



## Andalucía

### Guía de campo para la identificación de mariposas

El Programa Europeo de Seguimiento de Mariposas Diurnas (eBMS según sus siglas en inglés) tiene como finalidad recoger datos para impulsar el seguimiento y la conservación de este grupo de insectos. Para ello cuenta con miles de voluntarios que recogen sistemáticamente datos de campo siguiendo una metodología definida.

El objetivo de la presente guía es facilitar la tarea de identificación en campo de **93 especies de mariposas diurnas de Andalucía** (España). Esta guía también sirve de herramienta de apoyo para las personas que participen en el Seguimiento de Mariposas Diurnas a través de las metodologías estandarizadas por eBMS para toda Europa.

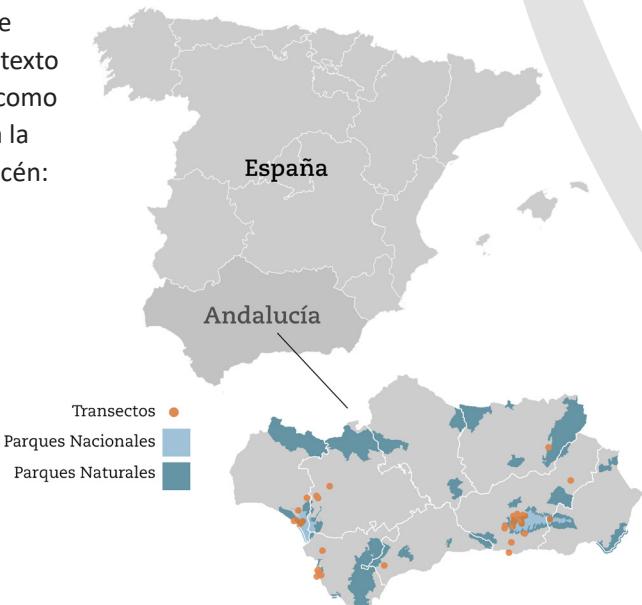
***¡Contando mariposas ayudarás a protegerlas!***

## Andalucía

Andalucía ( $87.268 \text{ km}^2$ ) es una de las regiones de Europa donde las comunidades de mariposas diurnas son especialmente ricas y singulares. Se trata de un área típicamente mediterránea que se puede dividir en tres grandes regiones: Sierra Morena (50-1.298 msnm), Valle del Guadalquivir (0-500 msnm) y las Sierras Béticas (0-3.482 msnm). El paisaje es sumamente diverso y en él destacan zonas forestales dominadas por bosques de *Quercus* y *Pinus*, zonas agrícolas, estepas áridas, ambientes matorralizados, humedales, ecosistemas costeros y zonas montañosas.

Entre estas últimas encontramos auténticos puntos calientes de diversidad biológica en el contexto europeo y mediterráneo, así como el punto más elevado de toda la Península Ibérica (Pico Mulhacén: 3.482 msnm).

La cifra total de especies citadas en esta región ronda las **145 especies**, de las que en esta guía quedan **representadas 93** (algo menos de un 65%). Se han seleccionado las especies más comunes y también una representación de las más amenazadas.



## Seguimiento Mariposas Diurnas de Andalucía

Actualmente el Seguimiento de Mariposas Diurnas en Andalucía se lleva a cabo en 42 localidades, donde periódicamente se realizan censos mediante transectos. La mayor concentración de transectos se da en Sierra Nevada y Doñana. Ambos Espacios Protegidos integran los dos Parques Nacionales existentes por ahora en la región.

En Sierra Nevada se viene trabajando desde el año 2008 en una red de Seguimiento de Mariposas coordinada desde el Observatorio de Cambio Global de Sierra Nevada ([www.obsnev.es](http://www.obsnev.es)). Este Observatorio es una iniciativa conjunta de la Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible de la Junta de Andalucía y de la Universidad de Granada.

