

Horse sense

Evidence from the soil of a 5,600-year-old horse corral indicates that the ancient Botai people of Kazakhstan were among the earliest to domesticate horses. They probably rode, milked and ate them.



New mouse

A new species of mouse *Mus cypricus* has been found in Cyprus. This endemic species lives side by side with the common European house mouse, brought in by colonisers thousands of years ago.

NEWS OF THE EARTH DISCOVERIES

PARASITES

Why are swift chicks tempted to switch nests and get themselves adopted?



Ari Juvonen/istockphoto

Swiftlets that 'flea' the nest

Rather like some Hollywood child actors, alpine swift nestlings frequently 'divorce' their parents, leaving their natal nest in search of an adoptive family elsewhere. This behaviour is remarkably common in bird species and has long been thought to result from sibling rivalry, but a new study suggests a different cause – biting insects.

Glasgow University's Pierre Bize and colleague Alexandre Roulin studied nest-switching behaviour in a colony of about 100 breeding pairs of alpine swifts *Apus melba* located under the roof of a clock tower in Bienne, Switzerland. Their experiment was designed to test whether brood size – and hence competition between nestlings – was the factor that prompted some individuals to leave home.

To their surprise, they found instead that the most significant predictor was the level of infestation by the blood-sucking louse fly *Crataerina melbae*.

One of the costs of group living is increased numbers of parasites, which thrive in the presence of multiple hosts. However, there are always areas with fewer parasites within a community, and animals tend to seek out these havens. This seems to be what alpine swift nestlings are doing.

Leaving a heavily infested nest has an additional benefit – by sharing its parasites with its new foster siblings, a nestling can reduce its own burden even further, though this doesn't make much of a welcome gift for the new family.

Nick Atkinson

BACKGROUND

» Living in groups brings many benefits, such as protection from predators and increased vigilance. But there is also a downside, caused mainly by increased competition for resources.

» Adoption of non-biological offspring occurs in as many as

three-quarters of bird families, and appears to be helped by mistakes in parent-offspring recognition.

» Quite why birds choose to adopt unrelated chicks isn't clear, though it could be that for those species that do, maintaining a large group size

is as important as selectively rearing your own biological offspring.

» There could also be a selfish aspect to adoptive behaviour – by caring for unrelated offspring, parents can potentially help provide their own offspring with mates.

SOURCE: *Animal Behaviour*, vol 72, pp869-73 LINK: en.wikipedia.org/wiki/Alpine_Swift

IN BRIEF

PUMP 'EM UP

If under threat, ruddy turnstones beef up their flight muscles. Researchers found that turnstones subjected to staged 'flyovers' by models of predators built up more than four per cent extra breast muscle in a matter of days, which enhances the small shorebirds' take-off and manoeuvrability (*Journal of Avian Biology*, vol 37, pp425-30). *Dave Brian Butvill*

BATS' FREEZING FLIGHTS

Bats in Canadian prairies not only wake up during hibernation but take sub-zero flights, too. Researchers found that the bats flew to a river and urinated on their return, which shows they had been drinking. All bats have furless wings that lose water, and this may explain the habit (*Canadian Journal of Zoology*, vol 84, pp1079-86). *Dawn Barons*

LOVE HURTS

Burying beetles *Nicrophorus* sp. (below) lay eggs on vertebrate corpses. Competition is fierce, and strangers often kill developing young so they can take over a carcass. Stephen Trumbo of the University of Connecticut found that parent beetles make fewer attempts to defend their larvae from killers with whom they can mate to recoup some of the reproductive loss (*Animal Behaviour*, doi:10.1016/j.anbehav.2006.05.004). *Dave Brian Butvill*



Horse: Andy Rouse/NHPA; ibis: Harne & Jens Erikson/naturepl.com

Mark Mottley/Minden Pictures/FLPA