



Aplikovaná ekologie hmyzu 2014 – 5 ochrana hmyzu, CITES // insect conservation

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a

oddělení ekofyziologie

Entomologický ústav BC AV ČR



Metazoa - animals

- Appendix 1: 62 spp. invertebrates of 597 animal spp.
- Appendix 2: 2100 spp. invertebrates of 4359 animal spp.
- Appendix 3: 17 spp. invertebrates of 152 animal spp.
- Hexapoda=Insecta
- Arachnida: scorpions and spiders
- Annelida: Hirudinea - leaches
- Mollusca: Gastropoda and Bivalvia
- Deuterostomia: Holothuroida
- Cnidaria



Insecta

- Hexapoda:
 - Insecta > Pterygota > Neoptera > Holometabola >
- beetles – Coleoptera
 - stag beetles – Lucanidae
- butterflies – Lepidoptera
 - Rhopalocera > Papilionoidea
 - swallowtails: Papilionidae



Insecta

- Coleoptera

- Lucanidae
- CITES III
- *Colophon* spp.
- South Africa

- *Colophon westwoodi* Gray, 1832
- 23 mm



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Insecta

- Lucanidae
- *Colophon barnardi* Endrödy-Younga, 1988
- 22 mm



Insecta

- Papilionidae in Czech Republic

- all spp. protected
- *Papilio machaon*
- *Iphiclides podalirius*
- *Zerynthia polyxena*
- *Parnassius apollo*
- *Parnassius mnemosyne*



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Insecta

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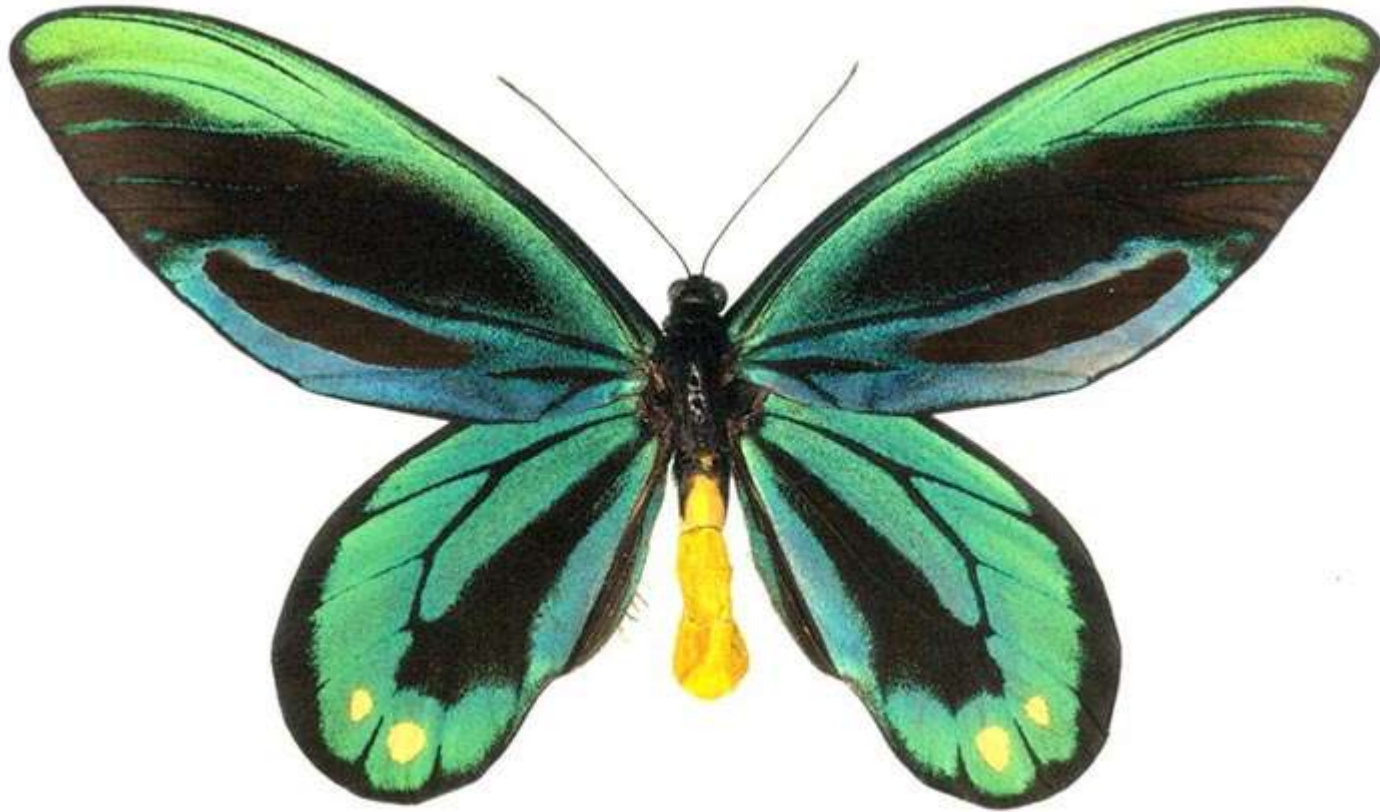
Internationally protected Papilionidae