Por contra, es la Estación Biológica de Doñana (CSIC) la que coordina los trabajos del Programa de Seguimiento de Mariposas Diurnas en el Espacio Natural Doñana. Iniciado en 2007, es accesible a través de la Infraestructura Científico-Tecnológica Singular de Doñana, ICTS-RBD (<http://icts.ebd.csic.es>). La información recogida en ambos Espacios Naturales, dentro de sus respectivos Programas de Seguimiento, se integra en BMS España y en el sistema eBMS, que analiza los datos recabados en toda Europa.

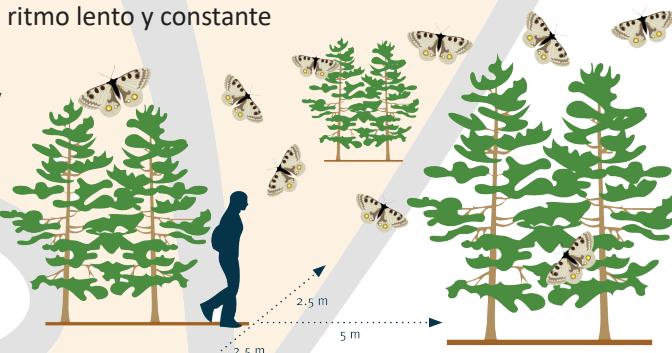
## Metodologías

### Transecto:

El transecto es el método más utilizado en el BMS europeo para el Seguimiento de Mariposas. Consiste en una ruta fija que se recorre con una determinada frecuencia para registrar las diferentes especies de mariposas y sus respectivas abundancias.

Reglas básicas a seguir:

- Contar todos los individuos de mariposas en una caja imaginaria, de 2.5m a cada lado y 5 m por delante y 5 m por encima del observador.
- Recorrer el transecto a un ritmo lento y constante
- Las visitas deben hacerse con buen tiempo: soleado y cálido, sin lluvia y sin demasiado viento.
- Informar de sus registros a los coordinadores nacionales o al eBMS



### Recuento de 15 minutos:

Otra metodología utilizada en eBMS, se basa en contar mariposas durante 15 minutos en un área determinada. Puede ser un camino, una zona delimitada (como un jardín) o simplemente un punto fijo. Sigue las mismas pautas especificadas para la realización del transecto, contando todas las mariposas observadas siempre y cuando las condiciones meteorológicas sean las adecuadas.

Para registrar los datos recogidos de cada Recuento de 15 minutos se utiliza la aplicación móvil de eBMS, **ButterflyCount**. Se puede instalar en móviles Android o Apple y permite recoger registros de mariposas de cualquier lugar de Europa.



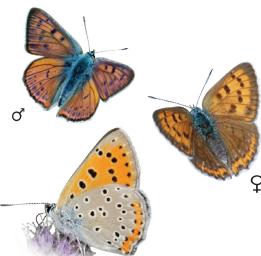
Para más información visite la página web de eBMS: [www.butterfly-monitoring.net](http://www.butterfly-monitoring.net)

# LYCAENIDAE



*Lycaena phlaeas*

E	F	M	A	M	J	J	A	S	O	N	D
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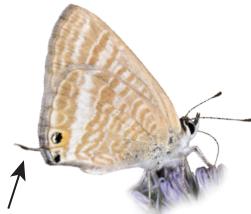
*Lycaena alciphron*

E	F	M	A	<b>M</b>	J	J	A	S	O	N	D
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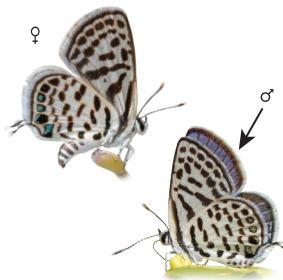
*Aricia cramera*

E	F	M	A	M	J	J	A	S	O	N	D
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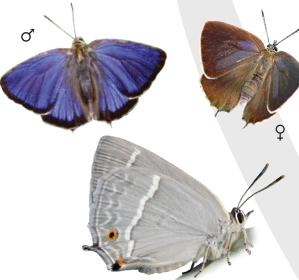
*Lampides boeticus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Tarucus theophrastus*

