

# A provisional checklist of European butterfly larval foodplants

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**Abstract.** Successful conservation of butterflies is dependent on knowing which larval foodplants they use. However, many published lists of larval foodplants have been copied from previous lists, which in turn have been copied from previous lists. Consequently, errors have crept in, and many plant names have long been superseded. This can result in duplicates in the list, with the same plant being given two different names. Most plant lists do not include the authority, which can make it difficult or impossible to identify which plant is being referred to. For the first time, a list of the current accepted plant names utilised by 471 European butterfly larvae is presented, with references. Where possible, errors in previous lists have been removed. The list of larval foodplants doubled from previous published lists. This has resulted in a list of 1506 different plant species in 72 different families. 86 plant records are only known at the generic level. Larval foodplants of 25 butterfly species are currently unknown. Whilst most plant families are utilised by less than six butterfly species, a few plant families are particularly favoured, with the Poaceae and Fabaceae being the most popular. Similarly, most plant species are only utilised by a few butterfly species, but *Festuca ovina* and *Festuca rubra* are favoured by a large number of butterfly species. 20% of European butterfly larvae are monophagous, 50% are oligophagous, and 30% are polyphagous, with *Celastrina argiolus* able to use plants in 19 different families.

## Introduction

The conservation of butterflies requires an understanding of their resource requirements, particularly during the larval stage. Most butterfly species are not restricted to a single hostplant species, with geographic, site specific and seasonal differences in hostplant use. For example, *Celastrina argiolus* larvae (mainly) use *Ilex aquifolium* in the spring, and *Hedera helix* in the autumn (Tutt 1908). Many butterflies in the families Riodinidae and Lycaenidae have relationships with ants (Formicidae) to varying degrees, with butterflies in the genus *Phengaris* parasitic on ants in their later larval instars. Fiedler (2021) provides a list of the Lycaenidae butterflies with their associated ants, with references. Two species are known to switch their larval foodplant during their second year of development. *Euphydryas maturna* for example, switches from *Fraxinus excelsior* to *Viburnum opulus* (Eliasson et al. 2005). *Pyrgus centaureae* switches from *Betula nana* to *Rubus chamaemorus* (Wickman 2012).

Each plant species has particular habitat requirements which can be defined by a number of different attributes, such as those defined by Grime (2001) and Ellenberg et al. (1991). The habitats where the larval foodplants grow define one of the locations where the adult butterflies are likely to be found, although of course they do utilise other habitats as well, such as for feeding, mate location, roosting hibernation, and predator escape (Dennis et al. 2003).

Accurate lists of larval foodplants are important to ensure where limited conservation resources are best directed. Many publications of European butterflies (e.g., Tolman and Lewington 2008; Tshikolovets 2011 and Leraut 2016) provide lists of the larval foodplants for each species. These lists have typically been copied from previous lists, which in turn have been copied from earlier lists. This has resulted in typographical errors creeping in, and mistakes being perpetuated. Many of the plant names are now out of date, and were considered synonyms even when *Flora Europaea* (Tutin et al. 1993, 1968, 1972, 1976, 1980) was published. In addition, contrary to best practice, only the binomial is provided without the authority, which can lead to confusion as to which species is being referred to. In the World Checklist of Vascular Plants (WCVP 2021) there are 40 entries for the species *Centaurea paniculata*, which refer to thirteen different accepted species, depending on authors, subspecies, variety or form.

Middleton-Welling et al. (2020) provide a reliable database on the life history traits of European butterflies, which include a measure of larval host specificity. Whilst a number of traits for larval hostplants are provided, the authors do not provide any specific reference for the larval hostplants used by European butterflies. Here, a new checklist of the currently accepted names of the larval foodplants of the European butterflies has been created. Wiemers et al. (2018) has been used to define the list of European butterflies.

## Methods

Tshikolovets (2011) was used to create an initial list of larval foodplants. Tolman and Lewington (2008) was used as a basis for the larval foodplants of *Aporia crataegi*, and to update the list where only the generic name was given. Lepiforum (2021) was used for the larval foodplants of *Pieris rapae*. The plant list and references within van Oorschot and Coutsis (2014) were used for the genus *Melitaea*. Google Scholar was then used to search for references for the larval foodplants for all butterfly species, using the initial plant list to aid searching. Google Translate was used to help in the interpretation of literature where required. The HOSTS database (Robinson et al. 2010) was not used as a source of information as it contained some questionable records for European butterflies, and does not include references.

Where possible, primary sources were used, where the author(s) had found larvae in the wild using particular plants. Plants used in breeding experiments were ignored, unless there was evidence the plant was actually used in the wild. Secondary sources were used where for practical reasons (unavailability or cost) it was not possible to easily obtain the primary reference. Where there was evidence that entries in the initial list were incorrect, those entries were deleted. The aim was to create a list of larval foodplants that were used in the wild by European butterflies, from the state of current knowledge from the searched resources.

As many of the plant names are not the currently accepted names, the following procedure was used to update the plant names, using the World Checklist of Vascular Plants version 4 (WCVP 2021) as the list of accepted plant names.

- The online resources of Plants of the World Online (<https://powo.science.kew.org/>), World Checklist of Vascular Plants (WCVP 2021) and GBIF (<https://www.gbif.org/>) to help identify the accepted name.
- The plant name is an accepted taxonomic name in the WCVP list. For example, *Lonicera xylosteum* L., rather than any of the other synonyms of the species.

- The plant name is a synonym or homotypic synonym of an accepted name in the WCVF list.
- The plant name had several taxonomic names in the WCVF list with different authors, with the author defined in Flora Europaea giving the definitive plant name.
- The plant name was not in the WCVF list, but was defined as a synonym in Flora Europaea of a plant name in WCVF.
- The plant name was not in WCVF nor Flora Europaea, but was found online as a synonym of an accepted name in WCVF or another list.
- The plant name was not in WCVF nor Flora Europaea, but an online search suggested a typographical error for a different genus, which could be confirmed by checks with other sources, such as Tolman and Lewington (2008).
- The plant name was not in WCVF nor Flora Europaea, and could not be identified by an online search. In these cases, the plant was ignored.

A database table was created containing the accepted plant with the butterflies' larvae that utilise that plant. A constraint was placed on the table to ensure that duplicates could not be entered, such as when a plant in the original list contained both an accepted name and a synonym.

Butterflies that have a predominantly African distribution, and with a very limited European distribution, were checked as to which plants they utilised in Europe and the European islands of Macaronesia (i.e., not Cape Verde islands).

Butterfly subspecies outside of Europe have been ignored. Otherwise butterflies are only treated at the species level. It is unknown whether any butterfly species are specific to a particular plant subspecies. It has been assumed that butterfly larvae are able to utilise all the subspecies of a plant that are found within their distribution. Consequently, plant subspecies have been ignored, and plants are only treated at the species level. Checks were made that the subspecies was not now considered another species.

Larval hostplants that are unknown at species level are recorded at the generic level where known. Information from breeding experiments is only used where no other information is available and stated in the results section.

The list of larval foodplants has been brought up to date with the current accepted plant names, thus plant species with several different names have been reduced to having just one name; the currently accepted name. Plants that could not be identified, or were identified as having a distribution outside of Europe were excluded. Errors where identified have been removed. This has resulted in an initial list of 1977 European butterfly larvae-hostplant relationships, being doubled to 4080.

The references list the sources used to produce the list of larval foodplants used by European butterflies, and are cited in the Suppl. material 1. Where there were multiple references for a particular larval foodplant, usually the first found was used as the reference. No particular significance should therefore be given to the reference provided, as no attempt was made to use the best reference, or the earliest reference. However, if a particular useful source was found that described the complete life-cycle, an attempt was made to include it in the set of references for a particular butterfly species.

The quality of the references varies greatly with regards the evidence provided that that particular plant is used by that butterfly larvae. Consequently, it is virtually impossible to verify the information provided, other than by another source providing the same information. Many plants are difficult, if not impossible to accurately identify in their vegetative state, requiring flowers and/or fruits/seeds for accurate identification.

In some cases, the plant name provided by a reference was ambiguous, as the authority was not specified. Sometimes this ambiguity could be resolved by the distribution, but in other cases, there were other hostplants with the same distribution. For example, in Reinhardt et al. (2020), *Vicia angustifolia* is given as a larval foodplant for *Leptidea sinapis*, which could be one of three accepted species *V. lathyroides*, *V. sativa*, or *V. setifolia*. As the latter is South American it can be ruled out, but the other two species have European distribution. Without knowing the authority of *V. angustifolia*, it is impossible to know which species is being referred to, and consequently it was not possible to include that plant in the list from that source.

A comprehensive search of all synonyms was not made, so some references may have been missed. Some potential references could not be checked as they were not easily accessible (due to unavailability or cost).

## Results

The discovery of new cryptic butterfly species, such as the separation of *Polyommatus icarus* and *P. celina* can cause problems in understanding their larval foodplants. Larval foodplants have been assigned where identification is confirmed, although records referenced by Tshikolovets (2011) need to be confirmed. For allopatric species, such as *Euchloe ausonia* and *E. crameri*, their larval foodplants were identified based on the distributions of both species, provided that regional plant lists are available. However, for sympatric species such as *Leptidea juvernica*, *L. sinapis* and *L. reali*, larval foodplants could apply to all, some or to only one species. A re-survey of the larval foodplants is required. Where there are morphological differences between the larvae, such as for the post diapause larvae of *Melitaea ornata* and *M. phoebe*, the identification can be confirmed in the field.

Recent research suggests that *Muschampia proto* should be split into three species (Hinojosa 2021), *Zegris eupheme* should be split into two species (Back 2012, 2020), and *Hyponphele lupina* should be split into two species (Lukhtanov 2021). Given that the distributions of these species are allopatric, references have been provided for each of the regions, which will provide larval lists for these new species if the splits are generally accepted.

The larval foodplants are still unknown for the following 25 European butterfly species: *Erebia dabanensis*, *Erebia edda*, *Erebia gorgone*, *Erebia jeniseiensis*, *Erebia orientalis*, *Hipparchia blanchieri*, *Hipparchia christenseni*, *Hipparchia cretica*, *Hipparchia cypriensis*, *Hipparchia mersina*, *Hipparchia pellucida*, *Hyponphele huebneri*, *Issoria eugenia*, *Maniola chia*, *Maniola cypricola*, *Maniola halicarnassus*, *Maniola megala*, *Oeneis ammon*, *Pieris balcana*, *Polyommatus timfristos*, *Pseudochazara anthelea*, *Pseudochazara graeca*, *Pseudochazara mercurius*, *Pseudochazara orestes* and *Thymelicus christi*.

Of the 471 European butterfly species where the larval foodplants are known, 1506 different plant species are utilised in 72 families, of which 86 records have only been identified to generic level in 40 different genera (mostly grasses). For each plant, the family and order have been specified. The full scientific names are provided in the Suppl. material 1 (European\_butterfly\_larval\_foodplants.xlsx).

The only information about larval foodplants for the five endemic Canary Island Graylings (*Hipparchia tamadabae*, *H. wyssii*, *H. tilosi*, *H. bacchus* and *H. gomera*) is available from breeding experiments by Jutzeler et al. (2007). This single grass has been included in the list of larval foodplants, although its use in the wild does need to be confirmed.

Where it was not possible to identify the accepted plant name in the WCVF list, or using other resources such as GBIF, the Royal Botanic Gardens, Kew was consulted as to the current accepted name. Four plants were thus added to the WCVF list:

- *Rosa agrestis* × *micrantha* – this is a natural hybrid between *Rosa agrestis* and *Rosa micrantha*
- *Achnatherum parviflorum* – this is the accepted name in the World Checklist of Selected Plant Families (WCSP 2021). It was previously known as *Stipa parviflorum*.
- *Goniolimon cuspidatum* – this is the accepted name in the World Flora Online (WFO 2021)
- *Alpagrostis setacea* – this is the accepted name in the online version of WCVF (2021).

The family Adoxaceae defined in APG4 is considered a synonym for Viburnaceae by Plants of the World Online (PWO 2021), and Viburnaceae is the name used by WCVF.

Most plant families are utilised by less than six butterfly species; however a few plant families are particularly favoured by butterfly larvae, with the Poaceae and Fabaceae being the most used (Table 1).

**Table 1.** Top ten most used plant families.

Plant family	No. of butterfly species
Poaceae	150
Fabaceae	93
Rosaceae	52
Cyperaceae	45
Brassicaceae	31
Polygonaceae	27
Lamiaceae	24
Plantaginaceae	21
Violaceae	21
Ericaceae	19

Most plant species are only utilised by one or two species; however, a few plant species are particularly well-used by butterfly larvae, with *Festuca ovina* and *Festuca rubra* being the most commonly so (Table 2).

**Table 2.** The most used plant species.

Plant	No. of butterfly species
<i>Festuca ovina</i>	68
<i>Festuca rubra</i>	40
<i>Poa annua</i>	39
<i>Brachypodium pinnatum</i>	36
<i>Dactylis glomerata</i>	29
<i>Bromus erectus</i>	27
<i>Deschampsia cespitosa</i>	24
<i>Brachypodium sylvaticum</i>	22
<i>Brachypodium phoenicoides</i>	21
<i>Lotus corniculatus</i>	21
<i>Nardus stricta</i>	21

Of the 471 butterfly species, over half (255) utilise five or less larval foodplants, of which 92 species are monophagous. Whilst 2.5% utilise 48 or more different larval foodplants, with *Pieris rapae* using 82 different larval foodplants in Europe and *Vanessa cardui* using 77.

70% (331) of European butterfly larvae utilise just one plant family, with a further 18% (84) butterfly species using two plant families, and 29 butterfly species using three plant families. The butterfly species utilising the most different plant families is *Celastrina argiolus* (Table 3).

**Table 3.** Butterfly species utilising the most plant families.

Butterfly name	No. of plant families.
<i>Celastrina argiolus</i>	19
<i>Euphydryas maturna</i>	10
<i>Callophrys rubi</i>	9
<i>Leptotes pirithous</i>	8
<i>Charaxes jasius</i>	7
<i>Nymphalis vaualbum</i>	7
<i>Polygonia c-album</i>	7
<i>Vanessa cardui</i>	7

## Discussion

Butterflies can be classified according to the larval foodplants that they utilise into four main types (Courtney 1984):

- Monophagous feeding on only one species of plant throughout their range.
- Oligophagous-monophagous (OM) – feeding on one plant species in one region, and another species in another region.
- Oligophagous-polyphagous (OP) – feeding on several closely related species of plant throughout their range, usually in the same genus, or a closely related genus.
- Polyphagous – feeding on many different species of plants throughout their range, usually in different families.

The larvae of many butterfly species are oligophagous, feeding on a few species of plants. These can fall into two groups, those that use only one species of plant per habitat, and those that use multiple species of plant per habitat (Wiklund and Åhrberg 1978). This can mean that larvae change their foodplant(s) in different regions.

A list of plant species does not distinguish between OM and OP type butterfly species. Regional lists of plants, such as those produced by Munguira et al. (1997) are useful. Additionally, a list of plant species does not provide information on plant suitability for high larval survivability. Preferences for larval foodplants are largely unknown for oligophagous and polyphagous butterflies, except in a few cases. This is an important consideration when considering conservation efforts, which should be directed towards the primary larval foodplants for the region, rather than for plants that are only exceptionally used. For example, the main larval foodplant of *Aglais urticae* is *Urtica dioica*, although it will occasionally use other plants. The chemical constitution of the foodplant would be appear to be of prime importance in the development of the larvae (Feltwell 1982). Experimental evidence has shown that different foodplants have different effects on the growth of

the larvae (Feltwell 1982). The survivability of larvae on different plants is largely unknown except in a few cases where the butterfly species has been studied in detail.