- CITES I
- *Ornithoptera alexandrae*
- *Papilio chicae*
- *Papilio homerus*
- *Papilio hospiton*



Internationally protected Papilionidae

- *Ornithoptera alexandrae* (Rothschild, 1907)



- forma *attavus* (golden spots), males

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12

Internationally protected Papilionidae

- *Ornithoptera alexandrae* (Rothschild, 1907)
- female; largest diurnal butterfly, wingspan to 30 cm



Internationally protected Papilionidae

- *Ornithoptera alexandrae* (Rothschild, 1907)
- the Queen Alexandra birdwing butterfly
- Papua New Guinea
- 400 EUR



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14

Internationally protected Papilionidae

Papilio chicae Igarashi, 1965

- Philippines, Luzon
- above 1500 m



- *Papilio hermeli* ?
- Filipíny, Mindoro
- not in CITES



Internationally protected Papilionidae

Papilio homerus Fabricius, 1793

- Jamaica
- largest on Western hemisphere
- threatened by coffee planting



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16

Internationally protected Papilionidae







Papilio hospiton Guenée, 1839

- Corse, Sardinia



Internationally protected Papilionidae

Papilio hospiton Guenée, 1839

Mesi	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Ovo												
Larva												
Pupa												
Imag o												



Internationally protected Papilionidae

Papilio hospiton Guenée, 1839



- *Papilio machaon*



Internationally protected Papilionidae

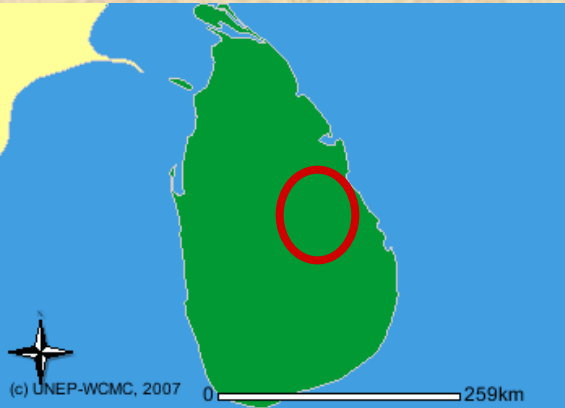


- CITES II swallowtails
 - *Atrophaneura jophon*
 - *Atrophaneura pandiyana*
 - *Teinopalpus* spp.
- CITES II birdwings
 - *Ornithoptera* spp. (sensu D'Abrera)
 - *Troides* spp. (sensu D'Abrera)
 - *Trogonoptera* spp. (sensu D'Abrera)
- CITES II appolos
 - *Parnassius apollo*
- CITES II
 - *Bhutanitis* spp.