E	F	M	A	M	J	J	A	S	O	N	D
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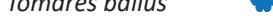
*Favonius quercus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Tomares ballus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Cacyreus marshalli*

E	F	M	A	<b>M</b>	J	J	A	S	O	N	D
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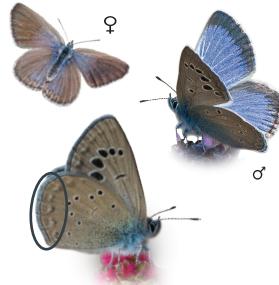
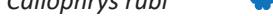
*Satyrium spini*

E	F	M	A	M	J	J	A	S	O	N	D
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*Callophrys rubi*

E	F	M	A	M	J	J	A	S	O	N	D
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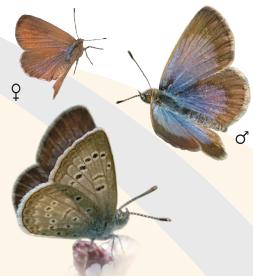
*Glaucopsyche melanops*

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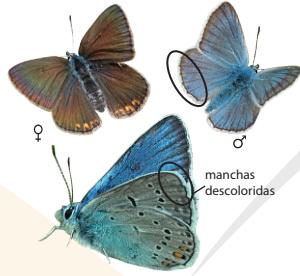


*Glaucopsyche alexis*

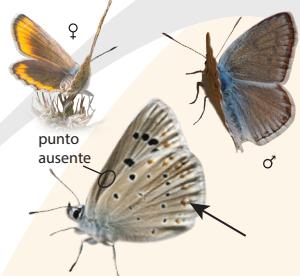
E	F	M	A	<b>M</b>	J	J	A	S	O	N	D
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*Zizeria knysna*

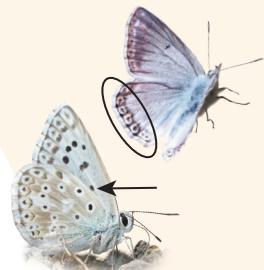
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*Polyommatus amandus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Polyommatus nivescens*

E	F	M	A	M	J	J	A	S	O	N	D
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*Polyommatus albicans*

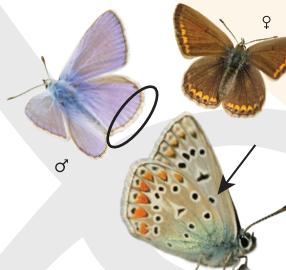
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*Plebejus argus/idae*

E	F	M	A	M	J	J	A	S	O	N	D
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*Polyommatus thersites*

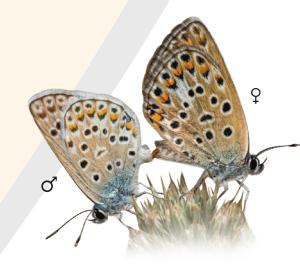
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*Polyommatus icarus/celina*

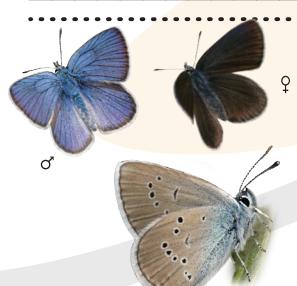
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*Polyommatus bellargus*

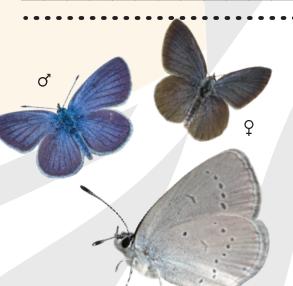
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*Polyommatus escheri*

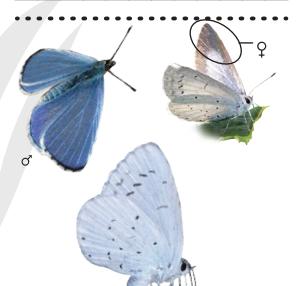
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*Cyaniris semiargus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Cupido lorquinii*