It is common for butterfly species to oviposit off the larval foodplant (Singer 1984). Where butterflies lay their eggs is dependent on their life-cycle and plant abundance (Wiklund 1984). Species of the Satyrinae are more likely to lay their eggs off-host. For species that overwinter as eggs, those that use herbaceous plants are more likely lay their eggs off-host, whereas those species that use woody plants lay their eggs on the host. For example, *Argynnis paphia* oviposits on tree trunks above where *Viola* spp. are growing. *Thecla betulae* oviposits on *Prunus spinosa*, although mistakes are made, as I have found *Thecla betulae* eggs on *Crataegus monogyna*, whilst searching for eggs on *Prunus spinosa*, probably due to the overlapping branches of the two shrubs in this location. However, two references were found for *T. betulae* using *C. monogyna* (de Tré 1987; Tugulea et al. 2016). In any case, it was not clear from these sources whether larvae were actually using *C. monogyna*.

The checklist of larval foodplants presented here no doubt contains errors. The main reasons for errors are incomplete documented evidence of hostplant usage. Mistakes have been made in the identification of the larvae and/or the plant being utilised. Assumptions may be made that the butterfly utilises a particular plant that is widespread in the areas where it is found, whereas in reality it utilises another plant. Sometimes the plant authority was wrong. For example, *Bromus erectus* has been specified, in cases where *Bromus erectus* Huds. is an accepted name, or *Bromus erectus* Moris was meant, which is a synonym of *Bromus scoparius* L. Both plants share a distribution in southern Europe. Oviposition evidence does not prove that larvae can complete their development on that plant, as many butterflies oviposit off-host.

## Conclusions

Future publications should ensure that old and ambiguous plant names are not used. Plant names should be specified with their full scientific name, as specified by the International Code of Nomenclature for algae, fungi, and plants (Turland et al. 2018). The World Checklist of Vascular Plants (WCVP) should be checked to ensure the currently accepted plant name is being used.

Fully documented records are required of what larval foodplants butterfly larvae are utilising in the wild. To get a better understanding of usage, full details need to be recorded, including, date, location, altitude, abundance, and larval stage. Abundance will help in the understanding of preferences. To enable records to be properly verified, evidence should be provided on how larvae and plants were identified. Regional lists are also important, to help direct conservation efforts to the plants being used locally, rather than elsewhere.

This list of larval foodplants is provided as a step towards a fully justified database, which will be updated as and when corrections are found. It highlights those 25 butterfly species whose larval foodplants are currently unknown.

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## References

- Abadjiev S (1992) Butterflies of Bulgaria, Part 1 Papilionidae & Pieridae. Veron Publishers, 91 pp.
- Abadjiev S (1994) The larval foodplant of *Colias caucasica balcanica* (Rebel, 1901) in Bulgaria (Lepidoptera: Pieridae). *Phegea* 22(3): 97–98.
- Abadjiev S (1995) Butterflies of Bulgaria, Volume 3 Nymphalidae: Apaturinae & Nymphalinae. Veron Puis S. Abadjiev, 159 pp.
- Abós L, Stefanescu C (1999) Phenology of *Charaxes jasius* (Nymphalidae: Charaxinae) in the north-east Iberian Peninsula. *Nota Lepidopterologica* 22(3): 162–182.
- Acosta-Fernández B (2010) Nuevas aportaciones al conocimiento del ciclo biológico de *Euchloe belemia hesperidum* Rothschild, 1913 y *Euchloe belemia grancanariensis* Acosta, 2008 y nueva sinonimia para este taxón (Lepidoptera: Pieridae). *SHILAP Revista de lepidopterología* 38(149): 121–128.
- Agenjo R (1967) Morfología y distribución geográfica en España de la «niña del astrágalo» *Plebejus (Plebejus) pylaon* (F. d. W., 1824). *Eos* 43: 21–25.
- Aguiar AMF, Wakeham-Dawson A, Brazão C (2002) Additional observations on the presence of *Leptotes piriouthus* (Linnaeus, 1767) (Lepidoptera: Lycaenidae in Madeira Island, Portugal, with a record of the first confirmed host plant. *Entomologist's Record and Journal of Variation* 114(3): 118–120.
- Albre J, Gers C, Legal L (2008) Molecular phylogeny of the *Erebia tyndarus* (Lepidoptera, Rhopalocera, Nymphalidae, Satyrinae) species group combining CoxII and ND5 mitochondrial genes: A case study of a recent radiation. *Molecular Phylogenetics and Evolution* 47(1): 196–210. <https://doi.org/10.1016/j.ympev.2008.01.009>
- Albrecht M (2003) Zum ehemaligen Vorkommen des Heilziest-Dickkopffalters (*Carcharodus floccifera* Zeller, 1847) im Rhein-Main-Gebiet (Lepidoptera: Hesperiiidae). *Nachrichten des Entomologischen Vereins Apollo* 24(4): 215–220.
- Albrecht M (2012) *Stachys cretica*, a new host plant for *Carcharodus orientalis* Reverdin, 1913 on the Greek island of Samos (Lepidoptera: Hesperiiidae). *Nachrichten des Entomologischen Vereins Apollo* 32(3/4): 173–175.
- Albrecht M (2020) The Carcharodus Project (Lepidoptera: Hesperiiidae) 2009–2020. <http://www.carcharodus.ch> [accessed 17 Feb. 2022]
- Albrecht M, Kissling T (2013) Observations on the ecology and habitat of *Carcharodus stauderi* Reverdin, 1913 on the Greek island of Kalymnos (Lepidoptera: Hesperiiidae). *Nachrichten des Entomologischen Vereins Apollo* 34(1/2): 1–8.
- András M (2018) A dolomit-kénéslepke (*Colias chrysotheme*) újbóli megtelepedése a Kiskunságban. *Természeti védelem és kutatás a Turjánvidék északi részén* 10: 825–833.
- Anthes N, Fartmann T, Hermann G (2007) The Duke of Burgundy butterfly and its dukedom: larval niche variation in *Hamearis lucina* across Central Europe. *Journal of Insect Conservation* 12(1): 3–14. <https://doi.org/10.1007/s10841-007-9084-7>
- APGIV (2016) An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG IV. *Botanical Journal of the Linnean Society* 181(1): 1–20. <https://doi.org/10.1111/boj.12385>
- Asher J, Warren M, Fox R, Harding P, Jeffcoate G, Jeffcoate S (2001) *The Millennium Atlas of Butterflies in Britain and Ireland*. Oxford University Press, 433 pp.
- Aubert J, Descimon H, Michel F (1996) Population biology and conservation of the Corsican swallowtail butterfly *Papilio hospiton* Gén. *Biological Conservation* 78(3): 247–255. [https://doi.org/10.1016/S0006-3207\(96\)00031-6](https://doi.org/10.1016/S0006-3207(96)00031-6)
- Aussem B, Hesselbarth G (1980) Die Präimaginalstadien von *Pseudochazara cingovskii* (Gross, 1973). (Satyridae). *Nota Lepidopterologica* 3(1–2): 17–23.



- Back W (1990) Taxonomische Untersuchungen innerhalb der Artengruppe um *Euchloe ausonia* (Hübner, 1804) (Lepidoptera, Pieridae). *Atalanta* 21(3/4): 187–206.
- Back W (2012) Phenotypische und genotypische Abgrenzung der Arten und Unterarten der Gattung *Zegris* Boisduval, 1836 (Lepidoptera, Pieridae). *Atalanta* 43(1/2): 77–86.
- Back W (2020) Guide to the butterflies of the Palearctic Region. Pieridae part IV: Subfamily Pierinae partim), Tribe Anthocharidini. *Omnes Artes*, 102 pp.
- Bálint Z, Kertész A (1990) A survey of the subgenus *Plebejides* (Sauter, 1968) – preliminary revision. *Linneana Belgica* 12(5): 190–224. <https://doi.org/10.1097/00132586-196804000-00012>
- Bamann T (2009) Die Tagfalter und Widderchen des NSG Schaichtal (Schönbuch), Südwestdeutschland. *Carolina* 67: 159–169.
- Bărcă V, Niculae M (2018) Distribution of the species *Zerynthia polyxena* (Lepidoptera, Papilionidae), in natural and anthropic habitats in the Carpathian Piedmont between the rivers Buzău and Prahova (Romania), implications for conservation. *Oltenia. Studii și comunicări. Științele Naturii* 34(1): 127–134.
- Barrett CG (1893) The Lepidoptera of the British Isles, Vol 1 – Rhopalocera, 316 pp.
- Batáry P, Örvössi N, Kőrösi Á, Peregovits L (2008) Egg distribution of the Southern Festoon (*Zerynthia polyxena*) (Lepidoptera, Papilionidae). *Acta Zoologica Academiae Scientiarum Hungaricae* 54(4): 401–410.
- Belling H (1922) *Satyrus actaea* Esp. f. *cordula* F. in Südtirol. *Deutsche Entomologische Zeitschrift* (Berliner Entomologische Zeitschrift Und Deutsche Entomologische Zeitschrift in Vereinigung) 1922: 215–218. <https://doi.org/10.1002/mmnd.192219220214>
- Bengtson R, Olsen KM (2010) *Scolitantides orion* (fetörtsblåvinge) funnet på svensk sideav Iddefjorden i 2009. *Entomologisk Tidskrift* 131(2): 155–159.
- Bengtson R, Steel C (2007) The first record of Silvery Argus *Aricia nicias* (Meigen, 1829) (Lepidoptera, Lycaenidae) in Norway, and notes on its ecology and situation in Fennoscandia. *Norwegian Journal of Entomology* 54: 37–42.
- Benyamini D, Aristophanous M, Aristophanous A, John E (2018) The biology of the Cyprus endemic blue *Glaucopsyche paphos* Chapman, 1920 (Lepidoptera: Lycaenidae, Polyommatainae). *Entomologist's Gazette* 69(3): 151–165. <https://doi.org/10.31184/G00138894.693.1648>
- Bergman K-O (2000) Oviposition, host plant choice and survival of a grass feeding butterfly, the Woodland Brown (*Lopinga achine*) (Nymphalidae: Satyrinae). *Journal of Research on the Lepidoptera* 35: 9–21.
- Berndari G (1962) Missions Ph. Bruneau de Miré au Tibesti: Lépidoptère Pieridae. *Bulletin de l'Institut français d'Afrique noire* 24(A 3): 818–851.
- Bink FA (1992) Ecologische atlas van de dagvlinders van Noordwest-Europa. Schuyt & Co, Haarlem, 512 pp.
- Bolotov IN, Gofarov MY, Rykov AM, Frolov AA, Kogut Y (2013) Northern boundary of the range of the Clouded Apollo butterfly *Parnassius mnemosyne* (L.) (Papilionidae): climate influence or degradation of larval host plants? *Nota Lepidopterologica* 36(1): 19–33.
- Bolz R (2006) Zum Raupennahrungsspektrum von *Melitaea phoebe* ([Denis & Schiffermüller], 1775) in Bayern (Insecta: Lepidoptera: Nymphalidae). *Beiträge Zur Bayerischen Entomofaunistik* 8: 129–130.
- Bonelli S, Canterino S, Barbero F, Scalercio S, Balletto E (2008) Ecologia e conservazione delle farfalle diurne nei SIC e ZPS del Monte Bianco. *Revue Valdotaïne d'Histoire Naturelle* 61–62: 429–440.
- Bos F, Bosveld M, Groenendijk D, van Swaay C, Wynhoff I (2006a) Dagvlinders: Spiegeldikkopje *Heteropterus morpheus*. *Natuur van Nederland* 7(1): 79–82.
- Bos F, Bosveld M, Groenendijk D, van Swaay C, Wynhoff I (2006b) Dagvlinders: Grote ijsvogelvlinder *Limenitis populi*. *Natuur van Nederland* 7(1): 246–247.
- Bos F, Bosveld M, Groenendijk D, van Swaay C, Wynhoff I (2006c) Dagvlinders: Zilveren maan *Boloria selene*. *Natuur van Nederland* 7(1): 310–313.
- Bourn NAD, Jeffcoate GE, Warren MS (2000) Species action plan Dingy Skipper *Erynnis tages*. *Butterfly Conservation, UK*, 19 pp.

- Bourn NAD, Warren MS (1997) Species action plan Lulworth Skipper *Thymelicus acteon*. Butterfly Conservation, 16 pp.
- Budashkin YI, Ivanov SP (2005) New information on the distribution and biology of *Pseudochazara euxina* (Lepidoptera, Satyridae) [in Russian]. Vestnik zoologii 39(4): 79–83.
- Burnaz S (2005) Data about butterflies (Ord. Lepidoptera, S.ord. Rhopalocera) of Zlaști Valley (Poiana Ruscă Mountains, Romania). Buletin de informare entomologică 16: 35–54.
- Burnaz S (2008) Endemits and rare species in the Lepidoptera collection of the Museum of Dacian and Roman Civilisation (Hunedoara County, Romania). Oltenia-Studii și Comunicări Științele Naturii 24: 130–138.
- Bury J (2016) New data on *Aricia agestis* (Lepidoptera: Lycaenidae), its life history and occurrence in the Podkarpacie region of Poland. Fragmenta Faunistica 59(1): 29–37. <https://doi.org/10.3161/00159301FF2016.59.1.029>
- Bury J, Savchuk V (2015) New data on the biology of ten lycaenid butterflies (Lepidoptera: Lycaenidae) of the genera *Tomares* Rambur, 1840, *Pseudophilotes* Beuret, 1958, *Polyommatus* Latreille, 1804, and *Plebejus* Kluk, 1780 from the Crimea and their attending ants (Hymenoptera: Formicidae). Acta Entomologica Silesiana 23: 1–16.
- Buszko J, Olszewski P (2010) Comparative study on the biology of *Aricia agestis* and *Aricia artaxerxes* (Lepidoptera). Acta Biologica Cracoviensia. Series Botanica, Abstracts of the XXIX Conference on Embryology of Plants – Animals – Humans May 19–21, 2010, Toruń-Ciechocinek, Poland, 52 Supplement 1, 50.
- Cagnetta G (2016) Two species of *Melitaea* Fabricius, 1807 (Lepidoptera: Nymphalidae) newly recorded from Apulia (southern Italy). Entomologist's Gazette 67(4): 246–248.
- Casini PM (1996) Deux nouvelles stations d'*Euchloe tagis* (Hübner, 1804) in Italie central. Élevage d'*Euchloe tagis calvensis* Casini (1993), *Euchloe ausonia* (Hübner, 1804) et *Anthocharis cardamines* (Linnaeus, 1758) au Mont Calvi (Livorno, Italie centrale) (Lepidoptera: Pieridae). Linneana Belgica 15(7): 275–280.
- Casini PM (2001) Les premiers états d'*Euchloe tagis calvensis* Casini, 1993. Carte de répartition d'*Euchloe tagis* (Hübner, 1804) en Italie centrale. Considérations géologiques et zoogéographiques (Lepidoptera: Pieridae). Linneana Belgica 18(2): 75–86.
- Catania A, Seguna A (2017) On the Occurrence of the *Azanus ubaldus* (Stoll, 1782) in the Maltese Islands (Lepidoptera: Lycaenidae). SHILAP Revista de lepidopterología 45(178): 213–216.
- Čelik T, Bräu M, Bonelli S, Cerrato C, Vreš B, Balletto E, Stettmer C, Dolek M (2014) Winter-green host-plants, litter quantity and vegetation structure are key determinants of habitat quality for *Coenonympha oedippus* in Europe. Journal of Insect Conservation 19(2): 359–375. <https://doi.org/10.1007/s10841-014-9736-3>
- Čelik T, Verovnik R (2010) Distribution, habitat preferences and population ecology of the False Ringlet *Coenonympha oedippus* (FABRICIUS, 1787) (Lepidoptera: Nymphalidae) in Slovenia. Oedippus 26: 7–15.
- Chapman TA (1903) Larvae of *Spilothyrus lavaterae*. The Entomologist's Record and Journal of Variation 15: 298–301.
- Chapman TA (1911) On the early stages of *Lattiorina* (*Lycaena*) *orbitulus*, an amyrmecophilous Plebeiid “Blue” butterfly. Transactions of the Entomological Society of London 59(1): 148–159. <https://doi.org/10.1111/j.1365-2311.1911.tb03079.x>
- Chapman TA (1912) The food-plant of *Callophrys avis*. Transactions of the Entomological Society of London 60(2): 409–411. <https://doi.org/10.1111/j.1365-2311.1912.tb03100.x>
- Chapman TA (1914) A Contribution to the life-history of *Plebeius zephyrus* var. *lycidas*. Transactions of the Entomological Society of London 62(3/4): 482–484. <https://doi.org/10.1111/j.1365-2311.1915.tb02989.x>
- Chapman TA (1915) On the early stages of *Lattiorina* (*Lycaena*) *pyrenaica*, Boisd. Transactions of the Entomological Society of London 63(3–4): 397–410. <https://doi.org/10.1111/j.1365-2311.1916.tb02545.x>
- Cizek O, Bakesová A, Kuras T, Benes J, Konvicka M (2003) Vacant niche in alpine habitat: the case of an introduced population of the butterfly *Erebia epiphron* in the Krkonoše Mountains. Acta Oecologica 24(1): 15–23. [https://doi.org/10.1016/S1146-609X\(02\)00004-8](https://doi.org/10.1016/S1146-609X(02)00004-8)

