



How infected mozzies live la dolce vita

THE malaria parasite actively encourages its mosquito host to binge on sugar, although no one knows why.

Heather Ferguson and Ana Rivero at the University of Edinburgh in the UK found that mosquitoes infected with the *Plasmodium* parasite that causes malaria in rodents changed their behaviour. The insects ate 50 per cent more glucose, and their hunger for

sugar peaked when their gut contained the most oocytes, a stage in the parasite's life cycle.

It is unclear whether the parasite or host benefits from the sugar binge (*Proceedings of the Royal Society B*, DOI: 10.1098/rspb.2003.2389).

"We think we have a new kind of object," says Bryn Jones, an astrophysicist at the University of Nottingham in the UK and a member of the team which discovered seven such "ultra-compact dwarf galaxies". The galaxies are in the Fornax cluster of more than 300 galaxies around 60 million light years away.

The ultra-compact dwarf galaxies may be the remnants of other, less exotic dwarf galaxies whose outer stars have been stripped away by the gravitational pull of their heavier neighbours (*Nature*, vol 423, p 519).

Flutter-free lifestyles

FIVE females of a new species of wood nymph, *Redonda bordoni*, have been found in the Venezuelan Andes sporting reduced and deformed wings. None could fly, even when deliberately dropped – a first for butterflies (*Proceedings of the Royal Society B*, DOI: 10.1098/rsbl.2003.0015).

The wood nymphs use the same plentiful vegetation that they eat to lay their eggs on. So they have been able to give up the ability to fly in order to conserve energy and survive the extremely cold, wet and windy habitat. Some species of moth have done the same.

Learning to talk...

A CHIMP'S throat develops much like a person's. This finding challenges our assumptions about when and how humans evolved the ability to talk.

In humans, the larynx and the hyoid bone move down the throat during childhood, changing the shape of the vocal tract. That allows us to make complex sounds, a capability that anthropologists thought was uniquely human.

But MRI scans of three infant chimps taken by Takeshi Nishimura and a team from Kyoto University in Inuyama, Japan, show the animals' larynxes also descend in the first year of life, though not their hyoid bones (*Proceedings of the National*

Academy of Sciences, DOI: 10.1073/pnas.1231107100). The trait may have evolved in an ancestor common to humans and chimps, and probably aided swallowing, the team says.

...and walk

HUMAN ancestors living 3 or 4 million years ago may not have walked with a stooped, ape-like posture after all.

Weijie Wang and a team from the University of Liverpool in the UK asked volunteers to walk normally, fast, slowly or with a stooped posture, and analysed how much energy they used in each gait. They found that when people are walking comfortably, their body's potential energy is

easily converted to kinetic energy, and vice versa. But a stooped posture is so inefficient that they doubt it would have evolved in the first place (*Journal of Human Evolution*, vol 44, p 563). One way it might have happened, they say, is if stooping confers some unknown benefit. Alternatively, the different anatomical structure of primitive humans may have favoured a stooped posture.

Enter the seven dwarfs

A NEW type of dwarf galaxy has been discovered. From ground-based telescopes, these bright, distant objects look like stars, but pictures from the Hubble Space Telescope show they are in fact galaxies unlike any seen before.

Safe from smallpox

PEOPLE vaccinated against smallpox 75 years ago still have antibodies against the deadly virus. Researchers at the Oregon Health and Science University in Portland found that numbers of white T-cells against the virus drop by half within 15 years of vaccination. But people given a smallpox vaccination as far back as 1928 have as many antibodies as those vaccinated recently.

This is in line with observations made while smallpox was still circulating—that people vaccinated in childhood are partly protected as adults. ●