTRIBUTION. — Europe, Russia (Europe to Far East).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Bolyphantes alticeps C. L. Koch, 1837

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.X.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus, Russia (Europe to Far East), Central Asia, China, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane.

Centromerus arcanus (O. Pickard-Cambridge, 1873)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 8.IX.2018; Coll. MI • 2♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 13.VII.2018; Coll. MI • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 18.VI.2018; Coll. MI • 1♂; 21.VI.2019; Coll. MI • 1♀; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 2.VII.2019; MCSNB • 1♀; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 2.VII.2019; Coll. MI • 1♂; 4.X.2019; Coll. MI • 1♂; 14.VII.2018; Coll. MI • 1♀; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 16.VII.2019; Coll. MI.

DISTRIBUTION. — Greenland, Europe, Russia (Europe to Middle Siberia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

Centromerus brevipalpus (Menge, 1866)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 14.VI.2018; Coll. MI.

DISTRIBUTION. — Europe, Kazakhstan.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Montane.

Centromerus pabulator (O. Pickard-Cambridge, 1875)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 6.X.2018; Coll. MI • 1♀; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 14.X.2019; Coll. MI • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 2.VIII.2018; MCSNB • 1♀; Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VIII.2018; MCSNB • 1♂; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 2.X.2018; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Centromerus sellarius (Simon, 1884)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 2♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 3.IX.2019; MCSNB • 1♂; 6.X.2018; Coll. MI • 1♀; 14.X.2019; MCSNB • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 14.VIII.2018; MCSNB • 1♂; 19.VIII.2019; MCSNB • 4♂; Mattie: Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 23.X.2019; MCSNB • 1♂; 29.X.2019; Coll. MI • 1♂; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 4.X.2019; Coll. MI • 1♀; 20.IX.2019; MCSNB.

DISTRIBUTION. — Europe, Russia (Europe to South Siberia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

Centromerus serratus (O. Pickard-Cambridge, 1875)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

Centromerus silvicola (Kulczynski, 1887)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VII.2018; MCSNB • 1♀; 10.VIII.2018; MCSNB • 1♀ lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 1.VII.2019; MCSNB.

DISTRIBUTION. — Central Europe to Balkans and Ukraine.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

Centromerus sylvaticus (Blackwall, 1841)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 2♂; Mattie: Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.X.2018; MCSNB • 1♂; 19.IX.2018; MCSNB • 1♀; 29.VIII.2018; MCSNB • 1♀; Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 2.X.2018; MCSNB.

DISTRIBUTION. — North America, Europe, Russia (Europe to Far East), Turkey, Caucasus, Iran, China, Korea, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Ceratinella brevis (Wider, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 17.VI.2018; MCSNB • 1♀; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 5.VII.2019; Coll. MI • 1♀; 17.VII.2019; MCSNB.

DISTRIBUTION. — Europe, Russia (Europe to Far East), Caucasus, Turkey, Iran, Central Asia, China, Korea, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Subalpine.

Diplocephalus alpinus (O. Pickard-Cambridge, 1873)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 8.IX.2018; Coll. MI • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 2.VII.2019; Coll. MI.

DISTRIBUTION. — Italy, Central Europe to Greece and Russia (Europe).

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Subalpine.

Drapetisca socialis (Sundevall, 1833)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°1'46"N, 7°7'47"E; 14.X.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/106559760.

DISTRIBUTION. — Europe, Caucasus, Russia (Europe to Far East), Central Asia, China, Japan.

CHOROTYPE. — ASE.

Erigone autumnalis Emerton, 1882

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 2♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 17.VI.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — North and Central America. Introduced to Azores, Europe, Russia (Caucasus), United Arab Emirates, New Caledonia, Hawaii.

CHOROTYPE. — COS.

ELEVATIONAL ZONATION. — Submontane.

NOTES. — Alien species (Nentwig *et al.* 2024).

Erigone dentipalpis (Wider, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 20.VIII.2019; MCSNB • 1♀, 2♂; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 8.IX.2018; MCSNB • 1♀, 1♂; 18.VII.2019; MCSNB • 1♂; 20.VIII.2019; MCSNB • 1♀; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 25.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 15.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Azores, Europe, North Africa, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China. Introduced to Canada.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Submontane; subalpine.

Frontinellina frutetorum (C. L. Koch, 1835)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • Roure: Chisone Valley; 45°0'35"N, 7°8'25"E; 1♀; 14.VII.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/109393196.

DISTRIBUTION. — Europe, North Africa, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Kazakhstan, Central Asia.

CHOROTYPE. — PAL.

Gonatium rubellum (Blackwall, 1841)

LITERATURE. — Trotta & Cherubini 2024.

DISTRIBUTION. — Europe, Russia (Europe to Far East).

CHOROTYPE. — EUR.

Improphantes nitidus (Thorell, 1875)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 30.VII.2019; MCSNB • 1♂; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 16.X.2019; Coll. MI • 2♀; 17.VII.2019; MCSNB • 1♀; 19.VIII.2019; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VII.2018; MCSNB • 1♀; 2.VII.2019; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — New record for Piemonte.

Incestophantes frigidus (Simon, 1884)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 10.VII.2018; Coll. MI • 1♂; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 6.X.2018; Coll. MI • 1♂; Mattie: Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 1.VII.2018; Coll. MI.

DISTRIBUTION. — Europe (Alps).

CHOROTYPE. — ALP.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Incestophantes kotulai (Kulczyński, 1904)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 2.IX.2019; Coll. MI.

DISTRIBUTION. — Europe (Alps).

CHOROTYPE. — ALP.

ELEVATIONAL ZONATION. — Alpine.

NOTES. — New record for Piemonte. Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Lepthyphantes leprosus (Ohlert, 1865)

LITERATURE. — Brignoli 1975; Brignoli 1985; Arnò & Lana 2005.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan. Introduced to North America, Chile, Falkland Is.

CHOROTYPE. — OLA.

Lepthyphantes nodifer Menge, 1866

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 2.VIII.2018; MCSNB • 1♀; 4.IX.2019; Coll. MI • 2♀; 4.X.2019; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Mansuphantes fragilis (Thorell, 1875)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.VII.2018; Coll. MI • 1♀; 30.VII.2019; MCSNB • 2♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 2.VII.2018; MCSNB • 1♀; Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VIII.2018; Coll. MI • 1♀; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 2.VIII.2018; Coll. MI • 1♀; Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 20.IX.2019; MCSNB • 2♀; 21.VIII.2019; Coll. MI • 1♀; 30.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — New record for Piemonte.

Mansuphantes pseudoarciger (Wunderlich, 1985)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; Coll. MI • 1♂; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), stone pine and larch forest; 2000 m; 2.X.2019; Coll. MI • 2♂; Mattie: Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 4.X.2019; Coll. MI.

DISTRIBUTION. — France, Switzerland, Italy.

CHOROTYPE. — ALP.

ELEVATIONAL ZONATION. — Montane; subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Metopobactrus prominulus (O. Pickard-Cambridge, 1873)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.VII.2018; Coll. MI.

DISTRIBUTION. — Canada, Europe, Turkey, Caucasus, Russia (Europe to Far East), Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Micrargus alpinus Relys & Weiss, 1997

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park •** 1♀; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 5.VII.2019; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 19.IX.2018; Coll. MI • 1♀; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 21.VI.2019; MCSNB.

DISTRIBUTION. — Alps (Switzerland, Italy, Germany, Austria).

CHOROTYPE. — ALP.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

FIG. 6. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (cave dwelling species): **A**, Tetragnathidae Menge, 1866 – *Meta menardi* (Latreille, 1804): female; **B**, Tetragnathidae Menge, 1866 – *Metellina merianeae* (Scopoli, 1763): male; **C**, Linyphiidae Blackwall, 1859 – *Troglohyphantes achillis* Isaia & Mammola, 2022: female; **D**, Pimoidae Wunderlich, 1986 – *Pimoa graphitica* Mammola, Hormiga & Isaia, 2016: female (Photo credits: A, B, A. Pane; C, E. Biggi; F. Tomasinelli).

Microneta viaria (Blackwall, 1841)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 25.VI.2018; MCSNB • 1♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; MCSNB.

DISTRIBUTION. — North America, Europe, Turkey, North Africa, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Kyrgyzstan, China, Mongolia, Korea, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Minyriolus pusillus (Wider, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 5.VII.2019; Coll. MI • 1♀; Mattie: Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 16.VII.2019; Coll. MI.

LITERATURE. — Trotta & Cherubini 2024.

DISTRIBUTION. — Europe, Russia (Europe to Far East), Caucasus.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Mioxena blanda (Simon, 1884)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

Oreoneta tatrica Chyzer & Kulczynski, 1894

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 18.VI.2018; Coll. MI.

DISTRIBUTION. — Central Europe, Italy, Ukraine.

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — New record for Piemonte.

Oreonetides vaginatus (Thorell, 1872)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 21.VI.2019; Coll. MI • 2♂; Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 21.VI.2019; MCSNB • 1♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 21.VI.2019; MCSNB.

DISTRIBUTION. — North America, Europe, Russia (Europe to Far East), Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane; subalpine.

Palliduphantes pallidus (O. Pickard-Cambridge, 1871)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 25.VI.2018; MCSNB • 1♀; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 18.VII.2019; Coll. MI • 1♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; MCSNB • 1♂; 16.IX.2019; MCSNB • 1♀; 29.VII.2019; Coll. MI • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), stone pine and larch forest; 2000 m; 16.X.2019; Coll. MI • 1♂; Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 1.VII.2018; MCSNB • 1♀; 13.VII.2018; MCSNB • 1♀; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 2.IX.2019; MCSNB • 1♂; 5.VII.2019; MCSNB • 1♀; 17.IX.2019; MCSNB • 3♀, 3♂; 17.VII.2019; MCSNB • 4♂; 19.VIII.2019; MCSNB • 1♀; 30.VII.2019; MCSNB • 1♂; Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB • 1♂; 2.VII.2018; MCSNB • 1♀; 17.VI.2018; MCSNB • 1♀; 17.VII.2019; MCSNB • 1♂; 19.VIII.2019; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 2.X.2019; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.X.2018; MCSNB • 1♂; 19.IX.2018 ; MCSNB • 1♀; 21.VI.2019; Coll. MI • 1♀; 23.X.2019; Coll. MI • 1♀, 1♂; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 16.VIII.2018; MCSNB • 1♀; 21.VI.2019; Coll. MI • 1♀, 2♂; Monte Genta slope (Susa Valley – SuB), alder forest; 1600 m; 4.X.2019; MCSNB • 1♂; 16.VII.2019; Coll. MI • 1♂; 16.VIII.2018; MCSNB • 1♂; 20.IX.2019; MCSNB • 1♀, 1♂; 21.X.2019; MCSNB • 1♂; 29.IX.2018; MCSNB • 1♀; 29.X.2019; Coll. MI • 1♂; Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 4.IX.2019; MCSNB • 2♂; 16.VII.2019; MCSNB • 1♀; 21.VIII.2019; Coll. MI • 1♀; 30.VII.2019 Coll. MI; MCSNB • 1♀, 1♂; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 2.VIII.2018; MCSNB • 1♂; 16.VIII.2018; MCSNB • 1♂; 21.VIII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 2.VII.2019; MCSNB • 1♀; 17.VI.2019; MCSNB • 1♀; 29.VII.2019; Coll. MI • 1♀; Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 9.IX.2018; MCSNB • 1♂; 15.VI.2018; MCSNB • 1♀; 29.VII.2019; MCSNB • 1♀; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 20.VIII.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine; Alpine.

Pelecopsis elongata Simon, 1864

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 16.X.2019; Coll. MI • 2♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 18.VI.2018; MCSNB • 1♀, 1♂; Bergerie dell'Orsiera Nord (Susa Valley – SuC), rocky debris; 1800 m; 4.X.2019; Coll. MI.

DISTRIBUTION. — Europe, Turkey, Israel.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Pelecopsis parallela (Wider, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 19.VIII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 17.VI.2019; MCSNB • 1♀; Piani (Susa Valley – FoA), shrubland; 600 m; 12.VII.2019; Coll. MI.

DISTRIBUTION. — Azores, Europe, Turkey, Russia (Europe to Far East), Kazakhstan, Iran, Kyrgyzstan.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Submontane; montane.

Pelecopsis radicicola (L. Koch, 1872)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 4.IX.2019; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Piniphantes agnellus (Maurer & Thaler, 1988)

MATERIAL EXAMINED. — **Italia. France. Provence-Alpes-Côte d'Azur, Alpes-Maritimes, Isola: Rifugio Tallone** • 1♀; Pas de Sainte-Anne; 44°13'12"N, 7°6'10"E; artificial cave; 2315 m; 30.VI.2024; M. Isaia and M. Tolve leg.; Coll. MI • 5♀; Bunker Oratoire Sainte-Anne; 44°12'31"N, 7°6'36"E; artificial bunker; 1710 m; 29.VI.2024 M. Isaia and M. Tolve leg.; Coll. MI • 4♀; Valdeblore: Gallerie Lac Gros; 44°6'59"N, 7°11'49"E; artificial cave; 2390 m; 2.VII.2022; M. Isaia and M. Tolve leg.; Coll. MI.
Orsiera Rocciavrè Natural Park • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 13.VII.2018; Coll. MI • 1♂; 29.IX.2018; Coll. MI.

DISTRIBUTION. — France, Italy.

CHOROTYPE. — ALSW.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024) Three unpublished occurrences from outside the protected areas here considered are also added to the material (Fig. 10). Altogether these records significantly widen the known distribution range of this poorly known species (Pantini & Isaia 2019, accessed on Dec. 2024).

Porrhomma campbelli F.O. Pickard-Cambridge, 1894

LITERATURE. — Trotta & Cherubini 2024.

DISTRIBUTION. — Europe to Russia (Middle Siberia).

CHOROTYPE. — EUR.

Porrhomma microphtalmum (O. Pickard-Cambridge, 1871)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 21.IX.2018; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 21.VIII.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Georgia, Russia (Europe, Caucasus), Iran, Kazakhstan, China.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Subalpine.

Scotargus pilosus Simon, 1913

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.VII.2018; Coll. MI.

DISTRIBUTION. — Europe, Morocco, Algeria, Caucasus, Russia (Europe to Far East), Iran, Kazakhstan, Central Asia, Nepal.

CHOROTYPE. — CEM.

ELEVATIONAL ZONATION. — Montane.

Syedra gracilis (Menge, 1869)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 16.X.2019; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Tapinocyba affinis Simon, 1884

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 18.VI.2018; Coll. MI.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Tenuiphantes alacris (Blackwall, 1853)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 30.VII.2019; Coll. MI.

DISTRIBUTION. — Europe, Russia (Europe to Far East).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Tenuiphantes flavipes (Blackwall, 1854)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 3.IX.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia).

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Montane.

Tenuiphantes jacksoni Saaristo & Tanasevitch, 1996

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 29.VIII.2018; Coll. MI.

DISTRIBUTION. — Alps (Switzerland, Italy), Balkans (doubful record), Turkey (doubful record).

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Subalpine.

Tenuiphantes sp.

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 2.VII.2018; Coll. MI • 1♀; 14.VII.2018; MCSNB • 1♂; 18.VI.2018; MCSNB • 1♂; 19.IX.2018; Coll. MI.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — Damaged specimens.

Tenuiphantes tenebricola (Wider, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 25.VI.2018; Coll. MI • 1♀; Mattie: Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 4.IX.2019; MCSNB • 1♀; Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 20.IX.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to South Siberia), China.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Montane.

Tenuiphantes tenuis (Blackwall, 1852)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 1.VII.2019; Coll. MI • 1♂; 30.IX.2019; MCSNB • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 21.VIII.2019; Coll. MI • 1♀; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 19.IX.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 20.VIII.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Macaronesia, Northern Africa, Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran, Kazakhstan, Central Asia. Introduced to Canada, USA, Chile, Argentina, Falkland Is., New Zealand.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

Theonina cornix (Simon, 1881)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, North Africa, Georgia (doubful record).

CHOROTYPE. — EUM.

Thyreosthenius parasiticus (Westring, 1851)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 20.VI.2019; Coll. MI.

DISTRIBUTION. — North America, Europe, Caucasus, Russia (Europe to Far East).

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Trichoncus sordidus Simon, 1884

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 12.VII.2019; Coll. MI.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Submontane.

Trichopterna cito (O. Pickard-Cambridge, 1872)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 23.X.2019; Coll. MI.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Kazakhstan.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Subalpine.

FIG. 7. — Spider species of Orsiera Rocciavrè Natural Park and Foresto Ravine Natural Reserve (cave-dwelling species): **A**, Linyphiidae Blackwall, 1859 – *Troglohyphantes lucifer* Isaia, Mammola & Pantini, 2017: female; **B**, Leptonetidae Simon, 1890 – *Leptoneta crypticola franciscoloi* Caporiacco, 1950: female. Photo credits: A, F. Tomasinelli; B, E. Biggi.

Troglohyphantes achillis Isaia & Mammola, 2022 (Fig. 6C)

LITERATURE. — Pesarini 2001; Isaia & Pantini 2010; Isaia *et al.* 2010, 2011, 2022; Mammola *et al.* 2015, 2018, 2019.

DISTRIBUTION. — Italy (Alps).

