

CITES Identification Guide - Butterflies

Guide to the Identification of Butterfly Species Controlled under the Convention on International Trade in Endangered Species of Wild Fauna and Flora



Guide d'identification CITES - Papillons

Guide d'identification des papillons protégés par la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction



Guía de identificación de CITES - Mariposas

Guía de identificación de las mariposas protegidas por la Convención sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Silvestres



An initiative of Environment Canada

Une initiative d'Environnement Canada

Una iniciativa del Ministerio del Medio Ambiente del Canadá



Published by Authority of the Minister of Environment.

© Minister of Supply and Services Canada, 2000.

Canadian Cataloguing in Publication Data

Main entry under title:

CITES identification guide – butterflies : guide to the identification of butterfly species controlled under the Convention on International Trade in Endangered Species of Wild Fauna and Flora = Guide d'identification CITES – papillons : guide d'identification des papillons protégés par la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction = Guía de identificación de CITES – mariposas : guía de identificación de las mariposas por la Convención Sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Sylvestres

Text in English, French and Spanish.

"An initiative of Environment Canada"

Published with the collaboration of CITES Secretariat and Biodiversity Convention Office, Environment Canada.

Issued by Wildlife Division, Enforcement Branch, Environment Canada.

ISBN 0-660-61562-2

Cat. No. CW66-192/2000

1. Butterflies – Identification – Handbooks, manuals, etc.
2. Wildlife conservation (International law)
3. Endangered species – Law and legislation.
- I. Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973). Secretariat.
- II. Canada. Biodiversity Convention Office.
- III. Canada. Wildlife Division. Enforcement Branch.
- IV. Canada. Environment Canada.
- V. Title : Guide d'identification CITES – papillons : guide d'identification des papillons protégés par la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction.
- VI. Title : Guía de identificación de CITES – mariposas : guía de identificación de las mariposas por la Convención Sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Sylvestres

QL545.C57 2000 595.78'9
C00-980460-9E

Publié en vertu de l'autorisation du Ministre de l'Environnement.

© Ministre des Approvisionnements et Services Canada, 2000.

Données de catalogage avant publication (Canada)

Vedette principale au titre :

CITES identification guide – butterflies : guide to the identification of butterfly species controlled under the Convention on International Trade in Endangered Species of Wild Fauna and Flora = Guide d'identification CITES – papillons : guide d'identification des papillons protégés par la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction = Guía de identificación de CITES – mariposas : guía de identificación de las mariposas por la Convención Sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Sylvestres

"Une initiative d'Environnement Canada"

Publié avec la collaboration du Secrétariat de la CITES, et le Bureau de la Convention sur la biodiversité, Environnement Canada.

Publ. par la Division de la faune. Direction de l'application de la loi, Environnement Canada.

ISBN 0-660-61562-2

No de cat. CW66-192/2000

1. Papillons – Identification – Guides, manuels, etc.
2. Faune – Protection – Droit international.
3. Espèces en danger – Droit.
- I. Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction (1973). Secrétariat
- II. Canada. Bureau de la Convention sur la biodiversité.
- III. Canada. Division de la faune. Direction de l'application de la loi.
- IV. Canada. Environnement Canada.
- V. Titre : Guide d'identification CITES – papillons : guide d'identification des papillons protégés par la Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction.
- VI. Titre : Guía de identificación CITES – mariposas : guía de identificación de las mariposas por la Convención Sobre el Comercio Internacional de Especies Amenazadas de Fauna y Flora Sylvestres.

QL545.C57 2000 595.78'9
C00-980460-9F



Canada

Author: **Lonny D. Coote**
Wildlife Inspector, Canadian Wildlife Service, Environment Canada

Original idea: **Yvan Lafleur**
Chief, Wildlife Division, Enforcement Branch, Environment Canada

Coordinator: **Richard Charette**
National Coordinator, Inspections, Enforcement Branch, Environment Canada

Illustrations: **Lonny D. Coote** (Ornithoptera, Trogonoptera, Troides)
and
Ian Smith (Bhutanitis, Papilio, Parnassius, Teinopalpus)

Design: **Tamara Maliepaard**

Photography: **Doug Millar, Trina Koster**

Published with the collaboration of
CITES Secretariat, Geneva, Switzerland,
Biodiversity Convention Office, Environment Canada
and
Ministère de l'aménagement du territoire et de l'environnement,
Direction de la nature et des paysages, FRANCE



Auteur: **Lonny D. Coote**
Inspecteur de la faune, Service canadien de la faune, Environnement Canada

Idée originale: **Yvan Lafleur**
Chef, Division de la faune, Direction de l'application de la loi, Environnement Canada

Coordonnateur: **Richard Charette**
Coordonnateur national, Inspections, Direction de l'application de la loi, Environnement Canada

Illustrations: **Lonny D. Coote** (Ornithoptera, Trogonoptera, Troides)
et
Ian Smith (Bhutanitis, Papilio, Parnassius, Teinopalpus)

Design: **Tamara Maliepaard**

Photographies: **Doug Millar, Trina Koster**

Publié avec la collaboration du
Secrétariat de la CITES, Genève, Suisse,
Bureau de la Convention sur la biodiversité, Environnement Canada
et du
Ministère de l'aménagement du territoire et de l'environnement,
Direction de la nature et des paysages, FRANCE

Autor: **Lonny D. Coote**
Inspector de fauna, Servicio Canadiense de la Fauna,
Ministerio del Medio Ambiente del Canadá

Idea original: **Yvan Lafleur**
Jefe, División de la Fauna, Dirección de la aplicación de la ley,
Ministerio del Medio Ambiente del Canadá

Coordinador: **Richard Charette**
Coordinador Nacional, Inspecciones, Dirección de la aplicación de la ley,
Ministerio del Medio Ambiente del Canadá

Ilustraciones: **Lonny D. Coote** (Ornithoptera, Trogonoptera, Troides)
y
Ian Smith (Bhutanitis, Papilio, Parnassius, Teinopalpus)

Diseño: **Tamara Maliepaard**

Fotografías: **Doug Millar, Trina Koster**

Documento publicado con la colaboración del
Secretaría de la CITES, Ginebra, Suiza,
Oficina de la Convención sobre Diversidad Biológica
Ministerio del Medio Ambiente del Canadá
y del
Ministère de l'aménagement du territoire et de l'environnement,
Direction de la nature et des paysages, FRANCIA

English →

Français →

Español →

E
?

F
?

Es
?

E
?

← English

F
?

← Français

Es
?

