

## NEWS

# Glorious mud's precious carbon value surfaces

New research highlights need to protect carbon in sea beds that can offset global warming

Julia Horton

Mud, mud, glorious mud, as any hippo knows, is good for cooling the blood. Scottish research has found that it is also significant for its capacity to absorb and store carbon for cooling the planet.

Climate change experts at St Andrews University have concluded that the sediment at the bottom of Scotland's sea lochs is better at storing carbon long-term than peatland. Bill Austin, who co-authored the study, said the findings added to a growing body of evidence that highlighted the "absolute" need to safeguard "Scotland's forgotten mud" if the nation is to meet environmental targets.

Professor Austin, whose ongoing work is funded by the Natural Environment Research Council, said: "The headline figures are very large: about 650 megatonnes (Mt) of carbon stored naturally in sea-loch sediments, which is not as much as Scotland's peatlands [which store an estimated 1620Mt], but sea-loch sediments are significantly more effective at storing carbon over long timescales than the peatlands. These sediments have an important but as yet largely unaccounted role to play in helping Scotland to meet its greenhouse gas and climate targets."

He added: "Protecting these environments for this unseen service of carbon capture and storage really does make a lot of sense. Bottom trawling of fishing gear is certainly disturbing [them] and almost certainly reducing effective carbon storage potential."

The study also found that some of the carbon lost from peatlands damaged by activities such as historic peat cutting for

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**Mud on the floor of sea lochs, such as Loch Carron, has been found to be very efficient at storing carbon. Dredgers were banned from a Highland sea loch with flame shell beds, right**

fires or modern wind farm schemes has been absorbed by sea-loch sediment, offering a "second chance" to protect it.

Open Seas, a Scottish environmental group campaigning for sustainable fishing, backed the call to protect these environments, warning that the "precious" mud and wider ecosystem was at risk from trawling. Phil Taylor, its head of policy, said that the government should be "rightly proud" of its marine protected

areas for safeguarding habitat and wildlife, but the "precious carbon stores" within the sea bed in those areas had no protection. "These fundamentally important reserves are regularly disturbed and degraded. If we are to achieve our ambitious and worthy carbon targets, we need to shine a light down into the murky depths," he said.

Earlier this year, scallop dredgers were banned from a Highland sea loch after an



endangered reef with designated flame shell beds was damaged. A marine conservation order was put in place banning mobile gear fisheries, such as dredgers, from the area, initially for one year.

The call to protect sea beds coincided with growing pressure on the Scottish government to set a deadline for the nation to become emissions-free, following a key UN conference on climate change this week. Speaking at the event, in Germany, Nicola Sturgeon pledged an early decision on that deadline but stopped short of announcing a date.

Friends of the Earth Scotland said that Scottish targets must reflect "our fair share of global efforts", including "zero emissions by 2040". The Scottish government repeated its commitment to pioneering work on global warming, including restoring peatland and improving understanding of marine carbon stores. Climate change secretary Roseanna Cunningham repeated a commitment to the goal for net zero emissions. However, she warned that it was "important for targets to be credible and achievable."

## Shop staff learn Chinese etiquette to charm tourists

David Collins

Do not offer a Chinese shopper a red pen – it is bad luck. Staff at Manchester's department stores and its airport are being trained in Chinese customs to cope with a boom in visitors in the run-up to Christmas.

More than 90,000 passengers have flown between Manchester and Beijing since a new route opened a year ago and Chinese spending in shops across the north of England has doubled to £139m,

### FROM MANCUNIAN TO MANDARIN

All right, our kid, need a hand with those kecks\*?

好的, 我亲爱的孩子们, 这些裤子要我帮帮你们吗

Say it like this: How der, wor chin i der hi ze mun, jer syea ku ze yeao wor bang mang ni mun ma?

It's six of one and half a dozen of the other

这不过是半斤八两

Say this: Jer bu gwor jwu shi ban jin ba liang

I'll let you give your 'ed a wobble\*\*

我会给您时间去考虑下

Say this: Wor hui gay nin shi jen chiu kow loo sia

\*Trousers

\*\*I'll let you have a think about it

according to the consultancy Steer Davies Gleave.

Now the city's Harvey Nichols branch has told its staff that although red is considered lucky in China and red products sell well, there is a superstition about using red ink because the names of the dead were once written in red on gravestones.

Sales staff are being trained to pass purchases to the customer with two hands, a sign of respect.

Selfridges, the Trafford Centre and Cheshire Oaks are also said to be briefing their employees on Chinese culture.

Manchester airport has put up signs in Chinese and is running courses for its retail staff – even teaching some well-known Manchid phrases in Mandarin.

Newlyweds Clara Kwan and Jeff Tong, 36, arrived from China on Friday. "We decided to do three or four days in Manchester before going on to London," Kwan said.

"It means we can go to a Liverpool game and, of course, do plenty of shopping."

Zhang Min, 28, from Beijing, said: "This is the third time I have been on a shopping holiday to Manchester in the last year. I'm looking for Christmas gifts for friends and family."

"I prefer it here to London as the stores are closer together and the city feels less polluted."

@davidcollinsST

## Boris's jungle dad well prepared for reptiles

Tony Allen-Mills

Stanley Johnson is best known as the father of Boris Johnson, the foreign secretary. Tonight he has a shot at a different kind of fame – as a spider-crushing, testicle-chewing, iguana-cuddling adventurer ready for any challenge in the latest series of I'm a Celebrity ... Get Me Out of Here!

A certain amount of media ridicule accompanied the announcement that Johnson Sr, 77, was headed for the wilds of Australia but he may surprise the doubters.

The author and former Tory MEP turns out to be no stranger to intimidating beasts and menacing habitats. "Travelling in wild and wonderful places has been a large part of my life," he told The Sunday Times.

Shortly before he was locked away in the Australian "jungle" – a national park bordering Queensland and New South Wales – Johnson described his most recent trip to the Cayman Islands where he met a large blue iguana and a red-footed booby (a seabird unrelated to Boris). "The Grand Cayman blue iguana is one of the rarest

reptiles on the planet," he said. "I didn't expect to be cradling a full-size male just a few hours after arriving."

These were the latest in a long line of wildlife encounters that may stand Johnson in good stead as he battles against contestants including former Scottish



**Johnson: familiar with iguanas and the red-footed booby**

Labour leader Kezia Dugdale. He was brought up on an Exmoor farm where lambs' testicles were regarded as a delicacy so he has no fear of unappetising "bush tucker".

His most recent novel, Kompromat, also suggested that he knows what to do with a venomous spider. Its hero encounters a lethal funnel-web. Johnson writes: "Barnard didn't panic easily ... He picked up a shoe. Two thwacks. One dead spider."

If only life was that easy for Boris.

**Nationwide**

Building Society

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