



Animals and the environment

A TALL TALE

The tail of a long-tailed macaque can sometimes be 60 centimetres long – that's longer than its whole body.



Long-tailed macaques using stones as tools.

Which pod are you from?

It isn't just monkeys that pass down different traditions. Sperm whales from different pods (family groups) learn different accents and dialects (a form of language or way of pronouncing words that belongs to a particular place or group of people). They communicate using patterns of clicks known as codas. A sperm whale can tell if another sperm whale comes from a different pod just from the sound of its clicks.



A pod of sperm whales.

Scientists crack monkey behaviour

Scientists have observed two groups of long-tailed macaque monkeys in Thailand, Southeast Asia, using stone tools differently, even though the islands they live on are less than six miles apart. Long-tailed macaques are one of only a few primate species known to use stone tools – others include humans, chimpanzees, bearded capuchin and white-faced capuchin monkeys.

The macaques use rocks that they choose carefully to hammer the shells of shellfish, such as oysters, sea snails, crabs and mussels. They crack them open and scoop out the flesh to eat.

On two neighbouring islands off the coast of Thailand, one group of macaques were seen reusing their tools, called

hammerstones, whereas the monkeys on the other island threw their stones away after using them once.

A team of scientists from the UK, Germany and Thailand, led by Lydia Luncz from the University of Oxford, studied hammerstones found at Lobi Bay on Yao Noi island and on nearby Boi Yai island.

Distinctive patterns of wear meant that they could tell which stones had been used as tools. The team found that the ones on Boi Yai used to crack open oysters were heavier and well used, but in Lobi Bay they were smaller and hadn't been used much at all. The hammerstones used by each group were so different that the researchers were able to work out which group had used the tool just by looking at it.



Cracking skills.

At first, the researchers thought there might be a shortage of stones on Boi Yai, which would explain why one group reused them. However, the team soon found lots of sturdy stones on both islands.

They think that the difference in the behaviour of each group is an example of culture. Culture is the ideas, customs and social behaviour in a group and is a typically human trait. It includes shared habits passed down from older to younger animals. The different patterns of behaviour between the two groups of monkeys suggests that different traditions can develop in different groups of macaques, even though they live in similar sorts of environments. "[The use of tools is] passed on from monkey to monkey as they learn from each other," said Luncz. The researchers hope that this work will be helpful for scientists studying any early humans and the way they used stone tools.



ECO TIP OF THE WEEK

TAKE SOME TIME TO CONNECT WITH NATURE

Spending time in wild spaces can help you become more aware of things happening around you in the natural world. It's easy to do. After school or at weekends, set aside a short time to get outdoors. Take a notebook and pencil or pen with you and try to record the different plants, birds and animals you see. Or just head out for a walk, run or cycle through

woodland, around the park, or along a riverside. Make sure you dress warmly and reduce your impact on the environment – take your rubbish home with you, stick to footpaths and don't disturb any animals you find. Taking photos, drawing sketches or keeping a log will help you track how nature changes. Download a logbook from the Woodland Trust at tinyurl.com/TWJ-logbook

FEELING GOOD

Scientists have found that spending about two hours in nature every week is good for your health.



Autumn is a great time to enjoy the outdoors.

Scientists crack monkey behaviour

Read the article and then try the following activities...

Hold a debate

Scientists are gaining a better and better understanding of how animals communicate and learn. If humans get to the point where they can actually speak in a particular animal's language, should we start to use that knowledge? If it were possible to increase understanding and cooperation between us and the animal kingdom, would that be a good thing? Or would that just lead to people exploiting animals in worse ways than we ever have before? Anyway, shouldn't we avoid interfering in animal evolution and allow them to develop in natural ways, according to their needs, not ours? What do you think?

Writing challenge!

Choose one of the following writing warm-ups.

1 Imagine you are a long-tailed macaque who has just discovered how to use stones to get seafood out of shells. Write an advertisement that you would use to persuade your fellow macaques to use stones too, especially if you have already gathered together all the best ones.

or

2 Write a short funny sketch in the form of a playscript in which one macaque is trying to get his friend to use stones to crack open shells but the friend doesn't like the idea of using this new 'technology'.

Investigate

Research another example of animals learning a new behaviour, especially if it shows them adapting to the human world. Make sure you explain what the animal is, where it lives and what it has learned. If possible, find out whether it is behaviour that all members of that species have learned or just those in a particular community or location.

