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Identification guide of the butterflies of the Lake Neusiedl Region

The **European Butterfly Monitoring Scheme** (eBMS) aims to collect monitoring data on butterflies across Europe to promote their conservation. With the help of volunteers, butterflies are observed and counted according to defined methods.

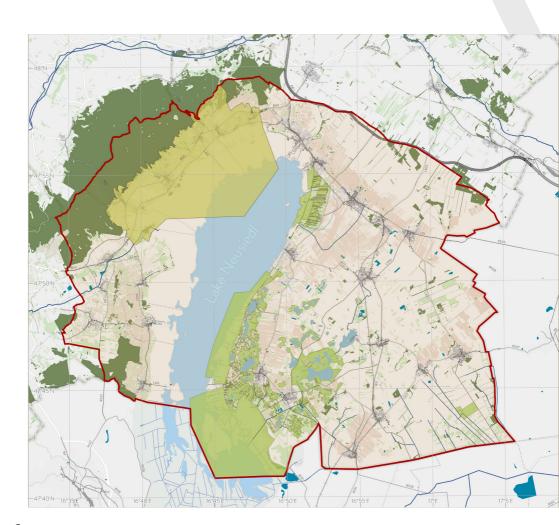
The present guide explains the monitoring according to the methods of the eBMS and facilitates the identification of butterflies of the Lake Neusiedl region.

The Neusiedler See - Seewinkel National Park, the World Heritage Nature Park Neusiedler See - Leithagebirge and the Biological Station Neusiedler See have jointly set themselves the goal of establishing and coordinating the butterfly monitoring in the area around Lake Neusiedl.

Your contribution to the monitoring helps protect butterflies!

The Lake Neusiedl Region

The area around Lake Neusiedl - from the Rust hills and the Leitha mountain range to the lowland plain Seewinkel with the unique salt lakes and the wide Puszta landscape east of the shallow steppe lake is a unique part of Austria. With its location on the eastern edge of the Alps and on the western edge of the Hungarian Plain, it is a border area not only from a historical, but especially from a biological point of view, where plant and animal species from Alpine, Pannonian, Asian, Mediterranean and Nordic areas can be found. Large wetlands, dry grasslands, sandy steppes, saline sites and forests lie side by side here like a mosaic. Without this diversity of valuable habitats, such enormous species richness would not be possible.



Of the approx. 215 butterfly species recorded throughout Austria, approx. 115 species currently occur in the Neusiedler See region. The area covered by the species list is bounded by the Rust Hills and the Leitha mountain range in the west, by the A4 freeway in the north and by the Austrian-Hungarian state border in the east and south (see map).

The present species list is based on extensive surveys by Helmut Höttinger over the last four decades. This also concerns the information on distribution (local, scattered, widespread), flight times (phenology) and possibilities of confusion. A summary publication on the distribution and abundance of butterflies around Lake Neusiedl does not exist at present.

Legend Nature Park Neusiedler See - Leithagebirge Neusiedler See - Seewinkel National Park Vineyards Forest Meadows / Pastures Soda lakes Area of butterfly species list

Why monitoring butterflies?

If we want to slow down or even prevent a further decline of butterflies in the future, we need to gain an overview of their population development. In addition, we want to know whether the efforts against the decline in insect populations are effective. Butterflies are an insect group for which repeated and standardized monitoring programs make easy to draw conclusions about long-term changes in the biotic communities possible.

One goal of the Austrian Butterfly Conservation (ABC) is to establish butterfly monitoring in Austria. For further information:

www.austrian-butterfly-conservation.jimdosite.com



-Amt der Burgenländischen Landesregierung.



Research methods

Transects and general conditions

Walking a transect is the most commonly used method of **European Butterfly Monitoring** (eBMS). The data are used to calculate trends on butterfly abundance for each European country and across Europe.

A previously defined route (maximum 1000 m, divided into sections of 50-200 m, within a section only a largely homogeneous habitat) is walked several times between April and September (preferably 10 times). All butterfly species are recorded and the individuals counted.



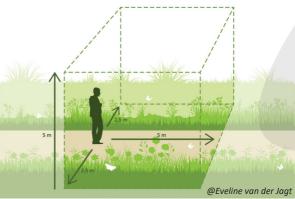
Register via www.butterfly-monitoring.net, create your transect, count the butterflies and enter your results into the database either via www.butterfly-monitoring.net or directly via the eBMS App ButterflyCount.

The app can be set up on <u>Android</u> or <u>Apple</u> systems and allows butterfly counts anywhere in Europe.



