

# New Year resolution to safeguard the future of native crayfish

On Friday 31 December 2021, a 12ft long native crayfish sculpture commissioned by Northumberland Rivers Trust was unveiled at Northumberland Zoo to celebrate the start of its captive breeding programme.

The programme aims to breed and release the native species into Northumberland's rivers and lakes.

It builds on work to boost native numbers and prevent the spread of the invasive American signal crayfish, which puts the future of the white-clawed species in danger because of the 'crayfish plague' that it carries.

The partnership – including the Northumberland Zoo, Environment Agency, Northumberland Rivers Trust and National Trust – is now calling on local people to 'Check, Clean, Dry' their clothing and equipment after visiting local rivers to avoid transferring invasive species and the crayfish plague between rivers.

Northumberland has some of the country's last strongholds of white-clawed crayfish, with the Wansbeck and Aln having some of the best remaining populations in Europe.

## **2022 'might be their last year in Northumberland'**

Pete Kerr, Northumberland Rivers Trust, said:

While Northumberland's rivers have some of the best remaining populations of native crayfish in the UK, the invasive signal crayfish are closing in from all sides.

Many people have never even seen these 'little lobsters' but they are amazing creatures that can live up to 10 years and even grow new claws after a fight with an otter! We need to do all we can to protect them otherwise 2022 might be their last year in Northumberland.

The signal crayfish, which originates from America, was introduced in the 1970s. It is bigger, more aggressive and out-competes the native white clawed crayfish. They also carry a fungal disease known as crayfish plague, which is fatal to the native species. They also burrow into banksides, causing increased siltation of watercourses.

The Environment Agency's Ian Marshall, Biodiversity Technical Specialist in the North East and white-clawed crayfish National Species Lead, added:

Everyone has a key role to play in the revival and survival of the white-clawed crayfish. This native species plays a vital ecological role; they help to keep our waterways clean and are a source of food for other native species.

It's well known they are in great danger, and while we have made positive progress to protect them we need to continue to take significant action to safeguard their future.

Two native white-clawed crayfish being held by Ian Marshall of the Environment Agency. Credit: Sound Ideas and Environment Agency.

## **Zoo's captive breeding programme**

At Northumberland Zoo, the captive breeding programme is funded by the zoo, Environment Agency and Northumbrian Water's Branch Out scheme, while the sculpture, created by Ptolemy Elrington of Hubcap Creatures and made from entirely recycled material, has been funded by the Northumberland Rivers Trust. In total around £20,000 has been invested in the project.

Since 2018 the Zoo has been working alongside Bristol Zoological Society and the Environment Agency to develop a captive breeding facility at the zoo. It will be housed in the zoo's Native Species building that opened in June 2021 and which also houses honeybees and harvest mice.

Maxine Bradley, Northumberland Zoo, said:

The crayfish facility is in the early stages of development and we are currently rearing yearlings and testing the facility. Once our techniques are proven we will introduce breeding vats and begin holding adult crayfish from the local areas.

The captive bred crayfish can then be reintroduced in association with our partners at the Northumberland Rivers Trust and Environment Agency to help boost local populations and restock areas where they have disappeared.

We are hoping that this unveiling of the sculpture at the zoo will help draw much-needed attention to this endangered species and educate the public on what they can do to help the native crayfish.

With over 100,000 people predicted to visit the zoo in 2022 we are confident our crayfish sculpture and exhibit will educate and inspire people about this often-overlooked species.

The community can play a vital role in conserving the future of white clawed crayfish. The partnership urges people to 'Check – Clean – Dry' their footwear and equipment after spending time in and around watercourses.

Ian Marshall added:

We are urging people to join us in making this New Year's Resolution to Check, Clean, Dry and support us in our efforts to protect this vital species.