← Español




Table of Contents — English Section

	Page
PREFACE.....	ix
ACKNOWLEDGEMENTS.....	x
HOW TO USE THIS GUIDE	
Message to customs officers and other inspectors responsible for enforcing CITES	?-1
What is CITES?.....	?-2
What species are illustrated in the guide?.....	?-3
I have to verify the identification of a butterfly declared on a CITES permit: what do I do?	?-4
How to determine the validity of a CITES permit.....	?-5
I have to identify a butterfly that is not accompanied by a CITES permit: what do I do?.....	?-6
Example of the identification process.....	?-7
What is the purpose of the coloured tabs?.....	?-9
What is the purpose of the key pages?.....	?-10
What is the purpose of the descriptive pages?.....	?-11
What does the genus presentation bar describe?.....	?-12
What is the purpose of the orange section?	?-13
What is contained in Index A?	?-14
What is contained in Index B?	?-14
Definition of symbols	?-15
Information about butterflies	
How are butterflies imported?.....	?-16
Why are butterflies imported?.....	?-17
How to handle dried butterflies	?-18
How to handle live butterfly pupae	?-20



Table of Contents — English Section

E
?

KEY PAGES	Page
Features used in the key for adult specimens.....	 1
Key for CITES butterflies	 6
Examples of pupae	 14
BLUE SECTION Easily recognizable species	2
YELLOW SECTION Species that should be referred to an expert.....	2
ORANGE SECTION	
Suggested references.....	1
Nomenclature used.....	2
List of subspecies that must be referred to an expert	3
INDEX A	A-1
INDEX B	B-1

Preface

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), also known as the Washington Convention, has an impact on the lives of all Canadians and on the wildlife species with which we share our planet. Every time a new country signs CITES, the international effort to protect wildlife species is strengthened.

Becoming a signatory to CITES entails a number of obligations. Each party must designate an administrative body, scientific authorities and a fraud prevention unit, all of which are actively involved in the application of the Convention.

The many tasks involved in implementing CITES — issuing and verifying the necessary permits, inspecting goods, caring for live animals and ensuring proper storage of perishable derivatives — all require qualified, concerned personnel. Since none of the parties to CITES is in a position to allocate the human or financial resources required to ensure strict border control, each CITES administration must work with other organizations to achieve its objectives. These organizations have a variety of different mandates which support the requirements of the Convention and the legislation governing it.

These organizations often feel they are not properly qualified and that it is best to leave the application of CITES up to the experts. On the contrary, most people responsible for enforcing CITES, whether they be customs officers, police officers, conservation officers, or plant and animal product inspectors, are able to perform a number of essential tasks, such as identifying specimens and checking permits.

Environment Canada has developed a series of easy-to-use guides that do not require an advanced level of training. They are designed to help front-line staff effectively control transborder movements of controlled goods.

I hope that this guide will motivate you in your efforts to prevent illegal trade in wildlife species and will contribute to the protection of animals threatened by international trade.



Yvan Lafleur
Chief, Wildlife Division
Enforcement Branch
Environment Canada

Acknowledgements

E ?

I extend my gratitude to Richard Charette for the special opportunity to produce this guide, and especially for his extreme patience, tolerance, and dedication in seeing this guide completed. Yvan Lafleur made this work possible in the first place, with his vision of producing a series of identification guides that can be used by wildlife and customs inspectors around the world. Ian Smith helped immensely in rendering illustrations for the yellow section of the guide. The design wizardry of Tamara Maliepaard, and the editorial skills of Richard Charette and Marie-José Ribeyron have created a visually appealing and more accurate publication. Patrice Stephens-Bourgault provided invaluable artistic instruction.

I am indebted to Robert Wenting for many things, not the least of which for opening the door to my current career. His review of the text, and his tolerance in allowing me to plod on with this work, is also hereby acknowledged. I gratefully thank Reginald Borneo for everything and anything even remotely connected to the production of this guide.

Several persons and institutions made specimens or resources available to me, or provided useful comments, for which I am thankful: the Canadian Wildlife Service, Guelph office, for loan of specimens of most species; Ken Thorne for loan of his books and of specimens, and for his review of scientific names; the Royal Ontario Museum for loan of Haugum and Low's books and of specimens; Peter Hall for loan of a specimen of *Papilio homerus*; Dr. David Wolyn for an extended loan of D'Abbrera's book from the University of Guelph library; Steve Gamman for loan of L. Chou's article from the Canadian National Insect Collection library; Maria Tang for translation of L. Chou's article; Dr. Michael Parsons for his review of scientific names; Steve Talley from U.S. Fish and Wildlife Service for information about and illustrations of pupae; the publisher of S. Igarashi's book for allowing reproduction of pupal illustrations; and Canadian Wildlife Service officers who offered suggestions to improve the manuscript.

Lonny D. Coote, M. Sc.
Wildlife Officer/Inspector
Canadian Wildlife Service, Ontario Region
Environment Canada

How to use this guide

Message to customs officers and other inspectors responsible for enforcing CITES

E
?

Certain species of butterflies have become rare or endangered primarily as a result of the destruction of their natural habitat or removal of preferred food plants. In addition, excessive collecting of adults for personal collections has contributed significantly to the decline in numbers of these species, especially when specimens are collected on a commercial scale. Many other species of butterflies may become endangered for the same reasons, and therefore require protection from excessive exploitation.

The international trade in millions of butterflies each year is estimated to represent tens of millions of US dollars annually. International, national, regional and local legislation or agreements exist in many parts of the world, but these protect relatively few of the species of butterflies in trade. Inadequate or non-existent monitoring of insect shipments, both in countries of origin and countries of import, results in ineffective enforcement of regulations put in place to protect certain species of butterflies.

The *CITES Identification Guide – Butterflies* is designed to serve as one of the tools in an active inspection program. It was created specifically to assist customs officers and wildlife inspectors in identifying butterfly species listed in Appendix I, II, or III of CITES (see *What is CITES?* ?-2). **To use this guide, no previous knowledge of butterfly identification is required. This guide cannot be used to identify non-CITES butterflies in trade.** If your specimen is not identified in this guide, then it is likely not a CITES-listed species.

The basic structure of this guide is similar to that of the CITES Identification Guides previously produced by Environment Canada (*CITES Identification Guide – Birds*, *CITES Identification Guide – Crocodylians* and *CITES Identification Guide – Turtles and Tortoises*)

The **key pages in the green section present illustrations** highlighting the **morphological characteristics of butterflies**. Using the **colour photographs** displaying CITES genera, you should be able to determine whether your butterfly belongs to a CITES-listed genus. If you think it is a CITES-listed species, refer to the **descriptive pages in the blue and yellow sections**, which contain life-size illustrations of all CITES species.

The **blue section of the guide contains illustrations of the most easily recognizable species**. Many of these species are very distinctive in appearance and are therefore easily identifiable. Others may be more challenging, but with practice, you will soon learn the distinguishing characteristics of these species. Where one or both sexes closely resemble other CITES species, an icon appears indicating an expert is needed to confirm your identification.