The following rules should be followed:

- Count all the butterflies of each species you encounter in an imaginary cube: 2.5m to the left and right, and 5m in front of and above you.
- The selected route should be walked slowly and at a steady pace.
- Observations should be made between 10am and 5pm in sunny and preferably windless weather conditions. The temperature should be above 13°C when sunny and above 17°C when cloudy.



• If you do not use the eBMS app, the results should be entered on the website or passed on to the Austrian coordination person.

15-Minutes counts

You can also count butterflies outside of the transect monitoring, for example when you are out for a walk. The other method used by eBMS is based on counting all butterfly individuals within 15 minutes. 15-minute Counts can be conducted on a path, in a defined area (e.g. a garden, a meadow), or around a fixed point. The same time and weather conditions should be followed as for transect surveys.

The eBMS App, ButterflyCount, has also been set up to record the 15-minute Counts. The app records the route and the position.

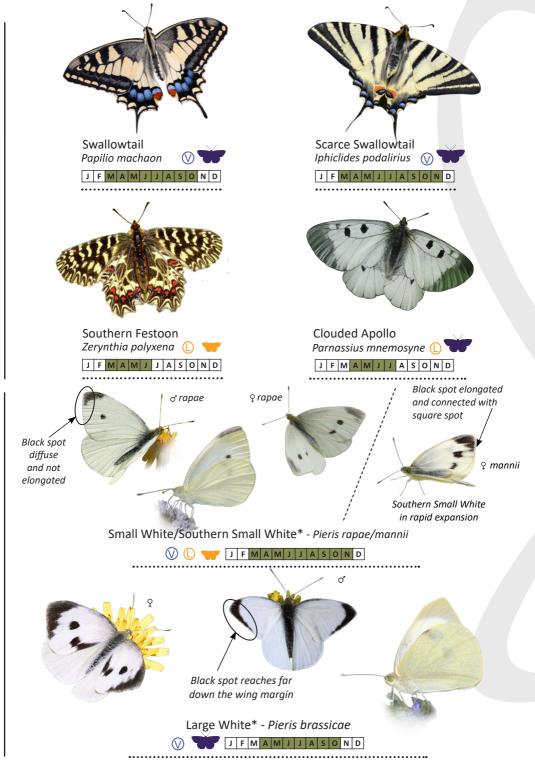
More information on monitoring:
www.butterfly-monitoring.net/de/ebms-app
www.austrian-butterfly-conservation.jimdosite.com