CHOROTYPE. — ALPW.

NOTES. — Italian endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Troglohyphantes lucifer Isaia, Mammola & Pantini, 2017 (Fig. 7A)

LITERATURE. — Isaia *et al.* 2017; Mammola *et al.* 2018, 2019.

DISTRIBUTION. — Italy.

CHOROTYPE. — ALPW.

NOTES. — Italian endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Walckenaeria alticeps (Denis, 1952)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 14.VI.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Middle Siberia), Iran.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Walckenaeria sp.

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 16.VII.2019; Coll. MI.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — Damaged specimen.

Family LIOCRANIDAE Simon, 1897

Agroeca cuprea Menge, 1873

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 29.IX.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 15.VI.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus, Russia (Europe to South Siberia), Iran, Central Asia.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Submontane; montane.

Agroeca inopina O. Pickard-Cambridge, 1886

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Algeria, Turkey, Iran.

CHOROTYPE. — EUM.

Agroeca proxima (O. Pickard-Cambridge, 1871)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 6.X.2018; MCSNB • 1♂; 21.IX.2018; MCSNB • 1♂; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 3.IX.2019; MCSNB • 1♀; 6.X.2018; MCSNB • 1♂; 8.IX.2018; MCSNB • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 14.IX.2018; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 2.X.2018; MCSNB • 1♂; 16.VIII.2018 • 2♀; MCSNB • 1♀; 19.IX.2018; MCSNB • 3♀; 20.IX.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 9.IX.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to South Siberia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine.

Liocranum rupicola (Walckenaer, 1830)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Armenia, Russia (Europe to West Siberia).

CHOROTYPE. — EUR.

Scotina celans Menge, 1873

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 21.VIII.2019; MCSNB.
Foresto Ravine Natural Reserve • 2♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 9.IX.2018; MCSNB • 1♀, 1♂; 11.VIII.2018; MCSNB • 1♂; 20.VIII.2019; Coll. MI • 2♂; 25.VIII.2018; MCSNB • 1♂; 30.IX.2019; MCSNB • 1♂; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 23.IX.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Algeria.

CHOROTYPE. — EUM.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine.

Family LYCOSIDAE Sundevall, 1833

Alopecosa aculeata (Clerck, 1757)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow;

1600 m; 18.VII.2019; Coll. MI • 1♀; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 2.IX.2019; MCSNB.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane; subalpine.

Alopecosa cuneata (Clerck, 1757)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 17.VI.2019; MCSNB • 2♀, 2♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 1.VII.2018; MCSNB • 1♀; 5.VII.2019; MCSNB • 1♂; 13.VII.2018; MCSNB • 1♀; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 14.IX.2018; MCSNB • 1♂; 14.VII.2018; MCSNB • 1♂; 17.VI.2018; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 13.VII.2018; MCSNB • 1♂; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 13.VII.2018; MCSNB • 1♀; 30.VIII.2018; MCSNB • 3♂; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 1.VII.2018; MCSNB • 1♂; 14.VII.2018; MCSNB.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

Alopecosa farinosa (Herman, 1879)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VII.2018; MCSNB • 1♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VIII.2018; MCSNB • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 31.VII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 13.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Kazakhstan.

CHOROTYPE. — SIE.

ELEVATIONAL ZONATION. — Montane; subalpine.

Alopecosa pulverulenta (Clerck, 1757)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 10.VII.2018; MCSNB • 1♂; 18.VII.2019; MCSNB • 1♀, 1♂; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 10.VII.2018; MCSNB • 1♂; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 16.X.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, China, Korea, Japan.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Subalpine.

Alopecosa taeniata (C.L. Koch, 1835)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Chanfoulcre (Chisone Valley – ChC), shrub pasture; 2000 m; 17.VII.2019; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 19.IX.2018; MCSNB.

DISTRIBUTION. — Europe, Russia (Europe to South Siberia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine.

Arctosa personata (L. Koch, 1872)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 23.IX.2018; MCSNB • 1♀; 27.VII.2018; Coll. MI • 1♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 28.VII.2019; MCSNB • 1♀; Piani (Susa Valley – FoA), meadow; 600 m; 1.VII.2019; Coll. MI • 1♀; 11.VII.2018; MCSNB.

DISTRIBUTION. — Western Mediterranean.

CHOROTYPE. — WME.

ELEVATIONAL ZONATION. — Submontane.

Arctosa renidescens Buchar & Thaler, 1995

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 2♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 10.VII.2018; MCSNB • 1♀, 5♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), rocky debris; 2200 m; 1.VII.2018; MCSNB • 3♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 18.VI.2018; MCSNB.

DISTRIBUTION. — Alps (France, Italy, Switzerland, Austria).

CHOROTYPE. — ALP.

ELEVATIONAL ZONATION. — Subalpine.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Aulonia albimana (Walckenaer, 1805)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 2♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VIII.2018; MCSNB • 1♀, 2♂; 25.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Hogna radiata (Latreille, 1817) (Fig. 4A)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 2.VII.2019; MCSNB • 1♀; Piani (Susa Valley – FoA), meadow; 600 m; 1.VII.2019; Coll. MI • 1♂; 20.VIII.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Kazakhstan, Iraq, Iran, Central Asia.

CHOROTYPE. — CEM.

ELEVATIONAL ZONATION. — Submontane.

Pardosa lugubris (Walckenaer, 1802)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Kazakhstan, Iran.

CHOROTYPE. — SIE.

Pardosa mixta (Kulczynski, 1887)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VIII.2018; MCSNB • 1♀; 25.VII.2018; MCSNB • 1♂; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 25.VII.2018; MCSNB • 1♀; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 3.IX.2019; MCSNB • 1♀; 19.VII.2019; Coll. MI • 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 5.VII.2019; MCSNB • 1♀, 1♂; 17.VII.2019; MCSNB • 1♀; 19.VIII.2019; Coll. MI • 2♂; 31.VII.2018; MCSNB • 1♀, 1♂; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 19.VIII.2019; MCSNB •1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 14.IX.2018; MCSNB • 1♀; 16.X.2019; Coll. MI • 1♀; 29.IX.2018; MCSNB • 1♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 14.VII.2018; MCSNB • 1♀; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 14.VII.2018; MCSNB • 1♀; 23.X.2019; Coll. MI • 1♀; 29.VIII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

Pardosa monticola (Clerck, 1757) (Fig. 4C)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 3♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 1.VII.2019; MCSNB • 3♀; 10.VIII.2018; MCSNB • 1♀; 20.VIII.2019; Coll. MI • 1♀; 25.VII.2018; MCSNB • 1♀, 4♂; Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 1.VII.2019; Coll. MI • 1♀; 10.VII.2018; MCSNB • 1♀; 16.IX.2019; MCSNB • 3♀, 9♂; 18.VII.2019; MCSNB • 1♀, 1♂; 25.VII.2018; MCSNB • 2♀; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 1.VII.2019; MCSNB • 3♀; 3.IX.2019; Coll. MI • 2♀; 8.IX.2018; MCSNB • 2♀, 1♂; 10.VII.2018; MCSNB • 1♂; 10.VIII.2018; MCSNB • 1♀; 16.IX.2019; MCSNB • 1♂; 16.VII.2019; MCSNB • 1♀; 24.VIII.2018; MCSNB • 1♀; 25.VII.2018; MCSNB • 1♀; 25.VII.2019; Coll. MI • 2♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VII.2018; MCSNB • 1♀; 10.VIII.2018; MCSNB • 3♀; 25.VII.2018; MCSNB • 1♀; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 16.X.2019; Coll. MI • 1♀; Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 17.IX.2019; Coll. MI • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), meadow; 2400 m; 17.IX.2019; MCSNB • 1♀, 1♂; 17.VII.2019; MCSNB • 1♂; 31.VII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 2.X.2019; Coll. MI • 1♀, 6♂; 13.VII.2018; MCSNB • 1♀; 14.IX.2018; MCSNB • 4♀, 5♂; 17.VII.2019; MCSNB • 1♀; 29.IX.2018; MCSNB • 1♀, 3♂; 31.VII.2018; MCSNB • Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 1♀; 2.IX.2019; Coll. MI • 1♀; 19.VIII.2019; MCSNB • 2♀, 2♂; 31.VII.2018; MCSNB • 3♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 1.VII.2018; MCSNB • 1♂; Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 1.VII.2018; 2♀; MCSNB • 2♀, 9♂; 2.VII.2019; MCSNB • 2♀, 2♂; 2.VIII.2018; MCSNB • 1♀; 2.X.2018; MCSNB • 1♀; 4.X.2019; Coll. MI • 5♀, 5♂; 14.VII.2018; MCSNB • 1♂; 16.VII.2019; MCSNB • 2♀, 6♂; 16.X.2019; MCSNB • 3♀; 20.IX.2019; Coll. MI • 2♀; 21.VIII.2019; MCSNB • 1♀; 23.X.2019; Coll. MI • 1♀; 30.VII.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Georgia.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

Pardosa nigra (C.L. Koch, 1834) (Fig. 4B)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 5♂; 6♀; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 1.VII.2018; MCSNB • 4♀, 2♂; 5.VII.2019; MCSNB • 4♀; 13.VII.2018 7♂; MCSNB • 1♀, 1♂; 17.VII.2019; MCSNB • 4♀; 29.IX.2018; MCSNB • 1♀; 30.VII.2018; MCSNB • 1♀, 1♂; 30.VII.2019; MCSNB • 1♀; 30.VIII.2018; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 30.VIII.2018; MCSNB.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Subalpine; Alpine.

Pardosa oreophila Simon, 1937

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 10.VII.2018; MCSNB • 1♂; Colle della Roussa (Sangone Valley – SaD), shrub pasture; 2000 m; 10.VII.2018; MCSNB • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 18.VII.2019; Coll. MI • 5♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 13.VII.2018; Coll. MI • 1♂; 17.VII.2019; Coll. MI • 1♂; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 2.VIII.2018; MCSNB • 1♀, 1♂; Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 1.VII.2018; MCSNB • 1♀; 2.X.2018; MCSNB • 2♂; 2♀; 14.VII.2018; MCSNB • 1♀; 15.VIII.2018; MCSNB.

DISTRIBUTION. — Central, Southern Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane; subalpine; Alpine.

Pardosa riparia (C.L. Koch, 1833)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 1.VII.2019; MCSNB • 1♂; 10.VIII.2018; MCSNB • 1♂; 25.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to Far East), Central Asia, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane.

Pardosa saltans Töpfer-Hofmann, 2000

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 3.IX.2019; MCSNB • 4♀, 2♂; 10.VII.2018; MCSNB • 5♀; 10.VIII.2018; MCSNB • 2♀; 30.IX.2019; Coll. MI • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 6.X.2018; MCSNB • 1♀; 10.VII.2018; MCSNB • 1♀; 25.VI.2018; MCSNB • 1♀; 25.VII.2018; MCSNB • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Georgia.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Trochosa ruricola (De Geer, 1778)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Japan, Korea. Introduced to North America, Bermuda, Carribbean.

CHOROTYPE. — ASE.

Trochosa terricola Thorell, 1856

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 20.VIII.2019; Coll. MI • 1♀; 21.IX.2018; MCSNB • 1♀; 24.VIII.2018; MCSNB • 1♀; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 20.VIII.2019; MCSNB • 1♂; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 8.IX.2018; MCSNB • 2♂; 14.VI.2018; MCSNB • 1♂; Mattie: Monte Genta slope (Susa Valley – SuB), larch forest; 1600 m; 18.VI.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 3.IX.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane; subalpine.

Xerolycosa nemoralis (Westring, 1861)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 3.IX.2019; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Central Asia, China, Korea, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane.

Family MITURGIDAE Simon, 1886

Zora manicata Simon, 1878

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 13.VII.2018; Coll. MI • 1♀; 29.IX.2018; MCSNB • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 14.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus, Israel, Iran.

CHOROTYPE. — TEM.

ELEVATIONAL ZONATION. — Subalpine.

Zora parallela Simon, 1878

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 10.VII.2018; MCSNB • 1♂; Mattie: Vallone del Colle dell'Orsiera Nord (Susa Valley – SuF), shrub pasture; 2400 m; 23.VIII.2018; Coll. MI.

DISTRIBUTION. — Europe, Russia (Europe, Far East).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane, Alpine.

NOTES. — New record for Piemonte.

Zora pardalis Simon, 1878

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VIII.2018; MCSNB.

DISTRIBUTION. — Europe, Caucasus, Kazakhstan.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Subalpine.

Zora spinimana (Sundevall, 1833)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 10.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 15.VI.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Central Asia, China, Japan. Introduced to USA.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane.

Family PHILODROMIDAE Thorell, 1869

Philodromus dispar Walckenaer, 1826

LITERATURE. — Isaia *et al.* 2007.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Iran. Introduced to USA, Canada.

CHOROTYPE. — SIE.

Family PHOLCIDAE C. L. Koch, 1850

Pholcus opilionoides (Schrank, 1781)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Caucasus, Egypt. Introduced to Canada, USA.

CHOROTYPE. — WPA.

Pholcus phalangioides (Fuesslin, 1775)

NEW OBSERVATION. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Susa Valley; 45°8’51”N, 7°7’40”E; 4.IX.2019; A. Pane leg., photo observation, https://www.inaturalist.org/observations/52367513.

DISTRIBUTION. — Western Asia. Introduced to both Americas, Europe, Africa, Asia, Australia, New Zealand and numerous islands.

CHOROTYPE. — COS.

NOTES. — Alien species (Nentwig *et al.* 2024).

Psilochorus simoni (Berland, 1911)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°1’28”N, 7°5’10”E; 6.III.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/6446200.

DISTRIBUTION. — USA. Introduced to Europe, Turkey, New Zealand.

CHOROTYPE. — COS.

NOTES. — Alien species (Nentwig *et al.* 2024).

Family PHRUROLITHIDAE Banks, 1892

Phrurolithus festivus (C.L. Koch, 1835)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 17.VI.2019; MCSNB • 1♀, 1♂; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 25.VI.2018; MCSNB • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 1.VII.2019; MCSNB • 1♀; 18.VII.2019; MCSNB • 2♀, 4♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 5.VII.2019; MCSNB • 1♂; 14.VII.2018; MCSNB • 1♂; 17.VII.2019; MCSNB • 1♂; 30.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 12.VII.2019; Coll. MI • 1♂; 15.VI.2018; MCSNB • 1♀, 2♂; 17.VI.2019; MCSNB • 1♂; Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 12.VII.2019; Coll. MI • 1♂; 17.VI.2019; MCSNB • 1♀; Mompantero: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VIII.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, China, Korea, Japan. Introduced to Canada.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Submontane; montane; subalpine.

Phrurolithus minimus C.L. Koch, 1839

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 25.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 12.VII.2019; Coll. MI.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane; montane.

Family PIMOIDAE Wunderlich, 1986

Pimoa graphitica Mammola, Hormiga & Isaia, 2016 (Fig. 6D)

LITERATURE. — Brignoli 1975; Arnò & Lana 2005; Isaia *et al.* 2011.

DISTRIBUTION. — Italy, France.

CHOROTYPE. — ALPW.

NOTES. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Family Pisauridae Simon, 1890

Pisaura mirabilis (Clerck, 1757) (Fig. 3A)

New observation. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°0'35"N, 7°8'8"E; 21.XI.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/8896567.

Distribution. — Europe, Turkey, Middle East, Caucasus, Russia (Europe to Middle Siberia), Central Asia, China.

Chorotype. — PAL.

Family Salticidae Blackwall, 1841

Aelurillus v-insignitus (Clerck, 1757)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 20.VI.2019; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 30.VII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 27.VII.2018; MCSNB.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Central Asia, China.

Chorotype. — ASE.

Elevational zonation. — Submontane; montane; subalpine.

Attulus longipes (Canestrini, 1873)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀, 1♂; Fenestrelle: Colle dell'Orsiera (Chisone Valley – ChF), rocky debris; 2600 m; 29.IX.2018; Coll. MI.

Literature. — Fontana *et al.* 1996, sub *Sitticus* cfr *longipes* (Canestrini).

Distribution. — Alps (France, Italy, Switzerland, Austria).

Chorotype. — ALP.

Elevational zonation. — Alpine.

Notes. — Endemic species (Pantini & Isaia 2019, accessed on Dec. 2024).

Attulus saltator (O. Pickard-Cambridge, 1868)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 25.VII.2018; MCSNB.

Distribution. — Europe, Turkey, Georgia, Russia (Europe to South Siberia), Kazakhstan.

Chorotype. — SIE.

Elevational zonation. — Montane.

Euophrys frontalis (Walckenaer, 1802)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 2♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 25.VII.2018; MCSNB • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 18.VII.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 9.X.2018; MCSNB.

Literature. — Paschetta 2005.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Korea, Japan.

Chorotype. — PAL.

Elevational zonation. — Submontane; montane; subalpine.

