Pathfinder Honour:

Insects- Fascinating Facts

When we were compiling the Insects 1 Honour, we came across so many fascinating facts on this part of God's creation that we thought it worthwhile sharing some of them.

Too often we regard insects only as pests – swotting mosquitoes, shooing flies and so on.

However, there is heaps more!

It is hoped that you find the fascinating facts as inspirational as we did.

Acknowledgements

Please refer to citations in the following text.

Insects Honour – Fascinating Facts

INTRODUCTION

When we were compiling the Insects 1 Honour, we came across so many fascinating facts on this part of God's creation that we thought it worthwhile sharing some of them. Too often we regard insects only as pests – swotting mosquitoes, shooing flies and so on.

Also, if you have a passion for insects and have fascinating facts to share please forward to our honour website.

Please read on and enjoy!

1. Number of insect species in the world

There are well over 1 million different known species of insects in the world. Some experts estimate that there are many millions more.

The largest order of insects is Coleoptera (ie Beetles), with over 120 different families and around 500,000 species. This means that about 25% of all animal species on earth is a beetle.

2. Insect's blood

Insects' blood is never red, but yellowish or brown.

3. Insect eggs

Insects lay eggs of all sorts of shapes. They also make nests in all sorts of areas.

Mosquitoes lay on water, some beetles lay in dung, some wasps lay in living grubs of other insects; some lay in wood, or on leaves, in rotting vegetation, or in nests made of clay, wax and paper. Given half a chance, lice lay their eggs in people's hair – Yuk!

4. Life of an insect

Some cicadas (*Magicicada*) species erupt in large numbers from their larval stage at intervals in years that are prime numbers; 13 or 17. http://en.wikipedia.org/wiki/Predator_satiation

Some locusts spend up to 14 year underground as a grub before becoming an adult and living for just a few months more. You wouldn't want to grow up would you?

5. World's smallest insects:

'Smallest' depends on several factors: volume, mass, height, or length.

The males of the species Dicopomorpha echmepterygis (a parasitic wasp in the family Mymaridae) are the smallest of all known insects. They are blind and wingless and may be no more than 0.139 mm in length. Females are 40% larger. Obviously, the eggs and larvae of this wasp are considerably smaller than the adult.

This species from Illinois is a 'parasite' living in the eggs of a Lepidopsocid Barklouse, *Echmepteryx hageni*. The adult males mate with their sisters inside the host egg, and die without ever leaving the egg. http://en.wikipedia.org/wiki/Dicopomorpha_echmepterygis

Insects Honour – Fascinating Facts

6. The world's largest insects

As with the world's smallest insects, 'largest' also depends on volume, mass, height, or length (length of body and also total length). The title of the world's largest insect has several contenders.

We think it best to offer some candidates:

Goliath beetles and Elephant Beetles
The Goliath beetles, also known as Megasoma elephas (Elephant Beetle), Goliathus goliatus, and Goliathus regius have the greatest visible body mass of all insects in the world. They are part of the scarab beetle family and are found in Africa's tropical forests or Central America (Elephant Beetle) where they feed with tree sap and fruits. Talking about "diet" and compared to its body, a Megasoma in captivity was able to eat a whole avocado fruit in just one day.

When an adult Goliath beetle flies it makes a sound similar to a toy helicopter running. Source http://www.greenpacks.org/tag/insects/

The fellow in the picture is approximately full size.

Picture: Goliathus goliatus male, Los Angeles County Museum of Natural History.
Source: Walker, T.J., ed. 2001. University of Florida Book of Insect Records, 2001. http://entomology.ifas.ufl.edu/walker/ufbir/.

Titan beetle (Titanus giganteus)

The Titan Beetle is an extremely rare South American Longhorn Beetle and the largest known in the Amazon rainforest.

One of the most interesting facts about these insects is that males do not eat, but fly around to mate or to find those bright lights they're so attracted to.

The Titan beetle is also famous for its incredible mandibles, capable of snapping small pieces of wood and even flesh.

With its antennae extended the biggest specimen was reported to be 230 mm (9 inches) long.

http://taskbook.net/blog/attach/1/1131449758.jpg
http://www.greenpacks.org/tag/insects/

Insects Honour – Fascinating Facts

Giant Weta
Giant wetas are endemic to New Zealand.

There are 11 species of giant weta, most of which are larger than other wetas.

The largest species of giant weta is the Little Barrier Island Giant Weta also known as the wetapunga. Giant weta tend to be less social and more passive than other weta.

Their genus name is Greek for "terrible grasshopper".

They are found primarily on New Zealand's offshore islands, having been almost exterminated on the mainland islands by introduced mammalian pests

Pictured: Poor Knights Islands Giant Weta (*Deinacrida fallai*) Overall length 20 cm (8 in)
http://upload.wikimedia.org/wikipedia/commons/3/30/Knights.weta.750pix.jpg

Giant Burrowing Cockroach (*Macropanesthia rhinoceros*)

The giant burrowing cockroach is also known as the rhinoceros cockroach and litter bug. They are native to Australia and mostly found in tropical parts of Queensland.