The yellow section deals with species that are more difficult to identify because they resemble one or more non-CITES species. If you think your specimen belongs to a species in the yellow section, detain it and consult an expert.

Finally, the **orange section lists all known subspecies of CITES butterflies**. Subspecies are very difficult to identify because the adults closely resemble one another. **If it is necessary to identify the subspecies, refer to an expert.**

How to use this guide

E ? Before you begin working with the *CITES Identification Guide – Butterflies*, read carefully *How to use this guide*, in the purple section paying particular attention to *Information about butterflies*. It is important to remember that **dried butterflies are extremely fragile**, and must be handled with the utmost care.

With experience, you will quickly learn which sections to consult in identification of your specimen; whether or not you have a CITES species; and whether or not you should consult an expert to make or confirm an identification.

What is CITES?

The **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** is an international agreement signed by more than 150 countries that regulates trade in a number of species of plants and animals, their parts and derivatives, and any article made from them. The names of these species appear in a Control List that is updated every two years, following the meeting of the Parties to the Convention. The list provides the names of CITES species and indicates whether they are Appendix I, II, or III species.

Appendix I species are rare or endangered. Trade in these species for primarily commercial purposes is prohibited. As a result, Appendix I species must be accompanied by a CITES export or re-export permit issued by the exporting country and a CITES import permit issued by the importing country.

Appendix II species are neither rare nor endangered at present, but could become so if trade is not regulated. Appendix II species must be accompanied by an appropriate CITES export or re-export permit issued by the exporting country before entry to the importing country will be allowed.

Appendix III species are not rare or endangered, but are subject to special management within the listing country (as indicated in parentheses beside the Appendix number). Appendix III species must be accompanied by an appropriate CITES export permit issued by the exporting country if the trade is with the listing country, or by a certificate of origin or a re-export certificate if the trade is with a country other than the listing country, as required by the Convention.

Note these icons used throughout the guide:



Appendix I, II or III species.
Trade in this species is regulated by CITES and must be verified by the necessary CITES permit(s)



Trade in this species is not regulated by CITES and does not require a CITES permit



Detain and refer to an expert for identification


How to use this guide

What species are illustrated in the guide?

Only those species of butterflies protected under CITES are illustrated in this guide. All of these species belong to the **family Papilionidae**. This family includes over 700 described species, 45 of which are CITES-listed.

The key pages provide several **colour photographs** of adult specimens **of each genus of butterfly** protected under CITES. **Colour illustrations of some genera of CITES butterfly pupae** are also included in this section. There are no illustrations of the pupae of *Bhutanitis* and of the three CITES species of *Papilio*.

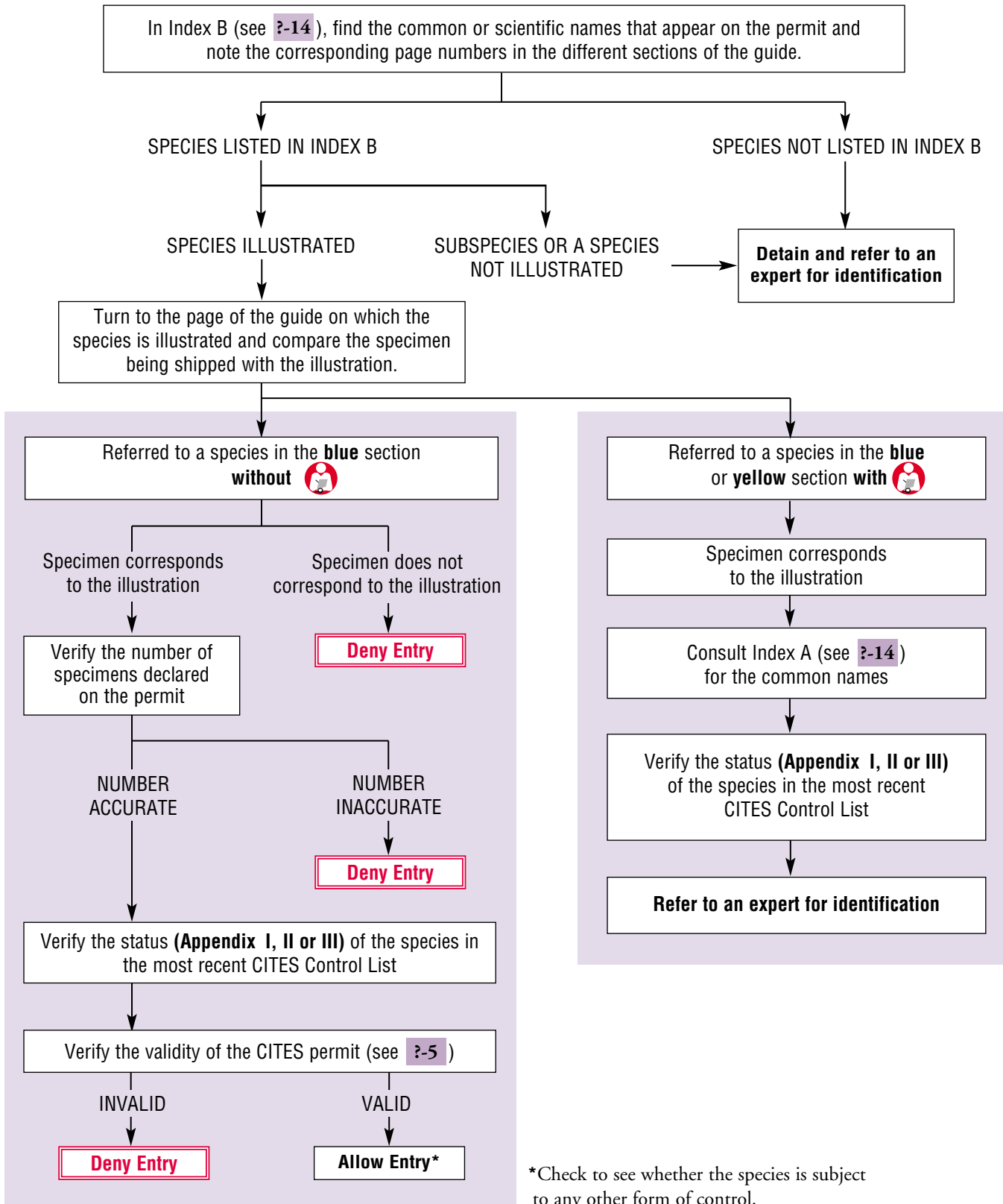
The blue and yellow identification sections provide life-size **illustrations** of adults specimens **of all 45 CITES species**.

If there are recognized subspecies, the **nominal subspecies is the one usually illustrated** (e.g., *Ornithoptera chimaera chimaera* is the nominal subspecies of *Ornithoptera chimaera*). In some cases, the most common subspecies is illustrated. Remember that other subspecies are not illustrated in this guide and their identification should be left to an expert .