Other work of the Northumberland Crayfish Partnership includes:

- Northumberland Rivers Trust has been mapping which species are where in local rivers, raising awareness through community events and building underwater barriers to slow the spread of invasive signal crayfish. This is hoping to 'hold the line' until a long-term biotechnology solution can be developed to manage the spread of the invasive species.
- Working together, the partners are creating remote 'ark sites' – these are safe locations to release white-clawed crayfish into rivers where they can live and breed. At Wallington the National Trust has created a new ark site which will receive its first influx of native crayfish from the River Wansbeck in March 2022.
- At the same time the National Trust will unveil a display tank of captive bred crayfish at its visitor welcome building so visitors can meet a crayfish. They are also making significant large scale habitat improvements to many of its 54km of watercourse to help the existing local populations thrive.
- The partnership is producing and installing information boards at key sites where members of the public can access rivers.
- The Environment Agency is helping to develop a new 380-page Crayfish Conservation Manual in partnership with Bristol Zoological Society. The manual provides best practice advice and guidance in one easy-to-read book, with references and case studies, to help ecologists and encourage future conservation efforts. This will be the key reference book for everyone working with crayfish in England and is almost complete.
- An Environment Agency pilot project – the National Crayfish Monitoring Programme – includes environmental DNA (eDNA) surveying that will focus on identifying the presence of native white-clawed crayfish, invasive signal crayfish and crayfish plague in rivers and stillwaters.
- They are continuing to deliver the Northumberland Crayfish Conservation Strategy, which was launched in 2019.

If you see any crayfish, alive or dead, leave it where it is and report it immediately to the Environment Agency on 0800 807060. If possible, take close-up photos of the crayfish to help identify the species. It is illegal to handle or remove crayfish from the water without the correct licences.

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## Oral COVID-19 antiviral, Paxlovid, approved by UK regulator

A COVID-19 treatment called Paxlovid (PF-07321332 and ritonavir) has been approved by the Medicines and Healthcare products Regulatory Agency (MHRA) after it was found to be safe and effective at reducing the risk of hospitalisation and death in people with mild to moderate COVID-19 infection who are at an increased risk of developing severe disease.

This follows a rigorous review of its safety, quality and effectiveness by the UK regulator and expert advice from the government's independent scientific advisory body, the Commission on Human Medicines.

Developed by Pfizer, Paxlovid is an antiviral medicine with a combination of active ingredients, PF-07321332 and ritonavir, that works by inhibiting a protease required for virus replication. This prevents it from multiplying, keeping virus levels low and helping the body to overcome the viral infection. Ritonavir slows the breakdown of the second ingredient PF-07321332 in the body, thereby increasing its effectiveness.

The two active substances of Paxlovid come as separate tablets that are packaged together and taken together, twice a day by mouth for 5 days. PF-07321332 is a new antiviral, meaning that it has not been approved for use before. However, ritonavir has been used alongside some HIV medicines for many years to 'boost' their activity, which is similar to what it is doing for PF-07321332.

In a clinical trial in high-risk adults with symptomatic COVID-19 infection, a five day treatment course of Paxlovid reduced the risk of COVID-19 related hospitalisation and death within 28 days by 89% when compared to a placebo group when treatment was started within 3 days of the onset of COVID-19 symptoms. The number of hospitalisations and deaths were 0.8% (3 out of 389) in the Paxlovid group compared with 7% (27 out of 385) in the placebo group. Similar favourable results were seen in patients when treatment was started within 5 days of the start of symptoms.

Based on the clinical trial data, Paxlovid is most effective when taken during the early stages of infection and so the MHRA recommends its use as soon as possible and within five days of the start of symptoms. It has been authorised for use in people aged 18 and above who have mild to moderate COVID-19 infection and at least one risk factor for developing severe

illness. Such risk factors include obesity, older age (>60 years), diabetes mellitus, or heart disease.

It is too early to know whether the omicron variant has any impact on Paxlovid's effectiveness but the MHRA is proactively working with the company to establish this.

**Dr June Raine, MHRA Chief Executive, said:**

"Today we have given our regulatory approval for Paxlovid, a COVID-19 treatment found to cut COVID-19 related hospitalisations and deaths by 89% when taken within three days of the start of symptoms.

"We now have a further antiviral medicine for the treatment of COVID-19 that can be taken by mouth rather than administered intravenously. This means it can be administered outside a hospital setting, before COVID-19 has progressed to a severe stage.