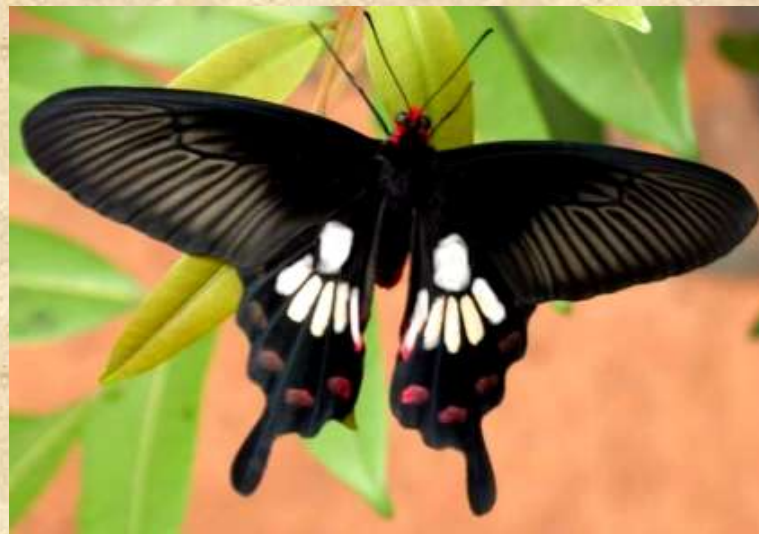


Internationally protected Papilionidae

- *Atrophaneura jophon* (Gray, 1853)
 - Ceylon rose; *Pachliopta jophon*

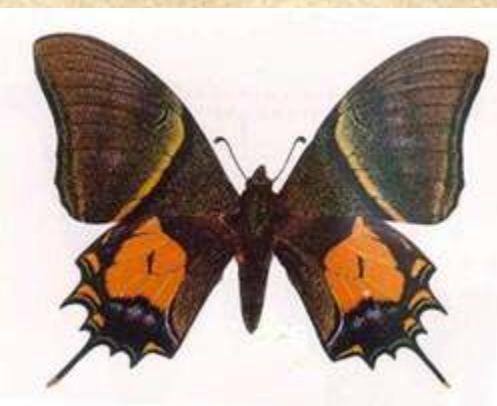


- *Atrophaneura pandiyana* (Moore, 1881)
 - *Pachliopta pandiyana*



Internationally protected Papilionidae

- *Teinopalpus* spp.
- *Teinopalpus aureus* Mell, 1923



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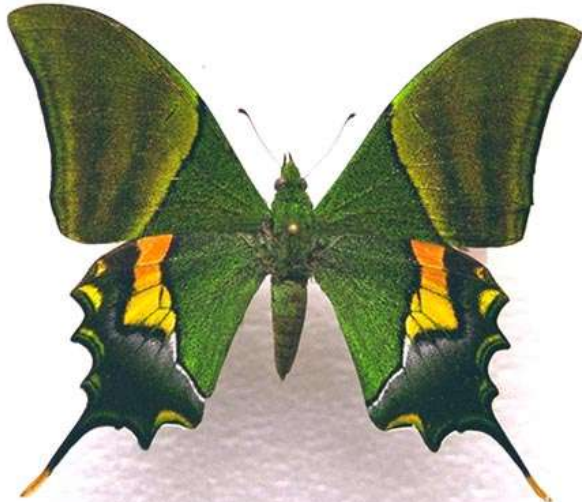
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22

Internationally protected Papilionidae

- *Teinopalpus imperialis* Hope, 1843



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23

Internationally protected Papilionidae

- *Trogonoptera* spp. (sensu D'Abbrera)
- *Trogonoptera brookiana* (Wallace, 1856)
- 3,5 – 8 EUR



Internationally protected Papilionidae

- *Trogonoptera trojana* (Honrath, 1886)



Internationally protected Papilionidae

- *Troides* spp. (sensu D'Abbrera): 18 spp.
- *Troides helena* (Linnaeus, 1758)