- Courtney SP, Duggan AE (1983) The population biology of the Orange Tip butterfly *Anthocharis cardamines* in Britain. *Ecological Entomology* 8(3): 271–281. <https://doi.org/10.1111/j.1365-2311.1983.tb00508.x>
- Courtney SP (1984) Habitat versus foodplant selection. In: Vane-Wright RI, Ackery PR (Eds) *The biology of butterflies – Symposium of the Royal Entomological Society of London*. Number 11, Academic Press, 89–90.
- Coutsis JG (1972) The foodplant of *Agrodiaetus coelestina* Eversmann. *Entomologist's Record and Journal of Variation* 84(10): 251.
- Coutsis JG (1976) The early stages of *Anthocharis gruneri* H.-S. from Greece. *Entomologist's Record and Journal of Variation* 88(2): 37–38.
- Coutsis JG (1979) The foodplant of *Pseudophilotes vicrama schiffmuelleri* Hemming. *Entomologist's Record and Journal of Variation* 91(1): 25–26.
- Crişan A, Sitar C, Craioveanu C, Rákossy L (2011) The protected Transylvanian Blue (*Pseudophilotes bavius hungarica*): new information on the morphology and biology. *Nota Lepidopterologica* 34(2): 163–168.
- D'Alessandro C, Sala G, Zilli A (2008) Le farfalle diurne del Parco Nazionale d'Abruzzo, Lazio e Molise (Lepidoptera: Hesperioidea, Papilionoidea). *Bollettino dell'Associazione Romana di Entomologia* 63: 91–154.
- Danner F (2001) Die Raupe von *Charaxes jasius* (Linnaeus, 1767) auf Aprikose (Lepidoptera, Nymphalidae). *Atalanta* 32(3/4): 401.
- Dantchenko AV (1997) Notes on the biology and distribution of the *damone* and *damocles* species-complexes of the subgenus *Polyommatus* (*Agrodiaetus*) (Lepidoptera: Lycaenidae). *Nachrichten des Entomologischen Vereins Apollo*, Suppl. 16: 23–42.
- Davkov S, Mérit X (2017) *Muschampia cribrellum* (Eversmann, 1841) new to the Greek butterfly fauna and found in an unexpected alpine ecosystem (Lepidoptera: Hesperioidea). *Lépidoptères – Revue des Lépidoptéristes de France* 26(66): 38–42.
- de Arce Crespo JI, Jiménez Mendoza S (2006) Ampliación de la distribución e información sobre patrones ecológicos de *Erebia epistygne* (Hübner, 1824) en la Serranía de Cuenca, España (Lepidoptera: Nymphalidae). *SHILAP Revista de lepidopterología* 34(133): 103–108.
- de Freina JJ (1985) Revision der gattung *Archon* Hübner 1822 mit angaben zur biologie, verbreitung, morphologie und systematik von *Archon apollinus* (Herbst 1798) und *Archon apollinaris* Staudinger [1892] 1891 (stat. nov.) (Lepidoptera, Papilionidae). *Nota Lepidopterologica* 8(2): 97–128.
- de Groot M, Rebeušek F, Grobelnik V, Govedič M, Šalamun A, Verovnik R (2009) Distribution modelling as an approach to the conservation of a threatened alpine endemic butterfly (Lepidoptera: Satyridae). *European Journal of Entomology* 106(1): 77–84. <https://doi.org/10.14411/eje.2009.012>
- de Lesse H (1951) Contribution a l'étude du genre *Erebia* (3<sup>e</sup> note). Répartition dans les Pyrénées de *E. tyndarus* Esper et *E. cassioides* Reiner et Hohenwarth. *Vie Et Milieu* 2(12): 95–123.
- de Tré E (1987) Inventaristatie, status en ecologie van het Belgisch dagvlinderbestand. In: *Entomobrochure* (Vol. 5). Vlaamse Vereniging voor Entomologie, 72 pp.
- Dempster JP (1995) The ecology and conservation of *Papilio machaon* in Britain. In: Pullin AS (Ed.) *Ecology and conservation of butterflies*, Chapman & Hall, 137–149. [https://doi.org/10.1007/978-94-011-1282-6\\_10](https://doi.org/10.1007/978-94-011-1282-6_10)
- Dennis RLH (1996) Oviposition in *Zerynthia cretica* (Rebel, 1904): loading on leaves, shoots and plant patches (Lepidoptera, Papilionidae). *Nota Lepidopterologica* 18(1): 3–15.
- Dennis RLH, Shreeve TG, Van Dyck H (2003) Towards a functional resource-based concept for habitat: A butterfly biology viewpoint. *Oikos* 102(2): 417–426. <https://doi.org/10.1034/j.1600-0579.2003.12492.x>
- Diesing P (1985) Ortsfunde des Braunen Waldvogels (*Aphantopus hyperantus* (L.)) nach Markierungen. *Beiträge Zur Naturkunde Niedersachsens* 38: 98–102.
- Dolek M, Freese-Hager A, Geyer A, Balletto E, Bonelli S (2012) Multiple oviposition and larval feeding strategies in *Euphydryas maturna* (Linné, 1758) (Nymphalidae) at two disjoint European sites. *Journal of Insect Conservation* 17(2): 357–366. <https://doi.org/10.1007/s10841-012-9516-x>

- Domingo MÁ (2018) Discovery of two populations of *Lopinga achine* (Scopoli, 1763) (Lepidoptera: Nymphalidae) in the Montes de Vitoria, northern Spain. *Heteropterus Rivista de Entomología* 18(1): 65–70.
- Dufay CI, Mazel R (1981) Les Lépidoptères des Pyrénées-orientales, Supplément à la faune de 1961. *Vie et Milieu* 31(2): 183–191.
- Duprez J-N (2004) Le genre *Colias* en France et en Belgique (Insecta Lepidoptera Pieridae). *Le bulletin de Phyllie* 21(3): 11–18.
- Ebert G (1991) Die Schmetterlinge Baden-Württembergs, Band 1 Tagfalter. Eugen Ulmer, 552 pp.
- Eitschberger U, Steiniger H (1973) Beschreibung der Frühjahrsgeneration von *Pieris manni roberti* Eitschberger und Steiniger, 1973 und die Verbreitung dieser Unterart in Südspanien (Lep. Pieridae). *Atalanta* 4: 335–343.
- Eitschberger U, Steiniger H (1975) Die geographische variation von *Eumedonia eumedon* (Esper, 1780) in der westlichen Palaearktis (Lep. Lycaenidae). *Atalanta* 6: 84–125.
- Eliasson C (1991) Studier av boknätfjärilens. *Euphydryas maturna* (Lepidoptera. Nymphalidae), förekomst och biologi i Västmanland. *Entomologisk Tidskrift* 112: 113–124.
- Eliasson CU, Ryrholm N, Gärdenfors U, Holmer M, Jilg K (2005) Fjärilar: Dagfjärilar: Hesperiiidae, Nymphalidae: denna volym omfattar samtliga nordiska arter. *Art Databanken SLU, Uppsala*, 407 pp.
- Eliasson CU, Shaw MR (2003) Prolonged life cycles, oviposition sites, foodplants and *Cotesia* parasitoids of Melitaeini butterflies in Sweden. *Oedipus* 21: 1–52.
- Ellenberg H, Weber HE, Düll R, Wirth V, Werner W, Paulissen D (1991) Zeigerwerte von Pflanzen in Mitteleuropa. *Scripta Geobotanica* 18: 248 pp.
- Embacher G (1996) Die Tagfalter der Salzburger Hohen Tauern (Lepidoptera: Rhopalocera, Hesperiiidae). *Wissenschaftliche Mitteilungen Nationalpark Hohe Tauern* 2: 43–74.
- Epstein HJ (1980) The foodplant of *Erebia aethiopella* (Hoffmannsegg 1806). (Satyridae). *Nota Lepidopterologica* 2(4): 137–138.
- Ertz, D, Graitson E (2001) Effectifs des populations, répartition et statut du petit nacré *Issoria lathonia* L., sur les terrains calaminaires du bassin de la Vesdre (province de Liège, Belgique) (Lepidoptera: Nymphalidae). *Linneana Belgica* 18(2): 87–92.
- Favilli L, Piazzini S, Manganelli G (2014) *Argynnis pandora* (Denis & Schiffermüller, 1775) in Toscana (Lepidoptera, Nymphalidae). *Atti della Società Toscana di Scienze Naturali Residente in Pisa Memorie serie B* 121: 121–126. <https://doi.org/10.2424/ASTSN.M.2014.09>
- Fazekas I (1986) Die *Spialia*-Arten des Karpatenbeckens und ihre Verbreitung (Lepidoptera: Hesperiiidae). *Nachrichten des Entomologischen Vereins Apollo* 7(2/3): 49–55.
- Feltwell J (1981) Large White butterfly: the biology, biochemistry and physiology of *Pieris brassicae* (Linnaeus). *Springer Nature*, 564 pp. <https://doi.org/10.1007/978-94-009-8638-1>
- Fiedler K (2021) The ant associates of Lycaenidae butterfly caterpillars – revisited. *Nota Lepidopterologica* 44: 159–174. <https://doi.org/10.3897/nl.44.68993>
- Freese A, Dolek M, Geyer A, Stetter H (2005) Biology, distribution, and extinction of *Colias myrmidone* (Lepidoptera, Pieridae) in Bavaria and its situation in other European countries. *Journal of Research on the Lepidoptera* 38: 51–58.
- Friberg M, Wiklund C (2019) Host preference variation cannot explain microhabitat differentiation among sympatric *Pieris napi* and *Pieris rapae* butterflies. *Ecological Entomology* 44(4): 571–576. <https://doi.org/10.1111/een.12728>
- Fric ZF, Klimova M, Hula V, Konvicka M (2005) Caterpillars of *Argynnis aglaja* (Linnaeus, 1758) feeding on *Bistorta major*. *Atalanta* 36(1/2): 119–121.
- Friedrich E (2014) Der Faulbaum-Bläuling *Celastrina argiolus* (Linnaeus, 1758) und der Blasenstrauch *Coletea arborescens* – eine bisher übersehene Beziehung? (Lepidoptera: Lycaenidae). *Mitteilungen des Entomologischen Vereins Stuttgart* 49: 201.

- Frohawk FW (1913) Life-history of *Argynnis hecate*. The Entomologist 46(604): 249–252.
- Frohawk FW, Rothschild NC (1913) Completion of the life-history of *Melanargia japygia* subsp., *suwarovius*. The Entomologist 46(605): 275–278.
- Fuchs J (1986) Beobachtungen über die Lycaenide *Agrodiaetus coelestinus* (*Plebicula coelestina*) in Griechenland / Peloponnes. Galathea, Berichte des Kreises Nürnberger Entomologen e.V. 2: 117–119.
- Galanos CJ (2020) Bionomics of *Freyeria trochylus* (Freyer, 1844) and *Zizeeria karsandra* (Moore, 1865) (Lepidoptera, Lycaenidae) on Rodos Island, Greece. Nota Lepidopterologica 43: 139–150. <https://doi.org/10.3897/nl.43.48535>
- Gándara JÁ, León JRC, Rodríguez RE, Palacio JVF, Farnés PM, Crusafont AR (2011) *Pontia callidice* (Hübner, [1800]), aportación de una nueva planta nutricia (Lepidoptera, Pieridae). Archivos Entomológicos 5: 125–127.
- García-Barros E (1989) Estudio comparativo de los caracteres biológicos de dos satirinos *Hipparchia statilinus* (Hufnagel, 1766) e *H. semele* (L., 1758) (Lepidoptera, Nymphalidae, Satyrinae). Miscel·lània Zoològica 13: 85–96.
- García-Barros E, Munguira ML, Stefanescu C, Vives Moreno A (2013) Fauna Ibérica Vol. 37 Lepidoptera: Papilionoidea. Museo Nacional de Ciencias Naturales, Madrid, 1216 pp.
- García-Villanueva V, Moreno Tamurejo JA, Vazquez Pardo FM, Nieto Manzano MÁ, Novoa Pérez JM (2008) *Melitaea aetherie* (Hübner, 1826) en la provincia de Badajoz (España): nuevos datos sobre su biología y distribución (Lepidoptera: Nymphalidae). Boletín Sociedad Entomológica Aragonesa 1(42): 279–288.
- García J, García R, Bacallado JJ (2015) Nuevos datos sobre la biología y distribución de *Vanessa virginiensis* (Drury, 1770) (Nymphalidae, Lepidoptera) en el Archipiélago Canario. Revista de la Academia Canaria de Ciencias 27: 307–314.
- Gascoigne-Pees M (2016) The life cycle and ecology of *Azanus ubaldus* (Stoll, 1782) (Lepidoptera: Lycaenidae) on Gran Canaria. Entomologist's Gazette 67(3): 153–163.
- Gascoigne-Pees M, Trew D, Pateman J, Verovnik R (2008) The distribution, life cycle, ecology and present status of *Leptidea morsei* (Fenton 1882) in Slovenia with additional observations from Romania (Lepidoptera: Pieridae). Nachrichten des Entomologischen Vereins Apollo 29(3): 113–121.
- Gascoigne-Pees M, Verovnik R, Franeta F, Popović M (2014a) The lifecycle and ecology of *Pseudochazara amymone* (Brown, 1976) (Lepidoptera: Nymphalidae, Satyrinae). Nachrichten Des Entomologischen Vereins Apollo 35(3): 129–138.
- Gascoigne-Pees M, Verovnik R, Wiskin C, Luckens C, Duric M (2012) Notes on the lifecycle of *Melitaea arduinna* (Esper, 1783) (“Freyer’s Fritillary”) (Lepidoptera: Nymphalidae) with further records from SE Serbia. Nachrichten des Entomologischen Vereins Apollo 33(1): 9–14.
- Gascoigne-Pees M, Wiskin C, Duric M, Trew D (2014b) The lifecycle of *Nymphalis vaualbum* ([Denis & Schiffermüller], 1775) in Serbia including new records and a review of its present status in Europe (Lepidoptera: Nymphalidae). Nachrichten des Entomologischen Vereins Apollo 35(1/2): 77–96.
- Ghesini S, de Faveri A, Marini M (2019) A successful habitat patch creation for *Zerynthia cassandra*. Bulletin of Insectology 72: 261–266.
- Gil-T F (2006) A new host plant for *Danaus plexippus* (Linnaeus, 1758) in Europe. A study of cryptic preimaginal polymorphism study within *Danaus chrysippus* (Linnaeus, 1758) in southern Spain (Andalusia) (Lepidoptera, Nymphalidae, Danainae). Atalanta 37(1/2): 143–149.
- Gómez-Bustillo MR, Fernández-Rubio F (1974) Mariposas de la Península Ibérica, Ropaloceros II. Servicio de Publicaciones del Ministerio de Agricultura (ICONA), 258 pp.
- Gratton P (2006) Phylogeography and conservation genetics of *Parnassius mnemosyne* L., 1758 (Lepidoptera, Papilionidae). Doctoral thesis, Università degli Studi di Roma, 104 pp.
- Grime JP (2001) Plant strategies, vegetation processes, and ecosystem properties, Wiley, Chister, second edition, 456 pp.