"I hope the announcement today gives reassurance to those particularly vulnerable to COVID-19, for whom this treatment has been approved. For these individuals, this treatment could be life-saving."

**Professor Sir Munir Pirmohamed, Chair of the Commission on Human Medicines, said:**

"The Commission on Human Medicines and its COVID-19 Therapeutics Expert Working Group has independently reviewed the data and endorses the MHRA's regulatory approval of Paxlovid.

"Based on this data, it is clear Paxlovid is another safe and effective treatment to help us in our fight against COVID-19. As it is deployed, we will monitor its effectiveness and safety in the real-world, including any drug interactions, as we do with all medicines. Any side effects should be reported to the MHRA using the Yellow Card scheme."

**Health and Social Care Secretary Sajid Javid, said:**

"The UK has been a world leader at finding and rolling out COVID-19 treatments to patients. This is further proved by the MHRA being one of the first in the world to approve this life-saving antiviral.

"We are also leading the whole of Europe in the number of antivirals we've bought per person – with over 2.75 million courses of this antiviral secured for NHS patients by the Antivirals Taskforce.

"The booster campaign, testing and antiviral defences ensure our country is in the strongest possible position to deal with the threat posed by Omicron as we head into the new year."

Paxlovid may interact with certain other medications. Before it is prescribed, the MHRA is therefore advising that patients' current medications should be carefully reviewed, and appropriate advice given on adjustments that may be needed to their current medications. Additional tests may also be

needed for its safe use. More information is provided in the patient information leaflet.

Paxlovid is not a substitute for vaccination against COVID-19. Vaccination and having a booster after the first course remains the best way to avoid hospitalisation due to COVID-19 for most people. The government and the NHS will confirm how this COVID-19 treatment will be given to patients in due course.

## Notes to editors

- The [Medicines and Healthcare products Regulatory Agency](#) is responsible for protecting and improving the health of millions of people every day through the effective regulation of all medicines and medical devices in the UK by ensuring they work and are acceptably safe. All our work is underpinned by robust and fact-based judgements to ensure that the benefits justify any risks.
- The MHRA is a centre of the Medicines and Healthcare products Regulatory Agency which also includes the [National Institute for Biological Standards and Control \(NIBSC\)](#) and the [Clinical Practice Research Datalink \(CPRD\)](#). MHRA is an executive agency of the [Department of Health and Social Care](#).
- The [Commission on Human Medicines \(CHM\)](#) advises ministers on the safety, efficacy and quality of medicinal products. The CHM is an advisory non-departmental public body, sponsored by the Department of Health and Social Care.
- The MHRA's Conditional Marketing Authorisation for Paxlovid is valid in Great Britain only. An emergency use authorisation has been granted for Northern Ireland to ensure access across the whole of the United Kingdom. Both authorisations were made on the basis of the same rigorous evaluation.
- More information can be found in the [product information](#)

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## [Racing legend Jenson Button wishes UK military happy new year](#)

Former Formula One World Champion Jenson Button MBE has wished UK Armed Forces a happy New Year and thanked them for their continued service, whether at home or abroad.

He was speaking during the final race of the inaugural Extreme E season – an electric SUV competition staged on difficult terrain around the world – held at Bovington Training Area, Dorset.

Some of the biggest names in motorsport are involved with Extreme E, with teams owned by Sir Lewis Hamilton and Nico Rosberg, and Jenson Button also

owns and drives with his JBXE team.

The 2009 F1 World Champion also praised the Armed Forces' role in delivering the COVID-19 booster vaccine rollout, with over 950 personnel available to support the vaccine programme in Scotland, England and Wales.

**Jenson Button MBE said:**

"Happy New Year to all the service personnel around the world and especially the ones that are helping out with the booster jab".

The Extreme E teams were put through their paces around Bovington's tank training course, as Dorset's Jurassic Coast was chosen for the final round of the 2021 series. Part of the Extreme E focus is to promote electric vehicles and clean technology solutions whilst highlighting climate change issues in the UK and around the globe.