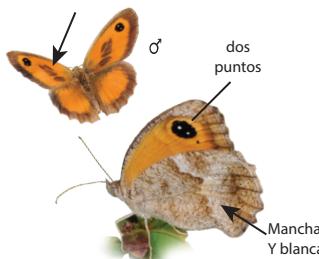
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*Celastrina argiolus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pyronia bathseba*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pyronia cecilia*

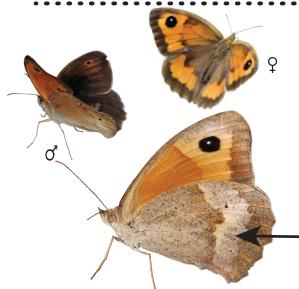
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*Pyronia tithonus*

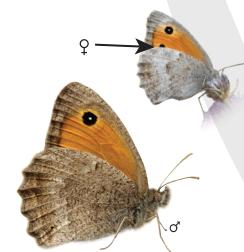
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*Coenonympha pamphilus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Maniola jurtina*

E	F	M	A	M	J	J	A	S	O	N	D
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*Hyponephele lycaon*

E	F	M	A	M	J	J	A	S	O	N	D
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*Hipparchia alcyone*

E	F	M	A	M	J	J	A	S	O	N	D
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*Brintesia circe*

E	F	M	A	M	J	J	A	S	O	N	D
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*Limenitis reducta*

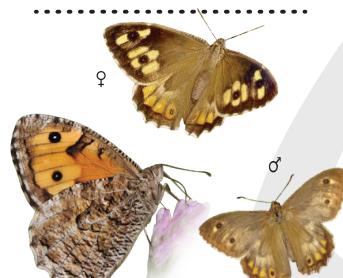
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*Hipparchia fidia*

E	F	M	A	M	J	J	A	S	O	N	D
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*Hipparchia statilinus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Hipparchia semele*

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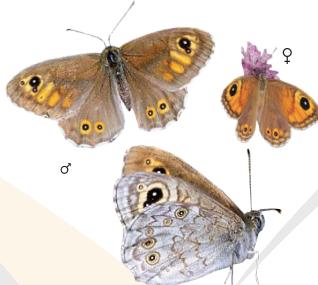
## NYMPHALIDAE



*Pararge aegeria*



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



*Lasiommata maera*



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



*Lasiommata megera*



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



*Polygonia c-album*



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



*Charaxes jasius*



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



*Aglais urticae*



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



*Vanessa atalanta*



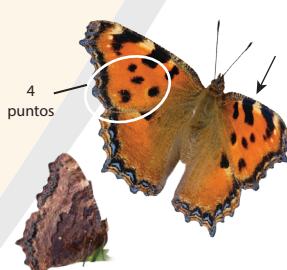
E F M A M J J A S O N D



*Vanessa cardui*



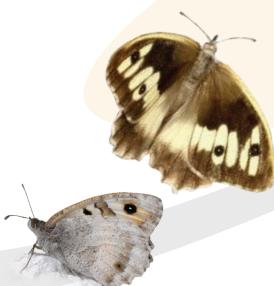
E F M A M J J A S O N D



*Nymphalis polychloros*



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



*Chazara briseis*



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



*Satyrus actaea*



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



*Melanargia lachesis*



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

# NYMPHALIDAE



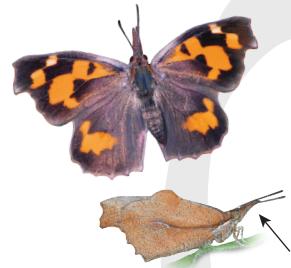
*Danaus chrysippus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Danaus plexippus*

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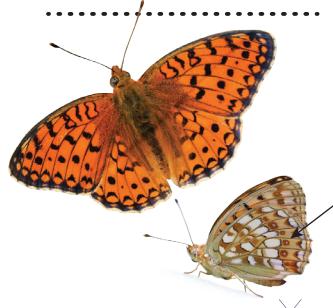
*Libythea celtis*

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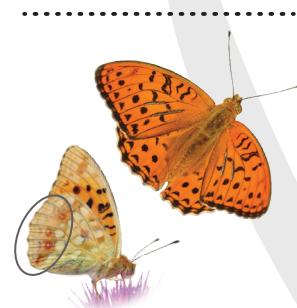
*Argynnis pandora*

