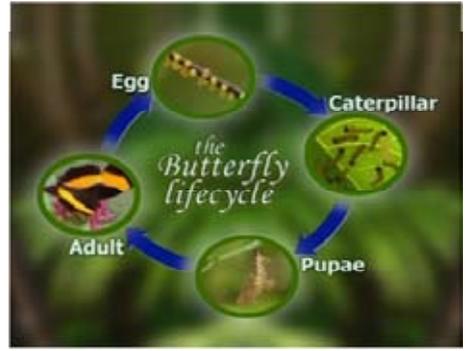


Butterflies of Ghana



What are butterflies?

Butterflies are beautiful flying insects with large scaly wings. Like all insects, butterfly bodies consist of three segments, a pair of antennae, a pair of compound eyes, six jointed legs and an exoskeleton. The three segments are the head, thorax (the chest), and abdomen (the tail end). Contrary to most other insects, butterflies do not have mouthparts for chewing. Their mouthparts are instead modified into a proboscis (a “sipping straw” to feed on liquids). They also have two pairs of large wings covered with colorful, iridescent scales in overlapping rows. The four wings and the six legs of the butterfly are attached to the thorax. The thorax contains the muscles that make the legs and wings move. Butterflies come in many different colors, shapes, and sizes as the pictures in this brochure show.



How are butterflies 'born'?

Butterflies go through four different life stages (referred to in science as complete metamorphosis). A butterfly starts its life as an egg, often laid on a leaf by the mother. It grows inside the egg for about four days and then hatches into a caterpillar. The caterpillar first eats the leaf it hatched on, after which it will search for new food. The caterpillar moults (loses its old skin) five, sometimes six times as it grows for about two weeks. The caterpillar then spins a silk pad to which the pupa attaches itself by its rear part – sometimes with girdle (Papilionidae, Pieridae). This is a resting stage. There is no eating during this stage. Inside the pupa, a magical change is taking place! After about 10 days, the fully formed butterfly finally breaks free from its pupa. Later on the adult female butterfly lays her own eggs and the cycle will start again.

Why is Ghana an important place for butterflies?

Butterflies are found all over the world and in all types of environments. However, most butterfly species occur in warmer environments, especially in the tropical rainforests of Africa and South America. There are about 18,000 butterfly species around the world, of which 4,000 occur in Africa. Approximately 1100 species live in West Africa and 940 of these are present in Ghana. This is almost a quarter of the total number of butterfly species in Africa. Twenty-four of these species are only found in Ghana and nowhere else in the world (so-called endemic species). Ghana's high butterfly species richness can be explained by its diversity of ecosystems (forests, savannas, coastal ecosystems, mountains), which serve as habitats for different species.



Which butterflies live in Ghana?

Owing to the huge number of butterfly species, they are usually studied in six different groups, called families. Butterflies in Ghana are also grouped into six families.

The Swallowtails, Kite Swallowtails, Swordtails, Festoons, and Apollos (family Papilionidae)

Generally the largest-sized and most easily seen butterflies in Ghana. Mainly medium-sized butterflies, which are usually white, yellow or orange in color, often with black spots. Some examples include:



Giant African Swallowtail
(*Papilio antimachus*)

This is the largest butterfly in Africa with a wingspan of 25cm. It is rarely seen and has been recorded less than 10 times in Ghana.



Mocker Swallowtail (*Papilio dardanus*)

This is one of the commonest and interesting butterflies of Ghana. Its size and floppy flight has given it the popular name: flying handkerchief.



Narrow-Banded Green Swallowtail
(*Papilio nireus*).

There are two related species which differ by the width of the green band.



Citrus Swallowtail (*Papilio demodocus*).

This butterfly can be found all over Africa. The caterpillar feeds on Citrus (Orange, Lemon) leaves.

The Whites and Sulphurs (family Pieridae)

Mainly medium-sized butterflies, which are usually white, yellow or orange in color, often with black spots. Some examples include:



Calypso Caper White
(*Belenois calypso*)



Atewa Dotted Border
(*Mylothris atewa*)



Scarlet Tip
(*Colotis danae*)

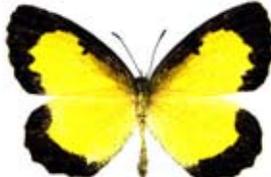
Mylothris atewa is only known from Ghana, first seen at the Atewa Range Forest, Kibi.

The Blues, Coppers, Hairstreaks, Liptenids, and Carnivorous Butterflies (family Lycaenidae)

Generally small to very small butterflies. This is the largest butterfly family in Ghana consisting of a large variety of species. Examples include:



Paul's Pentila
(*Pentila pauli*)



Large Yellow
(*Citrinophila erastus*)



Western Egumbia
(*Aslauga ernesti*)



Forest Pied Pierrot
(*Tuxentius carana*)



African Babul Blue
(*Azanus jesous*)



Common Silver Spot
(*Aphnaeus orcas*)



Common Scarlet
(*Axiocerses harpax*)



Karsch's Sapphire
(*Iolaus aethria*)

The Nymphalids or Brush-Footed Butterflies (family Nymphalidae)

A huge family of medium to large-sized butterflies. They show enormous variation in sizes, shapes, and colors. Most of these species are attracted to fruit like Banana, Orange, Pawpaw and the likes. Many butterfly species known only from Ghana and Côte d'Ivoire (endemics) come from this group. Such endemics include:



Ashanti Forester
(*Bebearia ashantina*)



Marie-Christine's Striped Forester
(*Euphaedra mariaechristinae*)



Auberger's Yellow Glider
(*Cymothoe aubergeri*)

Other butterflies of this group common in Ghana are:



Splendid Themis Forester
(*Euphaedra splendens ghanaensis*)



Green Orange Forester
(*Euphaedra zampa*)



Common Nymph
(*Euriphene barombina*)



Widespread Forester
(*Euphaedra medon*)



Common Blue-Banded Forester
(*Euphaedra harpalyce*)



African Leaf Butterfly
(*Kallimoides rumia*)



Forest Glade Nymph
(*Aterica galene*)



Yellow Pansy
(*Junonia hierta*)



False Tiger
(*Hypolimnas misippus*)

The Skippers (family HesperIIDae)

The skippers are often considered as “sub-standard” butterflies. They differ from other butterflies in their moth-like robust appearance and their hairy bodies. Skippers cannot hold their wings flat, which also distinguishes them from other butterflies. Examples of skippers in Ghana include:



Blue policeman
(*Coeliades chalybe*)



Common orange sprite
(*Celaenorrhinus galenus*)



Beautiful flat
(*Eagris hereus*)



Streaked paradise skipper
(*Abantis leucogaster*)



Largest dart skipper
(*Paronymus ligora*)



Common acraea skipper
(*Fresna netopha*)



False pathfinder skipper
(*Xantodisca astrape*)



Common Costus skipper
(*Hypoleucis ophiusa*)

The Punches and Judies (family Riodinidae)

This group of butterflies is often treated as a subfamily of the Lycaenidae. There are only a few of these butterflies in Africa and thus in Ghana. The few Punches and Judies in Ghana are hard to find.



Dark banded Judy
(*Abisara intermedia*)



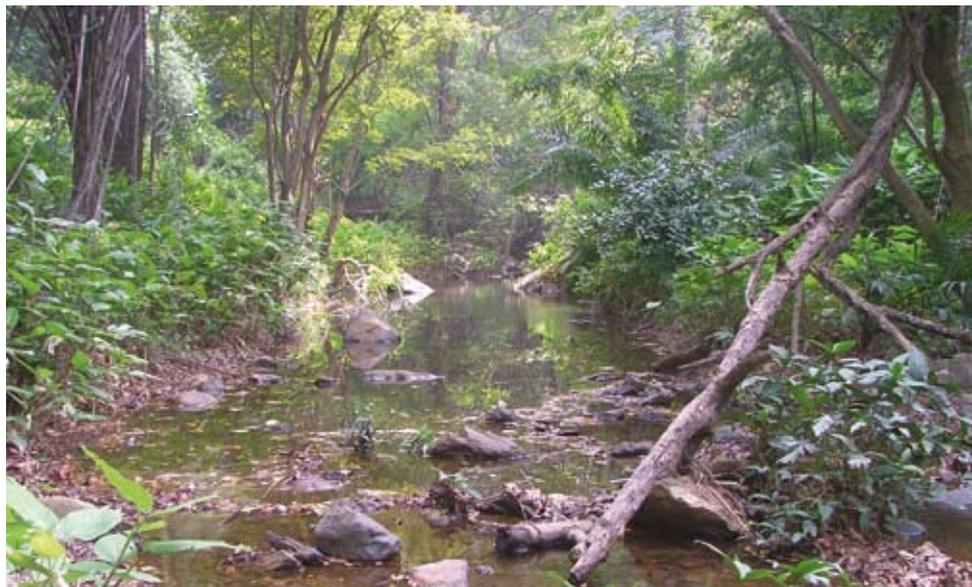
Blue-Spot Judy
(*Abisara tantalus*)

Threats to butterflies and their conservation

Butterflies fulfill several roles in the ecosystems they live in. They pollinate flowering plant species and serve as prey to a large variety of predators, including rodents, bats, lizards, chameleons, and birds; they are specialized herbivores (plant feeding organisms) influencing the growth of their food plants; they are host to a large number of parasites and parasitoids. Many species of the family *Lycaenidae* are so tightly associated with ants that some of its members cannot survive without them. Given these close relationships with other organisms, it is fair to say that butterflies are surrounded by life and thus indicative for biodiversity in general. This property and their sensitivity to changes in the environment, make butterflies useful indicators for the health of the habitat and conservation priorities. Typical forest species such as *Papilio antimachus* are extremely intolerant to any serious disturbance and they will go (locally) extinct as soon as closed forests disappear. Hence, we can assess (and monitor) the quality of nature by

looking at (changes in) its butterfly community and use this information to develop appropriate conservation strategies. Several forest butterfly species are under severe threat of extinction, because about 90% of Ghana's original forest has been depleted within the last 100 years. The remaining 10% or even less is still being destroyed at an alarming rate. Some trees like Odum, Mahogany are already scarce in Ghana and are feared to go locally extinct soon. Depletion of forests or trees has a direct effect on its butterfly community. In the caterpillar stage, butterflies mainly feed on plants. Most butterflies feed on just one or a few related plant species. This implies that absence of that plant species will lead to the extinction of that butterfly as well. Consequently, much of the clear-felled farm bush has little more than 100 butterfly species compared to the 600 in Bobiri and over 700 in Atewa forests.

For more information, visit
www.westafrikanlepidoptera.com



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