Internationally protected Papilionidae

- *Troides* spp. (sensu D'Abbrera): 18 druhů
- *Troides prattorum* (Joicey & Talbot, 1922)



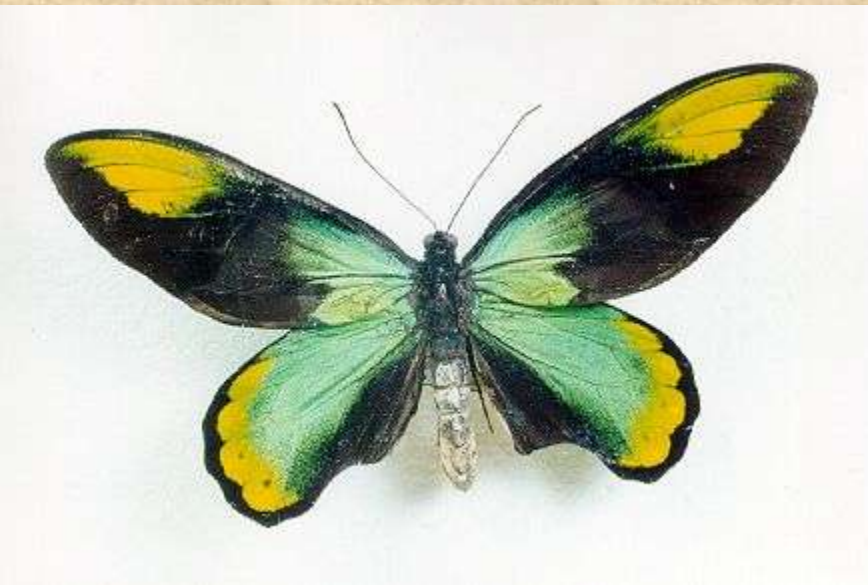
Internationally protected Papilionidae

- *Ornithoptera* spp. (sensu D'Abbrera): 13 spp.
- *Ornithoptera priamus* (Linnaeus, 1758)
- subspecies; 7 EUR



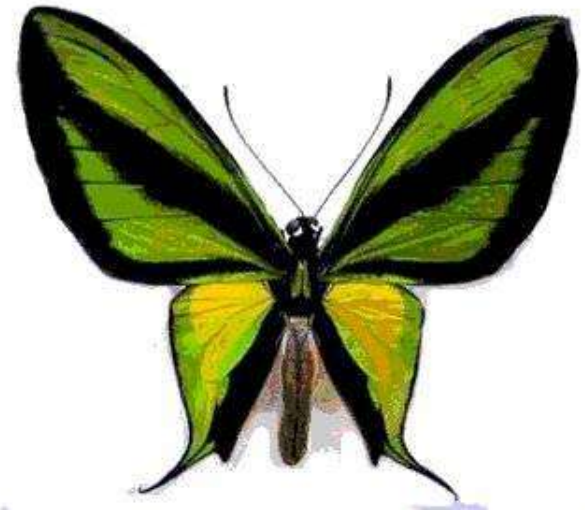
Internationally protected Papilionidae

- *Ornithoptera victoriae* Gray, 1856



O. paradisea

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Internationally protected Papilionidae

- *Ornithoptera croesus* Wallace, 1859
- 15 EUR



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Internationally protected Papilionidae