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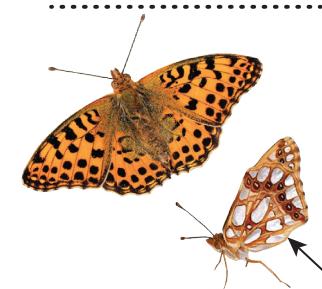
*Fabriciana niobe*

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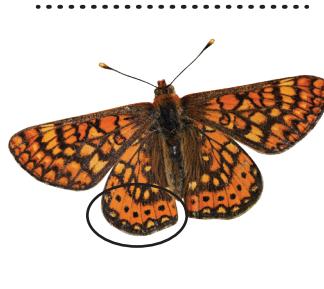
*Fabriciana adippe*

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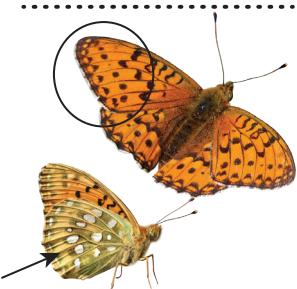
*Issoria lathonia*

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*Euphydryas aurinia*

E	F	M	A	M	J	J	A	S	O	N	D
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*Speyeria aglaja*

E	F	M	A	M	J	J	A	S	O	N	D
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*Melitaea celadussa*

E	F	M	A	M	J	J	A	S	O	N	D
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*Melitea dydima*

E	F	M	A	M	J	J	A	S	O	N	D
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*Melitaea phoebe*

E	F	M	A	M	J	J	A	S	O	N	D
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## HESPERIIDAE



*Carcharodus baeticus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Hesperiidae*

E	F	M	A	M	J	J	A	S	O	N	D
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*Ochloides sylvanus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Muschampia proto*

E	F	M	A	M	J	J	A	S	O	N	D
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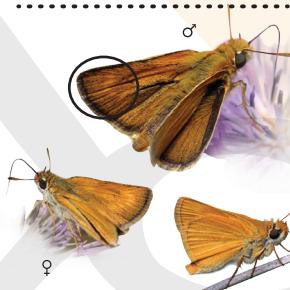
*Pyrgus cirsii*

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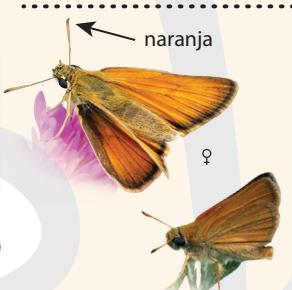
*Spialia sertorius*

E	F	M	A	M	J	J	A	S	O	N	D
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*Thymelicus acteon*

E	F	M	A	M	J	J	A	S	O	N	D
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*Thymelicus sylvestris*

E	F	M	A	M	J	J	A	S	O	N	D
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*Thymelicus lineola*

E	F	M	A	M	J	J	A	S	O	N	D
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*Gonepteryx rhamni*

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



*Gonepteryx cleopatra*

E	F	M	A	M	J	J	A	S	O	N	D
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*Leptidea sinapis*

E	F	M	A	M	J	J	A	S	O	N	D
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## PIERIDAE

**PIERIDAE**



*Colias alfacariensis*

E	F	M	A	M	J	J	A	S	O	N	D
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*Colias crocea*

E	F	M	A	M	J	J	A	S	O	N	D
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*Parnassius apollo*

E	F	M	A	M	J	J	A	S	O	N	D
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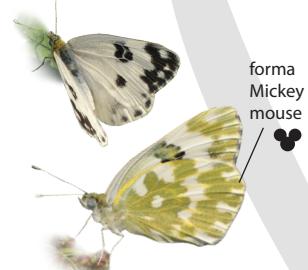
*Anthocharis cardamines*

E	F	M	A	M	J	J	A	S	O	N	D
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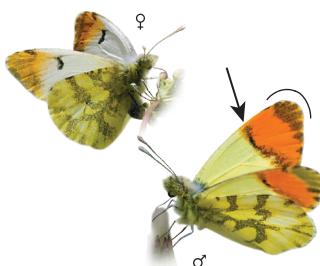
*Euchloe crameri*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pontia daplidice*