Euophrys herbigrada (Simon, 1871)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 1.VII.2019; MCSNB • 1♀; 17.VI.2019; MCSNB • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; Coll. MI • 1♀; 2.X.2019; Coll. MI • 2♀; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), rocky debris; 1800 m; 21.VIII.2019; MCSNB.
Foresto Ravine Natural Reserve • 1♀, 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 15.VI.2018; MCSNB • 1♀; 17.VI.2019; MCSNB • 1♀; 30.IX.2019; Coll. MI • 5♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 15.VI.2018; MCSNB • 2♀; 17.VI.2019; MCSNB • 1♂; 30.VI.2018; MCSNB • 1♂; Piani (Susa Valley – FoA), meadow; 600 m; 11.VII.2018; MCSNB • 1♀, 1♂; 15.VI.2018; MCSNB.

Distribution. — Western, Central, Southern Europe.

Chorotype. — EUR.

Elevational zonation. — Submontane; montane; subalpine.

Euophrys terrestris (Simon, 1871)

Material examined. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 9.X.2018; Coll. MI • 1♂; 11.VIII.2018; MCSNB • 2♂; 25.VIII.2018; MCSNB • 1♂; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 25.VIII.2018; MCSNB • 1♂; 30.VIII.2019; MCSNB • 1♂; Piani (Susa Valley – FoA), meadow; 600 m; 9.X.2018; Coll. MI • 1♀, 1♂; 29.VII.2019; MCSNB.

Distribution. — Southern Europe.

Chorotype. — SEU.

Elevational zonation. — Submontane.

Notes. — New record for Piemonte.

Heliophanus cupreus (Walckenaer, 1802)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Picnic area Pra Catinat (Chisone Valley – ChB), Scots pine forest; 1800 m; 20.VI.2019; MCSNB.

DISTRIBUTION. — Europe, North Africa, Turkey, Caucasus, Russia (Europe to West Siberia), Iran, Afghanistan, China.

CHOROTYPE. — PAL.

ELEVATIONAL ZONATION. — Montane.

Neon reticulatus (Blackwall, 1853)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 25.VII.2018; MCSNB.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, China, Korea, Japan.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Montane.

Philaeus chrysops (Poda, 1761)

NEW OBSERVATION. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Susa Valley; 45°8’49”N, 7°7’2”E; 12.IV.2020; G. Ferrero leg., photo observation, https://www.inaturalist.org/observations/42008693.

DISTRIBUTION. — Europe (not Scandinavia), North Africa to Middle East, Turkey, Caucasus, Russia (Europe to Far East), Iran, Kazakhstan, Central Asia, Afghanistan, China, Mongolia, Korea.

CHOROTYPE. — CEM.

Phlegra fasciata (Hahn, 1826)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Vallone del Colle dell’Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 31.VII.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Central Asia, Iran, Afghanistan, India, China, Mongolia, Korea, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Subalpine.

Pseudoeuophrys lanigera (Simon, 1871)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Bergerie dell’Orsiera Nord (Susa Valley – SuC), meadow; 1800 m; 18.VI.2018; Coll. MI • 1♀; Bergerie dell’Orsiera Nord (Susa Valley – SuC), rocky debris; 1800 m; 2.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Iran (doubful record). Introduced to USA.

CHOROTYPE. — WPA.

ELEVATIONAL ZONATION. — Subalpine.

Pseudoeuophrys vafra (Simon, 1871)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 20.VIII.2019; MCSNB.

DISTRIBUTION. — Azores, Madeira, Europe (Portugal to Russia), Georgia.

CHOROTYPE. — EUM.

ELEVATIONAL ZONATION. — Submontane.

Saitis barbipes (Simon, 1868)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB • 8♀, 2♂; 2.VII.2018; MCSNB • 2♀; 14.IX.2018; MCSNB • 1♀; 14.VII.2018; MCSNB • 1♀, 2♂; 14.VIII.2018; MCSNB • 3♀, 3♂; 17.VI.2018; MCSNB • 1♀; 19.VIII.2019; MCSNB • 2♀; 30.VIII.2018.
Foresto Ravine Natural Reserve • 1♀; 2♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 1.VII.2019; Coll. MI • 1♀; 3.IX.2019; MCSNB • 1♀; 9.IX.2018; MCSNB • 3♀; 11.VIII.2018; MCSNB • 4♀, 5♂; 15.VI.2018; MCSNB • 1♀, 1♂; 25.VIII.2018; MCSNB • 1♀; 27.VII.2018; MCSNB • 2♂; 30.VI.2018; 4♀; MCSNB • 3♂; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 11.VII.2018; MCSNB • 1♀, 1♂; 11.VIII.2018; MCSNB • 3♀, 2♂; 30.VI.2018; ; MCSNB.

LITERATURE. — Paschetta 2005; Fontana *et al.* 1996.

DISTRIBUTION. — Northern Africa, Ivory Coast, southern Europe to Turkey. Introduced to Belgium, Netherlands, Germany.

CHOROTYPE. — MED.

ELEVATIONAL ZONATION. — Submontane; montane.

Salticus scenicus (Clerck, 1757)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°0’55”N, 7°8’48”E; 12.IV.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/5661693.

DISTRIBUTION. — North America, Europe, Russia (Europe to Far East), Caucasus, Kazakhstan, Iran.

CHOROTYPE. — OLA.

Salticus zebraneus (C. L. Koch, 1837)

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Russia (Europe, Caucasus), Iran.

CHOROTYPE. — TUE.

Talavera aequipes (O. Pickard-Cambridge, 1871)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 27.VII.2018; MCSNB • 1♀, 2♀; 29.VII.2019; Coll. MI • 1♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 11.VII.2018; MCSNB • 2♀; 27.VII.2018; MCSNB • 1♀; Piani (Susa Valley – FoA), meadow; 600 m; 11.VIII.2018; MCSNB • 1♀; 27.VII.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Israel, Caucasus, Iran, Russia (Europe) to Central Asia, China, Japan.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Submontane; montane.

Talavera monticola (Kulczynski, 1884)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VII.2018; Coll. MI • 1♂; Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 25.VI.2018; Coll. MI.

DISTRIBUTION. — Central, Southern Europe.

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Montane; subalpine.

Family SCYTODIDAE Blackwall, 1864

Scytodes sp.

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1 juv.; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 1.VII.2019; Coll. MI • 2 juv.; 20.VIII.2019; Coll. MI • 1 juv.; Piani (Susa Valley – FoA), meadow; 600 m; 27.VII.2018; MCSNB.

ELEVATIONAL ZONATION. — Submontane.

NOTES. — Juvenile specimens undeterminable at a specific level, probably *Scytodes thoracica* (Latreille, 1802).

Family SEGESTRIIDAE Simon, 1893

Segestria bavarica C. L. Koch, 1843

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Caucasus.

CHOROTYPE. — EUR.

Segestria senoculata (Linnaeus, 1758)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; MCSNB • 1♂; 14.VII.2018; Coll. MI.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 15.VI.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Iran.

CHOROTYPE. — TEM.

ELEVATIONAL ZONATION. — Montane.

Family SPARASSIDAE Sundevall, 1833

Micrommata virescens (Clerck, 1757) (Fig. 3B)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Roure: Chisone Valley; 45°0'58"N, 7°10'1"E; 12.VI.2018; A. Pane leg., photo observation, https://www.inaturalist.org/observations/13391497
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Susa Valley; 45°8'46"N, 7°6'38"E; 25.IV.2013; A. Girodo leg., photo observation, https://www.inaturalist.org/observations/108391805.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Iran, Central Asia, China, Korea, Japan.

CHOROTYPE. — PAL.

Family TETRAGNATHIDAE Sundevall, 1833

Meta menardi (Latreille, 1804)

LITERATURE. — Arnò & Lana 2005; Isaia *et al.* 2011.

DISTRIBUTION. — Europe, Turkey, Iran.

CHOROTYPE. — TEM.

Metellina merianae (Scopoli, 1763)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°1'28"N, 7°5'10"E; 21.VI.2016; A. Pane leg., photo observation, http://www.inaturalist.org/observations/3497251.

DISTRIBUTION. — Europe, Caucasus, Turkey, Iran, Russia (Europe to Central Asia).

CHOROTYPE. — PAL.

Tetragnatha montana Simon, 1874

LITERATURE. — Isaia *et al.* 2007.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia.

CHOROTYPE. — SIE.

Family Theridiidae Sundevall, 1833

Asagena phalerata (Panzer, 1801)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 25.VII.2018; MCSNB • 1♀; lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VII.2018; MCSNB • 1♀; 10.VIII.2018; MCSNB.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 27.VII.2018; MCSNB.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Korea.

Chorotype. — ASE.

Elevational zonation. — Submontane; montane; subalpine.

Crustulina guttata (Wider, 1834)

Literature. — Paschetta 2005.

Distribution. — Canary Is., Europe, Caucasus, Russia (Europe to South Siberia), Kazakhstan, Iran, Central Asia, China, Korea, Japan.

Chorotype. — PAL.

Enoplognatha caricis (Fickert, 1876)

Literature. — Paschetta 2005.

Distribution. — Europe, Turkey, Russia (Europe to Far East), China, Korea, Japan, Canada, USA.

Chorotype. — OLA.

Enoplognatha mandibularis (Lucas, 1846)

Literature. — Paschetta 2005.

Distribution. — Europe, North Africa, Turkey, Israel, Russia (Europe) to Central Asia, China.

Chorotype. — PAL.

Enoplognatha thoracica (Hahn, 1833)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 20.VI.2019; MCSNB.

Distribution. — Europe, North Africa, Turkey, Caucasus, Syria, Iran, Turkmenistan. Introduced to North America.

Chorotype. — WPA.

Elevational zonation. — Montane.

Episinus angulatus (Blackwall, 1836)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.IX.2019; MCSNB.

Distribution. — Europe, Turkey, Russia (Europe to West Siberia), Kazakhstan, Central Asia.

Chorotype. — SIE.

Elevational zonation. — Montane.

Episinus truncatus Latreille, 1809

Material examined. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VIII.2018; MCSNB.

Distribution. — Europe, Turkey, Caucasus, Iran.

Chorotype. — TEM.

Elevational zonation. — Montane.

Euryopis flavomaculata (C.L. Koch, 1836)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 10.VII.2018; MCSNB • 1♂; 27.VII.2018; Coll. MI • 1♂; Case Ceresey (Sangone Valley – SaA), beech forest; 1400 m; 25.VI.2018; MCSNB • 1♂; 25.VII.2018; MCSNB.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Central Asia, China, Japan.

Chorotype. — ASE.

Elevational zonation. — Montane; subalpine.

Heterotheridion nigrovariegatum (Simon, 1873)

Material examined. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Piani (Susa Valley – FoA), meadow; 600 m; 20.VIII.2019; MCSNB.

Distribution. — Europe, Turkey, Caucasus, Russia (Europe) to Central Asia, Iran, China.

Chorotype. — CAE.

Elevational zonation. — Submontane.

Robertus lividus (Blackwall, 1836)

Literature. — Paschetta 2005.

Distribution. — USA (Alaska), Europe, Caucasus, Russia (Europe to Far East), Iran.

Chorotype. — OLA.

Robertus truncorum (L. Koch, 1872)

Material examined. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Coazze: Colle della Roussa (Sangone Valley – SaD), meadow; 2000 m; 21.IX.2018; MCSNB • 1♂; Mattie: Bergerie dell'Orsiera Nord (Susa Valley – SuC), alder forest; 1800 m; 2.VIII.2018; MCSNB • 1♀, 2♂; Bergerie dell'Orsiera Nord (Susa Valley – SuC),

meadow; 1800 m; 2.VIII.2018; MCSNB • 1♂; 16.VIII.2018; MCSNB • 1♀, 1♂; Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 21.VIII.2019; MCSNB.

DISTRIBUTION. — France to Ukraine.

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Subalpine.

Theridion mystaceum L. Koch, 1870

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Turkey, Russia (Europe to South Siberia), China.

CHOROTYPE. — PAL.

Family THOMISIDAE Sundevall, 1833

Bassanioides robustus (Hahn, 1832)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 29.VII.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Cima Molaras (Susa Valley – FoD), Scots pine forest; 1200 m; 11.VII.2018; Coll. MI • 1♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 27.VII.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe to Central Asia.

CHOROTYPE. — CEM.

ELEVATIONAL ZONATION. — Submontane; montane.

Cozyptila blackwalli (Simon, 1875)

MATERIAL EXAMINED. — **Italia. Foresto Ravine Natural Reserve** • 1♂; Bussoleno: Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 11.VII.2018; MCSNB • 1♀; 30.VI.2018; MCSNB.

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe.

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Submontane.

Diaea dorsata (Fabricius, 1777)

NEW OBSERVATION. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Roure: Chisone Valley; 45°1'4"N, 7°8'54"E; 22.XI.2017; A. Pane leg., photo observation, https://www.inaturalist.org/observations/8896632.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to Middle Siberia), Iran, Japan.

CHOROTYPE. — ASE.

Misumena vatia (Clerck, 1757)
(Fig. 5A)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: Sangone Valley; 45°2'40"N, 7°13'20"E; 27.V.2020; S. Vuillermoz leg., photo observation, https://www.inaturalist.org/observations/47822027; MCSNB • 1♀; Roure: Chisone Valley; 45°1'22"N, 7°7'2"E; 30.V.2023; A. Pane leg., photo observation, https://www.inaturalist.org/observations/166401572.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Susa Valley; 45°8'32"N, 7°8'12"E; 30.IV.2020; G. Ferrero leg., photo observation, https://www.inaturalist.org/observations/44398285.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia, China, Korea, Japan.

CHOROTYPE. — PAL.

Ozyptila trux (Blackwall, 1846)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Pra la Grangia (Susa Valley – SuA), larch forest; 1400 m; 18.VI.2018; Coll. MI.

DISTRIBUTION. — Europe, Caucasus, Russia (Europe to Far East), Japan. Introduced to Canada.

CHOROTYPE. — ASE.

ELEVATIONAL ZONATION. — Montane.

Psammitis ninnii (Thorell, 1872)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Vallone del Colle dell'Orsiera Sud (Chisone Valley – ChE), rocky debris; 2400 m; 2.X.2019; MCSNB • 1♀; Vallone del Colle dell'Orsiera Sud-Ovest (Chisone Valley – ChD), meadow; 2200 m; 17.VII.2019; Coll. MI.
Foresto Ravine Natural Reserve • 1♂; Bussoleno: Case Coste (Susa Valley – FoB), shrubland; 800 m; 11.VII.2018; MCSNB • 1♀; Molaras slope (Susa Valley – FoC), shrubland; 1000 m; 8.IX.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Russia (Europe to South Siberia), Central Asia.

CHOROTYPE. — CAE.

ELEVATIONAL ZONATION. — Submontane; subalpine.

Thomisus onustus Walckenaer, 1805
(Fig. 3C)

NEW OBSERVATIONS. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Fenestrelle: Chisone Valley; 45°3'0"N, 7°2'59"E; 17.VIII.2015; A. Pane leg., photo observation, http://www.inaturalist.org/observations/2085782.
Foresto Ravine Natural Reserve • 1♀; Bussoleno: Susa Valley; 45°8'36"N, 7°6'48"E; 20.IX.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/105725258.

DISTRIBUTION. — Selvagens Is., Europe, North Africa, Turkey, Caucasus, Russia (Europe to South Siberia), Israel, Central Asia, Iran, China, Korea, Japan.

CHOROTYPE. — PAL.

Xysticus desidiosus Simon, 1875

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Mattie: Pian Marmotè (Susa Valley – SuE), meadow; 2200 m; 1.VII.2018; MCSNB • 1♂; 4.IX.2019; MCSNB.

DISTRIBUTION. — Europe.

CHOROTYPE. — CEU.

ELEVATIONAL ZONATION. — Subalpine.

Xysticus erraticus (Blackwall, 1834)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: lower Sellery ridge (Sangone Valley – SaB), meadow; 1600 m; 10.VII.2018; MCSNB • 1♂; 25.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus (Russia).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Xysticus gallicus Simon, 1875

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Mattie: Bergerie dell'Orsiera Sud (Susa Valley – SuD), meadow; 2000 m; 1.VII.2018; MCSNB.

DISTRIBUTION. — Europe, Turkey, Caucasus, Iran.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Subalpine.

Xysticus luctuosus (Blackwall, 1836)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♀; Coazze: below Colle della Roussa (Sangone Valley – SaC), meadow; 1800 m; 1.VII.2019; Coll. MI.

DISTRIBUTION. — North America, Europe, Turkey, Caucasus, Russia (Europe to Far East), Kazakhstan, Iran, Central Asia.

CHOROTYPE. — OLA.

ELEVATIONAL ZONATION. — Subalpine.

Family ULOBORIDAE Thorell, 1869

Uloborus walckenaerius Latreille, 1806

NEW OBSERVATION. — **Italia. Foresto Ravine Natural Reserve** • 1♀; Bussoleno: Susa Valley; 45°8'41"N, 7°7'21"E; 11.X.2021; A. Pane leg., photo observation, https://www.inaturalist.org/observations/106325750.

DISTRIBUTION. — Madeira, Europe, Turkey, Caucasus, Russia (Europe to Far East), Iraq, Iran, Central Asia, China, Korea, Japan. Introduced to South Africa.

CHOROTYPE. — ASE.

Family ZODARIIDAE Thorell, 1881

Zodarion italicum (Canestrini, 1868)

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; Coll. MI • 1♀; 17.VI.2018; Coll. MI;

LITERATURE. — Paschetta 2005.

DISTRIBUTION. — Europe, Russia (Caucasus).