How to use this guide

E ?

I must verify the identification of a butterfly declared on a CITES permit: what do I do?

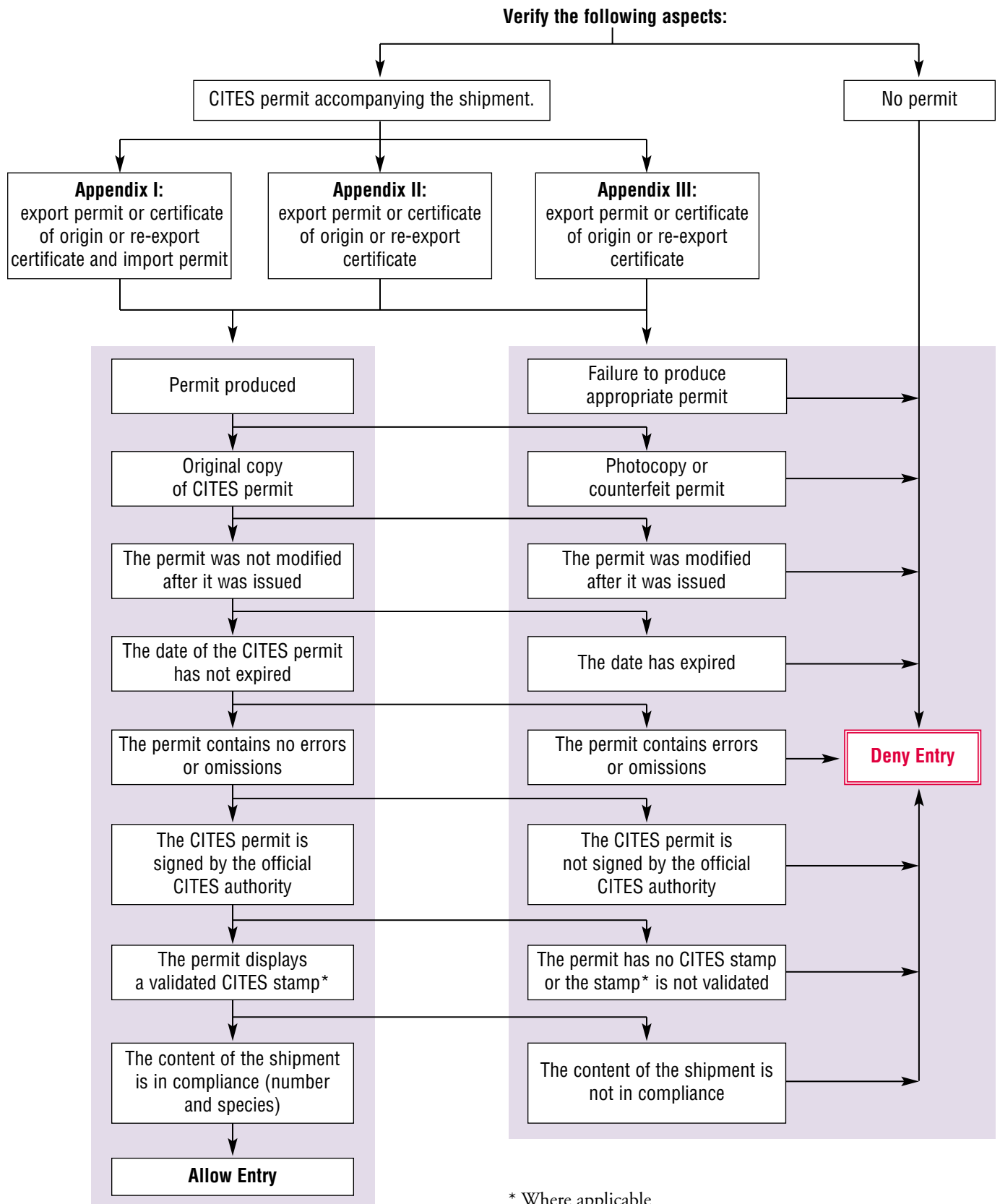


*Check to see whether the species is subject to any other form of control.

How to use this guide

E ?

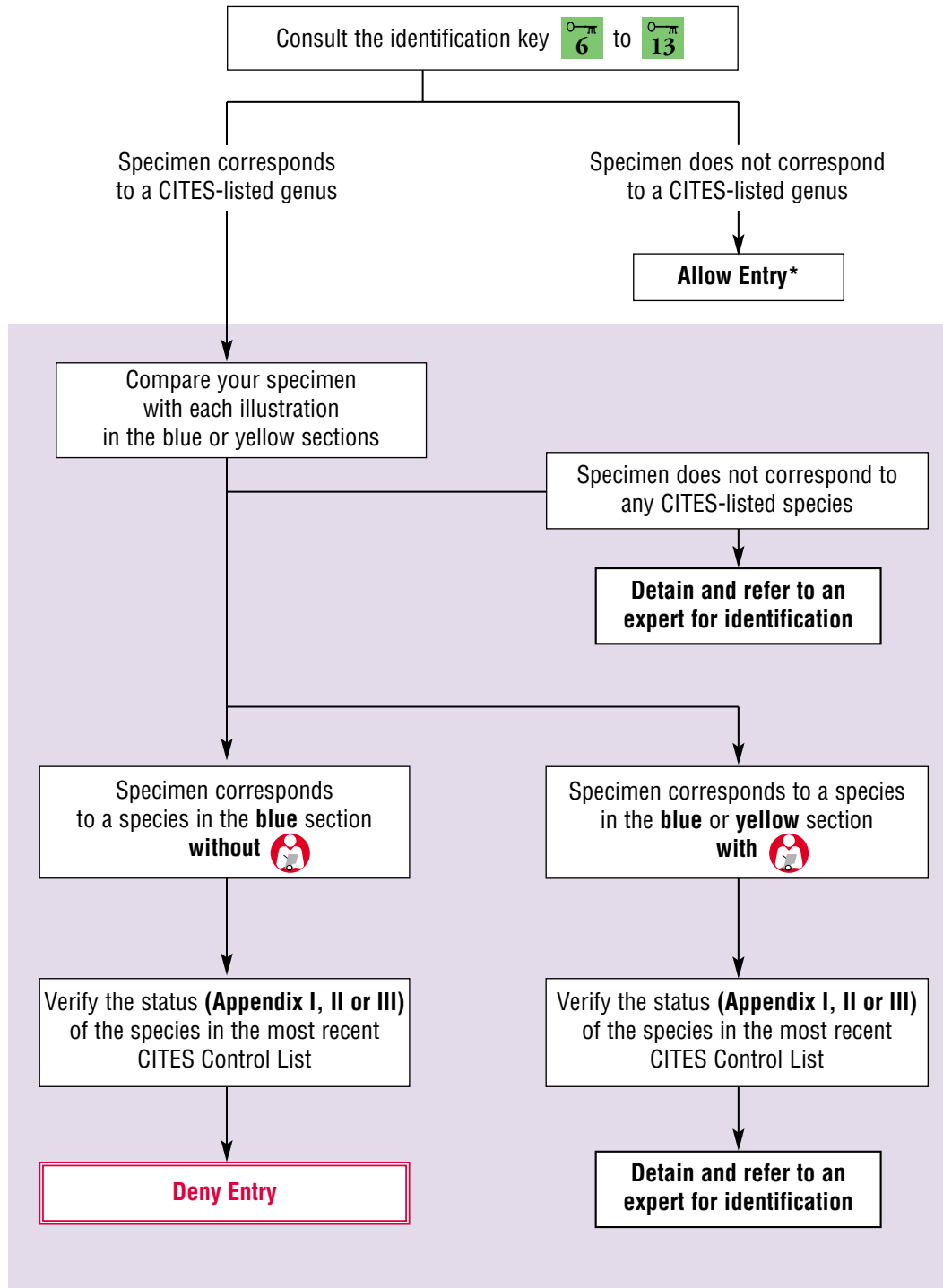
How to determine the validity of a CITES permit



