

Zoo's amorous animals enjoy their Brexit breeding boom

Ben Ellery

The spectre of a no-deal Brexit has had an unexpected effect on the amorous activities of animals at a zoo.

Shepreth Wildlife Park in Hertfordshire has brought forward planned arrivals of animals from Europe and has received a bounty of inhabitants ready to mate with its long-term residents. It made the decision to “turbo-charge” its

breeding programme amid fears that a no-deal Brexit would affect how animals enter Britain — the Department for Environment, Food and Rural Affairs has decreed that Kent is off-limits, to avoid causing tailbacks during inspections, and animals will have to come in through Harwich in Essex. That means animals could be travelling for 20 hours longer.

As a result Shepreth recently re-

ceived a maned wolf, an armadillo, a red panda, a pygmy slow loris and a pair of Von der Decken hornbills. Staff have worked around the clock to build enclosures for the arrivals.

Rebecca Willers, director at Shepreth, said: “It has been completely chaotic at the zoo as we are desperately filling in paperwork and getting the enclosures ready. We are part of a European breeding network and receive

animals from all over the EU but we've had to speed that up because we do not want a trip for an animal that may have taken 14 hours now taking 30 hours.”

The British and Irish Association of Zoos and Aquariums fear that the extended journeys will cause unnecessary suffering to animals in transit and potentially place rare species in danger.

Madelon Willemsen, the associa-

tion's chief executive, said: “We've been told by one zoo in Europe that it didn't want to send an oryx — a large antelope — to the UK to breed as they were worried they wouldn't get it back after Brexit.”

“This will affect what animals we see in zoos and if we don't keep the British public in touch with nature then it will have a damaging effect on animals' conservation.”

Underwater meadow will catch carbon

Rhys Blakely

An undersea meadow is to be sown off the Pembrokeshire coast to restore a habitat that captures carbon from the atmosphere quicker than a rainforest.

Underwater meadows of seagrass, a flowering plant found in sheltered, shallow coastal spots, were once common in British waters.

The grass can capture carbon from the atmosphere up to 35 times faster than rainforest vegetation. It also serves as a nursery for marine life, including endangered seahorses. A patch of 10,000 square metres can support 80,000 fish and 100 million invertebrates.

However, 90 per cent of Britain's seagrass is estimated to have been lost over the past century — destroyed by sewage and agricultural pollution, torn up by ships' propellers and chain moorings or choked by coastal development.

Members of the public are collecting a million seeds from meadows and they will be taken to a laboratory at Swansea University to be prepared for planting.

They will be sown over the winter off Dale beach. The pilot project, backed by Sky Ocean Rescue and WWF, aims to establish 20,000 sq m of fresh habitat. Seagrass meadows absorb carbon dioxide and release oxygen through photosynthesis. Restored meadows may also help to protect coasts from erosion as they absorb wave energy.



Volunteers will visit existing seagrass meadows to harvest seeds that will be prepared for planting by Swansea University and then grown off the Pembrokeshire coast

The secret humpback jam session where whales change their tunes

Rhys Blakely Science Correspondent

Just like us, humpback whales succumb to musical fads. Every few years, all the males in one part of the ocean will swap their complex chorus of squeaks and moans for an entirely new one.

This new tune will ripple across the waves, to be adopted by other males separated by thousands of miles — much farther than the song can carry in the water. One humpback melody is displaced by another, much as today's hit single dislodges yesterday's No 1.

Until now, how the whales shared their music was a mystery. One theory had suggested it was down to lone troubadour humpbacks who swam between breeding groups, carrying their musical motifs with them.

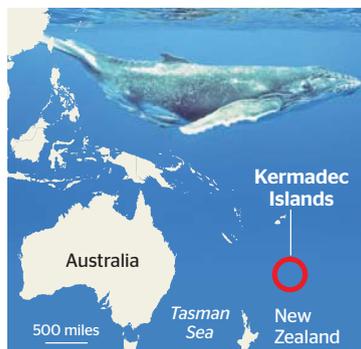
New research suggests that the answer involves something more rousing: a kind of mass, multicultural whale jam session. As they head south towards the Antarctic after the breeding season, it has been discovered that humpbacks make a detour to a remote set of islands

in the South Pacific. Several migratory corridors overlap here, bringing whales together from eastern Australia, New Caledonia, Tonga, Niue, the Cook Islands and French Polynesia. It appears that they linger for days, singing.

It was already known that the songs, which are performed only by males, are transmitted eastwards across the South Pacific, between breeding populations from Australia to French Polynesia — a distance of nearly 4,000 miles.

The new research, published in the Royal Society journal *Open Science*, focuses on the remote Kermadec Islands, about 500 miles northeast of New Zealand, a recently discovered migratory stopover for humpbacks as they swim south from their breeding grounds toward Antarctic waters.

The researchers, led by Ellen Garland from the University of St Andrews, analysed the music made by dozens of whales at the Kermadecs. Fragments of song recorded there also appeared in whale songs recorded from New Caledonia to French Polynesia.



Luke Rendell, also from the School of Biology at the University of St Andrews, said: “Song themes from multiple wintering grounds matched songs recorded at the Kermadecs, suggesting that multiple humpback whale populations from across the South Pacific are travelling past these islands and song learning may be occurring.”

“Our results are consistent with the hypothesis of song learning on a shared

migratory route, a mechanism that could drive the eastern transmission of song across the South Pacific.”

Behaviour that might be described as cultural — meaning that it is passed on and learnt — has been reported in hundreds of studies of animals as diverse as apes, birds and bees.

However, singing is a relatively rare trait. Among mammals, gibbons and mice do it but their songs are typically repetitive and simple — not at all like the humpbacks' eerie, complex melodies.

Male whales are thought to sing to attract females and to communicate with other males. A previous study found that males in one area will converge on the same melody during the winter breeding season. This tune will gradually become more complex as individuals make embellishments, which are adopted by the group.

Every three years or so, the slate is wiped clean: a totally new song is adopted in what scientists call “a cultural revolution”.

Big business highlights climate risks

Ben Webster Environment Editor

Longer and more turbulent flights, riverside offices flooding and new blocks of flats becoming unbearably hot — these are some of the risks posed by climate change that have been identified by big companies.

The risks are described in reports submitted to the Carbon Disclosure Project, a charity that encourages businesses to share how they will be affected.

Virgin Atlantic said that climate change was likely to produce a stronger jet stream, increasing flying times. Flights could also be hit by “clear-air turbulence and increasing incidences of severe weather events such as tropical storms and cyclones”.

EY, the accountancy firm, is exposed to the risk of the Thames flooding in central London. Unite Students, a supplier of student flats, said hotter summers could result in buildings overheating, which may lead to health risks and the need to compensate tenants.”