CHOROTYPE. — EUR.

ELEVATIONAL ZONATION. — Montane.

Zodarion rubidum Simon, 1914

MATERIAL EXAMINED. — **Italia. Orsiera Rocciavrè Natural Park** • 1♂; Fenestrelle: Pra Catinat (Chisone Valley – ChA), Scots pine forest; 1600 m; 2.VII.2018; Coll. MI • 1♂; 17.VII.2019; MCSNB • 2♀; 19.VIII.2019; MCSNB.

DISTRIBUTION. — Europe, Turkey, Russia (Europe, Caucasus). Introduced to USA, Canada.

CHOROTYPE. — TUE.

ELEVATIONAL ZONATION. — Montane.

DISCUSSION

FAUNISTICS

This work provides the first inventory of the spider species recorded in the Orsiera Rocciavrè Natural Park and the Foresto Ravine Natural Reserve. Literature data accounted for 73 species, belonging to 60 genera and 20 families. Material examined.provided an amount of 174 species (111 genera and 29 families), 35 of which were already known for these protected areas. Regarding new data, approximately 50% of the pitfalls were lost due to flooding or disturbance (both wild and domestic animals) leading to 934 out of 1800 pitfalls recovered. In total, we collected 2542 specimens (1347 adults, 53%) belonging to 149 species, 89 genera and 21 families. Photo observations from iNaturalist led to the identification of 37 specimens belonging to 25 species, 22 genera and 11 families.

Literature data (73 species) and new data (174 species) brought the total number of known species for the study areas to 212 (128 genera and 32 families). A selection of photographs of some of the species found in the study area is presented in Figures 2A-F; 3A-F; 4A-C; 5A, B; 6A-D and 7A, B.

Based on data issued from the online Catalog of Italian Spiders "Araneae.it" (Pantini & Isaia 2019, accessed on Dec. 2024) our work counts 12 new regional records, bringing

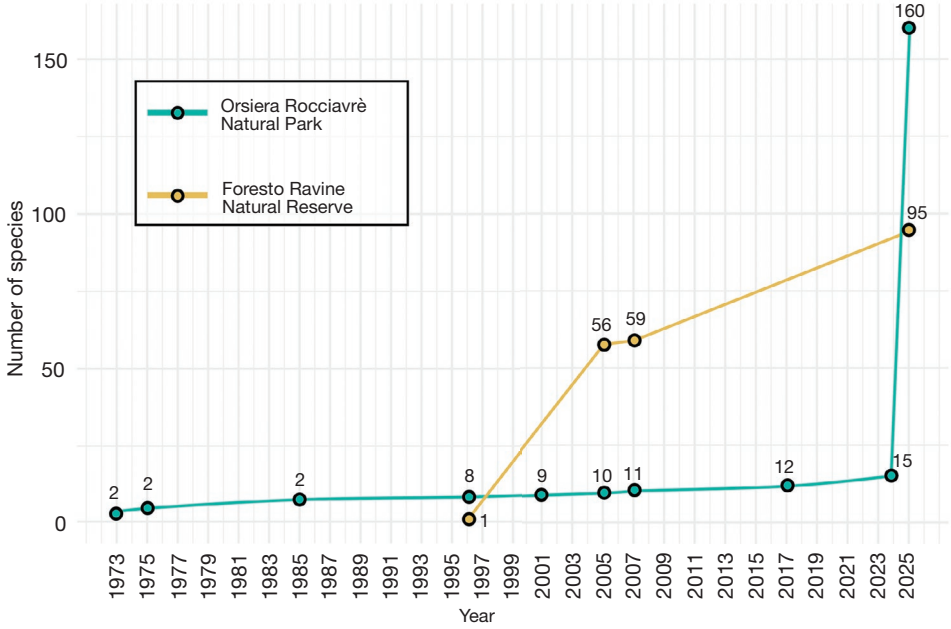

FIG. 8. — Progressive increase of new records of spider species in Orsiera Rocciavrè Natural Park (in **blue**) and Foresto Ravine Natural Reserve (in **yellow**) from 1973 to 2024. Each **dot** identifies at least one new record for the study area. Data of 2025 refer to this work (see Table 1).

the total number of known species for Piemonte to 745. The spider fauna of the study area represents approximately 12% of the total Italian fauna and includes almost a third of the species currently known for Piemonte.

The new data added 145 species to the spiders recorded for the Orsiera Rocciavrè Natural Park, bringing the total species recorded to 160 (101 genera and 25 families) and providing the highest number of new records ever published for this park (Fig. 8; Table 1). As for the Foresto Ravine Natural Reserve, we added 36 species to the former checklist, bringing the known species to 95 (76 genera and 28 families) (Fig. 8).

It is not surprising that only 43 species (20%) are common to the two protected areas, as both climatic features and elevation are different. To date, the most diverse families in the Orsiera Rocciavrè Natural Park is Linyphiidae (54 species), followed by Gnaphosidae (18 species), Lycosidae (15 species) and Salticidae (13 species) (Fig. 9A). Altogether, Linyphiidae, Gnaphosidae and Lycosidae account for 54% of the spider families of the territory. This percentage is comparable with the family composition of other Italian Alpine protected area such as the Stelvio National Park [World Database on Protected Areas (WDPA) code 717] in Lombardia and Trentino – Alto Adige (Pantini *et al.* 2020), the Dolomiti Bellunesi National Park [WDPA code 6181] in Veneto (Petri *et al.* 2022), the SAC and SPA IT1160056 "Alpi Marittime" in Piemonte (Isaia *et al.* 2015) and the SAC IT3120177 "Dolomiti di Brenta" in Trentino-Alto Adige (Petri *et al.* 2021). The most abundant species in the Orsiera Rocciavrè Natural Park were *Cybaeus intermedius* Maurer, 1992 (Cybaeidae, 164 specimens), *Pardosa monticola* (Clerck, 1757) (Lycosidae, 138 specimens), *Histopona leonardoi* Bolzern, Pantini & Isaia, 2013 (Agelenidae, 83 specimens), *Palliduphantes pallidus* (O. Pickard-Cambridge, 1871) (Linyphiidae, 54 specimens) and *Zelotes subterraneaus* (C. L. Koch, 1833) (Gnaphosidae, 50 specimens).

In the Orsiera Rocciavrè Natural Park, we counted a large part of Holarctic, Palearctic and European species (79%), countered by 11% of endemic species (18 species), four of them being Italian endemics (Fig. 9B). We also recorded one alien species, *Psilochorus simoni* (Berland, 1911), native to North America, now established in Europe (Nentwig *et al.* 2024).

The local percentage of endemic species is lower than the national one (21%), but despite this could be due to sampling bias, it appears higher in respect to other Alpine protected areas such as "Alpi Marittime" SCI and SAC (9%) (Isaia *et al.* 2015) and Stelvio National Park (8%) (Pantini *et al.* 2020). Seven out of the 18 endemic species known for the area are found in subterranean habitats (Mammola *et al.* 2022), emphasising a remarkable assemblage of subterranean species. In this respect, one of the most important locality within the Orsiera Rocciavrè Natural Park is the cave "Tana del Diavolo" (Cadastre Code: Pi/TO 1591; https://catastogrotte-piemonte.net/), in the municipality of Roure, type locality of two endemic linyphiids with subterranean adaptations i.e., *Troglohyphantes achillis* Isaia & Mammola, 2022 and *T. lucifer* Isaia, Mammola & Pantini, 2018 (Mammola *et al.* 2018; 2019). In addition, the cave also hosts the troglophiles *Pimoa graphitica* Mammola, Hormiga & Isaia, 2016 (Mammola *et al.* 2016), recently described on material from the lowlands of Chisone Valley and the subterranean widespread *Meta menardi* (Latreille, 1804).

Concerning the Foresto Ravine Natural Reserve, the most represented spider families are Gnaphosidae (17 species), followed by Linyphiidae (15), Salticidae (10 species) and Theridiidae (eight species) (Fig. 9C). It is challenging to

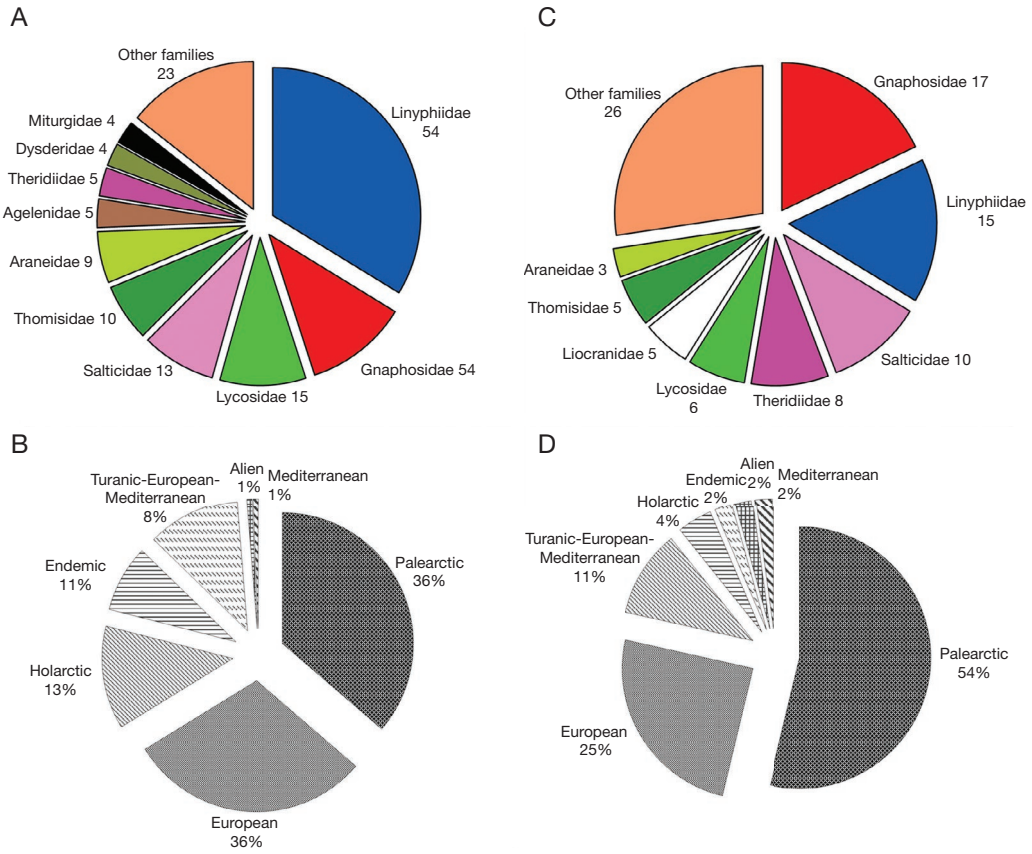

FIG. 9. — **A**, Species richness by family in the Orsiera Rocciavrè Natural Park (n=160); numbers indicate the number of species per family; **B**, species distribution by chorotype in the Orsiera Rocciavrè Natural Park; chorotypes according to Table 3; **C**, species richness by family in the Foresto Ravine Natural Reserve (n=95), numbers indicate the number of species per family. D. Species distribution by chorotype in the Foresto Ravine Natural Reserve; chorotypes according to Table 3.

compare these data with other ones in literature due to the specificity of the habitat. Indeed, the climatic conditions within this protected area are quite unique, being characterised by generally xerothermic conditions. The most abundant species were *Saitis barbipes* (Simon, 1868) (Salticidae, 36 specimens), *Euophrys herbigrada* (Simon, 1871) (Salticidae, 15 specimens), *Cybaeus intermedius* Maurer, 1992 and *Zelotes oblongus* (C.L. Koch, 1833) (respectively Cybaeidae and Gnaphosidae, 11 specimens each). Most species in the area have a Palearctic (54%), followed by 25% European and 11% Turanic-European-Mediterranean distributions, the latter, emphasising a Mediterranean influence on the species assemblage (Fig. 9D). We also counted two endemic species of the Western Alps i.e., *Cybaeus intermedius* Maurer, 1992 and *Harpactocrates drassoides* (Simon, 1882), and 2 alien species introduced to Europe and established from North America and Asia (Nentwig, 2024) i.e., *Erigone autumnalis* Emerton, 1882 and *Pholcus phalangioides* (Fuesslin, 1775), respectively.

The lower number of specimens collected in the Foresto Ravine Natural Reserve compared to the Orsiera Rocciavrè Natural Park is likely due to the smaller sampling effort (360 vs 1440 pitfall traps), as well as the more limited elevation range of the protected area (600 m vs 1200 m).

NOTEWORTHY SPECIES RECORDS

Two of the most interesting species collected in this work are the rare Dysderidae *Rhode testudinea* Pesarini, 1984 and the Linyphiidae *Piniphantes agnellus* (Maurer & Thaler, 1988) (Fig. 10).

R. testudinea (Fig. 11) is a rare Italian endemic species so far uniquely known for the type locality in Pellice Valley (NW – Italy). The data presented here extend the species distribution across Piemonte and the distance between known occurrences lets envisage a more even distribution. Given its ecology (troglophile species Mammola *et al.*, 2022) and its restricted range, the species is particularly interesting from a conservation point of view.

Given the scarcity of taxonomic information on this species, we also provide illustrations of the genitalia (Fig. 12).

P. agnellus is considered a troglophilic species (Mammola *et al.* 2022) with a distribution covering the Italian and French Alpine districts of Ligurian, Maritime and Cottian Alps; in this work we collected the northernmost record of the species distribution. As for other interesting species, it is worth mentioning the Italian endemic Leptonetidae *Leptoneta crypticola franciscoloi* (di Caporiacco, 1950), a troglophilic species from Ligurian and Piemonte Alps; *Arctosa renidescens* Buchar & Thaler, 1995, a rare Lycosidae inhabiting Austian, Italian

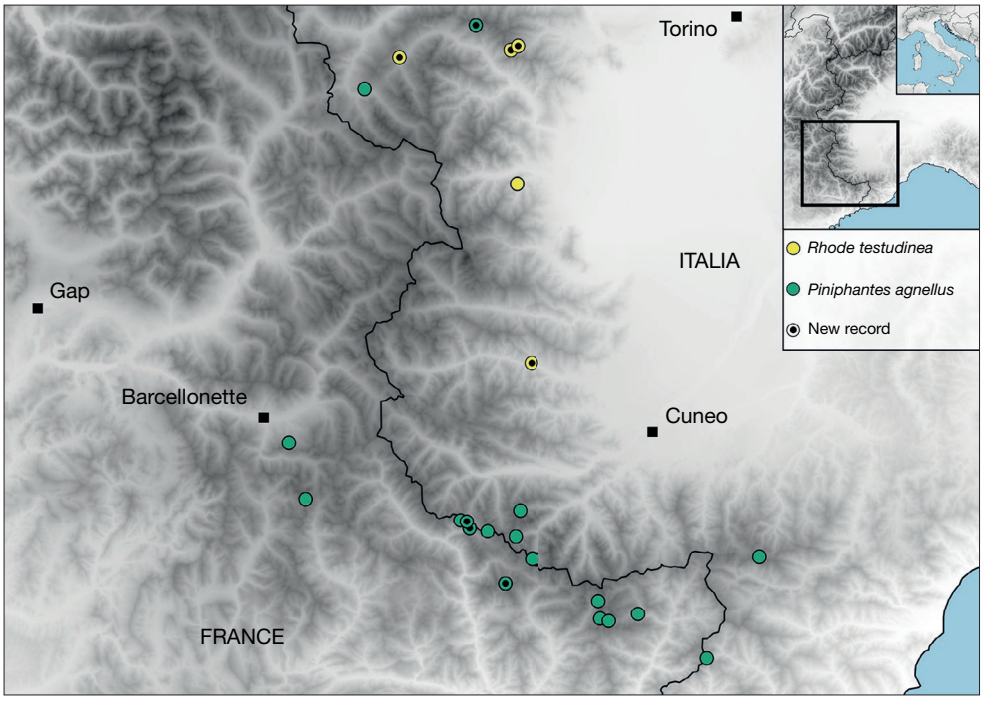

Fig. 10. — Occurrences of *Rhode testudinea* Pesarini, 1984 (in **yellow**) and *Piniphantes agnellus* (Maurer & Thaler, 1988) (in **green**). Original data are represented with **black dots** within the coloured one.

and French Alps from 1500 to 2200 m a.s.l.; *Harpactocrates drassoides* (Simon, 1882), a Western Europe Dysderidae dwelling in coniferous forests, alder wood, under stones or under bark, in leaf litter of beech and mixed forests; *Incestophantes frigidus* (Simon, 1884) known from France, Italy and Switzerland from 2000 to 2900 m a.s.l.; *Incestophantes kotulai* (Kulczyński, 1905) from Austria, Italy and Switzerland from 1800 to 2600 m a.s.l.; *Mansuphantes pseudoarciger* (Wunderlich, 1985) in moss of mountain forests from France, Italy and Switzerland; and *Micrargus alpinus* Relys & Weiss, 1997 in dwarf shrub heath of subalpine level from Austria, Germany, Italy and Switzerland; from 1400 to 1600 m a.s.l. but here also collected at higher elevation (2600 m a.s.l.).

