

# SOUTH AFRICAN PONY CLUB



## Butterflies & Moths of South Africa Achievement Badge Workbook



**Objectives:**

To be able to identify 6 Butterfly and 4 Moth species

To have knowledge of:

Life Cycle of Lepidoptera

Environmental factors/influences

**Helpful reading:**

Field Guide to Butterflies in South Africa (Struik)

First Field Guide to Butterflies & Moths of Southern Africa (Struik)

A Practical Guide to Butterflies & Moths  
(Lepidopterists' Society-South Africa)

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## Introduction to Butterflies and Moths of South Africa

All butterflies and moths are classified as **Lepidoptera**.

They have scale-covered wings and undergo complete **metamorphosis**.

South Africa has 5 butterfly families (666 species) and at least 50 families (10 000 species) of moth.

Adult Lepidoptera are important pollinators of a wide variety of plants. As caterpillars they consume vast quantities of plant material to become an important part of many food chains by converting this into protein. They are eaten by various life forms: insects, spiders, rodents, birds and lizards. Caterpillars are in some areas of South Africa even a valuable source of protein for humans.

Many species are adaptable and can survive in different types of habitats, while others depend on the availability of a specific food plant or microclimate. Extinction can occur naturally through drought, storms and fire but mostly it's through human interference like urbanisation, deforestation and spraying of chemicals. If no butterflies are present, it means that the environment is unhealthy.

Many attempts have been made to distinguish between butterflies and moths. Bright colour patterns are not restricted to butterflies. Some moth species are colourful, while many butterflies are white, grey or brown.

Here are some of the major 'accepted' differences:

### The butterfly-

- is mostly diurnal (active during daylight)
- has thin antennae ending in small balls or clubs



- has a slender smooth body



- caterpillar forms an exposed pupa –the chrysalis



- has wings that are generally covered in fine brightly coloured scales, although many species are dull or brown

- keeps their wings mostly upright while resting



### The moth-

- is mostly nocturnal (active at night)
- has varied antennae, often feathery/comb-like or curved