How to use this guide

E ?

I must identify a butterfly that is not accompanied by a CITES permit: what do I do?



* Check to see whether the species is subject to any other form of control.

How to use this guide

Example of the identification process

This entire guide is based on the identification of adult butterflies, which are almost always imported as dried specimens. **Identification of live specimens should be left to an expert.**

EXAMPLE: You have before you a butterfly that resembles the one in this life-size photograph. Let's say that this specimen was imported from Indonesia* through the mail and was not accompanied by a CITES permit.




The first step is to read the section explaining how to handle dried butterflies (see ?-18). You should also familiarize yourself with the pages 1^m to 4^m detailing the features used to identify butterflies. Next consult the **colour photographs** on pages 6^m to 13^m . These photographs illustrate the range of colours, shapes and sizes of the genera of butterflies protected under CITES. **It is important to consult each of these pages** in order to make a correct identification. Bear in mind that the species included on the key pages are examples illustrating common morphological characteristics of the genus. Do not try to match your specimen with one of these illustrations, but rather, try to find similarities in the shape, the size and/or the colour pattern. In this example, the genera *Bhutanitis*, *Ornithoptera*, *Papilio*, *Parnassius*, *Teinopalpus*, and *Trogonoptera* can be immediately eliminated because our specimen is black with yellow on the hind wings and does not have tails on the hind wings. If the specimen does not resemble any of the photographs in the key section, this means it is not a CITES species. **Once you have determined that a specimen is not a CITES species, you no longer need to proceed with the identification process.**

*As an example only

How to use this guide


E
?

However, with our specimen note the similarity between its colour pattern and wing size to those illustrations of the genus *Troides*. There is enough similarity to suggest that this specimen may belong to the genus *Troides*. The *Troides* key pages direct us to descriptive pages **28** to **65**.

Page **28** begins with a shaded bar where the symbol , indicates that all 19 species of the genus *Troides* are listed in Appendix II. The following pages provide **life-size illustrations** of these species. Each illustration includes arrows pointing to key characteristics that help identify the particular species. Carefully examine each illustration and compare it to our specimen. As you can see, it most closely resembles the male of *Troides cuneifera*, particularly because of the yellow pattern on the hind wing. Before making a final determination, it is important to compare our specimen to the two similar species mentioned at the bottom of the page (*T. helena* and *T. miranda*). After doing so, you can conclude that our specimen belongs to *Troides cuneifera*.

To confirm your identification, check the **distribution map** of *Troides cuneifera*. As you can see, this species occurs in Indonesia, the country of origin for our specimen. This further supports the conclusion that the specimen is *Troides cuneifera*. Because this is a protected CITES species and there is no CITES permit accompanying the specimen, you must **detain this specimen**.

At the top of the page you will see that *Troides cuneifera* has three subspecies, as indicated by the orange numbers TR-29, TR-30, and TR-31. You will find the names of the subspecies (*cuneifera*, *paeninsulae* and *sumatrana*) on page **9** of the orange section. **Any identification of the subspecies should be left to an expert.**

You should also **consult an expert** if your identification process leads you to a **species in the yellow section** or, **to a species or sex in the blue section accompanied by the**  **icon.** The identification of these species is more challenging because they closely resemble other species.

When using this identification process, remember that there is always a range of sizes for adult butterflies. This means that **your specimen may differ slightly in size** from the illustration.

How to use this guide


E
?


F
?


Es
?




What is the purpose of the coloured tabs?

The purple section  contains the introductory pages, which explain **how to use this guide**. It also contains **Information About Butterflies**, which describes the butterfly trade and the proper handling of dried butterflies and live pupae during the inspection process. It is important to read this section before trying to use this guide.


The green section  contains key pages with **photographs and illustrations** which aid in identifying a particular butterfly or pupa genus protected under CITES. This is the **first step in the identification process**.

The blue section  contains descriptive pages of **CITES butterfly species that are easy to recognize**. It also contains species that should be referred to an expert because one or both sexes resemble other CITES species.


The yellow section  contains descriptive pages of **CITES butterflies more challenging to identify. These species need to be referred to an expert**.

The orange section  contains a **list of CITES butterfly subspecies to refer to an expert**, plus a list of selected references.

A

The grey section  contains **Index A**, which provides the **scientific names** of all illustrated CITES species. The scientific names are listed in alphabetical order and are followed by their **common names** in English, French, and Spanish.

B



The dark grey section  contains **Index B**, which provides an alphabetical listing of the **scientific and common names of all CITES species and subspecies** (in English, French, and Spanish), followed by the species page number in the guide. Names of forms, races, aberrations, and hybrids are also included.



E
?



How to use this guide

E
?

What is the purpose of the key pages?

The key pages emphasize **recognition of CITES butterflies**. Pages  **1** to  **4** include **illustrations** that define **morphological characteristics and measurements**. Size measurements are provided for the forewing length, which is useful if your specimen is folded, and the wingspan, which is useful if your specimen is fully spread. **You can use these illustrations to familiarise yourself with terms used in the blue and yellow identification sections.**

Key pages  **6** to  **13** include **colour photographs of all genera — but not of all species — of butterflies protected under CITES**. The photographs are grouped according to genus. They show the male and/or female of a representative species in the genera *Bhutanitis*, *Teinopalpus* and *Trogonoptera*, as well as all three CITES species in the genus *Papilio* and the single CITES species in the genus *Parnassius*. Photographs of male and female specimens of several species in *Ornithoptera* and *Troides* are provided to illustrate the range of colour variation and colour patterns. **Use these photographs as a first step in identifying a specimen and determining if it belongs to a CITES-listed genus.** If it is CITES-listed, refer to the descriptive pages for that genus in the blue or yellow sections to determine the species. Bear in mind that it may be sufficient to determine that a specimen is **not protected under CITES**, at which point you can stop the identification process.