Sampling limitations and potential bias

We acknowledge that relying solely on pitfall traps limits the completeness of the sampled spider fauna, as this method primarily captures active, ground-dwelling species. More comprehensive and standardized protocols (e.g., Cardoso 2009), which combine multiple techniques and target various habitat strata (such as foliage and canopy), are known to yield significantly richer and more representative species inventories.

However, within the framework of the BMP, in which this study is set, pitfall traps were selected because the broader objective was to assess multiple taxonomic groups – not only spiders. In this context, pitfall trapping represented the most time- and cost-efficient method for collecting biodiversity data across taxa simultaneously.

We therefore recognize that the recorded spider species richness in our study area is likely underestimated, particularly due to the absence of sampling in vegetation layers (e.g., shrubs and trees). Although verified iNaturalist observations provided a useful complementary source of data, their small number and non-standardized distribution across the study area do not compensate for the lack of vegetation sampling. Moreover, relying solely on pitfall traps may lead to an overestimation of the proportion of endemic species, as sampling additional vegetation strata would likely increase the number of widely distributed species This may help explain the relatively high level of endemism observed in the Orsiera Rocciavrè Natural Park (18 over 160 species, 11%), especially when compared to other similar studies based on a combination of sampling methods. For example, the checklist of the Alpi Marittime Natural Park (Isaia *et al.* 2015) – a renowned biodiversity hotspot in the Western Alps – reported a higher number of endemics (26) corresponding to a proportional lower value (9%).

Ecology

The new data (excluding iNaturalist observations) presented here, obtained from a standardised experimental design, allowed us to make some ecological considerations on patterns of taxonomic diversity along the local elevational gradient. Interestingly, each of the considered transect has an almost exclusive fauna, underlining a high β-diversity. Over 12.1% of the species (≥ 18 species) belong exclusively to a single transect and only 4.7% (7 species) are common to all transects (Fig. 13).

Excluding the Foresto Ravine Natural Reserve due to its lower elevation compared to the Orsiera Rocciavrè Natural Park, only 14.5% of the species (19 species) were common to the three transects and over 16.0% (≥ 21 species) was exclusive to each transect, proving how the different valleys of

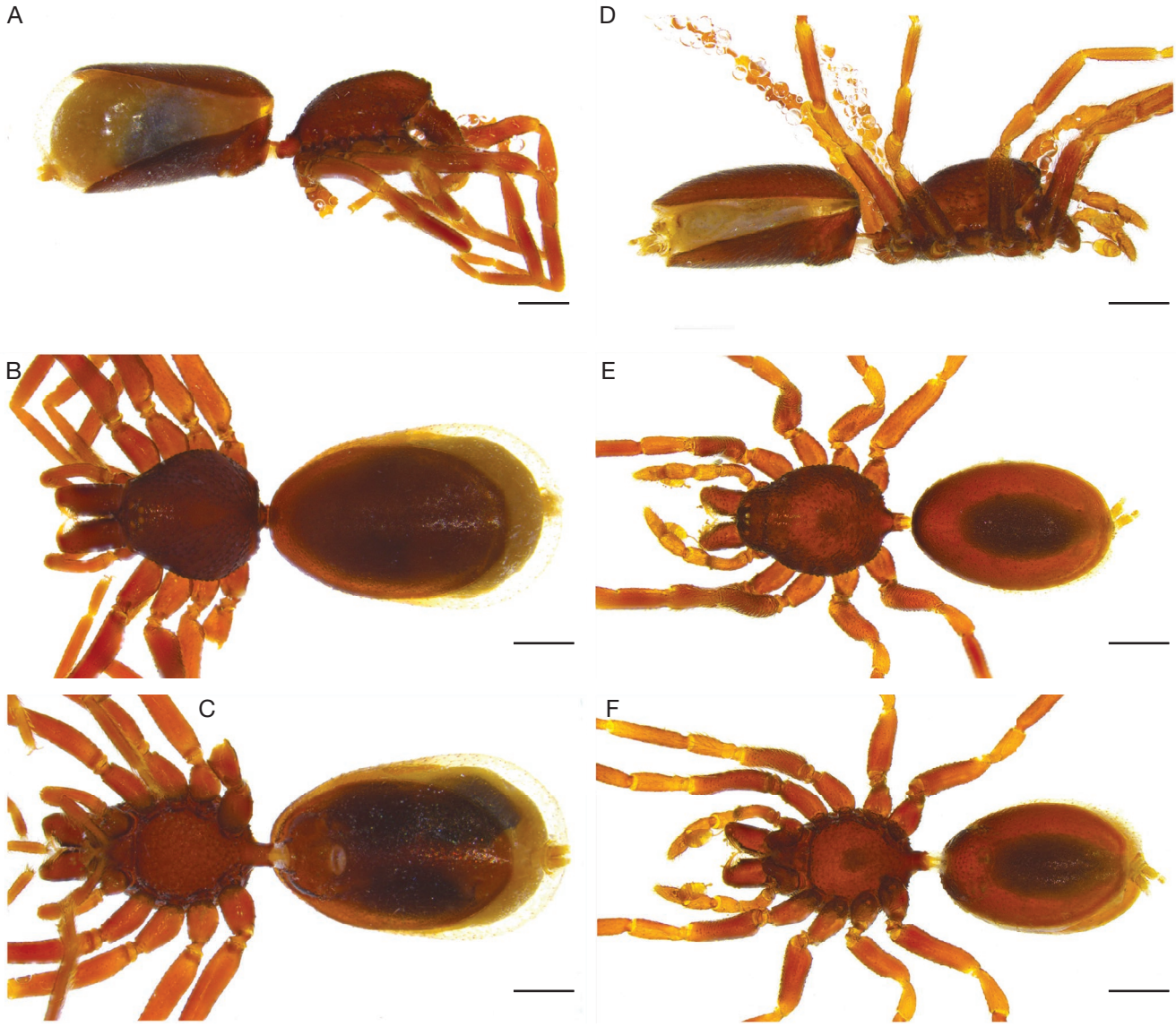

Fig. 11. — *Rhode testudinea* Pesarini, 1984: **A**-**C**, female lateral view (**A**), dorsal view (**B**); ventral view (**C**); **D**-**F**, male, lateral view (**D**); dorsal view (**E**); ventral view (**F**). Photo credits: Marco Tolve. Scale bars: 0.5 mm.

the park are climatically heterogeneous and distinctive despite their geographical proximity (Fig. 14).

Statistical analyses based solely on newly collected data (i.e., pitfall traps, excluding iNaturalist observations and literature records) reveal that species richness and abundance exhibit distinct patterns along the elevational gradient across sampling years within each transect (Figures 15A, B and 16A, B).

Species richness showed significant elevational patterns in the Foresto and Susa transects. In the lower-elevation Foresto transect (600-1200 m), a significant positive linear trend was detected, with species richness increasing with elevation. In contrast, the higher-elevation, north-facing Susa transect (1400-2400 m) displayed a significant hump-shaped relationship, with peak richness occurring at mid-elevations (*c.* 1800 m) – a pattern commonly reported for arthropods, including spiders (Chatzaki *et al.* 2005; Fontana *et al.* 2020; Gilgado *et al.* 2022). No significant elevational trends were observed in the Chisone and Sangone transects.

Interannual variation in species richness was significant only in the Sangone transect, with higher values recorded in 2018 compared to 2019.

Abundance patterns (N) did not consistently mirror those observed for species richness. In the Foresto transect, abundance increased linearly with elevation and was significantly higher in 2018 than in 2019. This was the only transect where both elevation and year significantly influenced abundance. In contrast, the Susa transect showed no significant variation in abundance across elevation or between years. In the Chisone transect, abundance followed a significant U-shaped pattern along the gradient, while in Sangone, abundance was also significantly higher in 2018, matching the interannual trend observed for richness. The differing patterns of species richness and abundance across transects suggest that both

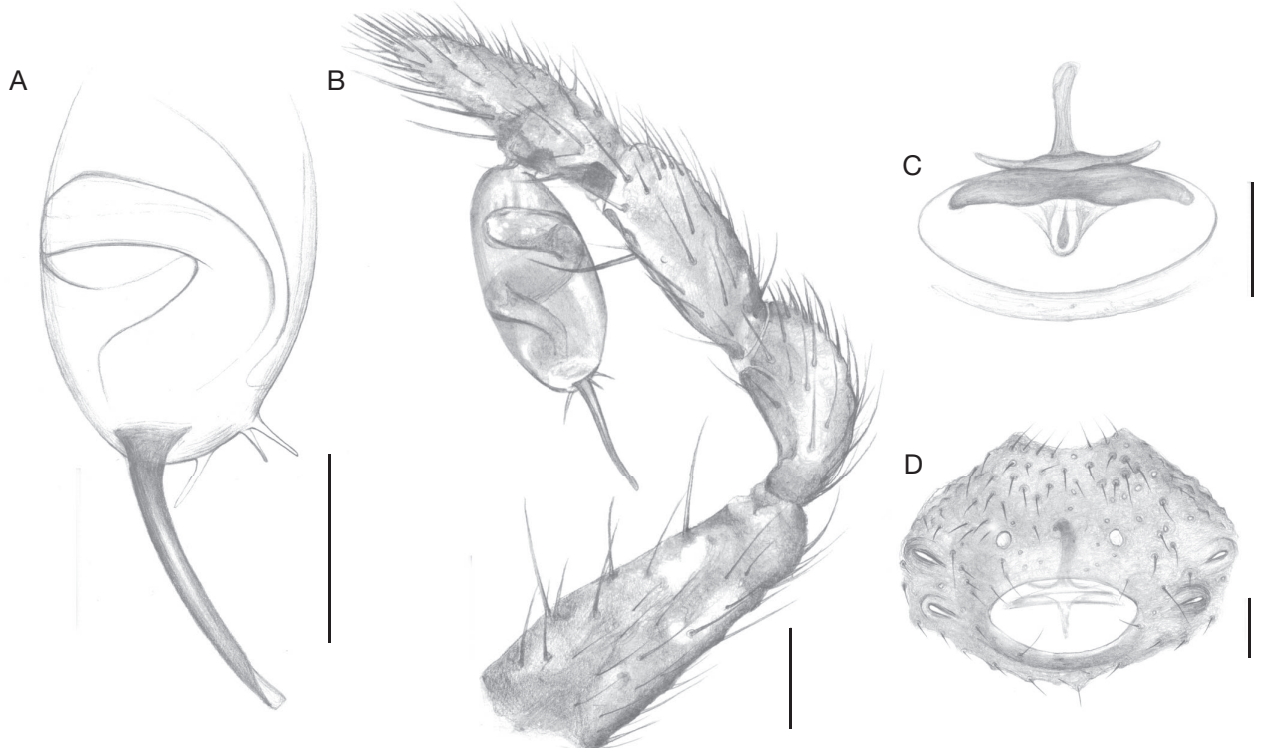

FIG. 12. — *Rhode testudinea* Pesarini, 1984 male and female from Sangone Valley, Orsiera Rocciavrè Natural Park, Coazze (TO), Italy: **A**, male pedipalp (♂) in lateral view; **B**, male pedipalp (♂) zoom; **C**, female vulva (♀) in dorsal view; **D**, female epigyne (♀) in ventral view. Scale bars 0.1 mm. Illustrations by Alessandro Infuso.

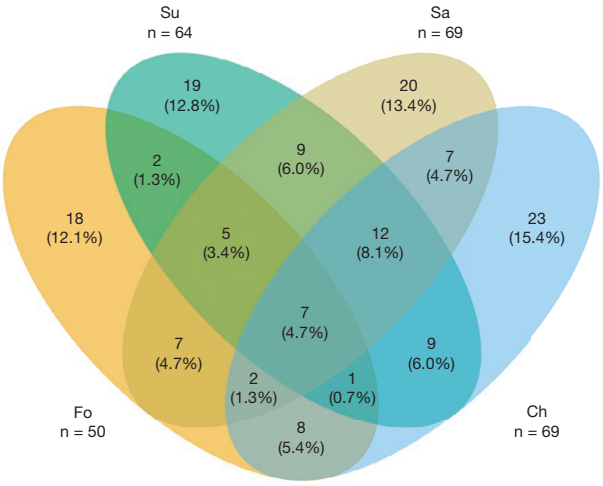

FIG. 13.— Venn diagram with the number and percentage of species collected in pitfall traps for each transect of the two protected areas (n= 149). **Pale brown** color: **Fo**, Susa Valley (Foresto Ravine Natural Reserve); **Pale green** color: **Su,** Susa Valley (Orsiera Rocciavrè Natural Park); **Beige** color: **Sa**, Sangone Valley (Orsiera Rocciavrè Natural Park); **Pale blue** color: **Ch**, Chisone Valley (Orsiera Rocciavrè Natural Park).

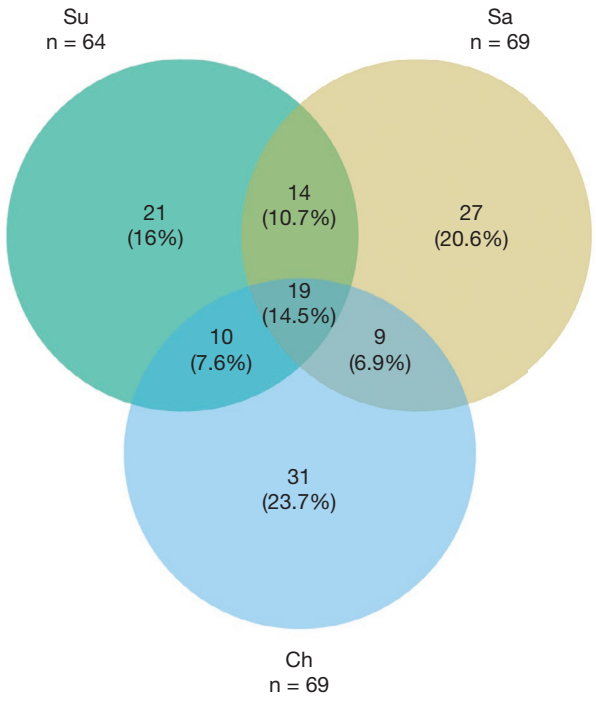

FIG. 14. — Venn diagram with the number and percentage of species collected in pitfall traps for each transect in the Orsiera Rocciavrè Natural Park (n= 131); **Pale green** color: **Su**, Susa Valley; **Beige** color: **Sa**, Sangone Valley; **Pale blue** color: **Ch**, Chisone Valley.

elevation range and slope exposure influence spider community structure. In the low-elevation, south-facing Foresto transect, increasing richness and abundance with elevation likely reflect more favourable microclimatic and habitat

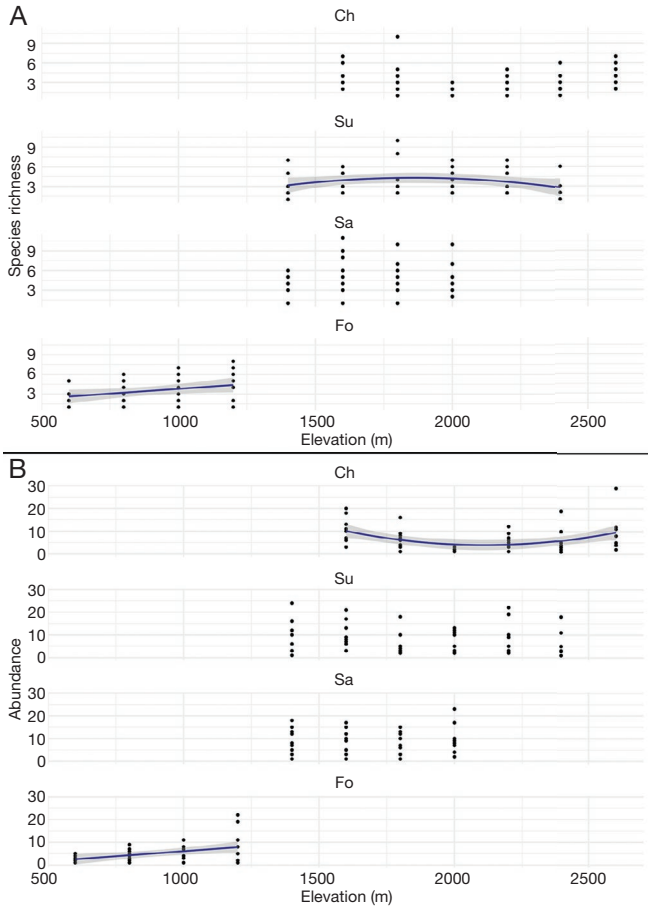

Fig. 15. — Elevational gradients of species richness and abundance based on standardized pitfall trap data across each transect. Statistical significance is indicated by blue trend lines and corresponding confidence intervals: **A**, species richness modeled using a Generalized Linear Model with a Poisson distribution (GLM-Poisson); **B**, abundance modeled using a Generalized Linear Model with a negative binomial distribution (GLM-nbinom). See the Ecological Analysis subsection in the Methods for further details.