- Gros P (1998) Neue über die Verbreitung von *Pyrgus warrenensis* (Verity, 1928) im Alpenraum und Bibliographie der derzeit bekannten europäischen Fundorte der Art (Lepidoptera: Hesperiiidae). Nachrichtenblatt der Bayerischen Entomologen 47: 95–100.
- Gros P, Embacher G (1998) *Pyrgus warrenensis* (Verity, 1928) und *P. trebevicensis* (Warren, 1926), zwei für die Fauna Salzburgs neue Dickkopffalterarten (Lepidoptera: Hesperiiidae, Pyrginae). Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen 50: 3–16.
- Haaland C (2014) Abundances and movement of the Scarce Copper butterfly (*Lycaena virgaureae*) on future building sites at a settlement fringe in southern Sweden. Journal of Insect Conservation 19(2): 255–264. <https://doi.org/10.1007/s10841-014-9708-7>
- Habel J (2014) Jewels in the Mist: a synopsis on the highly endangered butterfly species the Violet Copper, *Lycaena helle*. Pensoft Publishers, 235 pp.
- Hall D, Russell PJC (2000) American Painted Lady *Vanessa virginiensis* (Drury) (Lep: Nymphalidae) on La Gomera, Canary Islands. Entomologist's Record and Journal of Variation 112(5): 210.
- Harvey JA, Biere A, Fortuna T, Vet LEM, Engelkes T, Morriën E, Gols R, Verhoeven K, Vogel H, Macel M, Heidel-Fischer HM, Schramm H, van der Putten WH (2010) Ecological fits, mis-fits and lotteries involving insect herbivores on the invasive plant, *Bunias orientalis*. Biological Invasions 12: 3045–3059. <https://doi.org/10.1007/s10530-010-9696-9>
- Hellmann F, Bertaccini E (2004) I macrolepidotteri della Valle di Susa: Italia nord-occidentale (Alpi Cozie-Graie). Museo regionale di scienze naturali, 389 pp.
- Henriksen HJ, Kreutzer IB (1982) The butterflies of Scandinavia in nature. Skandinavisk Bogforlag, Odense, Denmark, 215 pp.
- Hensle J (2003) Die Raupenfutterpflanzen einiger Populationen von *Pieris bryoniae* (Hübner, 1791) (Lepidoptera, Pieridae). Atalanta 34(3/4): 397–403.
- Hensle J, Caspari S, Ziegler H (2016) *Pieris manni andegava* Delahaye, 1910, neu für Luxemburg und Lothringen (Lepidoptera Pieridae). Atalanta 47(1/2): 99–106.
- Hermann G (1999) Neue Beobachtungen zu Eiablage- und Raupennahrungspflanzen von Tagfalterarten in Baden-Württemberg (Lepidoptera, Rhopalocera). Atalanta 29(1/4): 245–254.
- Hernández-Roldán JL, Dapporto L, Dincă V, Vicente JC, Hornett EA, Šíchová J, Lukhtanov VA, Talavera G, Vila R (2016) Integrative analyses unveil speciation linked to host plant shift in *Spialia* butterflies. Molecular Ecology 25: 4267–4284. <https://doi.org/10.1111/mec.13756>
- Hernández-Roldán JL, Munguira ML, Martín J (2009) Ecology of a relict population of the vulnerable butterfly *Pyrgus sidae* on the Iberian Peninsula (Lepidoptera: Hesperiiidae). European Journal of Entomology 106(4): 611–618. <https://doi.org/10.14411/eje.2009.077>
- Hernández-Roldán JL, Vicente JC, Munguira ML (2011) Historia natural de *Pyrgus cacaliae* (Rambur, 1839) en la Península Ibérica (Lepidoptera: Hesperiiidae). SHILAP Revista de lepidopterología 39(153): 61–73.
- Hernández-Roldán JL, Vicente JC, Munguira ML (2012) Natural history, immature stage morphology, and taxonomic status of the threatened skipper *Pyrgus cinarae* (Rambur, 1839) in the Iberian Peninsula (Lepidoptera: Hesperiiidae). Nota Lepidopterologica 35(1): 3–18.
- Hernández-Roldán JL, Vicente JC, Vila R, Munguira ML (2018) Natural history and immature stage morphology of *Spialia* Swinhoe, 1912 in the Iberian Peninsula (Lepidoptera, Hesperiiidae). Nota Lepidopterologica 41(1): 1–22. <https://doi.org/10.3897/nl.41.13539>
- Hernández Roldán JL (2012) El género *Pyrgus* en Europa: sistemática, ecología y patrones biogeográficos (Lepidoptera: Hesperiiidae). Tesis doctoral, Universidad Autónoma de Madrid, 316 pp. <http://hdl.handle.net/10486/8881>
- Hesselbarth G, van Oorschot H, Wagener S (1995) Die Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder. Selbstverlag Sigbert Wagener, Bocholt.
- Hinojosa JC, Dapporto L, Brockmann E, Dincă V, Tikhonov V, Grishin N, Lukhtanov VA, Vila R (2021) Overlooked cryptic diversity in *Muschampia* (Lepidoptera: Hesperiiidae) adds two species to the European

- butterfly fauna. Zoological Journal of the Linnean Society 193(3): 847–859. <https://doi.org/10.1093/zoolinnean/zlaa171>
- Huertas Dionisio M (1986) Immature states of Lepidoptera (II) gender *Euchloe* Hübner, [1823] (Pieridae: Anthocharinae). SHILAP Revista de lepidopterología 14(56): 17–26.
- Jacobs I, Segers N, Vanreusel W, Van Dyck H, Maes D (2014) Wetenschappelijkbasisrapport voor het Soortbeschermingsprogramma Bruine eikenpage (*Satyrrium ilicis*). Rapporten van het Instituut voor Natuur- en Bosonderzoek, Rapporten van het Instituut voor Natuur- en Bosonderzoek, 190 pp.
- Janíková E, Kulfan J, Zach P (2009) Is the Great Banded Grayling [*Brintesia circe* (FABRICIUS 1775)] (Lepidoptera, Nymphalidae) a stenotopic species? Linzer Biologische Beiträge 41(1): 691–696.
- Jez M, Verovnik R (2012) O pojavljanju in ogroženosti brusničnega modrega (*Plebejus optilete* (Knoch, 1781)) (Lepidoptera: Lycaenidae) v Sloveniji. Acta Entomologica Slovenica 20: 125–134.
- John E, Gascoigne-Pees M, Larsen T (2010) *Ypthima asterope* (Klug, 1832) (Lepidoptera: Nymphalidae, Satyrinae): its biogeography, lifecycle, ecology and present status in Cyprus, with additional notes from Rhodes and the eastern Mediterranean. Entomologist's Gazette 61(1): 1–22.
- John E, Makris C, Christofides Y (2013) *Cleome iberica* DC.: a new host-plant for *Pontia chloridice* (Hübner, [1813]) (Lepidoptera: Pieridae) in the Levant and its influence on the butterfly's phenology in the Levant and its influence on the butterfly's phenology in Cyprus. Entomologist's Gazette 64(1): 19–26.
- John E, Russell P, Christofides Y, Hall D (2008) Notes on the life history, ecology and distribution of *Pontia chloridice* (Hübner, 1808) (Lepidoptera: Pieridae) and a first record of *Hyposoter ebenitor* (Aubert, 1972) (Hymenoptera: Ichneumonidae) from Cyprus. Entomologist's Gazette 59(4): 209–226.
- Jordano Barbudo D, Rodriguez Gonzalez J, Fernandez Haeger J (1988) *Capparid spinosa* (Capparidaceae): an oviposition substrate for *Lampides boeticus* Linnaeus, in southern Spain (Lepidoptera: Lycaenidae). Nota Lepidopterologica 10(4): 218–223.
- Jordano D, Gomariz G (1994) Variation in phenology and nutritional quality between host plants and its effect on larval performance in a specialist butterfly, *Zerynthia rumina*. Entomologia Experimentalis et Applicata 71(3): 271–277. <https://doi.org/10.1111/j.1570-7458.1994.tb01794.x>
- Joy J, Pullin AS (1997) The effects of flooding on the survival and behaviour of overwintering Large Heath butterfly *Coenonympha tullia* larvae. Biological Conservation 82(1): 61–66. [https://doi.org/10.1016/S0006-3207\(97\)00006-2](https://doi.org/10.1016/S0006-3207(97)00006-2)
- Jugovic J, Kržič A (2019) Behaviour and oviposition preferences of a Black-veined White, *Aporia crataegi* (Lepidoptera: Pieridae). Journal of Entomological and Acarological Research 51(2): 50–59. <https://doi.org/10.4081/jear.2019.8108>
- Jutzeler D (1994) Ökologie und erste Stände des Italienischen Schachbrettes *Melanargia arge* (Sulzer, 1776) (Lepidoptera: Satyridae). Nota Lepidopterologica 16(3/4): 213–232.
- Jutzeler D (1995) Eine Aufzucht von *Erebia zapateri* (Oberthür 1875) aus der Sierra de Albarracín (Provinz Teruel, Spanien) (Lepidoptera: Nymphalidae, Satyrinae). Nachrichten Des Entomologischen Vereins Apollo 15(4): 471–480.
- Jutzeler D (1998a) *Coenonympha gardetta lecerfi* (de Lesse, 1949), une ssp. isolée du complexe *gardetta* des Monts du Forez (Puy-de-Dôme, Auvergne, F.) (Lepidoptera: Nymphalidae, Satyrinae). Linneana Belgica 16(5): 192–195.
- Jutzeler D (1998b) *Lasionmata paramegaera* (Hübner, 1824) des Îles Tyrrhéniennes: une bonne espèce (Lepidoptera: Nymphalidae, Satyrinae). Linneana Belgica 16(7): 267–276.
- Jutzeler D, Biermann H, Grillo N, Lo Cascio P, Volpe G (1999) Au sujet du status taxinomique d'*Hipparchia blachieri* (Fruhstorfer, 1908) de la Sicile (Lepidoptera: Nymphalidae, Satyrinae). Linneana Belgica 17(2): 69–84.
- Jutzeler D, Biermann H, Hesselbarth G, Russo L, Sala G, de Bros E (1997) Etudes sur la biologie, lamorphologie et l'éthologie de *Hipparchia sbordonii* Kudrna, 1984 de l'Isola di Ponza (Latium, Italie) et *Hipparchia neapolitana* (Stauder, 1921) du Monte Faito (Campanie, Italie) et complements sur labiologie de *Hipparchia leighebi* (Kudrna, 1976) (Lepidoptera: Nymphalidae, Satyrinae). Linneana Belgica 16(3): 105–132.

- Jutzeler D, Bollino M, Russo L, Sala G (1998) Études sur *Anthocharis damone* (Boisduval, 1836) et *Euchloe ausonia* (Hübner, 1804) de l'Italie méridionale (Lepidoptera: Pieridae). *Linneana Belgica* 16(6): 227–235.
- Jutzeler D, Gascoigne-Pees M, Grillo N, TARRIER M, Villa R, Volpe G (2004) *Melitaea aetherie* (Hübner, 1826) de Sicile et d'Afrique du Nord: nouvelles données écologiques, géonémiques et taxonomiques induites par un élevage de la souche sicilienne (Lepidoptera: Nymphalidae). *Linnaea Belgica* 19(9): 361–374.
- Jutzeler D, Grillo N, de Bros E (1995) Une visite à l'île de Vulcano (dans les îles Eoliennes, Sicile pour *Hipparchia leighebi* (Kudrna, 1976) (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 15(3): 119–126.
- Jutzeler D, Grillo N, Russo L, Nardelli U, de Bros E (1996a) Position taxinomique et biologie de *Melanargia pherusa* (Boisduval, 1833) de Sicile selon les stades pré-imaginaux (Lepidoptera Nymphalidae, Satyrinae). *Linneana Belgica* 15(5): 203–213.
- Jutzeler D, Höttinger H, Malicky M, Rebušek F, Sala G, Verovnik R (2000) Biology of *Neptis sappho* (PALLAS, 1771) based on the monograph by TIMPE & TIMPE and its actual distribution and conservation status in Austria, Italy and Slovenia (Lepidoptera: Nymphalidae). *Linneana Belgica* 17(8): 315–332.
- Jutzeler D, Leestmans R, Daydé S, Lafranchis T, Sala G, Volpe G (2002) Comparaison de deux sous-espèces d'*Erebia ottomana* Herrich-Schäffer (1847): la ssp. *tardenota* Praviel (1941) du sud-est du Massif central (France) et de la ssp. *bemacemsis* Dannehl (1933) du Mt Balbo (Italie) (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 18(8): 377–390.
- Jutzeler D, Leigheb G (1997) Écologie et élevage de *Fabriciana elisa* (Godart, 1823), endémique de Sardaigne et de Corse (Lepidoptera: Nymphalidae). *Linneana Belgica* 16(2): 63–69.
- Jutzeler D, Leigheb G (2004) Évaluation du statut taxinomique des populations côtières sardes de *Lycaeides bellieri* Oberthür (1910) se fondant sur du matériel d'élevage provenant du l'île de La Maddalena, Sardaigne du Nord (Lepidoptera: Lycaenidae). *Linneana Belgica* 19(6): 285–290.
- Jutzeler D, Pitzalis B, de Bros E (1995a) Les premiers états d'*Hipparchia neomiris* (Godart, 1824) et *Hipparchia aristaeus aristaeus* (Bonelli, 1826) du Gennargentu, Sardaigne (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 15(2): 47–54.
- Jutzeler D, Russell P, Volpe G (2007) Nouveaux points de vue sur la position taxinomique des cinq populations insulaires du complexe d'*Hipparchia wyssii* CHRIST (1889) se basant sur la connaissance de leurs états pré-imaginaux (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 20(7): 9–44.
- Jutzeler D, Russo L, de Bros E (1995b) Observations sur la vie de *Melanargia occitanica* (Esper, 1793) de la Riviera franco-italienne, dans la nature et en élevage (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 15(1): 9–16.
- Jutzeler D, Russo L, de Bros E (1996b) Écologie et premiers états d'*Euchloe insularis* (Staudinger, 1861) des Monti del Gennargentu (Sardaigne) (Lepidoptera: Pieridae). *Linneana Belgica* 15(5): 214–218.
- Kadlec T, Vrba P, Konvicka M (2009) Microhabitat requirements of caterpillars of the critically endangered butterfly *Chazara briseis* (L.) (Nymphalidae, Satyrinae) in the Czech Republic. *Nota Lepidopterologica* 32(1): 39–46.
- Kalarus K, Skórka P, Nowicki P (2013) Resource use in two contrasting habitat types raises different challenges for the conservation of the dryad butterfly *Minois dryas*. *Journal of Insect Conservation* 17(4): 777–786. <https://doi.org/10.1007/s10841-013-9560-1>
- Kandul N, Vila R, Lukhtanov V (2006) Rearrangement of the *Agrodiaetus dolus* species group (Lepidoptera, Lycaenidae) using a new cytological approach and molecular data. *Insect Systematics & Evolution* 37(3): 325–334. <https://doi.org/10.1163/187631206788838563>
- Kankare M, Stefanescu C, van Nouhuys S, Shaw MR (2005) Host specialization by *Cotesia* wasps (Hymenoptera: Braconidae) parasitizing species-rich Melitaeini (Lepidoptera: Nymphalidae) communities in north-eastern Spain. *Biological Journal of the Linnean Society* 86(1): 45–65. <https://doi.org/10.1111/j.1095-8312.2005.00523.x>
- Kästner T, Gutzeit R, Nuss M (2021) Wiederfund des Alexis-Bläulings (*Glauropsyche alexis* (Poda, 1761)) in Sachsen (Lepidoptera). *Sächsische Entomologische Zeitschrift* 11: 27–30.