As the event helps highlight the importance of electrification and sustainability, the British Army also has an ambitious programme to introduce hybrid electric drive into its fleet of vehicles. The Army has already invested £10 million in this sector, developing experimental hybrid-electric drive vehicles in a bid to create a more sustainable military operation.

**Colonel Simon Ridgway OBE, Assistant Head Plans, Ground Manoeuvre Capability said:**

"We have fitted hybrid-electric technology to a number of vehicles including the Jackal, Foxhound and MAN SV platforms which are currently in-service so we can understand the benefits, the opportunities, risks, and threats of this technology and how it can make us operate better and differently in the future. We are also looking at where other opportunities lie, for example, through sustainable fuels or synthetic fuels and how that might reduce our consumption of fossil fuels going forward.

"This has given us an exciting opportunity to see what is happening with the Extreme E series and see what that could mean for us as we look to apply electrification technology to the British Army. We are looking at all the things that are happening in the civilian sector and seeing how we can apply that technology to capabilities in Defence so that we can enhance our operational effectiveness but also contribute to reducing carbon emissions."

In the lead up to the Extreme E event, the Army held the Bovington Future Power Symposium at the Defence Battlelab in Dorset, which saw senior military leaders engaging with industry heads who are involved in new environmental and sustainable technology development. Topics discussed included the Army's new sustainability and environmental strategy, military power generation on the battlefield and the role of Battlelab in the military.

**Major General Simon Hutchings OBE, Director of Joint Support, Strategic Command said:**

"With Extreme E's support, we will continue to highlight the environmental

importance of the area and demonstrate the ongoing work undertaken by the British Army with the Defence Infrastructure Organisation (DIO) to ensure its longevity as both beautiful countryside and an effective training area. Combined with the Army's investment in, and development of sustainable vehicles, this will allow us to continue to maintain our world-renowned operational edge.

"The opportunity to work alongside Extreme E who are world leaders in electrification of vehicles and sustainable energy production is very exciting. This will allow us to witness first-hand how a world leading global motorsport championship develops, inspires, and motivates its teams whilst operating in austere conditions – from the mechanics and vehicle designers, the chefs, logisticians, through to the drivers, motorsport is a Team effort."

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## [Prime Minister celebrates success of vaccine programme in New Year's message](#)

- Prime Minister hails success of vaccine programme and heroic public response to booster campaign in New Year's message
- Comes as every eligible adult in England aged 18 and over has now had the chance to get a COVID-19 booster jab
- Prime Minister reflects on global achievements of UK over the last year including fastest economic growth in the G7 and record investments in tech sector

The Prime Minister will deliver his New Year's message today (Friday 31 December) where he will celebrate the achievements of the vaccination programme over the last year with over 7 in 10 eligible adults in England boosted so far – an increase of 8 million top up jabs (45%) since the target was brought forward on 12 December.

In his New Year's message, he will announce we've met the target to offer the chance to get a COVID-19 booster to every eligible adult and urge those who haven't yet been jabbed to take up the offer of a booster, or their first or second dose.

The Prime Minister will also reflect on the achievements of the UK throughout the past year. The UK has had the fastest economic growth in the G7, record employment levels and massive global investments in the British tech sector this year.

The Prime Minister will also urge people who are celebrating to exercise



caution by taking a test, practicing good hygiene, and letting fresh air in, and to follow the COVID-19 guidance if they're living in Scotland, Wales, or Northern Ireland.

The Prime Minister, Boris Johnson, will say:

Happy New Year. 2022 is almost upon us. And whatever the challenges that fate continues to throw in our way and whatever the anxieties we may have about the weeks and months ahead, particularly about omicron and the growing numbers in hospitals...we can say one thing with certainty – our position this December the 31st is incomparably better than last year.

This country has the fastest economic growth in the G7. We have more people in work now than there were before the pandemic began. And if you want a sign of future growth – look at the massive global investment in British high tech. Almost £30 billion into the UK tech sector this year – twice as much tech investment as Germany, three times as much as France.