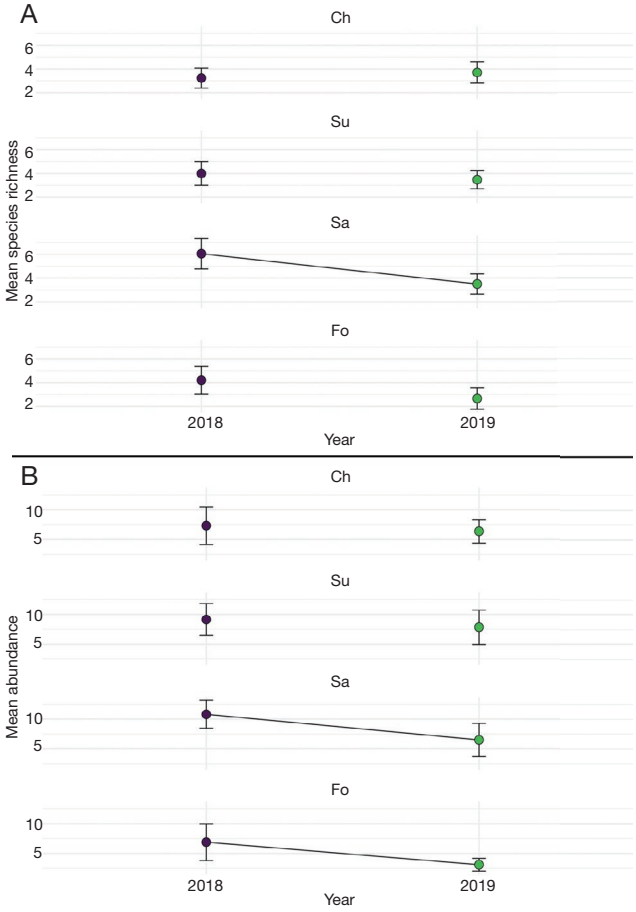

Fig. 16. — Mean species richness and abundance based on standardized pitfall trap data from 2018 and 2019 across each transect. Statistical significance is indicated by connecting lines between years within each transect: **A**, species richness modeled using a Generalized Linear Model with a Poisson distribution (GLM-Poisson); **B**, abundance modeled using a Generalized Linear Model with a negative binomial distribution (GLM-nbinom). See the Ecological Analysis subsection in the Methods for further details.

conditions at higher altitudes. In the north-facing Susa transect, the mid-elevation peak in richness supports the classic hump-shaped diversity pattern, though abundance remained stable. The Chisone transect exhibited a U-shaped abundance distribution – despite no significant change in richness – may reflect distinct habitat types at the lower and upper ends of the gradient. Finally, the Sangone transect appeared the most sensitive to interannual variation, with both richness and abundance being significantly higher in 2018, suggesting a strong influence of short-term climatic factors.

Overall, species richness and abundance responded differently to elevation and interannual variation, underscoring the complex ecological dynamics shaping alpine spider communities along elevational gradients.

Figure 17 shows species trends across different elevational zones, with intermediate elevations being the most diverse – 87 species in the montane zone (including nine endemics) and 83 species in the subalpine zone (including 11 endemics). In contrast, the submontane and alpine zones host fewer species, with 34 (one endemic) and 22 species (five endemics), respectively.

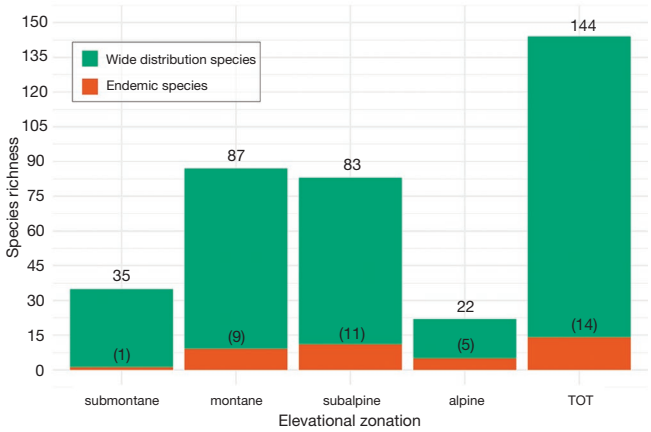

Fig. 17. — Species richness based on standardized pitfall traps data along elevational zonation grouped by distribution (endemic species in **orange**; wide distribution species in **green**). The number of total species and endemisms (in **brackets**) are highlighted for each zone.

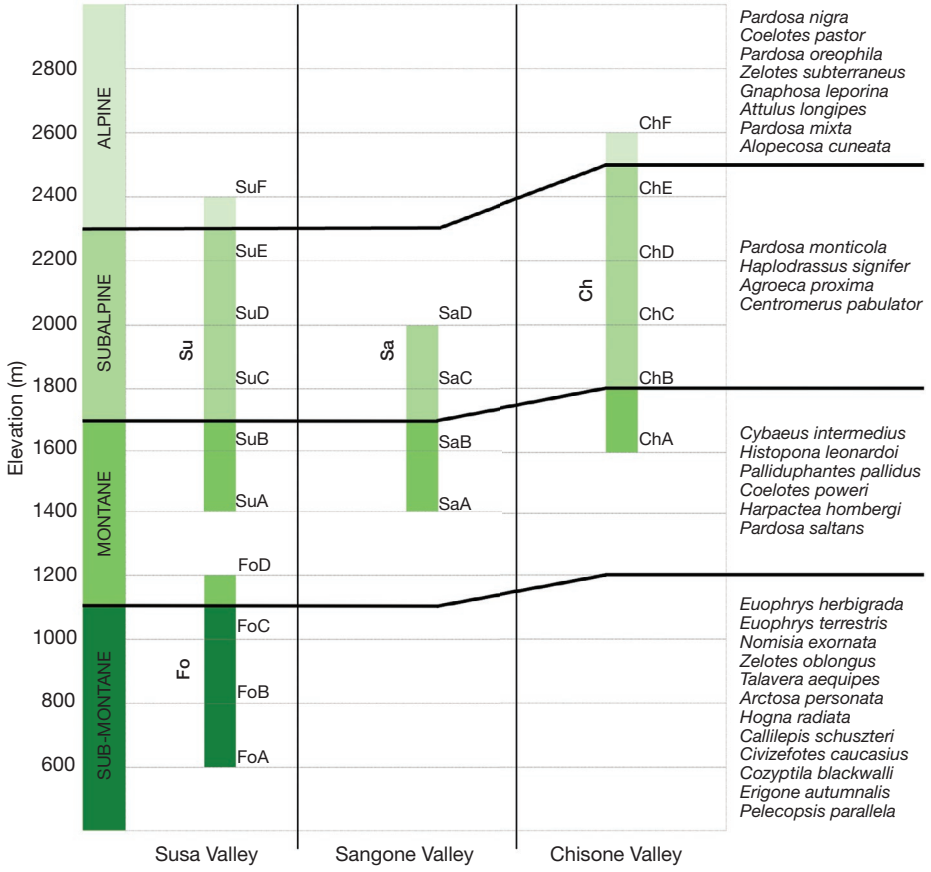

FIG. 18. — Indicator Species Analysis (ISA) based on standardized pitfall trap data referring to elevational zonation within the study area. The transects and plot codes of our study (see Table 2) are indicated for each elevational zone. All species showed a significance value $p < 0.05$ from ISA.

Indicator Species Analysis (ISA) selected 30 species based on their preferential occurrences in elevational zonation (Fig. 18). ISA lists eight species in the Alpine zone, including two endemic species, i.e., *Attulus longipes* (Canestrini, 1873) and *Coelotes pastor* Simon, 1875. The subalpine zone was characterized by four species widely distributed in Europe. In the montane zone, ISA counted for six species, including three endemics i.e., *Cybaeus intermedius* Maurer, 1992, *Histopona leonardoi* Bolzern, Pantini & Isaia, 2013 and *Coelotes poweri* Simon, 1875. In the submontane zone, ISA selected 12 species, many of which preferring warm and dry climatic conditions, i.e., *Civizelotes caucasius* (L. Koch, 1866), *Callilepis schuszteri* (Herman, 1879), *Arctosa personata* (L. Koch, 1872), *Talavera aequipes* (O. Pickard-Cambridge, 1871) and *Nomisia exornata* (C. L. Koch, 1839).

CONCLUSION

Despite their ecological importance (Foelix 2011; Nyffeler & Birkhofer 2017; Michalko *et al.* 2019) spiders yet remain under-studied compared to other taxa, underscoring the need for more dedicated efforts. To date, in Italy, despite around 22% of the national terrestrial territory is under protection, spider inventories are available for only around 4% of the national protected areas (Pantini & Isaia 2019, accessed on Dec. 2024). The importance of conducting comprehensive faunal surveys cannot be overstated, particularly in protected areas. Faunal data form the fundamentals of effective conservation strategies over time, as they not only broaden our knowledge of species richness and distribution but also provide essential data to encourage research and guide conservation policies. Given the current biodiversity crisis, in which invertebrates are among the most affected groups (Leather 2017; Eisenhauer *et al.* 2019; Wagner 2020; Eisenhauer *et al.* 2023), there is a need for more detailed studies to better understand their communities and to understand how they respond to environmental changes.

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APPENDICES

APPENDIX 1. — List of the 73 species provided by literature in the study areas: **A**, Orsiera Rocciavrè Natural Park; **B**, Foresto Ravine Natural Reserve) from 1973 to 2024. The 35 species recollected in the frame of this work are highlighted (•).

Species	Literature	Study area
Agelenidae C. L. Koch, 1837		
• *Coelotes pastor* Simon, 1875	de Blauwe 1973; de Blauwe 1975; Isaia *et al.* 2007;	A
• *Eratigena agrestis* (Walckenaer, 1802)	Paschetta 2005	B
Amaurobiidae Thorell, 1869		
Amaurobius erberi (Keyserling, 1863)	Paschetta 2005	B
Cheiracanthiidae Wagner, 1887		
Cheiracanthium mildei L. Koch, 1864	Paschetta 2005	B
Clubionidae Simon, 1878		
Clubiona corticalis (Walckenaer, 1802)	Paschetta 2005	B
Dysderidae C. L. Koch, 1837		
• *Harpactea hombergi* (Scopoli, 1763)	Paschetta 2005	B
Gnaphosidae Banks, 1892		
• *Callilepis schuszteri* (Herman, 1879)	Paschetta 2005	B
• *Drassodes lapidosus* (Walckenaer, 1802)	de Blauwe 1973; Paschetta 2005;	A - B
Drassodex heeri (Pavesi, 1873)	Grimm 1985; Isaia *et al.* 2007	A
Drassodex hypocrita (Simon, 1878)	Isaia *et al.* 2007	A
Drassyllus praeficus (L. Koch, 1866)	Paschetta 2005	B
Drassyllus villicus (Thorell, 1875)	Paschetta 2005	B
Echemus angustifrons (Westring, 1861)	Paschetta 2005	B
• *Gnaphosa leporina* (L. Koch, 1866)	Grimm 1985	A
Gnaphosa lugubris (C. L. Koch, 1839)	Paschetta 2005	B
• *Haplodrassus silvestris* (Blackwall, 1833)	Paschetta 2005	B
Kishidaia conspicua (L. Koch, 1866)	Paschetta 2005	B
• *Micaria fulgens* (Walckenaer, 1802)	Paschetta 2005	B
• *Nomisia exornata* (C.L. Koch, 1839)	Paschetta 2005	B
Scotophaeus scutulatus (L. Koch, 1866)	Paschetta 2005	B
Trachyzelotes pedestris (C. L. Koch, 1837)	Paschetta 2005	B
• *Zelotes apricorum* (L. Koch, 1876)	Paschetta 2005	B
• *Zelotes oblongus* (C.L. Koch, 1833)	Paschetta 2005; Isaia *et al.* 2007	B
• *Zelotes subterraneus* (C. L. Koch, 1833)	Grimm 1985; Isaia *et al.* 2007;	A
Hahniidae Bertkau, 1878		
Hahnia nava (Blackwall, 1841)	Paschetta 2005	B
Linyphiidae Blackwall, 1859		
Agyneta affinis (Kulczyński, 1898)	Paschetta 2005	B
• *Agyneta innotabilis* (O. Pickard-Cambridge, 1863)	Paschetta 2005	B
• *Agyneta rurestris* (C. L. Koch, 1836)	Paschetta 2005	B
Centromerus serratus (O. Pickard-Cambridge, 1875)	Paschetta 2005	B
• *Erigone autumnalis* Emerton, 1882	Paschetta 2005	B
• *Erigone dentipalpis* (Wider, 1834)	Paschetta 2005	B
Gonatium rubellum (Blackwall, 1841)	Trotta & Cherubini 2024	A
Lepthyphantes leprosus (Ohlert, 1865)	Brignoli 1975, 1985; Arnò & Lana 2005	A
• *Minyriolus pusillus* (Wider, 1834)	Trotta & Cherubini 2024	A
Mioxena blanda (Simon, 1884)	Paschetta 2005	B
• *Palliduphantes pallidus* (O. Pickard-Cambridge, 1871)	Paschetta 2005	B
Porrhomma campbelli (F. O. Pickard-Cambridge, 1894)	Trotta & Cherubini 2024	A
• *Tenuiphantes flavipes* (Blackwall, 1854)	Paschetta 2005	B
• *Tenuiphantes tenuis* (Blackwall, 1852)	Paschetta 2005	B
Theonina cornix (Simon, 1881)	Paschetta 2005	B
• *Trichoncus sordidus* Simon, 1884	Paschetta 2005	B
Troglohyphantes achillis Isaia & Mammola, 2022	Pesarini 2001; Isaia *et al.* 2010, 2011, 2022; Isaia & Pantini 2010; Mammola *et al.* 2015, 2018, 2019	A
Troglohyphantes lucifer Isaia, Mammola & Pantini, 2017	Isaia *et al.* 2017; Mammola *et al.* 2018, 2019	A
Liocranidae Simon, 1897		
Agroeca inopina O. Pickard-Cambridge, 1886	Paschetta 2005	B
Liocranum rupicola (Walckenaer, 1830)	Paschetta 2005	B
• *Scotina celans* Menge, 1873	Paschetta 2005	B
Lycosidae Sundevall, 1833		
• *Hogna radiata* (Latreille, 1817)	Paschetta 2005	B
Pardosa lugubris (Walckenaer, 1802)	Paschetta 2005	B
Trochosa ruricola (De Geer, 1778)	Paschetta 2005	B
• *Trochosa terricola* Thorell, 1856	Paschetta 2005	B
• *Xerolycosa nemoralis* (Westring, 1861)	Paschetta 2005	B

Appendix 1. — Continuation.

Species	Literature	Study area
Philodromidae Thorell, 1869		
Philodromus dispar Walckenaer, 1826	Isaia *et al.* 2007	B
Pholcidae C. L. Koch, 1850		
Pholcus opilionoides (Schrank, 1781)	Paschetta 2005	B
Phrurolithidae Banks, 1892		
• *Phrurolithus festivus* (C.L. Koch, 1835)	Paschetta 2005	B
• *Phrurolithus minimus* C.L. Koch, 1839	Paschetta 2005	B
Pimoidae Wunderlich, 1986		
Pimoa graphitica Mammola, Hormiga & Isaia, 2016	Brignoli 1975; Arnò & Lana 2005, Isaia *et al.* 2011	A
Salticidae Blackwall, 1841		
• *Attulus longipes* (Canestrini, 1873)	Fontana *et al.* 1996	A
• *Euophrys frontalis* (Walckenaer, 1802)	Paschetta 2005	B
• *Phlegra fasciata* (Hahn, 1826)	Paschetta 2005	B
• *Saitis barbipes* (Simon, 1868)	Fontana *et al.* 1996; Paschetta 2005	B
Salticus zebraneus (C. L. Koch, 1837)	Paschetta 2005	B
• *Talavera aequipes* (O. Pickard-Cambridge, 1871)	Paschetta 2005	B
Segestriidae Simon, 1893		
Segestria bavarica C. L. Koch, 1843	Paschetta 2005	B
Tetragnathidae Menge, 1866		
Meta menardi (Latreille, 1804)	Arnò & Lana 2005; Isaia *et al.* 2011	A
Tetragnatha montana Simon, 1874	Isaia *et al.* 2007	B
Theridiidae Sundevall, 1833		
Crustulina guttata (Wider, 1834)	Paschetta 2005	B
Enoplognatha caricis (Fickert, 1876)	Paschetta 2005	B
Enoplognatha mandibularis (Lucas, 1846)	Paschetta 2005	B
Robertus lividus (Blackwall, 1836)	Paschetta 2005	B
Theridion mystaceum L. Koch, 1870	Paschetta 2005	B
Thomisidae Sundevall, 1833		
• *Bassanioides robustus* (Hahn, 1832)	Paschetta 2005	B
• *Cozyptila blackwalli* (Simon, 1875)	Paschetta 2005	B
Zodariidae Thorrell, 1881		
• *Zodarion italicum* (Canestrini, 1868)	Paschetta 2005	B

Appendix 2. — Detailed information on the number of pitfall traps and plots placed for each transect in the study area. We report: **Study area**: Orsiera Rocciavrè Natural Park (**A**) and Foresto Ravine Natural Reserve (**B**); **Transect**: **Ch** (Chisone), **Sa** (Sangone), **Su** (Susa) and **Fo** (Foresto); **Plot**: plot code for each transect. Pitfall counting for each plot: as no. pitfall traps × no. of replacement × no. year; no. of pitfall placed and no. of pitfall collected.