E	F	M	A	M	J	J	A	S	O	N	D
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*Anthocharis euphenoides*

E	F	M	A	M	J	J	A	S	O	N	D
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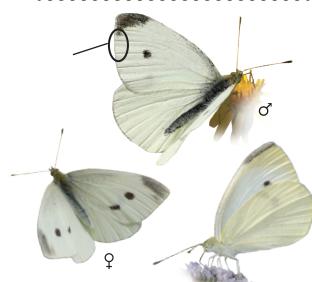
*Colotis evagore*

E	F	M	A	M	J	J	A	S	O	N	D
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*Aporia crataegi*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pieris rapae*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pieris napi*

E	F	M	A	M	J	J	A	S	O	N	D
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*Pieris brassicae*

E	F	M	A	M	J	J	A	S	O	N	D
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**PAPILIONIDAE**

*Iphiclus feisthamelii*

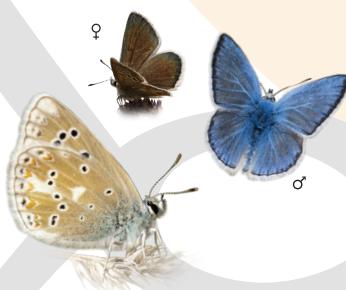
E	F	M	A	M	J	J	A	S	O	N	D
---	---	---	---	---	---	---	---	---	---	---	---

*Papilio machaon*

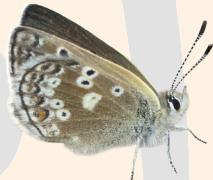
E	F	M	A	M	J	J	A	S	O	N	D
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*Zerynthia rumina*

E	F	M	A	M	J	J	A	S	O	N	D
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*Polyommatus golgus*

E	F	M	A	M	J	J	A	S	O	N	D
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*Agriades zullichi*

E	F	M	A	M	J	J	A	S	O	N	D
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*Kretania hesperica*

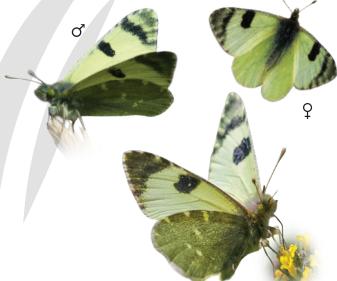
E	F	M	A	M	J	J	A	S	O	N	D
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*Pseudochazara mercurius*

E	F	M	A	M	J	J	A	S	O	N	D
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*Polyommatus violettae*

E	F	M	A	M	J	J	A	S	O	N	D
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*Euchloe bazae*

E	F	M	A	M	J	J	A	S	O	N	D
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Butterfly Conservation Europe y el Centro de Ecología e Hidrología de Reino Unido (UKCEH) crearon el Programa Europeo de Seguimiento de Mariposas Diurnas (eBMS, por sus siglas en inglés) con el principal objetivo de agrupar todos los datos de Seguimiento de Mariposas de los distintos países de Europa. Todos los países miembro comparten sus datos anualmente para la creación de Indicadores de Mariposas Europeos y así conocer el estado de las poblaciones de las mariposas diurnas.

Visite el sitio web de eBMS [www.butterfly-monitoring.net](http://www.butterfly-monitoring.net) para averiguar más sobre el Seguimiento de Mariposas y cómo registrar sus datos de mariposas. Si quiere participar en recoger datos de mariposas en España contacte con el coordinador nacional, Miguel L. Munguira: munguira@uam.es

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Diseñadora gráfica: Eveline van der Jagt

ABLE - Assessing Butterflies in Europe  
eBMS - European Butterfly Monitoring Scheme

Especie protegida ●

Período de vuelo: meses en que las mariposas son observables

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

Tamaño de la mariposa:

Pequeña Mediana Grande

Sexo:

Hembra Macho

Símbolos:

→ Características específicas para identificar las especies