And there is one reason – one overriding reason – why the UK has been able to maintain the most open economy and society of any major European economy. And that is because the British people have responded heroically, voluntarily, and in almost incredible numbers to the call to get vaccinated.

And as I speak tonight on New Year's Eve, we've met our target, we've doubled the speed of the booster roll out. And it's precisely because of that huge national effort that we can celebrate tonight at all. Though I must of course urge everyone to be cautious and to take a test if you are going out and to remember the importance of ventilation. Follow the rules if you are in Scotland or Wales or Northern Ireland.

And I want to speak directly to all those who have yet to get fully vaccinated. The people who think the disease can't hurt them – look at the people going into hospital now, that could be you. Look at the intensive care units and the miserable, needless suffering of those who did not get their booster, that could be you.

So, make it your New Year's resolution – far easier than losing weight or keeping a diary – find a walk-in centre or make an online appointment. Get that jab and do something that will make 2022 a happy New Year for us all.

On 30 November, the government [set out its ambition](#) to offer all eligible adults the chance to get their booster by the end of January. This target was brought forward by the Prime Minister [earlier this month](#) in response to the emerging threat of the Omicron variant in order to protect the public as quickly as possible.

Some eligible people may not yet have been able to receive their booster yet due to catching COVID-19. The vaccination programme requires the majority of people infected with COVID-19 to wait 28 days following infection before receiving a vaccine.

After the 28 days have passed, people are encouraged to book their booster as soon as they can. Those eligible for a booster vaccine who have delayed making an appointment because of other acute illnesses are also encouraged to book as soon as they are fully recovered.

It is vital to get a first and second jab, in order to be eligible for a booster to get the vital protection against Omicron. Recent UKHSA data shows people who are unvaccinated are up to eight times more likely to be hospitalised than those who are fully vaccinated.

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## All adults in England offered COVID-19 booster vaccine

- Every eligible adult in England aged 18 and over has now had the chance to get a COVID-19 booster jab
- Anyone who has not come forward urged to Get Boosted Now to protect against Omicron

Every eligible adult in England has now had the chance to get a life-saving COVID-19 booster, as the government and NHS hits their target to offer the top-up jab to those aged 18 and over by the New Year.

On 30 November, the government set out its ambition to offer all eligible adults the chance to get their top-up jab by the end of January. In response to the emerging threat of the Omicron variant, the target was brought forward by the Prime Minister and the NHS through the national Get Boosted Now campaign, to protect the public as quickly as possible – with the aim of offering all eligible adults a booster by the New Year.

The campaign led to a huge increase in vaccination rates, with over eight million top-up jabs administered in just over two weeks in England (a 45% increase), between 12 December when the Prime Minister set out the new ambition and yesterday (Thursday 30 December). The NHS in England has broken record after record in that time – including the highest number of vaccinations ever recorded in a single day: 830,000 top-ups reported on Saturday 18 December. This was also the day the UK hit over one million vaccinations in total, including first, second, third and booster doses – jumping from 928,000 the previous day.

More than 28.1 million people in England – more than 7 in 10 of eligible adults – have now had their booster following the rapid expansion of the vaccination programme over the last month. This includes around 90% of those aged 50 and over who are eligible.

The COVID-19 booster vaccination programme has been a historic national effort for both the NHS and the public, with tens of thousands of volunteers stepping up to support NHS staff and thousands of people queuing up to secure the protection for themselves and others. This week, the NHS ensured over 1.5 million appointments were still available between 27 December and 3 January, allowing anyone eligible who hadn't yet had the booster the opportunity to book their appointment. For anyone who hasn't yet come forward, hundreds of thousands of appointments remain available to book between now and Monday 3 January with millions more slots available beyond 3 January.

Health and Social Care Secretary Sajid Javid said:

Our world-leading vaccination programme has meant tens of millions of people have been able to see their loved ones this Christmas knowing they have the protection of the booster.

I am delighted to confirm we have hit our target of offering a COVID-19 booster to all adults by the New Year.