Study area	Transect	Plot	pitfall counting for each plot (no. traps × no. replacement × no. year)	no. pitfall placed	no. pitfall collected
A	Ch	ChA	5×9×2	90	54
A	Ch	ChB	5×9×2	90	48
A	Ch	ChC	5×9×2	90	27
A	Ch	ChD	5×9×2	90	49
A	Ch	ChE	5×9×2	90	40
A	Ch	ChF	5×9×2	90	46
			TOT Ch	540	264
A	Sa	SaA	5×9×2	90	57
A	Sa	SaB	5×9×2	90	56
A	Sa	SaC	5×9×2	90	60
A	Sa	SaD	5×9×2	90	57
			TOT Sa	360	230
A	Su	SuA	5×9×2	90	48
A	Su	SuB	5×9×2	90	53
A	Su	SuC	5×9×2	90	38
A	Su	SuD	5×9×2	90	37
A	Su	SuE	5×9×2	90	53
A	Su	SuF	5×9×2	90	20
			TOT Su	540	249
B	Fo	FoA	5×9×2	90	53
B	Fo	FoB	5×9×2	90	49
B	Fo	FoC	5×9×2	90	40
B	Fo	FoD	5×9×2	90	49
			TOT Fo	360	191
			TOT	1800	934

Appendix 3A. — Detailed information on Generalized Linear Models (GLMs): regression summaries on species richness (**S**) and abundance (**N**) along elevational gradient between sampling year are provided for each transect (**Ch**, **Su**, **Sa**, **Fo**). See the Ecological Analysis subsection in the Methods for further details. https://sciencepress.mnhn.fr/sites/default/files/documents/en/zoosystema2026v48a6_s3a.xlsx, https://doi.org/10.5852/zoosystema2026v48a6_s3a

Appendix 3B. — Detailed information of Indicator Species Analysis (ISA). We estimated the preferential occurrence of the species in each elevational zone (sub-montane, montane, subalpine and Alpine). https://sciencepress.mnhn.fr/sites/default/files/documents/en/zoosystema2026v48a6_s3b.xlsx, https://doi.org/10.5852/zoosystema2026v48a6_s3b

APPENDIX 4. — List of the species collected in this work (new data), in the frame of BMP with abundances by elevational zonation (ELEV ZONES), total abundaces (TOT) and species occurrence in the transect (X if species occurs). New records for the Province of Turin (○) and the Region of Piemonte (●) and photo observations from iNaturalist (*) are highlighted. Elevational zonation acronym (ELEV ZONES): **SM** (submontane), **MO** (montane), **SA** (subalpine) and **AL** (Alpine). Transects acronym (**TRAN**): **Fo** (Foresto), **Ch** (Chisone), **Sa** (Sangone), **Su** (Susa).

	Species	ELEV ZONES				TOT	TRAN			
		SM	MO	SA	AL		Fo	Ch	Sa	Su
	Agelenidae C. L. Koch, 1837									
	Coelotes pastor Simon, 1875	–	3	10	10	23	–	×	×	×
○	*Coelotes poweri* Simon, 1875	–	20	–	–	20	–	–	–	×
	Eratigena agrestis (Walckenaer, 1802)	–	1	–	–	1	–	×	–	–
	Histopona leonardoi Bolzern, Pantini & Isaia, 2013	–	71	12	–	83	–	×	×	×
	Tegenaria silvestris L. Koch, 1872	–	5	–	–	5	×	×	×	–
	Amaurobiidae Thorell, 1869									
○	*Amaurobius fenestralis* (Ström, 1768)	–	4	–	–	4	×	–	–	×
●	*Amaurobius similis* (Blackwall, 1861)	–	1	–	–	1	–	–	–	×
	Anyphaenidae Bertkau, 1878									
	Anyphaena accentuata (Walckenaer, 1802)	–	1*	–	–	1*	–	×	–	–
	Araneidae Clerck, 1757									
	Aculepeira carbonaria (L. Koch, 1869)	–	–	–	2*	2*	–	×	–	×
	Aculepeira ceropegia (Walckenaer, 1802)	–	–	3*	–	3*	–	×	×	×
	Agalenatea redii (Scopoli, 1763)	1*	–	–	–	1*	×	–	–	–
	Araneus diadematus Clerck, 1757	–	4*	–	–	4*	×	×	×	×
	Araneus marmoreus Clerck, 1757	–	2*	–	–	2*	–	×	–	×
	Araneus quadratus Clerck, 1757	–	–	1*	–	1*	–	×	–	–
	Argiope bruennichi (Scopoli, 1772)	1*	1*	–	–	2*	×	×	–	–
	Cyclosa conica (Pallas, 1772)	–	1*	–	–	1*	–	×	–	–
	Gibbaranea bituberculata (Walckenaer, 1802)	1*	–	–	–	1*	–	×	–	–
	Nuctenea umbratica (Clerck, 1757)	1*	–	–	–	1*	–	×	–	–
	Atypidae Thorell, 1870									
○	*Atypus affinis* Eichwald, 1830	1	–	–	–	1	×	–	–	–
	Clubionidae Simon, 1878									
	Clubiona comta C. L. Koch, 1839	–	1	–	–	1	–	–	×	–
●	*Clubiona diversa* O. Pickard-Cambridge, 1862	–	–	1	–	1	–	–	×	–
	Cybaeidae Banks, 1892									
○	*Cryphoeca silvicola* (C.L. Koch, 1834)	–	3	13	–	16	–	–	×	×
	Cybaeus intermedius Maurer, 1992	1	126	48	–	175	×	×	×	×
	Dysderidae C. L. Koch, 1837									
	Dysdera sp.	–	2	–	–	2	–	×	×	–
	Harpactea hombergi (Scopoli, 1763)	1	28	–	–	29	×	×	–	–
	Harpactocrates drassoides (Simon, 1882)	–	10	4	–	14	×	–	×	×
	Rhode testudinea Pesarini, 1984	–	2	2	–	4	–	–	×	–
	Eresidae C. L. Koch, 1845									
	Eresus sp.	1	–	–	–	1	×	–	–	–
	Filistatidae Ausserer, 1867									
○	*Filistata insidiatrix* (Forsskål, 1775)	1*	–	–	–	1*	×	–	–	–
	Gnaphosidae Banks, 1892									
	Callilepis schuszteri (Herman, 1879)	2	–	–	–	2	×	–	–	–
●	*Civizelotes caucasius* (Herman, 1879)	2	–	–	–	2	×	–	–	–
○	*Civizelotes pygmaeus* Miller, 1943	1	–	–	–	1	×	–	–	–
	Drassodes lapidosus (Walckenaer, 1802)	1	16	23	3	43	×	×	×	×
	Drassyllus pusillus (C.L. Koch, 1833)	–	1	4	–	5	–	×	×	–
	Gnaphosa badia (L. Koch, 1866)	–	–	12	1	13	–	×	–	×
●	*Gnaphosa bicolor* (Hahn, 1833)	–	1	–	–	1	–	–	×	–
	Gnaphosa leporina (L. Koch, 1866)	–	–	9	6	15	–	×	–	×
	Haplodrassus signifer (C.L. Koch, 1839)	–	1	12	–	13	–	×	×	–
	Haplodrassus silvestris (Blackwall, 1833)	–	–	1	–	1	–	×	–	–
○	*Micaria aenea* Thorell, 1871	–	–	1	–	1	–	×	–	–
	Micaria fulgens (Walckenaer, 1802)	1	1	2	–	4	×	–	×	×
	Micaria pulicaria (Sundevall, 1831)	–	–	1	–	1	–	–	–	×
	Micaria rossica Thorell, 1875	–	–	1	–	1	–	×	–	–
	Nomisia exornata (C.L. Koch, 1839)	8	–	–	–	8	×	–	–	–
	Zelotes aeneus (Simon, 1878)	–	6	3	–	9	–	×	×	–
	Zelotes apricorum (L. Koch, 1876)	–	6	2	5	13	×	–	×	×
	Zelotes oblongus (C.L. Koch, 1833)	10	1	–	–	11	×	–	–	–
○	*Zelotes petrensis* (C.L. Koch, 1839)	–	4	1	–	5	–	×	×	×
	Zelotes subterraneus (C.L. Koch, 1833)	1	17	14	19	51	×	×	×	×
○	*Zelotes talpinus* (L. Koch, 1872)	–	8	12	–	20	–	×	×	×

Appendix 4. — Continuation.

Species	ELEV ZONES				TOT	TRAN			
	SM	MO	SA	AL		Fo	Ch	Sa	Su
Hahniidae Bertkau, 1878									
• *Hahnia ononidum* Simon, 1875	–	–	1	–	1	–	×	–	–
Leptonetidae Simon, 1890									
○ *Leptoneta crypticola* franciscoloi di Caporiacco, 1950	–	7	4	–	11	–	–	×	–
Linyphiidae Blackwall, 1859									
• *Agyneta cauta* (O. Pickard-Cambridge, 1903)	–	–	1	1	2	–	×	–	×
Agyneta innotabilis (O. Pickard-Cambridge,1863)	–	1	–	–	1	–	×	–	–
Agyneta mollis (O. Pickard-Cambridge, 1871)	–	1	–	–	1	×	–	–	–
Agyneta rurestris (C.L. Koch, 1836)	3	2	2	1	8	×	×	×	×
○ *Anguliphantes monticola* (Kulczynski, 1881)	–	–	–	1	1	–	×	–	–
Bathyphantes gracilis (Blackwall, 1841)	–	–	1	–	1	–	–	–	×
○ *Bathyphantes setiger* F.O. Pickard-Cambridge, 1894	–	–	1	–	1	–	–	×	–
Bolyphantes alticeps C. L. Koch, 1837	–	1	–	–	1	–	–	–	×
Centromerus arcanus (O. Pickard-Cambridge, 1873)	–	–	7	3	10	–	×	×	×
○ *Centromerus brevipalpus* (Menge, 1866)	–	1	–	–	1	–	–	×	–
○ *Centromerus pabulator* (O. Pickard-Cambridge, 1875)	–	–	5	–	5	–	–	×	×
○ *Centromerus sellarius* (Simon, 1884)	–	7	6	–	13	–	×	×	×
Centromerus silvicola (Kulczynski, 1887)	–	1	2	–	3	–	–	×	–
Centromerus sylvaticus (Blackwall, 1841)	–	5	–	–	5	–	–	–	×
Ceratinella brevis (Wider, 1834)	–	–	3	–	3	–	×	–	–
○ *Diplocephalus alpinus* (O. Pickard-Cambridge, 1873)	–	–	2	–	2	–	–	×	×
Drapetisca socialis (Sundevall, 1833)	–	–	1*	–	1*	–	×	–	–
Erigone autumnalis Emerton, 1882	2	–	–	–	2	×	–	–	–
Erigone dentipalpis (Wider, 1834)	1	–	8	–	9	×	–	×	–
Frontinellina frutetorum (C. L. Koch, 1835)	–	–	1*	–	1*	–	×	–	–
• *Improphantes nitidus* (Thorell, 1875)	–	4	3	–	7	–	×	–	×
Incestophantes frigidus (Simon, 1884)	–	–	2	1	3	–	–	×	×
• *Incestophantes kotulai* (Kulczyński, 1904)	–	–	–	1	1	–	×	–	–
○ *Lepthyphantes nodifer* Menge, 1866	–	–	4	–	4	–	–	–	×
• *Mansuphantes fragilis* (Thorell, 1875)	–	8	3	–	11	×	×	–	×
○ *Mansuphantes pseudoarciger* (Wunderlich, 1985)	–	3	1	–	4	–	×	×	×
Metopobactrus prominulus (O. Pickard-Cambridge, 1873)	–	1	–	–	1	–	×	–	–
Micrargus alpinus Relys & Weiss, 1997	–	1	1	1	3	–	×	–	×
Microneta viaria (Blackwall, 1841)	–	2	–	–	2	–	–	×	–
Minyriolus pusillus (Wider, 1834)	–	1	1	–	2	–	×	–	×
• *Oreoneta tatrica* Chyzer & Kulczynski 1894	–	–	1	–	1	–	–	–	×
Oreonetides vaginatus (Thorell, 1872)	–	1	3	–	4	–	–	–	×
Palliduphantes pallidus (O. Pickard-Cambridge, 1871)	3	45	11	2	61	×	×	×	×
○ *Pelecopsis elongata* Simon, 1864	–	–	5	–	5	–	×	–	×
Pelecopsis parallela (Wider, 1834)	2	1	–	–	3	×	×	–	–
○ *Pelecopsis radicicola* (L. Koch, 1872)	–	–	1	–	1	–	–	–	×
Piniphantes agnellus (Maurer & Thaler, 1988)	–	–	2	–	2	–	×	–	–
Porrhomma microphtalmum (O. Pickard-Cambridge, 1871)	–	–	2	–	2	–	–	×	×
○ *Scotargus pilosus* Simon, 1913	–	1	–	–	1	–	×	–	–
Syedra gracilis (Menge, 1869)	–	1	–	–	1	–	×	–	–
○ *Tapinocyba affinis* Simon, 1884	–	–	1	–	1	–	–	–	×
○ *Tenuiphantes alacris* (Blackwall, 1853)	–	–	1	–	1	–	×	–	–
Tenuiphantes flavipes (Blackwall, 1854)	–	2	–	–	2	×	×	–	–
○ *Tenuiphantes jacksoni* Saaristo & Tanasevitch, 1996	–	–	1	–	1	–	–	–	×
Tenuiphantes sp.	–	–	4	–	4	–	–	–	×
○ *Tenuiphantes tenebricola* (Wider, 1834)	–	3	–	–	3	–	–	×	×
Tenuiphantes tenuis (Blackwall, 1852)	–	1	3	1	5	×	–	×	×
Thyreosthenius parasiticus (Westring, 1851)	–	1	–	–	1	–	×	–	–
Trichoncus sordidus Simon, 1884	1	–	–	–	1	×	–	–	–
Trichopterna cito (O. Pickard-Cambridge, 1872)	–	–	1	–	1	–	–	–	×
○ *Walckenaeria alticeps* (Denis, 1952)	–	1	–	–	1	–	–	×	–
Walckenaeria sp.	–	–	1	–	1	–	–	–	×
Liocranidae Simon, 1897									
Agroeca cuprea Menge, 1873	1	1	–	–	2	×	×	–	–
○ *Agroeca proxima* (O. Pickard-Cambridge, 1871)	–	2	13	–	15	×	×	×	×
Scotina celans Menge, 1873	1	8	1	–	10	×	–	–	×
Lycosidae Sundevall, 1833									
Alopecosa aculeata (Clerck, 1757)	–	1	1	–	2	–	×	×	–
Alopecosa cuneata (Clerck, 1757)	–	3	8	6	17	–	×	×	×
Alopecosa farinosa (Herman, 1879)	–	1	3	–	4	–	×	×	–
Alopecosa pulverulenta (Clerck, 1757)	–	–	5	–	5	–	–	×	×
Alopecosa taeniata (C.L. Koch, 1835)	–	–	2	–	2	–	×	–	×

Appendix 4. — Continuation.