Finally, key pages  **14** to  **15** present **colour illustrations of pupae for some CITES genera**. The illustrations are grouped according to genus; examples of *Ornithoptera*, *Parnassius*, *Teinopalpus*, *Trogonoptera*, and *Troides* are illustrated. Important characters to consider when identifying live pupae include **size, shape, colouration, and markings**. **Use these illustrations to identify pupae**, but when in doubt **consult an expert**.

How to use this guide

What is the purpose of the descriptive pages?

The descriptive pages of the blue and yellow sections include **illustrations of all CITES butterfly species**. These illustrations are grouped **alphabetically by genus** and, within each genus, **alphabetically by species**. Most illustrations are life-size in order to provide an accurate size comparison with the specimen you are trying to identify. Where the female of a species closely resembles the male, only one illustration is provided.

Species scientific name:
Teinopalpus is the genus,
imperialis is the species

Sex of the illustrated specimen

Icon indicating the species is protected under CITES

Abbreviation for the genus; number for the subspecies; page number in the orange section

Photograph of the species

Size of the species:
WS - Wingspan
FWL - Forewing length

Icon indicating an expert must be consulted

Arrow indicating an identifying characteristic

Genus name

TEINOPALPUS

WS 8.5 - 9.0 cm
FWL 5.5 - 6.0 cm

grey gris gris

grey gris gris

green vert verte

yellow to ochre jaune à ochre amarilla a ocre

more extensive grey gris plus étendu gris más extensiva

green vert verte

black with yellow scales noir, avec des écailles jaunes negra, con escamas amarillas

underside dessous lado inferior

Distribution map of the regions or countries where the species is found

Similar species / Espèces semblables / Especies semejantes : *Teinopalpus aureus*

Page numbers of similar species needed for comparison

16

14

Current descriptive page

How to use this guide

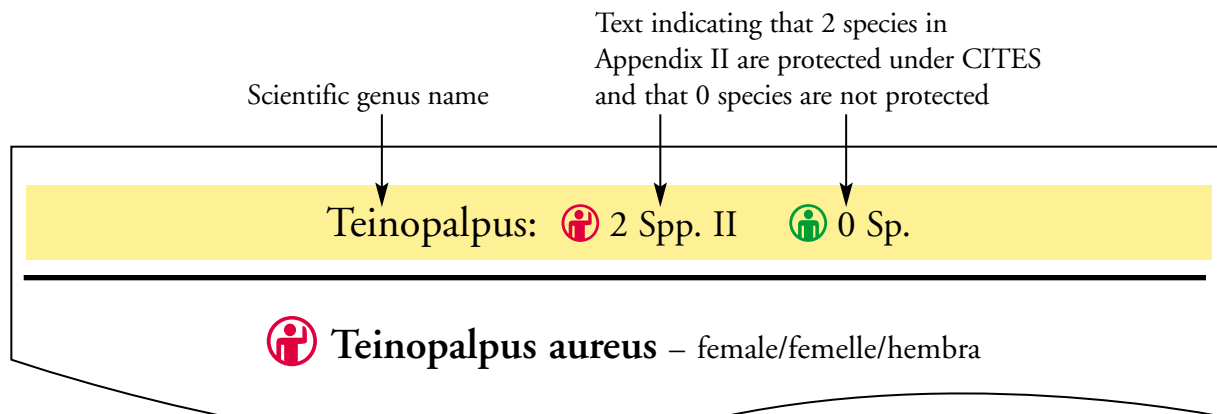
E
?

What is the purpose of the descriptive pages? (cont'd)

- Illustrations of the wing's **upperside** are used when your specimen is fully spread.
- Illustrations of the wing's **underside**, indicating wing shape and general pattern, are used when your specimen is folded in a paper triangle.
- When the underside is identical to the upperside, only the upperside is illustrated. In such cases, you can **use the upperside illustration to identify a folded specimen**.
- **Use the distribution maps to support the identification of a CITES genus or species.** These maps may also suggest regions or countries of origin that can be targeted when inspecting shipments. Remember that CITES species can be smuggled through countries other than those where they were collected.
- Once you believe you have identified the species from the illustrations, **compare your specimen with those listed under 'Similar Species'** at the bottom of each page.
- At the end of the blue and yellow sections, pages are provided for **Personal Notes** on each species. Use this space to make notes that will help you identify illustrated species.

What does the genus presentation bar describe?

For each genus described in the blue and yellow sections, the first page provides information about the genus as a whole. The scientific genus name is highlighted in a coloured presentation bar, followed by the number of species protected under CITES for each Appendix, and also the number of species not protected under CITES.



The number of species regulated by CITES is taken from the CITES Control List that came into effect in 1997. Because modifications may have been made at the CITES biennial conferences, all figures should be considered approximate.

NOTE: the abbreviation Sp. designates a species (singular), Spp. designates several species (plural), Ssp designates a subspecies (singular), and Sspp. designates several subspecies (plural).

How to use this guide

Purpose of the orange section

The orange section contains a list of all currently recognized **subspecies** for all species illustrated in the blue and yellow sections, as well as a list of **selected references**.

PARNASSIUS		P
P-51	<i>Parnassius apollo regius</i>	
P-52	<i>Parnassius apollo rhaeticus</i>	
P-53	<i>Parnassius apollo rhea</i>	
P-54	<i>Parnassius apollo rosenius</i>	
P-55	<i>Parnassius apollo rosnaviensis</i>	
P-56	<i>Parnassius apollo rubextincta</i>	
P-57	<i>Parnassius apollo salevianus</i>	
P-58	<i>Parnassius apollo substitutus</i>	
P-59	<i>Parnassius apollo tonalensis</i>	
P-60	<i>Parnassius apollo transiliensis</i>	
P-61	<i>Parnassius apollo transitoria</i>	
P-62	<i>Parnassius apollo transylvanicus</i>	
P-63	<i>Parnassius apollo turkirakirani</i>	
P-64	<i>Parnassius apollo uralensis</i>	
P-65	<i>Parnassius apollo valdieriensis</i>	
P-66	<i>Parnassius apollo valesiacus</i>	
P-67	<i>Parnassius apollo venaissinus</i>	
P-68	<i>Parnassius apollo vercorcius</i>	
P-69	<i>Parnassius apollo vicinus</i>	
P-70	<i>Parnassius apollo vinningensis</i>	
P-71	<i>Parnassius apollo zelnyi</i>	
TEINOPALPUS		TE
TE-1	<i>Teinopalpus aureus aureus</i>	
TE-2	<i>Teinopalpus aureus guangxiensis</i>	
TE-3	<i>Teinopalpus aureus hainani</i>	
TE-4	<i>Teinopalpus aureus shinkaii</i>	
TE-5	<i>Teinopalpus aureus wuyiensis</i>	

How to use this guide

E ?