- Kebaili C (2019) Structure génétique des populations de l'Apollon et influence du paysage dans la région Auvergne Rhône-Alpes. Masters Thesis, Université Grenoble-Alpes, 33 pp.
- Khan MA (1989) Verzeichnis der Raupenfutterpflanzen in Berlin (West) vorkommenden Tagfalter (Rhopalocera, Hesperioidea) und Widderchen (Zygaenidae). *Atalanta* 19: 107–126.
- Klimczuk P (2005) The larval host plant of *Polyommatus eroides* (Frivaldszky, 1835) (Lycaenidae) from Poland with comments on the life history. *Nota Lepidopterologica* 28(2): 103–111.
- Klimczuk P (2011) Butterflies (Lepidoptera: Hesperioidea, Papilionoidea) of the Knyszyn forest (Puszcza Knyszyńska) and adjacent woodland areas of Białystok – in the years 1995–2010. *Nature Journal of Opole Scientific Society* 44: 197–217.
- Klimczuk P, Sielezniew M (2020) Asymmetry in host plant preferences of two ecotypes of *Boloria eunomia* (Lepidoptera: Nymphalidae). *European Journal of Entomology* 117: 380–392. <https://doi.org/10.14411/eje.2020.042>
- Knyazev SA, Ivonin VV, Sinev SY, Lvovsky AL, Dubatolov VV, Vasilenko SV, Ustjuzhanin PY, Ponomaryov KB, Sal'nik AA (2017) New records of Lepidoptera from the south of west Siberian Plain. *Ukrainian Journal of Ecology, Oles Honchar Dnipropetrovsk National University* 7(4): 659–667. [https://doi.org/10.15421/2017\\_177](https://doi.org/10.15421/2017_177)
- Kolev Z (2005) Notes on the distribution and ecology of Balkan populations of the *Plebeius idas* – group (Lepidoptera: Lycaenidae). *Phegea* 33(1): 13–22.
- Königsdorfer M (1997) Die Berghexe (*Chazara briseis* L. Satyridae) in Schwaben und angrenzenden Gebieten – Berichte des naturwiss. Vereins für Schwaben, Augsburg. *Berichte des naturwiss. Vereins für Schwaben, Augsburg* 101: 69–87.
- Konvička M, Beneš J, Čížek O, Kuras T, Klečková I (2016) Has the currently warming climate affected populations of the mountain ringlet butterfly, *Erebia epiphron* (Lepidoptera: Nymphalidae), in low-elevation mountains? *European Journal of Entomology* 113: 295–301. <https://doi.org/10.14411/eje.2016.036>
- Konvička M, Dvořák L, Hanč Z, Pavlíčko A, Fric Z (2008) The Baton Blue (*Pseudophilotes baton*) (Lepidoptera: Lycaenidae) in south-western Bohemia: iron curtain, military ranges and endangered butterfly. *Silva Gabreta* 14: 187–198.
- Konvička M, Novak J, Benes J, Fric Z, Bradley J, Keil P, Hrcak J, Chobot K, Marhoul P (2007a) The last population of the Woodland Brown butterfly (*Lopinga achine*) in the Czech Republic: habitat use, demography and site management. *Journal of Insect Conservation* 12(5): 549–560. <https://doi.org/10.1007/s10841-007-9087-4>
- Konvička M, Vlasanek P, Hauck D (2007b) Absence of forest mantles creates ecological traps for *Parnassius mnemosyne* (Papilionidae). *Nota Lepidopterologica* 29(1/2): 145–152.
- Koren, T, Lauš B (2015) The Grecian Anomalous Blue *Polyommatus (Agrodiaetus) aroaniensis* (Brown, 1976) (Lepidoptera: Lycaenidae) discovered in Croatia, at the northwestern edge of its distribution. *Natura Sloveniae* 17(2): 47–57. [http://web.bf.uni-lj.si/bi/NATURA-SLOVENIAE/pdf/NatSlo\\_17\\_2\\_3.pdf](http://web.bf.uni-lj.si/bi/NATURA-SLOVENIAE/pdf/NatSlo_17_2_3.pdf)
- Korshunov Y (2000) Butterflies of Ural, Siberia and Far East (keys and details). ZSGBX, Novosibirsk, 216 pp.
- Köstler W (1993) Beobachtungen zur Biologie und Ökologie einer Population von *Archon apollinus* (Herbst, 1798) in Nordost-Griechenland. *Galathea, Berichte des Kreises Nürnberger Entomologen e.V.* 9: 40–48.
- Krzysztofciak L, Krzysztofciak A, Romański M (2009) Biology and ecology of the Jutta Arctic *Oeneis jutta* (HÜBNER, 1806), (Lepidoptera: Nymphalidae). *Polish Journal of Entomology* 78: 265–275.
- Kuussaari M, van Nouhuys S, Hellmann JJ, Singer MC (2004) Larval biology of checkerspots. In: Ehrlich PR, Hanski I (Eds) *On the wings of checkerspots: a model system for population biology*, Oxford University Press, 138–160.
- Kuznetsov GV (2009) Materials to study of Papilionoidea butterflies (Lepidoptera) from Volgograd region [in Russian]. *Caucasian Entomological Bulletin* 5(2): 257–267. <https://doi.org/10.23885/1814-3326-2009-5-2-257-267>
- Lafranchis T (2001) Écologie et biologie de l'Hermite (*Chazara briseis* Linné, 1758) sur les causses du Quercy (Lot, France) (Lepidoptera: Nymphalidae, Satyrinae). *Linneana Belgica* 18(2): 65–72.

- Lafranchis T (2003) Biologie, écologie et répartition d'*Erynnis marloyi* (BOISDUVAL, 1834) en Grèce (Lepidoptera: Hesperidae). *Linneana Belgica* 19(3): 135–139.
- Lafranchis T (2005) Biologie, écologie et répartition de *Gegenes pumilio* (Hoffmansegg, 1804) en Grèce (Lepidoptera, Hesperidae). *Linneana Belgica* 20(4): 116–120.
- Lafranchis T (2008) Une nouvelle espèce de Rhopalocère pour la faune de France: *Melitaea ogygia* Fruhstorfer, 1908 (Lep. Nymphalidae). *Oreina* 2: 5–7.
- Lafranchis T (2019) Notes on the biology of some butterflies in Greece (Lepidoptera: Papilionoidea). *Entomologist's Gazette* 70(2): 113–134. <https://doi.org/10.31184/G00138894.702.1710>
- Lafranchis T, Gil-T F, Lafranchis A (2007) New data on the ecology of 8 taxa of *Agrodiaetus* HÜBNER, 1822 from Greece and Spain: hostplants, associated ants and parasitoids (Lepidoptera, Lycaenidae. Hymenoptera, Diptera). *Atalanta* 38(1/2): 189–197. [https://www.zobodat.at/pdf/Atalanta\\_38\\_0189-0197.pdf](https://www.zobodat.at/pdf/Atalanta_38_0189-0197.pdf)
- Lafranchis T, Heulme V, Lafranchis J (2001) Biologie, écologie et répartition du Cuivré des marais (*Lycaena dispar* Haworth, 1803) en Quercy (sud-ouest de la France) (Lepidoptera: Lycaenidae). *Linneana Belgica* 18(1): 27–36.
- Lafranchis T, Jutzeler D, Guillosson J-Y, Kan P, Kan B (2015) La vie des papillons: écologie, biologie et comportement des Rhopalocères de France. *Diatheo*, 751 pp.
- Lafranchis T, Kan P (2012) Relations entre fourmis et plusieurs lycènes en France. *Oreina* 19: 6–13.
- Leigheb G, Cameron-Curry V (1998) Observations on the biology and distribution of *Pseudophilotes barbargiae* (Lycaenidae, Polyommata). *Nota Lepidopterologica* 21(1): 66–73.
- Leigheb G, Cameron-Curry V, Riboni E, Cecchin S (1998) Present knowledge on the distribution of *Erebia christi* (Nymphalidae: Satyrinae) in the Italian Alps. *Nota Lepidopterologica* 21(4): 290–295.
- Lemoine G (2012) Le Demi-argus *Cyaniris semiargus* (Rottemburg, 1775) apprécie les pelouses calaminaires de la région Nord-Pas-de-Calais! *Le Héron* 45(1): 59–70.
- León-Cortés JL, Cowley MJR, Thomas CD (2000) The distribution and decline of a widespread butterfly *Lycaena phlaeas* in a pastoral landscape. *Ecological Entomology* 25(3): 285–294. <https://doi.org/10.1046/j.1365-2311.2000.00271.x>
- Lepiforum (2021) *Pieris rapae* (Linnaeus, 1758). [http://lepiforum.org/wiki/page/Pieris\\_rapae](http://lepiforum.org/wiki/page/Pieris_rapae) [accessed 7 July 2021]
- Leraut P (2016) Butterflies of Europe and neighbouring regions. N.A.P. Editions, Verrières-le-Buisson, 1116 pp.
- Ligue suisse pour la protection de la nature [Ed.] (1987) Les papillons de jour et leurs biotopes: Espèces, dangers qui les menacent, protection. *Pro Natura*, Bâle, 530 pp.
- Ligue suisse pour la protection de la nature [Ed.] (1999) Les papillons et leurs biotopes: Espèces, dangers qui les menacent, protection. Volume 2. *Pro Natura*, Bâle, 667 pp.
- Loritz H, Settle J (2002) Der Große Feuerfalter (*Lycaena dispar*, Haworth 1803) im Queichtal bei Landau in der Pfalz: Wirtspflanzenwahl und Eiablagemuster. *Mitteilungen der Pollichia* 89: 309–321.
- Lorković Z (2009) Fauna Rhopalocera Hrvatske s osobitim obziromna faunu Plitvičkih Jezera. *Entomologia Croatica* 13(1): 15–78.
- Louy D, Habel JC, Abadjiev S, Rákósy L, Varga Z, Rödder D, Schmitt T (2014) Molecules and models indicate diverging evolutionary effects from parallel altitudinal range shifts in two mountain Ringlet butterflies. *Biological Journal of the Linnean Society* 112(3): 569–583. <https://doi.org/10.1111/bj.12240>
- Luckens C (2012) Unusual host-plant for *Polygonia c-album* (Linnaeus, 1758) (Lepidoptera: Nymphalidae). *Entomologist's Gazette* 63(2): 98.
- Luckens CJ (1985) *Hypodryas intermedia* Ménétrière in Europe: an account of the life history. *Entomologist's Record and Journal of Variation* 97(3–4): 37–45.
- Lukhtanov VA, Budashkin YI (1993) Eine neue Art der Untergattung *Agrodiaetus* von der Krim. *Atalanta* 24(1/2): 85–87.

- Lukhtanov VA, Pazhenkova EA (2021) The taxa of the *Hyponephele lycaon* – *H. lupinaspecies* complex (Lepidoptera, Nymphalidae, Satyrinae): deep DNA barcode divergence despite morphological similarity. *Folia Biologica* 69: 11–21. [https://doi.org/10.3409/fb\\_69-1.02](https://doi.org/10.3409/fb_69-1.02)
- Makris C (2003) Butterflies of Cyprus. Bank of Cyprus Cultural Foundation, Nicosia, 329 pp.
- Mamedova VR, Berezko AM (2016) The *Polyommatus* genus: biology, ecology and distribution on the territory of Dagestan [in Russian]. News of the Dagestan State Pedagogical university. Natural and Exact Sciences 10: 69–73.
- Manley WBL, Allcard HG (1970) A field guide to the butterflies and burnets of Spain. E.W. Classey Ltd, Hampton, 192 pp.
- Marabuto EMdBV (2009) Biología e genética da conservação da branca-portuguesa, *Euchloe tagis* (Hübner, 1804) em Portugal. Mestrado em Biologia da conservação, Universidade de Lisboa, Universidade de Lisboa, 150 pp.
- Martín Cano J (1984) Biología comparada de *Lampides boeticus* (L.), *Syntarucus pirthous* (L.), y *Polyommatus icarus* (Rot.) (Lep., Lycaenidae). *Graellsia* 40: 163–193.
- Martínez Pérez I, Sanjurjo Franch MJ, Montiel Pantoja C (2015) Plantas nutricias de *Eumedonia eumedon* (Esper, 1780) (Lepidoptera: Lycaenidae) en la provincia de León (noroeste de España). *Arquivos entomológicos* 13: 231–250.
- Megléc E, Nève G, Pecsénye K, Varga Z (1999) Genetic variations in space and time in *Parnassius mnemosyne* (L.) (Lepidoptera) populations in north-east Hungary: implications for conservation. *Biological Conservation* 89(3): 251–259. [https://doi.org/10.1016/S0006-3207\(99\)00006-3](https://doi.org/10.1016/S0006-3207(99)00006-3)
- Middleton-Welling J, Dapporto L, García-Barros E, Wiemers M, Nowicki P, Plazio E, Bonelli S, Zaccagno M, Šašić M, Liparova J, Schweiger O, Harpke A, Musche M, Settele J, Schmucki R, Shreeve T (2020) A new comprehensive trait database of European and Maghreb butterflies, Papilionoidea. *Scientific Data* 7: e351. <https://doi.org/10.1038/s41597-020-00697-7>
- Mihoci I, Delić A, Gjurašin B, Bučar M, Kučinić M (2007) First finding of the critically endangered butterfly *Maculinea alcon* (Denis & Schiffermüller, 1775) (Lepidoptera: Lycaenidae) in the Pannonian part of Croatia. *Natura Croatica* 16(1): 19–28. <https://hrcak.srce.hr/13516>
- Mihoci I, Šašić M (2005) New findings of the butterfly Dalmatian Ringlet, *Proterebia afra dalmata* (Godart, 1824) (Lepidoptera, Satyrinae) in Croatia. *Natura Croatica* 14(2): 121–129.
- Millière P (1868) Iconographie et description de chenilles et lépidoptères inédits. Tome deuxième. F. Savy, 506 pp.
- Montagud S, García-Alamá JA (2007) Nuevas citas y ampliación de la distribución conocida de Ropalóceros en la Comunidad Valenciana y provincia de Teruel. *Graellsia* 63(1): 71–88. <https://doi.org/10.3989/graelisia.2007.v63.i1.82>
- Montiel Pantoja C, Martínez Pérez I, Sanjurjo Franch MJ (2020) Notas sobre la biología, ecología y distribución de *Pieris ergane* (Geyer, 1828) (Lepidoptera: Pieridae) en la Cordillera Cantábrica, provincia de León (noroeste de España). *Arquivos Entomológicos* 22: 423–444.
- Morgun DV (2003) Butterflies (Lepidoptera: Rhopalocera) of Astrakhan area [in Russian]. *Russian Entomological Journal* 12: 227–238.
- Morgun DV (2011) New subspecies of *Boloria (Procllossiana) eunomia* (Esper, 1799) (Lepidoptera: Nymphalidae) from the Caucasus [in Russian]. *Caucasian Entomological Bulletin* 7(1): 85–93. <https://doi.org/10.23885/1814-3326-2011-7-1-85-93>
- Munguira ML, Barea-Azcón JM, Castro-Cobo S, García-Barros E, Miteva S, Olivares J, Romo H (2017) Ecology and recovery plans for the four Spanish endangered endemic butterfly species. *Journal of Insect Conservation* 21(3): 423–437. <https://doi.org/10.1007/s10841-016-9949-8>
- Munguira ML, García-Barros E, Martín J (1997) Plantas nutricias de los licénidos y satirinos españoles (Lepidoptera: Lycaenidae y Nymphalidae). *Boletín de la Asociación española de Entomología* 21(1–2): 29–53.
- Muñoz Sariat MG (2003) Planta nutricia de *Charaxes jasius* (Linnaeus, 1767) en la costa granadina (España) (Lepidoptera, Nymphalidae). *Boletín de la Sociedad Entomológica Aragonesa* 33: 275.