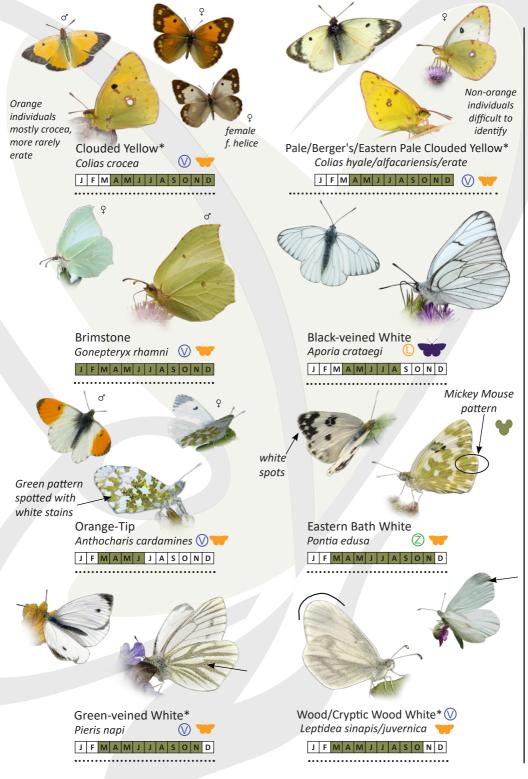


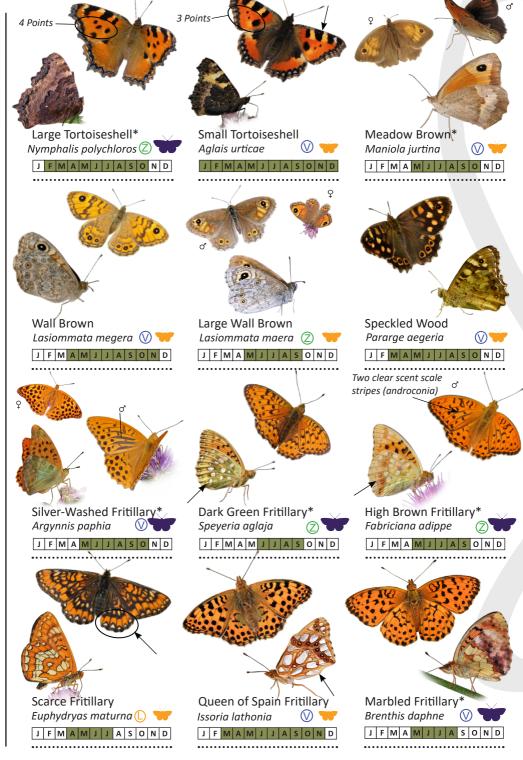
Use of the identification charts

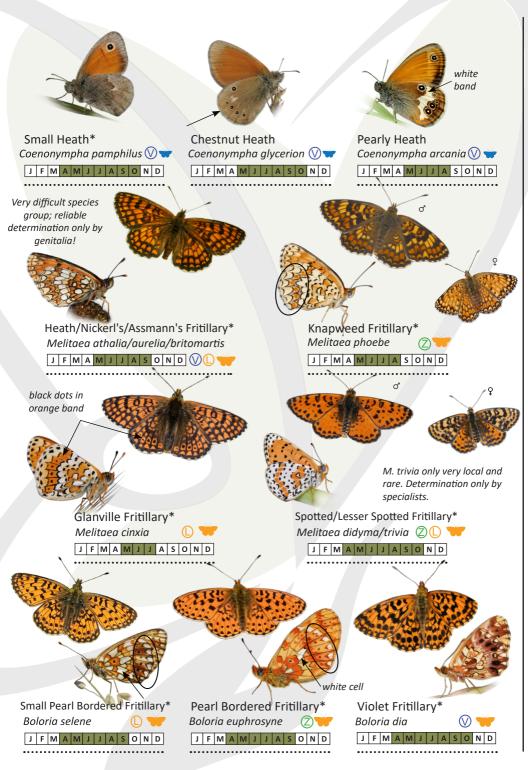
This folder is intended to facilitate the identification of the butterflies of the Lake Neusiedl area. The species are grouped by families (see information in the margin). Some species which are difficult to distinguish are listed as species groups (names separated by slashes). Not included are species that are certainly or presumably extinct in the area and some only rarely recorded migratory butterflies (e.g. the cardinal *Argynnis pandora*).

In addition to the scientific and German species name, information on flight time, size and frequency categories are shown symbolically. With few exceptions, the scientific names follow the book "Insekten in Wien - Tagfalter" (Höttinger et al. 2013, ed.: Österreichische Gesellschaft für Entomofaunistik), those of the German names follow the red list of the butterflies of Austria. The size of the illustrations does not correspond to the actual size of the animals (note the butterfly symbols for approximate wing span: blue < 3 cm, yellow = 3-5 cm, purple > 5 cm). Distribution in the area is indicated by three categories (local, scattered, widespread).





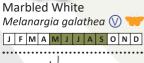














Nettle-tree Butterfly
Libythea celtis

JFMAMJJASONE



Woodland ringlet

Erebia medusa

J F M A M J J A S O N D



Grayling*
Hipparchia semele

J F M A M J J A S O





Woodland Grayling*
Hipparchia fagi

JFMAMJJASOND







Ringlet

Aphantopus hyperantus

JFMAMJJASOND



Erebia aethiops

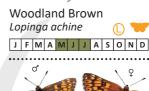
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Great Banded Grayling
Brintesia circe

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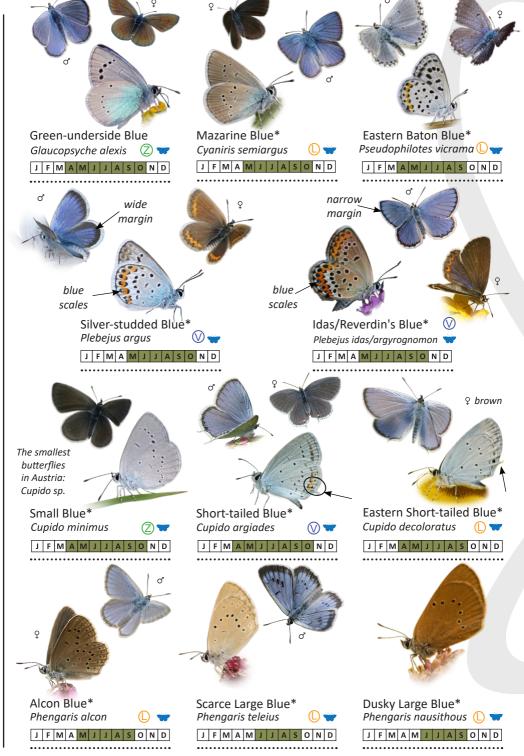