- has a fat furry-looking body



- caterpillar spins a cocoon and metamorphose into a pupa

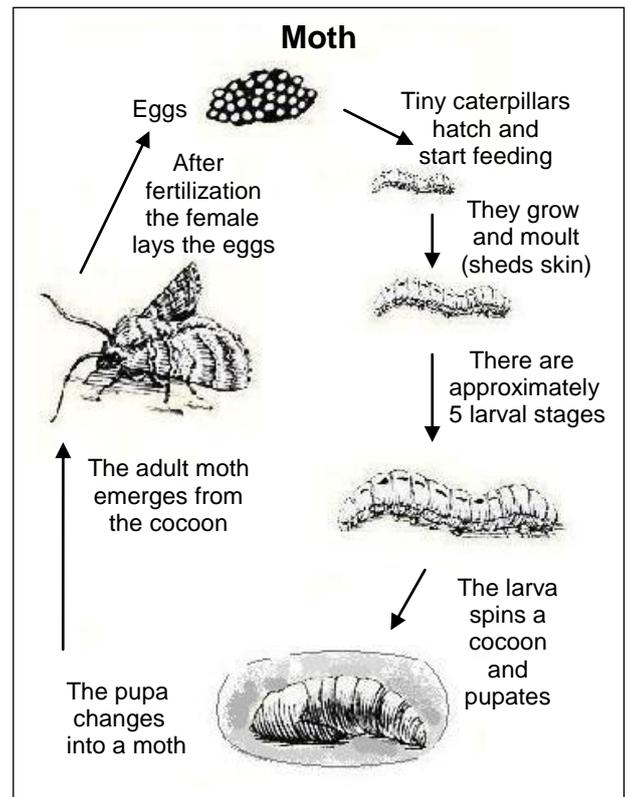
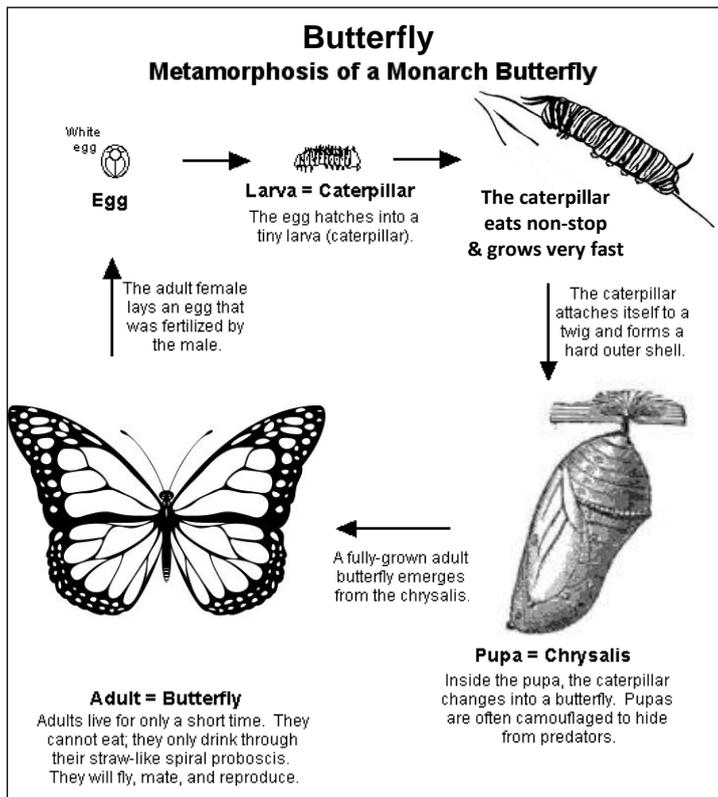


- has wings that are dull brown, grey and black with larger scales –appearing dense and fluffy, except for the toxic day flying moths.

- keep their wings spread out or folded when resting



## Life Cycles:



## Butterfly Species

(Common throughout South Africa)



### *The African Monarch*

**Description:** Large to very large creamy yellow or orange butterfly with black veins (Wingspan: 50-75mm)

**Habitat:** Forest edges, parks and gardens of coastal regions, mountains, flatlands and wetlands

**Food plant:** Milkweed

**Flight period:** Year-round



### *Table Mountain Beauty* or *Mountain Pride*

**Description:** Very large, rich dark brown with bands of yellow, bright orange and blue spots (Wingspan: 70-90mm)

**Food plant:** Fond of red and orange flowers  
Only known pollinator of the red Disa flower  
Larval food plant – Virgilia (Keurboom)

**Habitat:** Mountains, hills and gullies

**Flight period:** Single brood- November to April



### **Yellow Pansy**

Description: Small brightly coloured butterfly resembles a pansy flower (Wingspan: 40-45mm)  
Habitat: Parks and gardens, flatlands and hillsides  
Food plant: Bush violet (groundcover)  
Flight period: Year-round in warmer areas



### **African Grass Blue or Sooty Blue**

Description: Tiny butterfly with pale violet-blue upper side of wings and grey underside (Wingspan: 18-26mm)  
Habitat: Lawns infested with its food plants  
Food plant: Devils Thorn Weed, Creeping Wood Sorrel  
Flight period: Year-round

### **Smoky Orange Tip**

Description: Small zebra-striped butterfly with black edged, orange forewing tip (Wingspan: 35-45mm)  
Habitat: Hillsides, flatlands, forest edges and coastal regions  
Food Plant: : Common Bush-cherry, Black Storm  
Flight period: Year-round depending on rainfall



### **Gold Spotted Sylph**

Description: Small brilliant gold spots on dark brown, black background (Wingspan: 26-34mm)  
Habitat: Forests, parks and gardens  
Food Plant: Perennial Veldt Grass, Buffalo Grass  
Flight period: Year-round, scarce in dry season of the cooler areas