- *Ornithoptera aesacus* Ney, 1903
- pár 180 EUR

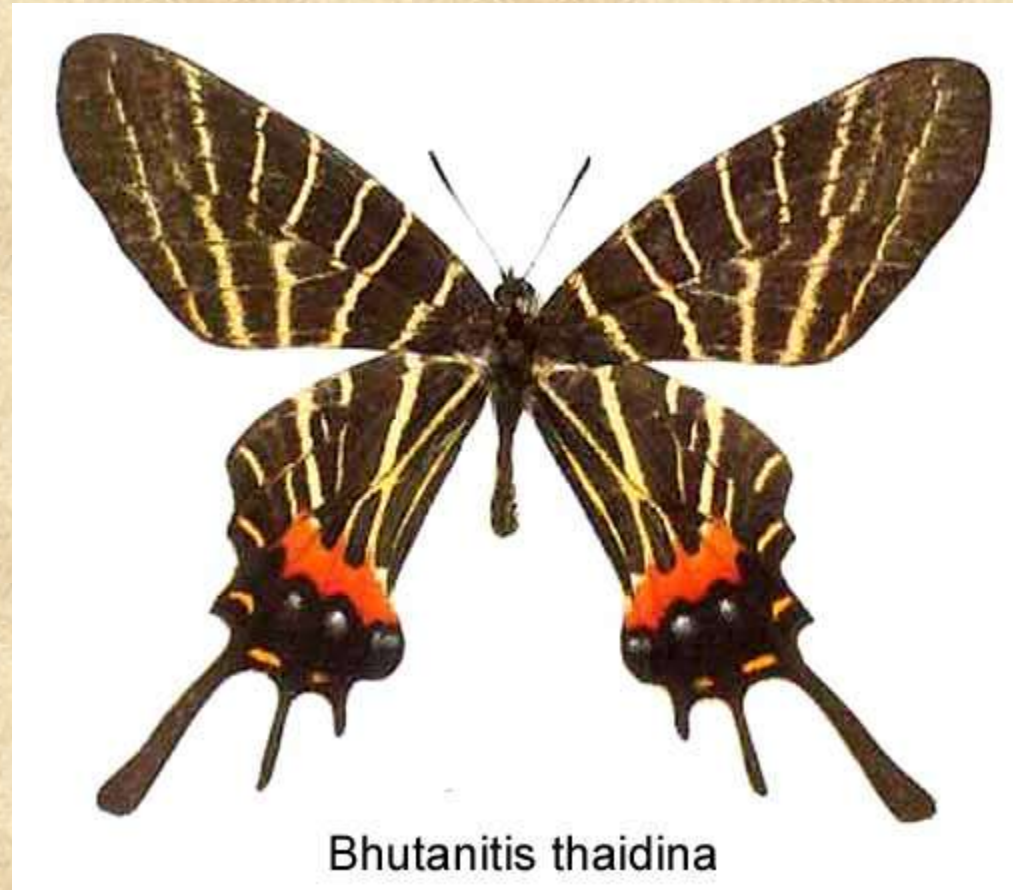


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Internationally protected Papilionidae

- *Bhutanitis*: 4 spp.
- *Bhutanitis thaidina* (Blanchard, 1871)



Internationally protected Papilionidae

- prices

- CITES II for 3,5 to 100 EUR, nonCITES up to 50 EUR
- *O. alexandrae* theoretically for 400 EUR
- hybrids for 7 000 USD
- A mosaic gynandromorphic specimen of *O. goliath* has been (July 2006) sold by a Taiwanese dealer for US\$ 28 000

- target

- collectors
- souvenirs (dead)
- decoration (alive: *O. priamus* from Stratford for 9.5 EUR)

- trade paths

- Singapur ?



Internationally protected Papilionidae

- butterfly farms

- native region (SE Asia)

- Insect Farming and Trading Agency PNG

- in similar climatic conditions

- DAINTREE BUTTERFLY FARM North Queensland

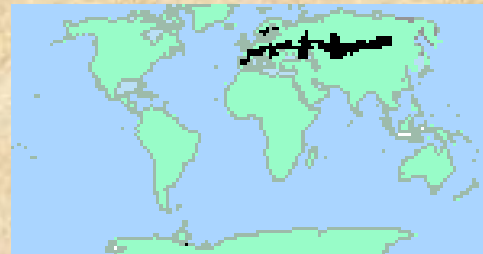
- in target countries



Internationally protected Papilionidae

- apollo (*Parnassius apollo*) Linnaeus 1758

160 subspecies, almost 50 spp.



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Internationally protected Papilionidae

- transport



Internationally protected Papilionidae

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42

Internationally protected Papilionidae

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43

Internationally protected Papilionidae

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