They are the world's heaviest species of cockroach (although Blaberus giganteus is the longest) and can weigh up to 35 g (1.2 oz) and measure up to 80 mm (3.1 in) in length. They can live for up to 10 years.

Unlike some other cockroaches, they do not have wings and are not considered pests. The cockroach plays a vital part in the ecosystem by consuming dead leaves, eucalyptus in particular, and recycling other matter.

True to their name, they may burrow down in soil to a depth of about 1 metre (3 ft 3 in) where they make a permanent home. They grow by shedding their outer shell 12 or 13 times before they reach full size.
http://en.wikipedia.org/wiki/Giant_burrowing_cockroach

Picture: Giant Burrowing Cockroach (*Macropanesthia rhinoceros*)
http://upload.wikimedia.org/wikipedia/commons/f/f3/MP_-_Macropanesthia_rhinoceros_2.jpg

Insects Honour – Fascinating Facts

7. The Lazarus of the Insect World

Read on and you'll find out why this insect is called a "Lazarus".

Where the event happened

The Lord Howe Island is a small island in the Tasman Sea about 800 kilometres (500 miles) north-east of Sydney, Australia

About 20 km (13 miles) southeast of Lord Howe Island is Balls Pyramid (pictured). It is 562 m (1844 ft) high, while measuring only 1100 m (3600 ft) in length and 300 m (1000 ft) across. This makes it the tallest volcanic stack in the world.

As you can see, it is very barren.

Picture source:
http://upload.wikimedia.org/wikipedia/commons/d/d2/Ball%27s_Pyramid2.jpg

Lord Howe Island Stick Insects (*Dryococelus australis*)

Based on: http://en.wikipedia.org/wiki/Dryococelus_australis

These stick insects were once very common on Lord Howe Island, where they were used as bait in fishing. They became extinct there soon after black rats were introduced to the island in 1918 when the supply ship S.S. Makambo ran aground. The last one was seen on the island in 1920 and after that the species was thought to be extinct.

Lord Howe Island Stick Insects were fascinating insects. Adults were up to 150mm (6 inches) in length and weighed about 25 grams (0.88 oz) with females bigger than males. They were oblong in shape and had sturdy legs. Males had unusually thick thighs. Unlike most phasmids (ie stick insects) they had no wings, but were able to run quickly.

The behaviour of this stick insect was highly unusual for an insect species. The males and females formed some kind of a bond. The males followed the females. Their activities depended on what the female was doing. (Girls. Do you like this?)

The females laid eggs while hanging from branches. Hatching happened up to nine months later. The nymphs were first bright green and active during the day, but as they matured, they became nocturnal.

Picture: http://upload.wikimedia.org/wikipedia/commons/8/81/Dryococelus_australis_02_Pengo.jpg

Introducing the Lazarus Insect

In the 1960s a team of climbers visited Ball's Pyramid. They discovered a dead Lord Howe Island Stick Insect. During subsequent years, a few more dead insects were discovered, but expeditions to find live specimens failed.

In 2001, a team of entomologists and conservationists landed on Ball's Pyramid to chart its flora and fauna. To their surprise they rediscovered a population of stick insects living under a single Melaleuca shrub. The population was extremely small, only 20-30 individuals.

In 2003 a research team from New South Wales' National Parks and Wildlife Service returned to Ball's Pyramid and collected two breeding pairsl; one pair going to a private breeder in Sydney and the other to Melbourne Zoo. After severe initial difficulties they successfully bred in captivity. The ultimate goal was to produce a large population for re-introduction to Lord Howe Island if the project to eradicate the invasive rats is successful. In 2006 the captive population was about 50 individuals and thousands of eggs waiting to hatch. As of 2008 the population had grown to about 450 insects and 20 had been returned to a special habitat on Lord Howe Island.

Conclusion
There are certainly parallels with Jesus raising Lazarus from the dead. Better still; think about the resurrection when Jesus returns to claim his own.

8. The Insect Mansion

Termites can build mighty nests that are lived in for hundreds of years and can withstand the ravages of wind, rain and bushfires.

Mounds may be well over 7 metres tall (Over 2 kilometres in human terms)

They are constructed one spit ball at a time by blind workers. The mounds are not just heaps of earth, but have arches, tunnels, chimneys, insulation, even nursery chambers.

The compass termite (*Amitermes meridionalis & A. laurensis*) builds tall wedge-shaped mounds with the long axis oriented approximately north-south. This orientation has helps to control the temperature inside the nest.

Many nests are constructed to allow a column of hot air to rise in the above-ground mounds. This helps drive air circulation currents inside the subterranean network.

Sometimes these nests are used by nesting birds or ants at the same time as the termites are in residence.

Pictured: Les Barker (who has co-authored this Insect Honour with John Sommerfeld). The termite nest is in Australia's Northern Territory. It is said to be at least 200 years old.