- Muñoz Sarios MG (2011) *Biología y ecología de los licénidos españoles*. M. G. Muñoz Sarios, Granada, 383 pp.
- Muñoz Sarios MG (2013) Ciclo biológico, morfología de los estadios preimaginales y nuevos datos sobre la distribución de *Borbo borbonica zelleri* (Lederer, 1855) (Lepidoptera:Hesperiidae) en la provincia de Cádiz, España. *Revista gaditana de Entomología* 9(1): 137–158.
- Muñoz Sarios MG (2015) Descripción de los estadios preimaginales de la “Moradilla del Fesno” *Laeosopis roboris* (Esper, [1793]) (Lepidoptera: Lycaenidae). *Boletín de la Sociedad Entomológica Aragonesa (S.E.A.)* 56: 195–202.
- Murria-Beltrán E (2017) Bionomía, taxonomía y conservación de *Erebia lefebvrei* (Boisduval, [1828] 1829) en la Sierra de Guara (Huesca, noreste de España) con la descripción de una subespecie endémica caracterizada genéticamente (Lepidoptera: Nymphalidae, Satyrinae). *Boletín De La Sociedad Entomológica Aragonesa* 60: 41–54.
- Nakonieczny M, Kędzierski A (2005) Feeding preferences of the Apollo butterfly (*Parnassius apollo* ssp. *frankenbergeri*) larvae inhabiting the Pieniny Mts (southern Poland). *Comptes Rendus Biologies* 328(3): 235–242. <https://doi.org/10.1016/j.crvi.2004.12.004>
- Nakonieczny M, Kędzierski A, Michalczyk K (2007) Apollo butterfly (*Parnassius apollo* L.) in Europe – its history, decline and perspectives of conservation. *Functional Ecosystemsand Communities* 1(1): 56–79.
- Nardelli U, Benedetto G (1994) *Melanargia pherusa* Boisduval 1833: Biologie, Ökologie, Morphologie und Verbreitung im Vergleich mit *Melanargia arge* Sulzer 1776 (Lepidoptera: Nymphalidae, Satyrinae). *Nachrichten des Entomologischen Vereins Apollo* 15(1/2): 87–108.
- Nel J (1982) Sur la biologie de *Pseudophilotes baton* Bergstr, en Provence. *Alexandor* 12(7): 327–329.
- Nel J (1985) Note sur l’écologie et la biologie de *Pyrgus foulquieri* Obth. en Provence et dansle Briançonnais. Comparaisons avec *Pyrgus alveus* Hb. (Lép. Hesperiiidae). *Alexandor* 14(1): 3–8.
- Nel J (1986) Une nouvelle plantes-hôte pour *Pseudophilotes baton* Bergstr (Lep. Lycaenidae). *Alexandor* 14(4): 181–182.
- Nel J (1992a) Sur la plasticité écologique et la biologie de quelques Lépidoptères (Rhopalocera) du sud-est méditerranéen del a France (première partie). *Linneana Belgica* 13(4): 159–220.
- Nel J (1992b) Sur la plasticité écologique et la biologie de quelques Lépidoptères (Rhopalocera) du sud-est méditerranéen del a France (2<sup>e</sup> partie). *Linneana Belgica* 13(5): 239–270.
- Nuß M, Liebig W-H (2017) Wiederfund des Zahnflügelbläulings (*Polyommatus daphnis* (Denis & Schiffermüller, 1775)) in Sachsen (Lepidoptera: Lycaenidae). *Sächsische Entomologische Zeitschrift* 9: 78–8.
- O’Neill J, Montgomery I (2018) Demographics and spatial ecology in a population of cryptic Wood White butterfly *Leptidea juvernica* in Northern Ireland. *Journal of Insect Conservation* 22(3–4): 499–510. <https://doi.org/10.1007/s10841-018-0077-5>
- Oates M (2020) *His Imperial Majesty: A natural history of the Purple Emperor*. Bloomsbury, London, 416 pp.
- Obregón R, Arenas-Castro S, Gil-T. F, Jordano D, Fernández-Haeger J (2014) Biología, ecología y modelo de distribución de las especies del género *Pseudophilotes* Beuret, 1958 en Andalucía (Sur de España) (Lepidoptera: Lycaenidae). *SHILAP Revista de lepidopterología* 42(168): 501–515.
- Obregón R, Prunier F (2014) Diversidad y ecología de una comunidad de Papilionoidea (Lepidoptera) en el arroyo Pedroches y su entorno: un paraje natural periurbano a conservar (Córdoba, España). *Revista gaditana de Entomología* 5(1): 183–201.
- Ochoa-Hueso R, de la Puente Ranea D, Viejo JL (2014) Comparison of trends in habitat and resource selection by the Spanish Festoon, *Zerynthia rumina*, and the whole butterfly community in a semiarid Mediterranean ecosystem. *Journal of Insect Science* 14(1): e51. <https://doi.org/10.1093/jis/14.1.51>
- Oehmig S (1983) *Hipparchia azorina* (Strecker, 1899) (Satyridae) biology, ecology and distribution on the Azores Islands. *Journal of Research on the Lepidoptera* 20(3): 136–160.
- Olivares FJ, Jiménex JL (1996) *Euchloe bazae* Fabiano 1993 bona species (Lepidoptera: Pieridae). *Linneana Belgica* 15(5): 191–202.

- Olivares Villegas J, Back W (2004) *Euchloe tagis* (Hübner, [1804]) (Lepidoptera, Pieridae) en Andalousie et description d'une sous-espèce nouvelle. *Linneana Belgica* 19(5): 229–240.
- Owen DF, Wiemers M (1992) The butterflies of Fuerteventura. *Entomologist's Gazette* 43(2): 87–92.
- Parmentier L, Zinszner E (2013) Contribution to the knowledge of two endemic Corsican butterflies, *Polyommatus coridon nufrellensis* and *Plebejus bellieri* (Lepidoptera: Lycaenidae) in relation to *Hippocrepis conradiae*: first evidence as hostplant, discovery of a new locality and update on distribution, biology and conservation. *Phegea* 41(2): 26–41.
- Paulavičiūtė B, Tamutis V (2009) *Melitaea* (Nymphalidae) species from collections of T. Ivanauskas Zoological Museum. *Acta Zoologica Lituanica* 19(4): 314–317. <https://doi.org/10.2478/v10043-009-0039-y>
- Pennekamp F, Monteiro E, Schmitt T (2012) The larval ecology of the butterfly *Euphydryas desfontainii* (Lepidoptera: Nymphalidae) in SW-Portugal: food plant quantity and quality as main predictors of habitat quality. *Journal of Insect Conservation* 17(1): 195–206. <https://doi.org/10.1007/s10841-012-9497-9>
- Pérez-Fernández R (2011) *Plebejus hespericus* (Rambur, 1840) en el centro de la Península Ibérica. Distribución geográfica, caracterización del hábitat, parasitoides y conservación (Lepidoptera: Lycaenidae). *SHILAP Revista de lepidopterología* 39(156): 325–344.
- Pérez-Fernández R (2018) Actualización del catálogo de Rhopalocera del Parque Natural del Alto Tajo, Guadalajara, España (Lepidoptera: Papilionoidea). *SHILAP Revista de lepidopterología* 46(182): 199–206.
- Perez de Gregorio JJ (2008) Notes sobre els lepidòpters de les comarques gironines (II). Fauna lepidopterològica de la Serra de les Gavarres. *Revista de Girona* 82: 89–91.
- Petry AA (1919) *Erebia ephron* Kn. vom Altvater und Brocken. *Deutsche Entomologische Zeitschrift "Iris"* 33: 122–133.
- Pfeuffer E (2003) Der Idas-Bläuling (*Plebejus idas* Linnaeus 1771) am Lech. *Berichte des naturwiss. Vereins für Schwaben, Augsburg* 107: 64–81.
- Pinzari M, Pinzari M, Sbordoni V (2016) Egg laying behaviour, host plants and larval survival of *Euphydryas aurinia provincialis* (Lepidoptera Nymphalidae) in a Mediterranean population (central Italy). *Bollettino della Società Entomologica Italiana* 148(3): 121–140. <https://doi.org/10.4081/BollettinoSEI.2016.121>
- Porter AH (1997) The *Pieris napi/bryoniae* hybrid zone at Pont de Nant, Switzerland: broad overlap in the range of suitable host plants. *Ecological Entomology* 22(2): 189–196. <https://doi.org/10.1046/j.1365-2311.1997.00054.x>
- Przybyłowicz Ł, Lukhtanov V, Lachowska-Cierlik D (2013) Towards the understanding of the origin of the Polish remote population of *Polyommatus (Agrodiaetus) ripartii* (Lepidoptera: Lycaenidae) based on karyology and molecular phylogeny. *Journal of Zoological Systematics and Evolutionary Research* 52(1): 44–51. <https://doi.org/10.1111/jzs.12040>
- Pullin AS, McLean IFG, Webb MR (1995) Ecology and conservation of *Lycaena dispar*: British and European perspectives. In: Pullin AS (Ed.) *Ecology and conservation of butterflies*, Chapman & Hall, 150–164. [https://doi.org/10.1007/978-94-011-1282-6\\_11](https://doi.org/10.1007/978-94-011-1282-6_11)
- PWO (2021) Plants of the World Online. Viburnaceae. <http://www.plantsoftheworldonline.org/taxon/urn:lsid:ipni.org:names:77162522-1> [accessed 14 June 2021]
- Rabasa SG, Gutiérrez D, Escudero A (2005) Egg laying by a butterfly on a fragmented host plant: a multi-level approach. *Ecography* 28(5): 629–639. <https://doi.org/10.1111/j.2005.0906-7590.04229.x>
- Rabasa SG, Gutiérrez D, Escudero A (2007) Metapopulation structure and habitat quality in modelling dispersal in the butterfly *Iolana iolas*. *Oikos* 116(5): 793–806. <https://doi.org/10.1111/j.2007.0030-1299.15788.x>
- Rákossy L, Jutzeler D (2005) Biologie, Ökologie und Verbreitung des Karawanken-Mohrenfalters *Erebia calcaria* (Lorkovic, 1949) in Kärnten. *Carinthia II* 195(115): 675–690.
- Ravenscroft NOM (1994) The ecology of the Chequered Skipper butterfly *Carterocephalus palaemon* in Scotland. I. Microhabita. *Journal of Applied Ecology* 31(4): 613–622. <https://doi.org/10.2307/2404152>
- Ravenscroft NOM (1995) The conservation of *Carterocephalus palaemon* in Scotland. In: Pullin AS (Ed.) *Ecology and conservation of butterflies*, Chapman & Hall, 165–179. [https://doi.org/10.1007/978-94-011-1282-6\\_12](https://doi.org/10.1007/978-94-011-1282-6_12)

- Ravenscroft NOM Warren MS (1996) Species action plan: the Mountain Ringlet *Erebia epiphron*. Butterfly Conservation, 17 pp.
- Regner J, Malkiewicz A (2018) Pierwsze stwierdzenie dostojki laodyce *Argynnis laodice* (Pallas, 1771) (Lepidoptera: Nymphalidae) na Dolnym Śląsku. *Przyroda Sudetów* 21: 123–126.
- Reinhardt R, Harpke A, Caspari S, Dolek M, Kühn E, Musche M, Trusch R, Wiemers M, Settele J (2020) Verbreitungsatlas der Tagfalter und Widderchen Deutschlands. Eugen Ulmer Verlag, 432 pp.
- Richards OW (1940) The biology of the Small White butterfly (*Pieris rapae*), with special reference to the factors controlling its abundance. *Journal of Animal Ecology* 9(2): 243–288. <https://doi.org/10.2307/1459>
- Richarz N, Neumann D, Wipking W (1989) Untersuchungen zur Ökologie des Apollofalters (*Parnassius apollo vinningensis* Stichel 1899, Lepidoptera, Papilionidae) im Weinbaugebiet der unteren Mosel. *Mitt der ArbGem Rheinisch-Westfälischer Lepidopterologen* 5: 108–259.
- Richert A, Brauner O (2018) Nektarpflanzen und andere Nahrungsquellen sowie Raupennahrungspflanzen der Tagfalter von Brandenburg und Berlin (Lepidoptera: Rhopalocera et HesperIIDae). *Märkische Entomologische Nachrichten* 20(2): 155–240.
- Robinson GS, Ackery PR, Kitching JJ, Beccaloni GW, Hernández LM (2010) HOSTS – A database of the world’s lepidopteran hostplants. Natural History Museum, London. <http://www.nhm.ac.uk/hosts> [accessed: 14 Feb. 2022]
- Russell P, Kuznetsov G (2012) Some comments on recent observations by Russian researchers on *Melitaea ornata* Christoph, 1893, its host-plants and its relationship to *M. telona* Fruhstorfer, 1908 (Lepidoptera: Nymphalidae). *Entomologist’s Gazette* 63(4): 207–216.
- Russell P, Pamperis LN (2012) A reassessment of the presence of *Melitaea phoebe* ([Dennis & Schiffermüller], 1775) (Lepidoptera: Nymphalidae) in the Aegean islands: addendum and corrigendum. *Entomologist’s Gazette* 63(1): 39–41.
- Russell P, Pateman J (2011) Further observations on populations of *Melitaea telona* Fruhstorfer, 1908 (= *ogygia* Fruhstorfer, 1908; = *emipunica* Verity, 1919) in Greece and Italy (Lepidoptera: Nymphalidae). *Entomologist’s Gazette* 62(1): 7–31.
- Russell P, Pateman J (2013) Confirmation of the presence of *Melitaea ornata* Christoph, 1893 (Lepidoptera: Nymphalidae) on the eastern Aegean island of Chios, Greece, and its host-plants. *Entomologist’s Gazette* 64(4): 217–224.
- Russell P, Pateman J (2016) Further observations on *Melitaea ornata* Christoph, 1893 (Lepidoptera: Nymphalidae) in the Republic of Macedonia. *Entomologist’s Gazette* 67(1): 15–22.
- Russell P, Pateman J (2019) Confirmation of the presence of *Melitaea ornata* Christoph, 1893 (Lepidoptera: Nymphalidae) in Croatia and Bosnia and Herzegovina with its host-plants. *Entomologist’s Gazette* 70(2): 79–92. <https://doi.org/10.31184/G00138894.702.1691>
- Russell P, Pateman J, Verovnik R (2014) First record of *Melitaea ornata* Christoph, 1893, from Slovenia, with notes on its confirmed distribution and hybridisation with *M. phoebe* ([Denis & Schiffermüller], 1775). *Entomologist’s Gazette* 65(3): 135–153.
- Russell P, Tennent WJ, Pateman J, Varga ZS, Benyamini D, Pe’er G, Bálint Z, Gascoigne-Pees M (2007) Further investigations into *Melitaea telona* Fruhstorfer, 1908 (= *ogygia* Fruhstorfer, 1908; = *emipunica* Verity, 1919) (Lepidoptera: Nymphalidae), with observations on biology and distribution. *Entomologist’s Gazette* 58(3): 137–166.
- Russell P, Zitnan D, Major V (2015) Confirmation of the presence of *Melitaea ornata* Christoph, 1893 (Lepidoptera: Nymphalidae) in Macedonia (FYROM) and its host-plants. *Entomologist’s Gazette* 66(1): 13–24.
- Sabariego E, Martínez J (1991) Bionomía y distribución geográfica de *Zerynthia rumina* (Linnaeus, 1758) en España. *Boletín de Sanidad Vegetal, Plagas* 17: 465–476.
- Sala G, Bollino M (1992) *Zerynthia polyxena* Denis & Schiffermüller from Venetian Prealps: a new subspecies (Lepidoptera: Papilionidae). *Atalanta* 23(3/4): 449–454.