	Species	ELEV ZONES				TOT	TRAN			
		SM	MO	SA	AL		Fo	Ch	Sa	Su
○	Arctosa personata (L. Koch, 1872)	5	–	–	–	5	×	–	–	–
○	*Arctosa renidescens* Buchar & Thaler, 1995	–	–	11	–	11	–	×	×	×
	Aulonia albimana (Walckenaer, 1805)	–	5	–	–	5	–	–	×	–
	Hogna radiata (Latreille, 1817)	3	–	–	–	3	×	–	–	–
	Pardosa mixta (Kulczynski, 1887)	–	–	14	6	20	–	×	×	×
	Pardosa monticola (Clerck, 1757)	–	7	130	1	138	–	×	×	×
	Pardosa nigra (C.L. Koch, 1834)	–	–	1	38	39	–	×	–	–
○	*Pardosa oreophila* Simon, 1937	–	1	3	14	18	–	×	×	×
	Pardosa riparia (C.L. Koch, 1833)	–	3	–	–	3	–	–	×	–
○	*Pardosa saltans* Töpfer-Hofmann, 2000	–	19	–	–	19	–	×	×	–
	Trochosa terricola Thorell, 1856	–	6	3	–	9	×	–	×	×
	Xerolycosa nemoralis (Westring, 1861)	–	1	–	–	1	–	–	×	–
	Miturgidae Simon, 1886									
	Zora manicata Simon, 1878	–	–	3	–	3	–	×	–	×
•	*Zora parallela* Simon, 1878	–	1	–	1	2	–	–	×	×
○	*Zora pardalis* Simon, 1878	–	–	1	–	1	–	–	×	–
	Zora spinimana (Sundevall, 1833)	–	2	–	–	2	×	–	×	–
	Pholcidae C. L. Koch, 1850									
	Pholcus phalangioides (Fuesslin, 1775)	1*	–	–	–	1*	×	–	–	–
	Psilochorus simoni (Berland, 1911)	1*	–	–	–	1*	–	×	–	–
	Phrurolithidae Banks, 1892									
	Phrurolithus festivus (C.L. Koch, 1835)	5	16	2	–	23	×	×	×	–
	Phrurolithus minimus C.L. Koch, 1839	1	1	–	–	2	×	–	×	–
	Pisauridae Simon, 1890									
	Pisaura mirabilis (Clerck, 1757)	–	1*	–	–	1*	–	×	–	–
	Salticidae Blackwall, 1841									
	Aelurillus v-insignitus (Clerck, 1757)	1	1	1	–	3	×	×	–	–
	Attulus longipes (Canestrini, 1873)	–	–	–	2	2	–	×	–	–
	Attulus saltator (O. Pickard-Cambridge, 1868)	–	1	–	–	1	–	–	×	–
	Euophrys frontalis (Walckenaer, 1802)	1	1	2	–	4	×	–	×	–
○	*Euophrys herbigrada* (Simon, 1871)	15	2	4	–	21	×	×	×	×
•	*Euophrys terrestris* (Simon, 1871)	9	–	–	–	9	×	–	–	–
	Heliophanus cupreus (Walckenaer, 1802)	–	1	–	–	1	–	×	–	–
○	*Neon reticulatus* (Blackwall, 1853)	–	1	–	–	1	–	–	×	–
	Philaeus chrysops (Poda, 1761)	1*	–	–	–	1*	×	–	–	–
	Phlegra fasciata (Hahn, 1826)	–	–	1	–	1	–	×	–	–
	Pseudoeuophrys lanigera (Simon, 1871)	–	–	2	–	2	–	–	–	×
○	*Pseudoeuophrys vafra* (Simon, 1871)	1	–	–	–	1	×	–	–	–
	Saitis barbipes (Simon, 1868)	10	52	–	–	62	×	×	–	–
	Salticus scenicus (Clerck, 1757)	–	1*	–	–	1*	–	×	–	–
	Talavera aequipes (O. Pickard-Cambridge, 1871)	9	1	–	–	10	×	–	×	–
○	*Talavera monticola* (Kulczynski, 1884)	–	1	1	–	2	–	–	×	–
	Scytodidae Blackwall, 1864									
	Scytodes sp.	4	–	–	–	4	×	–	–	–
	Segestriidae Simon, 1893									
	Segestria senoculata (Linnaeus, 1758)	–	3	–	–	3	×	×	–	–
	Sparassidae Bertkau, 1872									
	Micrommata virescens (Clerck, 1757)	–	1*	1*	–	2*	×	×	–	–
	Tetragnathidae Menge, 1866									
	Metellina merianae (Scopoli, 1763)	–	1*	–	–	1*	–	×	–	–
	Theridiidae Sundevall, 1833									
	Asagena phalerata (Panzer, 1801)	1	2	1	–	4	×	–	×	–
	Enoplognatha thoracica (Hahn, 1833)	–	1	–	–	1	–	×	–	–
○	*Episinus angulatus* (Blackwall, 1836)	–	1	–	–	1	–	×	–	–
	Episinus truncatus Latreille, 1809	–	1	–	–	1	×	–	–	–
	Euryopis flavomaculata (C.L. Koch, 1836)	–	2	2	–	4	–	–	×	–
	Heterotheridion nigrovariegatum (Simon, 1873)	1	–	–	–	1	×	–	–	–
○	*Robertus truncorum* (L. Koch, 1872)	–	–	8	–	8	–	–	×	×
	Thomisidae Sundevall, 1833									
	Bassanioides robustus (Hahn, 1832)	1	2	–	–	3	×	–	×	–
	Cozyptila blackwalli (Simon, 1875)	2	–	–	–	2	×	–	–	–
○	*Diaea dorsata* (Fabricius, 1777)	–	1*	–	–	1*	–	×	–	–
	Misumena vatia (Clerck, 1757)	1*	2*	–	–	3*	×	×	×	–

Appendix 4. — Continuation.

	Species	ELEV ZONES				TOT	TRAN			
		SM	MO	SA	AL		Fo	Ch	Sa	Su
○	*Ozyptila trux* (Blackwall, 1846)	–	1	–	–	1	–	–	–	×
	Psammitis ninnii (Thorell, 1872)	2	–	2	–	4	×	×	–	–
○	*Thomisus onustus* Walckenaer, 1805	1*	–	1*	–	2*	×	×	–	–
○	*Xysticus desidiosus* Simon, 1875	–	–	2	–	2	–	–	–	×
	Xysticus erraticus (Blackwall, 1834)	–	2	–	–	2	–	–	×	–
	Xysticus gallicus Simon, 1875	–	–	1	–	1	–	–	–	×
	Xysticus luctuosus (Blackwall, 1836)	–	–	1	–	1	–	–	×	–
	Uloboridae Thorell, 1869									
○	*Uloborus walckenaerius* Latreille, 1806	1*	–	–	–	1*	×	–	–	–
	Zodariidae Thorell, 1881									
	Zodarion italicum (Canestrini, 1868)	–	2	–	–	2	–	×	–	–
	Zodarion rubidum Simon, 1914	–	4	–	–	4	–	×	–	–
	TOT	126	618	520	126	1390			–	

Appendix 5. — List of the species presented in this work, including new data and species from literature.

Species

Agelenidae C. L. Koch, 1837
Coelotes pickardi pastor Simon, 1875
Coelotes poweri Simon, 1875
Eratigena agrestis (Walckenaer, 1802)
Histopona leonardoi Bolzern, Pantini & Isaia, 2013
Tegenaria silvestris L. Koch, 1872

Amaurobiidae Thorell, 1869
Amaurobius erberi (Keyserling, 1863)
Amaurobius fenestralis (Ström, 1768)
Amaurobius similis (Blackwall, 1861)

Anyphaenidae Bertkau, 1878
Anyphaena accentuata (Walckenaer, 1802)

Araneidae Clerck, 1757
Aculepeira carbonaria (L. Koch, 1869)
Aculepeira ceropegia (Walckenaer, 1802)
Agalenatea redii (Scopoli, 1763)
Araneus diadematus Clerck, 1757
Araneus marmoreus Clerck, 1757
Araneus quadratus Clerck, 1757
Argiope bruennichi (Scopoli, 1772)
Cyclosa conica (Pallas, 1772)
Gibbaranea bituberculata (Walckenaer, 1802)
Nuctenea umbratica (Clerck, 1757)

Atypidae Thorell, 1870
Atypus affinis Eichwald, 1830

Cheiracanthiidae Wagner, 1887
Cheiracanthium mildei L. Koch, 1864

Clubionidae Simon, 1878
Clubiona comta C. L. Koch, 1839
Clubiona corticalis (Walckenaer, 1802)
Clubiona diversa O. Pickard-Cambridge, 1862

Cybaeidae Banks, 1892
Cryphoeca silvicola (C.L. Koch, 1834)
Cybaeus intermedius Maurer, 1992

Dysderidae C. L. Koch, 1837
Dysdera sp.
Harpactea hombergi (Scopoli, 1763)
Harpactocrates drassoides (Simon, 1882)
Rhode testudinea Pesarini, 1984

Species

Eresidae C. L. Koch, 1845
Eresus sp.

Filistatidae Ausserer, 1867
Filistata insidiatrix (Forsskål, 1775)

Gnaphosidae Banks, 1892
Callilepis schuszteri (Herman, 1879)
Civizelotes caucasius (Herman, 1879)
Civizelotes pygmaeus Miller, 1943
Drassodes lapidosus (Walckenaer, 1802)
Drassodex heeri (Pavesi, 1873)
Drassodex hypocrita (Simon, 1878)
Drassyllus praeficus (L. Koch, 1866)
Drassyllus pusillus (C.L. Koch, 1833)
Drassyllus villicus (Thorell, 1875)
Echemus angustifrons (Westring, 1861)
Gnaphosa badia (L. Koch, 1866)
Gnaphosa bicolor (Hahn, 1833)
*Gnaphosa leporin*a (L. Koch, 1866)
Gnaphosa lugubris (C. L. Koch, 1839)
Haplodrassus signifer (C.L. Koch, 1839)
Haplodrassus silvestris (Blackwall, 1833)
Kishidaia conspicua (L. Koch, 1866)
Micaria aenea Thorell, 1871
Micaria fulgens (Walckenaer, 1802)
Micaria pulicaria (Sundevall, 1831)
Micaria rossica Thorell, 1875
Nomisia exornata (C.L. Koch, 1839)
Scotophaeus scutulatus (L. Koch, 1866)
Trachyzelotes pedestris (C. L. Koch, 1837)
Zelotes aeneus (Simon, 1878)
Zelotes apricorum (L. Koch, 1876)
Zelotes oblongus (C.L. Koch, 1833)
Zelotes petrensis (C.L. Koch, 1839)
Zelotes subterraneus (C.L. Koch, 1833)
Zelotes talpinus (L. Koch, 1872)

Hahniidae Bertkau, 1878
Hahnia nava (Blackwall, 1841)
Hahnia ononidum Simon, 1875

Leptonetidae Simon, 1890
Leptoneta crypticola franciscoloi di Caporiacco, 1950

Linyphiidae Blackwall, 1859
Agyneta affinis (Kulczyński, 1898)

Appendix 5. — Continuation.

Species
Agyneta cauta (O. Pickard-Cambridge, 1903)
Agyneta innotabilis (O. Pickard-Cambridge, 1863)
Agyneta mollis (O. Pickard-Cambridge, 1871)
Agyneta rurestris (C.L. Koch, 1836)
Anguliphantes monticola (Kulczynski, 1881)
Bathyphantes gracilis (Blackwall, 1841)
Bathyphantes setiger F.O. Pickard-Cambridge, 1894
Bolyphantes alticeps C. L. Koch, 1837
Centromerus arcanus (O. Pickard-Cambridge, 1873)
Centromerus brevipalpus (Menge, 1866)
Centromerus pabulator (O. Pickard-Cambridge, 1875)
Centromerus sellarius (Simon, 1884)
Centromerus serratus (O. Pickard-Cambridge, 1875)
Centromerus silvicola (Kulczynski, 1887)
Centromerus sylvaticus (Blackwall, 1841)
Ceratinella brevis (Wider, 1834)
Diplocephalus alpinus (O. Pickard-Cambridge, 1873)
Drapetisca socialis (Sundevall, 1833)
Erigone autumnalis Emerton, 1882
Erigone dentipalpis (Wider, 1834)
Frontinellina frutetorum (C. L. Koch, 1835)
Gonatium rubellum (Blackwall, 1841)
Improphantes nitidus (Thorell, 1875)
Incestophantes frigidus (Simon, 1884)
Incestophantes kotulai (Kulczyński, 1904)
Lepthyphantes leprosus (Ohlert, 1865)
Lepthyphantes nodifer Menge, 1866
Mansuphantes fragilis (Thorell, 1875)
Mansuphantes pseudoarciger (Wunderlich, 1985)
Metopobactrus prominulus (O. Pickard-Cambridge, 1873)
Micrargus alpinus Relys & Weiss, 1997
Microneta viaria (Blackwall, 1841)
Minyriolus pusillus (Wider, 1834)
Mioxena blanda (Simon, 1884)
Oreoneta tatrica Chyzer & Kulczynski 1894
Oreonetides vaginatus (Thorell, 1872)
Palliduphantes pallidus (O. Pickard-Cambridge, 1871)
Pelecopsis elongata Simon, 1864
Pelecopsis parallela (Wider, 1834)
Pelecopsis radicicola (L. Koch, 1872)
Piniphantes agnellus (Maurer & Thaler, 1988)
Porrhomma campbelli F.O. Pickard-Cambridge, 1894
Porrhomma microphtalmum (O. Pickard-Cambridge, 1871)
Scotargus pilosus Simon, 1913
Syedra gracilis (Menge, 1869)
Tapinocyba affinis Simon, 1884
Tenuiphantes alacris (Blackwall, 1853)
Tenuiphantes flavipes (Blackwall, 1854)
Tenuiphantes jacksoni Saaristo & Tanasevitch, 1996
Tenuiphantes sp.
Tenuiphantes tenebricola (Wider, 1834)
Tenuiphantes tenuis (Blackwall, 1852)
Theonina cornix (Simon, 1881)
Thyreosthenius parasiticus (Westring, 1851)
Trichoncus sordidus Simon, 1884
Trichopterna cito (O. Pickard-Cambridge, 1872)
Troglohyphantes achillis Isaia & Mammola, 2022
Troglohyphantes lucifer Isaia, Mammola & Pantini, 2017
Walckenaeria alticeps (Denis, 1952)
Walckenaeria sp.
Liocranidae Simon, 1897
Agroeca cuprea Menge, 1873
Agroeca inopina O. Pickard-Cambridge, 1886
Agroeca proxima (O. Pickard-Cambridge, 1871)
Liocranum rupicola (Walckenaer, 1830)
Scotina celans Menge, 1873
Lycosidae Sundevall, 1833
Alopecosa aculeata (Clerck, 1757)
Alopecosa cuneata (Clerck, 1757)

Species
Alopecosa farinosa (Herman, 1879)
Alopecosa pulverulenta (Clerck, 1757)
Alopecosa taeniata (C.L. Koch, 1835)
Arctosa personata (L. Koch, 1872)
Arctosa renidescens Buchar & Thaler, 1995
Aulonia albimana (Walckenaer, 1805)
Hogna radiata (Latreille, 1817)
Pardosa lugubris (Walckenaer, 1802)
Pardosa mixta (Kulczynski, 1887)
Pardosa monticola (Clerck, 1757)
Pardosa nigra (C.L. Koch, 1834)
Pardosa oreophila Simon, 1937
Pardosa riparia (C.L. Koch, 1833)
Pardosa saltans Töpfer-Hofmann, 2000
Trochosa ruricola (De Geer, 1778)
Trochosa terricola Thorell, 1856
Xerolycosa nemoralis (Westring, 1861)
Miturgidae Simon, 1886
Zora manicata Simon, 1878
Zora parallela Simon, 1878
Zora pardalis Simon, 1878
Zora spinimana (Sundevall, 1833)
Philodromidae Thorell, 1869
Philodromus dispar Walckenaer, 1826
Pholcidae C. L. Koch, 1850
Pholcus opilionoides (Schrank, 1781)
Pholcus phalangioides (Fuesslin, 1775)
Psilochorus simoni (Berland, 1911)
Phrurolithidae Banks, 1892
Phrurolithus festivus (C.L. Koch, 1835)
Phrurolithus minimus C.L. Koch, 1839
Pimoidae Wunderlich, 1986
Pimoa graphitica Mammola, Hormiga & Isaia, 2016
Pisauridae Simon, 1890
Pisaura mirabilis (Clerck, 1757)
Salticidae Blackwall, 1841
Aelurillus v-insignitus (Clerck, 1757)
Attulus longipes (Canestrini, 1873)
Attulus saltator (O. Pickard-Cambridge, 1868)
Euophrys frontalis (Walckenaer, 1802)
Euophrys herbigrada (Simon, 1871)
Euophrys terrestris (Simon, 1871)
Heliophanus cupreus (Walckenaer, 1802)
Neon reticulatus (Blackwall, 1853)
Philaeus chrysops (Poda, 1761)
Phlegra fasciata (Hahn, 1826)
Pseudoeuophrys lanigera (Simon, 1871)
Pseudoeuophrys vafra (Simon, 1871)
Saitis barbipes (Simon, 1868)
Salticus scenicus (Clerck, 1757)
Salticus zebraneus (C. L. Koch, 1837)
Talavera aequipes (O. Pickard-Cambridge, 1871)
Talavera monticola (Kulczynski, 1884)
Scytodidae Blackwall, 1864
Scytodes sp.
Segestriidae Simon, 1893
Segestria bavarica C. L. Koch, 1843
Segestria senoculata (Linnaeus, 1758)
Sparassidae Bertkau, 1872
Micrommata virescens (Clerck, 1757)
Tetragnathidae Menge, 1866
Meta menardi (Latreille, 1804)
Metellina merianae (Scopoli, 1763)
Tetragnatha montana Simon, 1874

Appendix 5. — Continuation.

Species
Theridiidae Sundevall, 1833
Asagena phalerata (Panzer, 1801)
Crustulina guttata (Wider, 1834)
Enoplognatha caricis (Fickert, 1876)
Enoplognatha mandibularis (Lucas, 1846)
Enoplognatha thoracica (Hahn, 1833)
Episinus angulatus (Blackwall, 1836)
Episinus truncatus Latreille, 1809
Euryopis flavomaculata (C.L. Koch, 1836)
Heterotheridion nigrovariegatum (Simon, 1873)
Robertus lividus (Blackwall, 1836)
Robertus truncorum (L. Koch, 1872)
Theridion mystaceum L. Koch, 1870
Thomisidae Sundevall, 1833
Bassanioides robustus (Hahn, 1832)
Cozyptila blackwalli (Simon, 1875)
Diaea dorsata (Fabricius, 1777)
Misumena vatia (Clerck, 1757)
Ozyptila trux (Blackwall, 1846)
Psammitis ninnii (Thorell, 1872)
Thomisus onustus Walckenaer, 1805
Xysticus desidiosus Simon, 1875
Xysticus erraticus (Blackwall, 1834)
Xysticus gallicus Simon, 1875
Xysticus luctuosus (Blackwall, 1836)
Uloboridae Thorell, 1869
Uloborus walckenaerius Latreille, 1806
Zodariidae Thorell, 1881
Zodarion italicum (Canestrini, 1868)
Zodarion rubidum Simon, 1914