What is contained in Index A?

Index A provides a list of **scientific and, if available, corresponding English, French and Spanish common names of the CITES species illustrated in this guide**. They are presented in alphabetical order of the scientific names. A different typeface is used for each language.

INDEX A

Scientific Names Noms scientifiques Nombres científicos	English Anglais Inglés	French Français Francés	Spanish Español Español	
<i>Bhutanitis lidderdalii</i>	<i>Bhutan Glory</i>		<i>Gloria de Bután</i>	2
<i>Bhutanitis ludlowi</i>	Ludlow's Bhutan swallowtail		<i>Cola de golondrina de Bután de Ludlow</i>	3
<i>Bhutanitis mansfieldi</i>	Mansfield's three-tailed swallowtail		<i>Cola de golondrina de tres colas de Mansfield</i>	4
<i>Bhutanitis nigrilima</i>	Swallowtail		<i>Macaone</i>	5
<i>Bhutanitis pulchristata</i>	Swallowtail		<i>Macaone</i>	6
<i>Bhutanitis thadina</i>	Chinese three-tailed swallowtail		<i>Cola de golondrina de tres colas de China</i>	7
<i>Bhutanitis yulongensis</i>	Swallowtail		<i>Macaone</i>	8
<i>Ornithoptera aescacus</i>	The Obi birdwing	Ornithoptère d'Obi	<i>Alas de pájaro de Obi</i>	2
<i>Ornithoptera alexandrae</i>	Queen Alexandra's birdwing	Ornithoptère de la Reine Alexandra	<i>Alas de pájaro de la Reina Alejandra</i>	4
<i>Ornithoptera chimaera</i>	Chimaera birdwing	Ornithoptère chimère	<i>Alas de pájaro quimera</i>	6
<i>Ornithoptera croesus</i>	Croesus birdwing	Ornithoptère	<i>Alas de pájaro anaranjada</i>	8

What is contained in Index B?

Index B provides an alphabetical list of the **scientific and common names** of all CITES species and the appropriate pages in the blue, yellow or orange sections.

Alphabetical list including:

- the scientific names for all CITES species, for all subspecies names listed in the orange section, and for most recognized forms, races, aberrations, and hybrids, and
- the common names in English and, if available, French and Spanish.

INDEX B

Names Noms Nombres	Scientific Names Noms scientifiques Nombres científicos	Blue Bleue Azul	Yellow Jaune Amarilla	Orange Orange Naranja
Abbé Allottes birdwing	<i>Ornithoptera victoriae</i> x			
	<i>Ornithoptera priamus urvillianus</i> hybrid	**		4
<i>actinotia</i>	<i>Troides amphrysus flavicollis</i> form	30*		9
<i>addenda</i>	<i>Ornithoptera priamus priamus</i> form	16*		4
<i>admiralitat</i>	<i>Ornithoptera priamus admiralitatis</i>	16*		4
<i>adulanus</i>	<i>Parnassius apollo adulanus</i>		13*	5
<i>aeacus</i>	<i>Troides aeacus</i> Ssp.	28		8
<i>aesacus</i>	<i>Ornithoptera aescacus</i>	2		
<i>akakeae</i>	<i>Ornithoptera priamus poseidon</i> x			
	<i>Ornithoptera rothschildi</i> hybrid	**		
<i>akikoe</i>	<i>Trogonoptera brookiana akikoe</i>	24*		8

How to use this guide

Definition of symbols.



Trade regulated by CITES



Trade not regulated by CITES



Refer this species to an expert for identification



Important detail for identification



Important detail on underside for identification



Unique feature for identification



How to use this guide section



Key pages



Section illustrating the most easily recognizable CITES butterflies



Section illustrating CITES butterfly species that are difficult to recognize and therefore should be referred to an expert



Section listing all known subspecies of CITES butterflies

A

Index A - Scientific and common names of illustrated species

B

Index B - Scientific and common names of all CITES species, including names of all subspecies listed in the orange section, and of most recognized forms, races, abberations, and hybrids.

How to use this guide

E
?

Information about Butterflies

How are butterflies imported?

Butterflies are imported primarily by mail, but are also shipped by commercial couriers at larger ports of entry or brought back personally by importers. The two most common methods of transporting dried butterflies are in paper triangles and mounted with the wings fully spread.

The use of **paper triangles** (see ?-19) is the most common method because it is a less expensive way of shipping and many dozens of specimens can be packed into small boxes with less likelihood of damage. Paper triangles are often made of transparent tracing paper, which makes it possible to see most details of the underside wings of the butterfly. **This guide enables identification of a specimen based solely on the underside of the wings.** Once you have gained some experience using this guide, you should have no difficulty determining whether or not a butterfly, seen through a transparent paper triangle, belongs to a CITES-listed genus. Size, wing shape, colour patterns and especially tails on the hind wings, are all used in the identification process. Hopefully you can avoid opening the triangle, **preventing possible damage to the butterfly. If you must open the triangle, do so only after reading *How to handle dried butterflies*** (see ?-18).

The second most common method of transporting dried butterflies is **mounted with the wings fully spread.** This method is less popular than the paper triangles because fewer specimens can be packed into each shipping container, and damage to specimens is more likely. It may, however, be easier to identify pinned specimens than folded ones. There should be no reason to remove pinned specimens from their container, but **if you must remove the specimen, do so only after reading *How to handle dried butterflies*** (see ?-18).

Butterflies are sometimes imported as **live pupae**, and less frequently as live eggs or caterpillars. Live pupae are usually transported in **individual containers**, or **pinned to cardboard sheets**. There should be adequate padding to prevent excessive movement of the pupae. Shipments of live pupae usually are sent by air, or courier.

All importers should be encouraged to include a **packing list** on the outside of each package, that lists the **number of specimens and their scientific names.**

How to use this guide

Information about Butterflies

Why are butterflies imported?

Butterflies are imported by three main groups: by dealers for commercial resale to collectors; by individuals for their own personal collections; and by research institutions or individuals for scientific study.

Importation for **commercial resale** constitutes the highest volume of trade, with imported specimens either being sold nationally, or re-exported to other countries for sale. **Commercial shipments routinely use false declarations** on import. The items are declared as *For Scientific Study – No Commercial Value* in an attempt to pay no or lower commercial duties and taxes, or to avoid inspection.

The number of butterflies imported by **individuals for their own personal collections** is smaller than the number imported by commercial dealers, but is still significant. More highly valued specimens are more likely to be brought into the country personally by a collector (or, for that matter, by a commercial dealer).