- Salz A, Fartmann T (2009) Coastal dunes as important strongholds for the survival of the rare Niobe fritillary (*Argynnis niobe*). *Journal of Insect Conservation* 13(6): 643–654. <https://doi.org/10.1007/s10841-009-9214-5>
- Sánchez Mesa L, Muñoz Sairot MG (2017) *Melitaea ornata* (Cristoph, 1893), nueva especie para la Península Ibérica. Primeros datos de su morfología, biología y ecología comparada con los de *Melitaea phoebe* (Denis & Schiffermüller, 1775). (Lepidoptera: Nymphalidae). *Archivos Entomológicos* 18: 313–324.
- Sanetra M, Güsten R, Trusch R (2015) Neue Erkenntnisse zur Verbreitung und Lebensweise von myrmekophilen Bläulingen (Lepidoptera: Lycaenidae) im Tauberland und angrenzenden Regionen. *Carolina* 73: 29–81.
- Sardet E, Betremieux P-A (2006) Distribution et conservation du Damier de la succise (*Euphydryas aurinia*) en Lorraine française (Lepidoptera: Nymphalidae). *Linneana Belgica* 20(5): 163–179.
- Šašić M (2010) False Ringlet *Coenonympha oedippus* (FABRICIUS, 1787) (Lepidoptera: Nymphalidae) in Croatia: current status, population dynamics and conservation management. *Oedippus* 26: 16–19.
- Scalercio S, Bonacci T, Mazzei A, Pizzolotto R, Brandmayr P (2014) Better up, worse down: bidirectional consequences of three decades of climate change on a relict population of *Erebia cassioides*. *Journal of Insect Conservation* 18(4): 643–650. <https://doi.org/10.1007/s10841-014-9669-x>
- Schmitt T (1993) Biotopansprüche von *Erebia medusa brigobanna* Fruhstorfer, 1917 (Rundaugen-Mohrenfalter) im Nordsaarland. *Atalanta* 24(1/2): 33–56.
- Schmitt T (2015) Biology and biogeography of the Chalk-hill Blue *Polyommatus coridon* – insect of the year 2015 for Germany, Austria and Switzerland. *Nota Lepidopterologica* 38(2): 107–126. <https://doi.org/10.3897/nl.38.4977>
- Schurian KG (1997) Beitrag zur Biologie von *Lycaena phlaeas* von den Kanaren. *Nachrichten des Entomologischen Vereins Apollo* 18(2/3): 141–148.
- Schurian KG, Westenberger A (2008) Eine Zucht von *Aglais urticae ichnusa* (Bonelli, 1826) von Korsika (Lepidoptera: Nymphalidae). *Nachrichten des Entomologischen Vereins Apollo* 29(4): 217–219.
- Schweizerischer Bund für Naturschutz (1987) Tagfalter und ihre Lebensräume. Arten, Gefährdung, Schutz, Band I. K. Holliger, Fotorotar AG., 516 pp.
- Seizmair M (2013) Die Neubesiedlung der Münchner Schotterebene durch *Cupido argiades* (PALLAS, 1771) Neue Erkenntnisse zu Bestandsentwicklung, Ausbreitung und Ökologie (Lepidoptera: Lycaenidae). *Nachrichtenblatt der Bayerischen Entomologen* 62: 15–19.
- Seizmair M, Fischer H (2012) Die submontanen Vorkommen von *Pontia callidice* (HÜBNER, 1800) an der Oberen Isar im Karwendelvorgebirge (Lepidoptera: Pieridae). *Nachrichtenblatt der Bayerischen Entomologen* 61: 71–75.
- Sielezniew M, Deoniziak K, Dziekańska I, Nowicki P (2019) Dispersal in a metapopulation of the critically endangered Danube Clouded Yellow butterfly *Colias myrmidone*: implications for conservation. *Journal of Insect Conservation* 23(2): 291–300. <https://doi.org/10.1007/s10841-019-00126-0>
- Sielezniew M, Kostro-Ambroziak A (2019) First record of *Hyposoter placidus* (Desvignes, 1856) (Hymenoptera: Ichneumonidae) in Poland: the specialized parasitoid of *Lycaena* Fabricius, 1807 butterflies (Lepidoptera: Lycaenidae). *Polish Journal of Entomology* 88(1): 93–100. <https://doi.org/10.2478/pjen-2019-0007>
- Sielezniew M, Pałka K, Michalczyk W, Bystrowski C, Hołowiński M, Czerwiński, M (2010) False Ringlet *Coenonympha oedippus* (FABRICIUS, 1787) (Lepidoptera: Nymphalidae) in Poland: state of knowledge and conservation prospects. *Oedippus* 26: 20–24.
- Sielezniew M, Ponikwicka-Tyszko D, Ratkiewicz M, Dziekańska I, Kostro-Ambroziak A, Rutkowski R (2011) Divergent patterns in the mitochondrial and nuclear diversity of the specialized butterfly *Plebejus argus* (Lepidoptera: Lycaenidae). *European Journal of Entomology* 108(4): 537–545. <https://doi.org/10.14411/eje.2011.069>
- Singer MC (1984) Butterfly-hostplant relationships: host quality, adult choice and larval success. In: Vane-Wright RI, Ackery PR (Eds) *The biology of butterflies – Symposium of the Royal Entomological Society of London*. Number 11, Academic Press, 81–88.

- Slamova I, Klecka J, Konvicka M (2012) Woodland and grassland mosaic from a butterfly perspective: habitat use by *Erebia aethiops* (Lepidoptera: Satyridae). *Insect Conservation and Diversity* 6(3): 243–254. <https://doi.org/10.1111/j.1752-4598.2012.00212.x>
- Šlancarová J, Bednářová B, Beneš J, Konvička M (2012) How life history affects threat status: requirements of two *Onobrychis*-feeding lycaenid butterflies, *Polyommatus damon* and *Polyommatus thersites*, in the Czech Republic. *Biologia* 67(6): 1175–1185. <https://doi.org/10.2478/s11756-012-0109-7>
- Slot J (2007) *Polyommatus (Agrodiaetus) humedasaе* (Lepidoptera: Lycaenidae) niet beperkt tot het Cognedal in Noord-West-Italië. *Phegea* 35(2): 69–71.
- Sobczyk T, Bolz R (2006) Zum Raupennahrungsspektrum von *Pyrgus alveus* (HÜBNER, [1803]) in Deutschland unter besonderer Berücksichtigung neuerer Beobachtungen aus Sachsen und Bayern (Lepidoptera, Hesperidae). *Märkische Entomologische Nachrichten* 8(1): 37–42.
- Sonderegger P (2005) Die Erebien der Schweiz (Lepidoptera: Satyrinae, genus *Erebia*), 712 pp.
- Spitzer L, Beneš J, Konvička M (2009) Oviposition of the Niobe Fritillary (*Argynnis niobe* (Linnaeus, 1758)) at submountain conditions in the Czech Carpathians (Lepidoptera, Nymphalidae). *Nachrichten des Entomologischen Vereins Apollo* 30(3): 165–168.
- Stancă-Moise C (2017) Endemic butterflies in the Lepidoptera collection preserved at the “Lucian Blaga” University of Sibiu. *Oltenia-Studii și Comunicări Științele Naturii* 33(1): 104–108.
- Stefanescu C (1997) Migration patterns and feeding resources of the Painted Lady butterfly, *Cynthia cardui* (L.) (Lepidoptera, Nymphalidae) in the northeast of the Iberian peninsula. *Miscellanea zoológica* 20(2): 31–48.
- Stefanescu C (2004) *Charaxes jasius*, una papallona tropical a la Mediterrània. *Cynthia, Butlletí Del Butterfly Monitoring Scheme a Catalunya* 3: 16–18.
- Stefanescu C (2014) La tornassolada petita, *Apatura ilia*, un habitant dels boscos de ribera, en expansió a Catalunya. *Cynthia, butlletí del Butterfly Monitoring Scheme a Catalunya* 13: 18–22.
- Stefanescu C, Dantart J (2004) Sobre la utilització de plantes nutrícies per *Anthocharis cardamines* L. al sud d'Europa (Lepidoptera: Pieridae). *Butlletí de la Societat Catalana de Lepidopterologia* 92: 31–42.
- Stefanescu C, Jubany J, Obregón R (2018) La blaveta dels pèsols, *Lampides boeticus*, un habitant dels nostres camps d'alfals d'origen subtropical. *Cynthia, butlletí del Butterfly Monitoring Scheme a Catalunya* 14: 26–30.
- Stefanescu C, Lafranchis T (2020) Butterfly and moths in l'Empordà and their response to global change. *Recerca i territoris* 12, 178 pp.
- Stefanescu C, Peñuelas J, Filella I (2007) Les papallones com a bioindicadors dels hàbitats a Catalunya: l'exemple dels prats de dall i les pastures del Parc Natural dels Aiguamolls de l'Empordà. *Butlletí de la Institució Catalana d'Història Natural* 73: 139–162.
- Stefanescu C, Roca MC, Vidallet D (2005) *Colotis evagore* (Klug, 1829), espècie nova per a Catalunya (Lepidoptera: Pieridae). *Butlletí de la Societat Catalana de Lepidopterologia* 94: 117–120.
- Strausz M, Fiedler K, Franzén M, Wiemers M (2012) Habitat and host plant use of the Large Copper butterfly *Lycaena dispar* in an urban environment. *Journal of Insect Conservation* 16(5): 709–721. <https://doi.org/10.1007/s10841-012-9456-5>
- Streitberger M, Hermann G, Kraus W, Fartmann T (2012) Modern forest management and the decline of the Woodland Brown (*Lopinga achine*) in Central Europe. *Forest Ecology and Management* 269: 239–248. <https://doi.org/10.1016/j.foreco.2011.12.028>
- Stuhldreher G, Fartmann T (2015) Oviposition-site preferences of a declining butterfly *Erebia medusa* (Lepidoptera: Satyrinae) in nutrient-poor grasslands. *European Journal of Entomology* 112(3): 493–499. <https://doi.org/10.14411/eje.2015.067>
- Stuhldreher G, Villar L, Fartmann T (2012) Inhabiting warm microhabitats and risk-spreading as strategies for survival of a phytophagous insect living in common pastures in the Pyrenees. *European Journal of Entomology* 109(4): 527–534. <https://doi.org/10.14411/eje.2012.066>



- Šunje A, Žujo Zekić D, Lelo S, Ademo E (2019) Genus *Polygonia* Hübner, 1818 (Lepidoptera: Papilionoidea: Nymphalidae) from Bosnia and Herzegovina with an emphasis on south slopes of the Prenj-Mtn. In: The Proceedings of the 8<sup>th</sup> International Symposium of Ecologists of Montenegro, 2–5 October 2019, Budva, Montenegro, 85–90.
- Tatarinov AG, Kulakova OI (2012) Notes sur la variabilité et l'écologie d'*Oeneis magna* Graeser, 1888, dans le nord-est de l'Europe (Lepidoptera Nymphalidae Satyrinae). *Alexandor* 25(7): 393–400.
- Tatarinov AG, Kulakova OI (2013) The outbreak of *Nymphalis xanthomelas* ([Denis et Schiffermüller], 1775) (Lepidoptera: Nymphalidae) on the European north-east of Russia [in Russian]. *Eversmannia* 36: 47–48.
- Templado J (1981) Diapausa y voltinismo en *Euchloe ausonia crameri* Butler (Lep., Pieridae). *Eos* 57: 273–277.
- Templado J, Alvarez J (1985) Observaciones sobre *Zegris eupheme* (Esper, 1800) (Lepidoptera, Pieridae). *Boletín de la Estación Central de Ecología* 14(28): 81–86.
- Thiele V, Berlin A (2007) Lepidopteren- und Trichopterenbiozönosen in einem Moorkomplex bei Karhujärvi (Nordostfinnland). *TELMA – Berichte der Deutschen Gesellschaft für Moor- und Torfkunde* 37: 117–132.
- Thomas CD (1985) Specializations and polyphagy of *Plebejus argus* (Lepidoptera: Lycaenidae) in north Wales. *Ecological Entomology* 10: 325–340. <https://doi.org/10.1111/j.1365-2311.1985.tb00729.x>
- Thomas CD, Glen SWT, Lewis OT, Hill JK, Blakeley DS (1999) Population differentiation and conservation of endemic races: the butterfly, *Plebejus argus*. *Animal Conservation* 2(1): 15–21. <https://doi.org/10.1111/j.1469-1795.1999.tb00044.x>
- Thomas JA (1989) The return of the Large Blue butterfly. *British Wildlife* 1(1): 2–13.
- Thomas JA (1995) The ecology and conservation of *Maculinea arion* and other European species of large blue butterflies. In: Pullin AS (Ed.) *Ecology and conservation of butterflies*, Chapman & Hall, 180–197. [https://doi.org/10.1007/978-94-011-1282-6\\_13](https://doi.org/10.1007/978-94-011-1282-6_13)
- Thomas JA, Thomas CD, Simcox DJ, Clarke RT (1986) Ecology and declining status of the Silver-Spotted Skipper butterfly (*Hesperia comma*) in Britain. *Journal of Applied Ecology* 23(2): 365–380. <https://doi.org/10.2307/2404023>
- Tolman T (1994) The larval host-plant of *Kretania eurypilus* (Freyer, 1852) in the Taygetos Mountain of the Peloponnesos, Greece (Lepidoptera, Lycaenidae). *Linneana Belgica* 14(7): 363–366.
- Tolman T (1995a) Concerning the biology and conservation of *Polyommatus (Agrodiaetus) iphigenia* (Herich-Schäffer, [1847]) in Greece (Lepidoptera: Lycaenidae). *Phegea* 23(2): 113–117.
- Tolman T (1995b) Notes on the life-cycle of *Chilades trochylus* (Freyer, 1844) in Greece and a new host-plant for European butterflies (Lepidoptera: Lycaenidae). *Linneana Belgica* 15(1): 3–5.
- Tolman T, Bernhard T (1994) Significant extensions to the known range of *Anthocharis damone* Boisduval, 1836 in Greece (Lepidoptera: Pieridae). *Phegea* 22(4): 177–180.
- Tolman T, Lewington R (2008) *Collins butterfly guide*. Collins, London, 384 pp.
- Torres-Méndez JL (2015) Sobre un individuo melánico de *Melanargia ines* (Hoffmannsegg, 1804) (Lepidoptera, Nymphalidae) en La Línea (Cádiz). *Revista Gaditana De Entomología* 6(1): 77–79.
- Tóth JP, Bereczki J, Spring N, Varga Z (2011) Dispersal ability and habitat selection in *Melitaea telona kovacsi* Varga, 1967 and *M. phoebe* (Denis & Schiffermüller, 1775) (Nymphalidae) in steppe grassland. *Nota Lepidopterologica* 33(2): 199–207.
- Tóth JP, Bereczki J, Végvári Z, Juhász E, Varga Z (2015) Different host plant utilization ability of two closely related *Melitaea* species (Lepidoptera: Nymphalidae). *European Journal of Entomology* 112(1): 120–125. <https://doi.org/10.14411/eje.2015.001>
- Tshkolovets VV (2011) *Butterflies of Europe & the Mediterranean area*. Tshkolovets Publications, Pardubice, 544 pp.
- Tudor O, Parkin DT (1979) Studies on phenotypic variation in *Maniola jurtina* (Lepidoptera: Satyridae) in the Wyre Forest, England. *Heredity* 42(1): 91–104. <https://doi.org/10.1038/hdy.1979.9>