I am incredibly proud of the work the NHS has done to accelerate the programme and offer my thanks to the frontline staff, volunteers, Armed Forces and British public who have made it possible for us to meet this commitment.

Some eligible people may not have been able to receive their booster yet due to catching COVID-19, as the majority will be required to wait 28 days following infection before receiving a booster.

To meet the ambitious target and ensure the country was offered protection against the new variant, the COVID-19 vaccination programme was accelerated and scaled up significantly over the past month. This included:

- opening over 3,000 vaccination sites, with 180 new sites having opened in December – including at football stadiums, shopping centres and at Christmas markets, with extended opening hours and some sites working around the clock;
- sending over 30 million people invites from the NHS during 2021– including over 3.9 million letters, 26.7 million text messages and 14.7 million emails inviting people to book online;
- sending a text to everyone in the country urging them to get boosted;

- drafting in 750 armed forces personnel to support deployment, alongside a renewed drive that has meant the recruitment of tens of thousands of volunteers; and
- temporarily suspending the 15-minute observation period following Pfizer or Moderna booster jabs, where clinically safe and appropriate to do so, in order to get more jabs in arms.

Dr Emily Lawson, head of the NHS COVID-19 vaccination programme, said:

I am hugely grateful for the extraordinary efforts of NHS staff and volunteers this year, who have gone above and beyond to roll out the NHS vaccination programme and who, in just over 12 months, have administered more than 110 million life-saving COVID-19 jabs.

It is thanks to their tireless efforts that 28 million people have also received their vital booster jab since September, and countless records have been broken in recent weeks as the biggest and most successful drive in health history accelerated the booster rollout and offered all adults the opportunity to book their top-up dose.

With COVID-19 cases continuing to rise rapidly, the best resolution you can make this new year is to protect yourself and those around you, so I urge you to come forward for your booster as soon as you can, and with hundreds of thousands of appointments available in the coming days, it has never been easier to grab your jab.

The dose interval between the second dose and booster dose was also reduced from six months to three months on the advice of the independent Joint Committee on Vaccination and Immunisation (JCVI) – with booking made available one month in advance.

The UK's booster programme is one of the fastest in the world, as the second country in Europe – after Iceland – and third in the world for the number of boosters per 100 people in the total population. 33.5 million top-up jabs have been administered in the UK in total, as well as 51.7 million first and 47.4 million second doses.

This follows a record festive period of vaccinations in England. Vaccinators were working at sites up and down the country to give people their boosters over Christmas. More than 214,000 jabs were reported across Christmas Eve, Christmas Day and Boxing Day, including 184,445 boosters.

There were 306,574 vaccinations on Tuesday 28 December (including 258,399 boosters) – the highest Bank Holiday total recorded – and 244,078 vaccinations on Monday 27 December (including 209,626 boosters).

All eligible adults can get the jab by booking online through the National

Booking Service or by visiting their nearest walk-in vaccination centre.

Vaccines Minister Maggie Throup said:

We have now offered all eligible adults in England a COVID-19 booster – a triumph for the NHS and the vaccination programme.

It's never been easier to get your vaccine, with over 3,000 vaccination sites now open – so you can grab a jab in between shopping the January sales or watching your favourite football team play.

Hundreds of thousands of appointments are available between now and 3 January – book your booster now to play a part in the fight against Omicron ahead of the New Year.

While two doses of a COVID-19 vaccine provides strong protection against the Delta variant, data from the UK Health Security Agency (UKHSA) shows two doses is not enough to protect people from Omicron – but a third dose provides around 70% protection against symptomatic infection from Omicron two to four weeks after the booster is given.

It is vital to get a first and second jab, in order to be eligible for a booster to get the vital protection against Omicron. Recent UKHSA data shows people who are unvaccinated are up to eight times more likely to be hospitalised than those who are fully vaccinated.

If someone has contracted COVID-19 and has not yet received their booster, after 28 days have passed they are encouraged to book their jab as soon as they can.

Those eligible for a booster vaccine who have delayed making an appointment because of other acute illnesses are also encourage to book as soon as they are fully recovered.