Specimens imported by **reputable research institutions or individuals for valid scientific study** should be labelled: *For Scientific Study – No Commercial Value*. These specimens are used to identify and classify species, and are considered **invaluable and irreplaceable**. It is especially important in these cases, not to damage the specimens during the inspection process.

Butterfly wings may also be used to create **works of art**. This however, is unlikely given the high cost of most CITES species. **Identification of butterfly wings used in art should be left to an expert.**

How to use this guide

E
?

Information about Butterflies

How to handle dried butterflies

Because dried butterfly specimens are extremely fragile, **great care must be exercised in their handling**. Not only are all body parts brittle and prone to breakage — especially antennae and legs — but the scales on the wings that give the specimen its distinctive colour and colour pattern can easily rub off. Breakage and scale removal reduces the commercial or scientific value of the specimen. The best policy is **to not handle the specimens, if at all possible**.

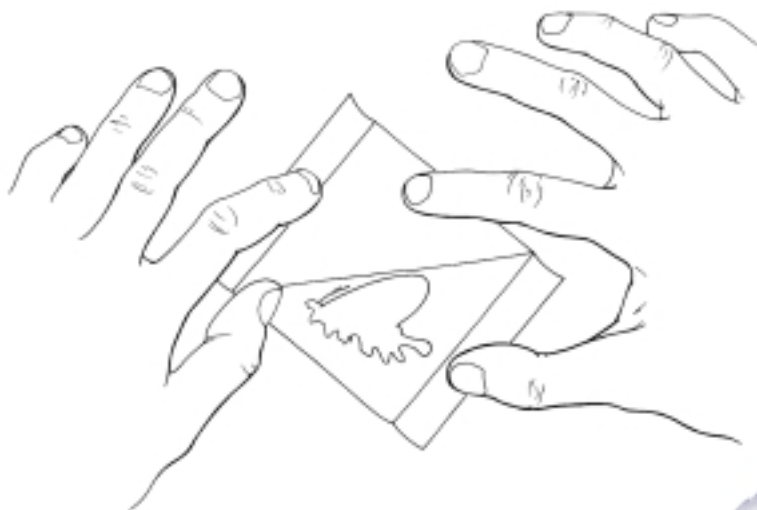
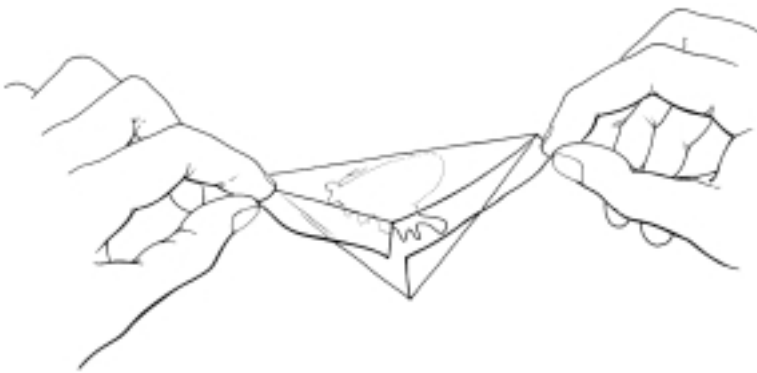
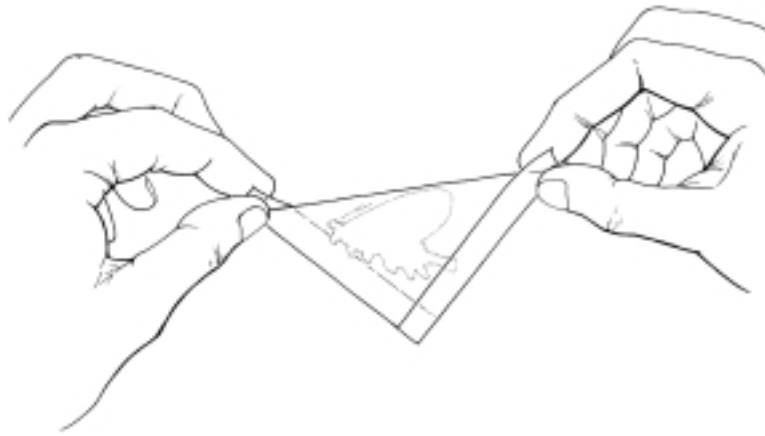
If you must remove a specimen from its **paper envelope** for identification purposes, follow the steps illustrated on the next page. On a table or other hard surface, **hold the opposite corners** of the envelope's long side between your thumb and forefinger. **Twist open** the folded corner on one side, then the other, making sure that the envelope remains in a horizontal position. Completely **fold open** the top flap to fully expose the butterfly. Weight the envelope down to **hold it open**, ensuring nothing rests on the butterfly. You can also pin the envelope open on a foam surface. You should now be able to compare your specimen with the illustrations in this guide. If it is necessary **to turn the specimen over**, flip the envelope over. Do not touch the specimen. When **refolding** the envelope, ensure that the antennae and wingtips are completely inside before closing. When **repacking** envelopes into a container, do not push down heavily as specimens will break. Ensure they are secure in the container; loose envelopes moving around may damage the specimens.

If you are unable to identify a folded specimen, **never attempt to pry open the wings**, and **never break off a wing to see the upperside**. For these specimens, consult an expert, who will either identify the specimen by examining the underside, or will relax the specimen in a high-humidity chamber until the wings can be opened for inspection.

Specimens that are mounted with their **wings fully spread** should not require handling. Distinguishing characteristics on the upperside should be sufficient to identify the species. If, however, you need to see the underside, carefully remove any bracing pins (i.e., pins used to keep the specimen in one position inside the container), then carefully pick up the butterfly by the top of the pin. **Do not touch the wings**. When finished, carefully return the specimen and its bracing pins to their original positions.

How to use this guide

How to handle dried butterflies



How to use this guide

E
?

Information about Butterflies

How to handle live butterfly pupae

Because live pupae are extremely fragile, **great care must be exercised in their handling**. Excessive handling, damage to the pupal case, and extremes in temperature or humidity may result in the death of the pupa. The best policy is **don't touch the pupa, if at all possible**.

If you must handle a pupa to measure it, or to examine the shape or markings, use the following instructions. Use **butterfly forceps** (light, pliable tweezers available at biological supply stores), not your fingers or a hard tool, to rotate, or lift the pupa. **Do not remove pinned specimens from cardboard sheets**. Make sure you have a **pad of soft, cotton batting** underneath the pupa to prevent damage from a hard surface. Be careful **not to poke or drop a pupa, or leave it exposed**. **Do not prolong or delay an inspection**; this can result in butterflies emerging while in transit. Always consider asking an expert to identify pupae.