- Țugulea C, Derjanschi V, Țugulea A (2016) Specializarea trofică a fluturilor diurne din familia LYCAENIDAE (Lepidoptera, Rhopalocera) din zona de centru a Republicii Moldova. Conferința Națională Cu Participare Internațională: Știința În Nordul Republicii Moldova: Realizări, Probleme, Perspective, 29–30 Septembrie 2016, 188–191.
- Turland NJ, Wiersma JH, Barrie FR, Greuter W, Hawksworth DL, Herendeen PS, Knapp S, Kusber W-H, Li, D-Z, Marhold K, May TW, McNeill J, Monro AM, Prado J, Price MJ, Smith GF [Eds] (2018) International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. Regnum Vegetabile 159. Glashütten: Koeltz Botanical Books. <https://doi.org/10.12705/Code.2018>
- Turlure C, Radchuk V, Baguette M, Van Dyck H, Schtickzelle N (2011) On the significance of structural vegetation elements for caterpillar thermoregulation in two peat bog butterflies: *Boloria eunomia* and *B. aquilonaris*. *Journal of Thermal Biology* 36(3): 173–180. <https://doi.org/10.1016/j.jtherbio.2011.02.001>
- Tutin TG, Burges NA, Chater AO, Edmondson JR, Heywood VH, Moore DM, Valentine DH, Walters DA, editors (1993) *Flora Europaea – Psilotaceae to Platanaceae*, volume 1. Cambridge University Press, 2<sup>nd</sup> edn., 581 pp.
- Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters DA, Webb DA [Eds] (1968) *Flora Europaea – Rosaceae to Umbelliferae*, volume 2. Cambridge University Press, 455 pp.
- Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters DA, Webb DA [Eds] (1972) *Flora Europaea – Diapensiaceae to Myoporaceae*, volume 3. Cambridge University Press, 370 pp.
- Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters DA, Webb DA [Eds] (1976) *Flora Europaea – Plantaginaceae to Compositae (and Rubiaceae)*, volume 4. Cambridge University Press, 505 pp.
- Tutin TG, Heywood VH, Burges NA, Moore DM, Valentine DH, Walters DA, Webb DA [Eds] (1980) *Flora Europaea – Alismataceae to Orchidaceae (Monocotyledones)*, volume 5. Cambridge University Press, 452 pp.
- Tutt JW (1906) *A natural history of the British Lepidoptera – a text book for students and collectors*. Swan Sonnenschein, Vol. VIII, Swan Sonnenschein, 479 pp.
- Tutt JW (1908) *A natural history of the British Lepidoptera: their world-wide variation and geographical distribution – a text book for students and collectors*, Vol. IX, Swan Sonnenschein, 495 pp.
- Tutt JW (1909) *A natural history of the British Lepidoptera: their world-wide variation and geographical distribution – a text book for students and collectors*, Vol. X, Swan Sonnenschein, 410 pp.
- Tutt JW (1914) *A natural history of the British Butterflies: their world-wide variation and geographical distribution – a text book for students and collectors*, Vol. IV, Elliot Stock, 373 pp.
- Tuzov VK, Bogdanov PV, Churkin SV, Dantchenko AV, Devyatkin AL, Murzin VS, Samodurov GD, Zhdanko AB (2000) *Guide to the butterflies of Russia and adjacent territories (Lepidoptera, Rhopalocera)*, volume 2 *Libytheidae, Danaidae, Nymphalidae, Riodinidae, Lycaenidae*. Pensoft, Sofia, 580 pp.
- Tvrković N, Mihoci I, Šašić M (2011) *Colias caucasica balcanica* Rebel, 1901 (Pieridae) in Croatia – the western most point of distribution. *Natura Croatica* 20(2): 375–385.
- v. d. Goltz H (1914) *Erebia epiphron vogesiaca*. *Deutsche Entomologische Zeitschrift "Iris"* 28: 107–119. <https://doi.org/10.1002/mmnd.48019140204>
- Väisänen R, Kuussaari M, Nieminen M, Somerma P (1994) Biology and conservation of *Pseudophilotes baton* in Finland (Lepidoptera, Lycaenidae). *Annales Zoologici Fennici* 31(1): 145–156.
- Välämäki P, Itämies J (2005) Effects of canopy coverage on the immature stages of the Clouded Apollo butterfly [*Parnassius mnemosyne* (L.)] with observations on larval behaviour. *Entomologica Fennica* 16: 117–123. <https://doi.org/10.33338/ef.84244>
- van Oorschot H, Coutsis JG (2014) *The genus Melitaea Fabricius, 1807: taxonomy and systematics with special reference to the male genitalia: (Lepidoptera, Nymphalidae, Nymphalinae)*. Tshikolovets Publications, 360 pp.
- Varga Z, Szabó S, Kozma P (2005) *Melitaea ogygia kovacsi* Varga 1967 (Lepidoptera: Nymphalidae) in the Pannonian region: taxonomy, bionomy, conservation biology. In: Kühn E, Feldmann R, Thomas J, Settele

- J (Eds) Studies on the ecology and conservation of butterflies in Europe Vol. 1: general concepts and case studies (Conference Proceedings UFZ Leipzig-Halle, December 2005). Pensoft, Sofia, 65–68.
- Verdugo Páez A (1988) El ciclo biológico y distribución en la provincia de Cádiz de *Melitaea aetherie* (Hübner [1826]) (Lepidoptera: Nymphalidae). SHILAP Revista de lepidopterología 16(61): 59–64.
- Verovnik R (2004) Distribution and conservation of *Polyommatus escheri* (Hübner, 1823) in Slovenia (Lepidoptera: Lycaenidae). Linneana Belgica 19(6): 253–257.
- Verovnik R, Micevski B, Maes D, Wynhoff I, van Swaay C, Warren M (2013) Conserving Europe's most endangered butterfly: the Macedonian Grayling (*Pseudochazara cingovskii*). Journal of Insect Conservation 17(5): 941–947. <https://doi.org/10.1007/s10841-013-9576-6>
- Verovnik R, Popovic M (2013) First record of the Greek Clouded Yellow *Colias aurorina* Herrich-Schäffer, 1850 (Lepidoptera: Pieridae) for Albania. Natura Sloveniae 15(1): 27–32.
- Vila R, Viader S (2008) Distribució, ecologia i conservació de *Iolana iolas* (Ochsenheimer, 1816) a Catalunya (Lepidoptera: Lycaenidae). Butlletí de la Societat Catalana de Lepidopterologia 99: 97–114.
- Villa R, Pellicchia M, Psee GB (2009) Farfalle d'Italia. Editrice Compositori, Bologna, 375 pp.
- Villa R, Righini D (2004) Early stages of *Gegenes nostradamus* Fabricius, 1793 (Lepidoptera: Hesperidae). Linneana Belgica 19(6): 259–263.
- Vladimir Ž, Rudolf R, Marco C, Boženka H, Stanković SS, Ilić Milošević M, Lazarević M, Kos K, Marczak D, León Monasterio Y, Mihailo V, Roman M, De Freina J (2019) Distribution of some European Lepidoptera based on the finding of their non-adult stages presented through trophic associations and a quantitative analysis of their parasitoids. Acta entomologica serbica, Zenodo 24(2): 11–41. <https://doi.org/10.5281/zenodo.3529669>
- Vojnits AN, Ács E (2000) Biology and behaviour of a Hungarian population of *Parnassius mnemosyne* (LINNAEUS, 1758). Oedipus 17: 1–24.
- Volpe G, Palmieri R, Jutzeler D (2005) Nouveaux sites de *Melitaea diamina* (Lang, 1789) en Italie centro-méridionale avec discussion du statut taxinomique de deux populations montrant des différences dans la forme et le dessin des ailes (Lepidoptera: Nymphalidae). Linneana Belgica 20(3): 103–111.
- Vovlas A, Balletto E, Altini E, Clemente D, Bonelli S (2014) Mobility and oviposition site-selection in *Zerynthia cassandra* (Lepidoptera, Papilionidae): implications for its conservation. Journal of Insect Conservation 18(4): 587–597. <https://doi.org/10.1007/s10841-014-9662-4>
- Wagner W (2003) Beobachtungen zur Biologie von *Pyrgus andromedae* (Wallengren, 1853) und *Pyrgus cacaliae* (Rambur, 1840) in den Alpen (Lepidoptera: Hesperidae). Entomologische Zeitschrift Stuttgart 113(12): 346–353.
- Wagner W (2006) Die Gattung *Pyrgus* in Mitteleuropa und ihre Ökologie – Larvalhabitate, Nährpflanzen und Entwicklungszyklen. In: Fartmann T, Hermann G (Hrsg.) Larvalökologie von Tagfaltern und Widderchen in Mitteleuropa. Abhandlungen aus dem Westfälischen Museum für Naturkunde, 83–122.
- Wagner W (2009) Zur Ökologie von *Pyrgus cinarae* (Rambur 1839) nebst Beobachtungen zu *Spialia phlomisidis* (Herrich-Schäffer 1845) – Larvalhabitat, Präimaginalstadien und Entwicklungszyklus (Lepidoptera: Hesperidae). Nachrichten des Entomologischen Vereins Apollo 29(4): 199–204.
- Wagner W (2021) Lepidoptera and their ecology – *Vanessa virginiensis*. [http://www.pyrgus.de/Vanessa\\_virginiensis\\_en.html](http://www.pyrgus.de/Vanessa_virginiensis_en.html) [accessed 11 Oct. 2021]
- Wahlberg N (1997) The life history and ecology of *Melitaea diamina* (Nymphalidae) in Finland. Nota Lepidopterologica 20(1/2): 70–81.
- Wahlberg N (1998) The life history and ecology of *Euphydryas maturna* (Nymphalidae: Melitaeini) in Finland. Nota Lepidopterologica 21(3): 154–169.
- Wakeham-Dawson A, Salmon M, Franquinho Aguiar A (2001) A field guide to the butterflies of the Funchal Ecological Park and Maderan Archipelago. Câmara Municipal do Funchal, Madeira, 115 pp.
- Wakeham-Dawson A, Salmon M, Franquinho Aguiar AM (2002) *Leptotes pirithous* (Linnaeus, 1767) (Lepidoptera: Lycaenidae) new to Porto Santo Island, Madeira, Portugal, with notes on other butterfly species in Madeira 6–13 October 2001. Entomologist's Gazette 53(4): 245–247.

- Walker JJ (1890) Notes on Lepidoptera from the region of the Straits of Gibraltar. Transactions of the Royal Entomological Society of London 38(2): 361–391. <https://doi.org/10.1111/j.1365-2311.1890.tb03027.x>
- Warren MS (1987) The ecology and conservation of the Heath Fritillary butterfly, *Melitica athalia*. I. Host selection and phenology. Journal of Applied Ecology 24(2): 467–482. <https://doi.org/10.2307/2403887>
- Warren MS (1995) Managing local microclimates for the High Brown Fritillary, *Argynnis adippe*. In: Pullin AS (Ed.) Ecology and conservation of butterflies, Chapman & Hall, 198–210. [https://doi.org/10.1007/978-94-011-1282-6\\_14](https://doi.org/10.1007/978-94-011-1282-6_14)
- Warren MS, Munguira ML, Ferrin J (1994) Notes on the distribution, habitat and conservation of *Euphydryas aurinia* (Rottentburg) (Lepidoptera: Nymphalidae) in Spain. Entomologist's Gazette 45(1): 5–12.
- WCSP (2021) World Checklist of Selected Plant Families. Facilitated by the Royal Botanic Gardens, Kew. <http://wesp.science.kew.org/> [accessed 14 June 2021]
- WCVP (2021) World Checklist of Vascular Plants – version 4. Facilitated by the Royal Botanic Gardens, Kew. <http://wcvp.science.kew.org/>
- Weidemann HJ (1988) Tagfalter, Band 2. Biologie, Ökologie, Biotopschutz. Neumann-Neudamm, Melsungen, 372 pp.
- Wendt M, Husemann M, Kramp K, Schmitt T (2021) Reconstruction of forest dynamics in the Western Palearctic based on phylogeographic analysis of the ringlet butterfly *Erebia aethiops*. Scientific Reports 11: e201. <https://doi.org/10.1038/s41598-020-79376-x>
- Westenberger A (2005) Eine erfolgreiche Zucht von *Plebeius orbitulus* (de Prunner, 1798) bis zur F3-Generation sowie einige Lycaeniden-Beobachtungen aus dem Schnalstal in Südtirol (Lepidoptera: Lycaenidae). Nachrichten des Entomologischen Vereins Apollo 26: 207–212.
- WFO (2021) World Flora Online. *Goniolimon cuspidatum* Gamajun. <http://www.worldfloraonline.org/taxon/wfo-0000706390> [accessed 14 Jun 2021]
- Wickman P (2012) Vårdväxbyte hos myrvisslaren, *Pyrgus centaureae* (Lepidoptera:Hesperiidae). Entomologisk Tidskrift 133(3): 93–100.
- Wiemers M (1995) The butterflies of the Canary Islands – a survey on their distribution, biology and ecology (Lepidoptera: Papilionoidea and Hesperioidea). Linneana Belgica 15(2/3): 63–118.
- Wiemers M (2007) Die Gattung *Coenonympha* Hübner, 1819, in Europa: Systematik, Ökologie und Schutz. Oedipus 25: 1–42.
- Wiemers M, Balletto E, Dincă V, Faltynek Fric Z, Lamas G, Lukhtanov V, Munguira ML, van Swaay CAM, Vila R, Vliegenthart A, Wahlberg N, Verovnik R (2018) An updated checklist of the European butterflies (Lepidoptera, Papilionoidea). ZooKeys 811: 9–45. <https://doi.org/10.3897/zookeys.811.28712>
- Wiemers M, van Swaay C, Collins S, Dušej G, Maes D, Munguira ML, Rakosy L, Ryrholm N, Šašić M, Settele J, Thomas J, Verovnik R, Verstrael T, Warren M, Wynhoff I (2012) Dos and don'ts for butterflies of the Habitats Directive of the European Union. Applied Ecology 1: 73–153. <https://doi.org/10.3897/natureconservation.1.2786>
- Wiklund C (1984) Egg-laying patterns in butterflies in relation to their phenology and the visual apparency and abundance of their host plants. Oecologia 63(1): 23–29. <https://doi.org/10.1007/BF00379780>
- Wiklund C, Åhrberg C (1978) Host plants, nectar source plants, and habitat selection of males and females of *Anthocharis cardamines* (Lepidoptera). Oikos 31: 169–183. <https://doi.org/10.2307/3543560>
- Zapp A (2010) Montane Tagfalter im Rückzug: zur Chorologie und Ökologie von *Erebia ligea* (Linnaeus, 1758) und *Lycaena virgaureae* (Linnaeus, 1758) im Hunsrück (Rheinland-Pfalz, Saarland). Schriftenreihe "Aus Natur und Landschaft im Saarland" 35/36: 455–485.
- Ziegler H (1989) Biologie und Verbreitung von „*Euchloe simplonia*“ (Boisduval, 1828) in der Schweiz (Lep., Pieridae). Atalanta 19: 53–69.
- Zimmermann K, Fric Z, Filipová L, Konvička M (2005) Adult demography, dispersal and behaviour of *Brenthis ino* (Lepidoptera: Nymphalidae): how to be a successful wetland butterfly. European Journal of Entomology 102(4): 699–706. <https://doi.org/10.14411/eje.2005.100>

## Supplementary material 1

### Table S1

Authors: Harry E. Clarke

Data type: Excel spreadsheet.

Explanation note: Checklist of the accepted names of larval foodplants of European Butterflies.

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