### **Moth Species**

(Common throughout South Africa)

#### **Dead-head Hawk Moth**

Description: One of the larger moth species with streamlined wings. Upper wings brown and lower wings yellow (Wingspan: 90-130mm). This moth has many unusual features: it squeaks loudly if irritated and flashes a colourful abdomen; it raids beehives for honey and can mimic the scent of bees.  
Habitat: Rests during the day in trees, folding wings like roof over body. The caterpillars feed on a variety of poisonous plants.  
Food plant: Thorn Apple and Nightshade  
Flight period: Year-round in warm areas



#### **Common Emperor or Cabbage Tree Emperor Moth**

Description: Large colourful moth with sturdy hairy body, broad wings and a large eyespot on each wing. Feelers are feathery (Wingspan: 100mm)  
Habitat: Grassland, coastal areas  
Food plant: Caterpillars feed on Cabbage, Mango and Thorn trees. The Mopani worm and moth belong to this family.  
Life Cycle: Three months. The moth does not feed and lives for only three to four days





**African Hummingbird Hawk Moth**

Description: The narrow wings and streamline bodies are adaptations for rapid flight (Wingspan: 40mm)  
 Can reach speeds of 5.3 metres per second and has the ability to hover in mid-air to feed on nectar  
 Colours: Mottled browns, oranges, grey and black

Habitat: Feeds on nectar of many plant species  
 Nocturnal/diurnal  
 Larval Food plants include Petunia

**Handmaiden Moths**

Description: Small moth, narrow wings, usually black with white transparent patches  
 Abdomen often has red stripes and feelers are long with thin pointy ends  
 Colouring and wing shape suggest they mimic wasps  
 (Wingspan: 25mm)

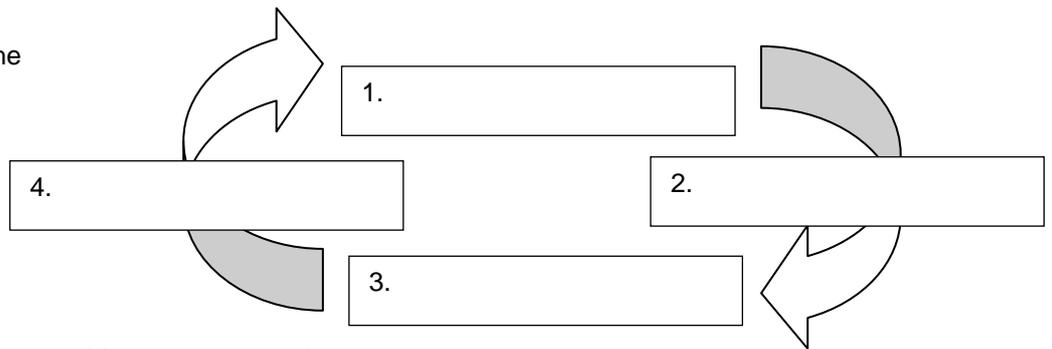
Habitat: Bushveld, Wetlands, Subtropical forest  
 This moth is mostly diurnal

Food plant: Caterpillars feed on grass and poisonous Oleander bush  
 Poison is stored throughout life stages  
 Any animal that attempts to eat this moth vomits



**Revision:**

1. Complete the stages of the life cycle of Lepidoptera:



2. How do Lepidoptera protect itself from being eaten?


3. Name a few 'accepted' differences between butterflies and moths?


Spend time in the garden or visit a nature reserve or botanical garden close to you and observe Lepidoptera in their natural habitat.

**Make a drawing of a caterpillar.**

If you find one in your garden you can keep it in a container with the food plant. Remember to add fresh leaves daily. The life cycles of many species have not been documented. So take photos of the stages and document the details of the food plant and length of development for each stage.
