

# Dual-sex butterfly hatches at Natural History Museum

July 13 2011

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This rare dual-sex butterfly hatched at the Museum's Sensational Butterflies exhibition in July 2011

A rare half-male and half-female butterfly has emerged at the Natural History Museum's Sensational Butterflies exhibition.

The butterfly is a pure bilateral gynandromorph. One half of the butterfly is female, with paler colouring and flecks of blue, red and tortoiseshell. The other half is male, with darker coloring.

[Moths](#) and [butterflies](#) have a short [life span](#), but visitors who are quick may be lucky enough to see it in the butterfly house on the Museum's front lawn.

## A gynandromorph

Gynandromorphy happens very rarely across a range of species, from [spiders](#) to [crabs](#). Gyn is Greek for female and andro is Greek for male.

Insects can become gynandromorphs if the sex chromosomes do not properly separate during division of a fertilized egg.

Bilateral gynandromorphy results if this error occurs during the first cell division, resulting in an insect that has male cells on one side and female cells on the other.

If such errors occur later in development, the gynandromorphy is mosaic and the separation into the two sexes isn't so clearly defined.

Gynandromorphy can also occur when an egg with two sex chromosomes, instead of the normal one, gets fertilized by two sperm.

"Pure bilateral gynandromorphs are incredibly rare, and I have only ever come across 3 in my whole career of 30 years," says Luke Brown, butterfly house manager.

"Many permanent butterfly exhibitions will go through their entire existence without ever seeing one of these rarities."

Blanca Huertas, curator of butterflies at Museum, says, "The gynandromorph butterfly is a fascinating scientific phenomenon, and is the product of complex evolutionary processes. It is fantastic to have discovered one hatching on Museum grounds, particularly as they are so rare."

## Great mormon

This butterfly is a great mormon, Papilio memnon, from Asia. "The female can appear in various forms for example with or without a club tail," says Luke.

## **Butterflies and moths at the Museum**

Of the 9 million butterflies and moths (4.5 million of which are butterflies) looked after at the Museum, only 200 are gynandromorphs.

When this butterfly dies, it will be added to the Museum's world class Lepidoptera collection, which is studied by scientists all over the world by extinction.

## **Butterflies of the world**

Worldwide, there are 18,000 to 20,000 species of butterfly. However, there are many more still undiscovered or not scientifically named yet and sadly many are threatened of extinction.

## **Sensational Butterflies exhibition**

Butterfly senses are the theme for this year's Sensational Butterflies [exhibition](#), open until 11 September. As well as hundreds of live tropical butterflies, the 5 sensory zones explore fascinating facts such as how butterflies sense sound without ears

Provided by American Museum of Natural History

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