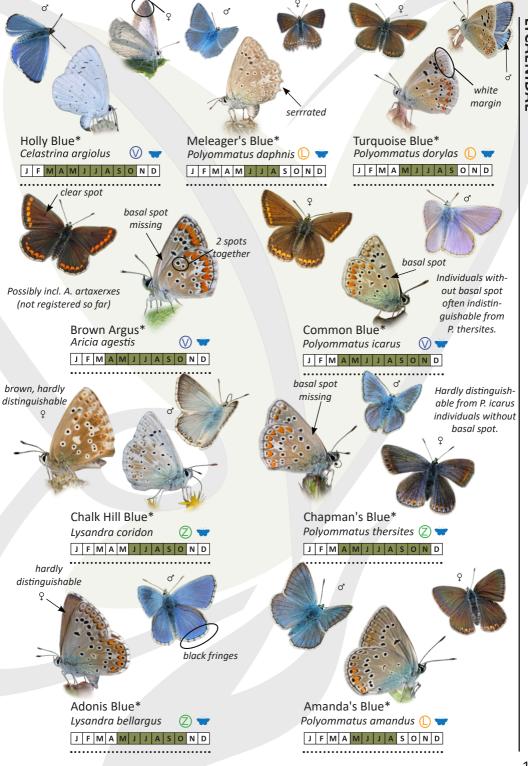


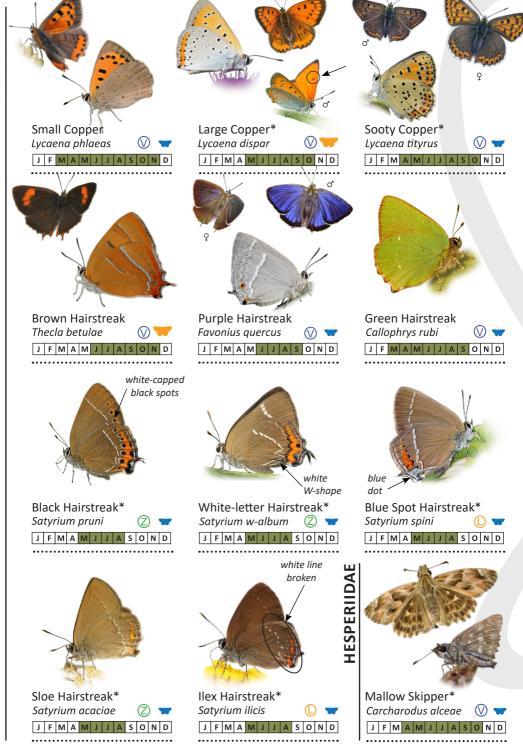
F M A M J J A S O N D

Duke of Burgundy*

Hamearis lucina









Butterfly Conservation Europe (BCE) and the UK Centre for Ecology and Hydrology (UKCEH) created the **European Butterfly Monitoring Scheme** (eBMS) to collect data from the various butterfly monitoring projects in Europe. Member countries share observations with the eBMS database to document and analyze population trends of European butterflies.

Visit the eBMS website, www.butterfly-monitoring.net/austrian-bms, for more information on butterfly monitoring. If you would like to help with butterfly monitoring or support the work of the Austrian Butterfly Conservation (ABC), please contact: AustrianButterflyConservation@gmail.com and Tagfalter-Monitoring Österreich Facebook Gruppe.

Contact: Neusiedler See - Seewinkel National Park: forschung@npneusiedlersee.at; Naturpark Neusiedler See-Leithagebirge: info@neusiedlersee-leithagebirge.at; Biological Station Neusiedler See: post.bs-illmitz@bgld.gv.at

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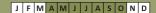
Pictures species: Andreas Pospisil; Paolo Mazzei, Marco Bonifacino, Raniero Panfili and Daniel Morel (www.leps.it); Izabela Dziekańska, Marcin Sielezniew, Martin Wiemers, Albert Vliegenthart and Chris van Swaay.

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Flight period: months in which species can be observed.



Butterfly size:

😙 small 🧡 middle 📆 bi

Sex:

♀ females ♂ males

Other symbols::

Specific features to identify species

Species distribution:

local

(Z) scattered

(V) widespread

* Risk of confusion

Illmitz, January 2022





















