

Dear Bat Group Member,

This is a special edition bulletin from BCT to provide you with an update about rabies viruses, specifically European Bat Lyssaviruses (EBLV), in the British Islands. It is rather a lengthy update but the key points are:

- EBLV1 virus has been found in a bat in Britain for the first time.
- It was confirmed in a serotine found in Dorset.
- There have been a number of additional EBLV2 cases since the last report in the June Bat Group Bulletin.
- Advice and guidance for bat workers (including volunteers and carers) from Public Health England (PHE), the Animal & Plant Health Agency (APHA) and BCT remains exactly the same: anyone handling a bat should wear gloves, anyone regularly handling bats should have pre-exposure vaccinations, and anyone bitten or scratched by a bat, of any species, should seek medical advice (even if they are already vaccinated).
- The existing pre and post-exposure vaccinations cover EBLV1 as well as EBLV2.

The full contents of this special edition bulletin are:

1. EBLV1 Positive Bat from Dorset
2. EBLV2 Positive Bats from Sussex, Northumberland and West Lothian
3. Reminder of Changes to Rabies Vaccinations Effective from July 2018
4. Results of PHE & APHA Bat Workers Study
5. New Web Page and Leaflet from PHE
6. Request for Dead Bats for APHA Passive Surveillance Programme
7. BCT Advice & Guidance
8. Plans for Disease Risk Management Video for Bat Carers

If you have questions about any of the content of this special edition bulletin, the situation relating to rabies in the UK, vaccinations, the wearing of gloves, or any other related matters there is information on the BCT website at: http://www.bats.org.uk/pages/-bats_and_rabies-1099.html or you are welcome to get in touch with the National Bat Helpline (enquiries@bats.org.uk or 0345 1300 228).

1. EBLV1 Positive Bat from Dorset

We want to let you know that a serotine bat from a location in Dorset has tested positive for European Bat Lyssavirus 1 (EBLV1). This is the first known case of EBLV1 virus to be detected in the UK. The virus was already known to be present in the serotine populations in a number of other European countries including France, so this is not unexpected. It has also been recorded rarely in other species of bats in Europe (including Natterer's bats). Antibodies (indicating past exposure to the virus) to EBLV1 were found in a serotine and two Natterer's bats in the UK as part of an active surveillance programme run by APHA and Scottish Natural Heritage a few years ago. The most recent finding was in 2004.

The EBLV1 positive bat was found grounded by a member of the public. Sadly the bat died and was promptly submitted to APHA for testing. PHE followed up all contacts after the EBLV1 diagnosis, and offered post-exposure treatment as necessary.

This latest positive case, especially coming from a species other than Daubenton's bat, acts as a good reminder of just how important it is for people to follow best practice when handling **any species of bat** and to report even a small nip, scratch or bite as soon as possible. When completing the paperwork for submitting bats to APHA there is a box to tick to indicate if anyone has been bitten by the bat. This enables APHA to fast track the testing and easily trace back to those involved in the event there is a positive case and PHE (or the relevant public health agency) can ensure those who may have been bitten receive appropriate post-exposure treatment.

As stated in the introduction, the existing pre and post-exposure vaccinations cover EBLV1 as well as EBLV2. The confirmation of EBLV1 in the UK does not change the advice and guidance in relation to bats and rabies in the UK: anyone handling a bat should wear gloves, anyone regularly handling bats should have pre-exposure vaccinations, and anyone bitten or scratched by a bat, of any species, should seek medical advice (even if they are already vaccinated).

2. EBLV2 Positive Bats from Sussex, Northumberland and West Lothian

In addition to the EBLV2 positive case from the Cambridgeshire/Lincolnshire border that we reported on in the [June Bat Group Bulletin](#) we have also had additional cases from a site in Sussex, a case from Northumberland and another from West Lothian (confirmed in the last few days).

This summer there have been five EBLV2 positive Daubenton's bats from a site in Sussex. The location is a known maternity roost and any dead bats are routinely submitted to APHA. It is likely that the very hot summer weather contributed to the death of some of the bats (rather than those deaths necessarily being caused by rabies as a result of infection with EBLV2). In addition two of the bats were tested using new techniques developed by APHA (see [June Bat Group Bulletin](#) and Item 6. below). The two bats were badly decomposed and without the use of new techniques it would not have been possible to test them.

The Northumberland case was also a Daubenton's bat that was sadly found dead. It was submitted for testing at APHA as part of the passive surveillance programme. In both this case and the Sussex cases there was follow-up by Public Health England (PHE) with the people who handled the bats to ensure everyone had the appropriate post-exposure treatment.

Finally, the West Lothian case was of a badly decomposed Daubenton's bat found by a local bat worker and submitted to APHA straight away. The bat tested positive for EBLV2 last week, and as with the decomposed bats from the Sussex site the new techniques outline in Item 6. were used. An EBLV2 positive bat was previously detected at the same site in 2009.

We have known of the presence of EBLV2 at a low level in our Daubenton's bat population for a number of years. We have had at least one or two cases every year over the past few years so although 2018 has seen much higher number of positive cases than in past years, these latest case are still in line with expectations. The presence of the virus in a small number of bats (a total of 23 EBLV2 positive cases and 1 EBLV1 case, including these most recent cases) does not affect the UK's rabies-free status as this relates to classical rabies only.

These cases continue to highlight the importance of the APHA passive surveillance scheme (see Item 6.) and the work of PHE and other health agencies in administering pre- and post-exposure vaccinations (see Items 3, 4 and 5) in addition to the work of BCT in communicating with members of the public and the bat community.

3. Reminder of Changes to Rabies Vaccinations Effective from July 2018

EBLV is normally transmitted by means of a bite or scratch from an infected bat. The risk of infection with rabies virus being passed from a bat to a human or other mammal is low because the infection is present at very low levels in Great Britain (EBLV has yet to be confirmed in Ireland, Channel Isles or Isle of Man) and most people do not have any contact with bats. However, as a precaution anyone who **regularly** handles bats in the British Islands (even those areas where EBLV has yet to be confirmed) should be routinely vaccinated against rabies and **anyone** needing to handle a bat should wear gloves (even if they are also vaccinated).

A major change for vaccinations in **England and Wales**, that came into effect in July this year, is that Public Health England (PHE) will only provide rabies vaccinations free of charge for people who **regularly** handle bats in a voluntary capacity (so for example, Natural England Volunteer Bat Roost Visitors and bat carers are still covered). Where the requirement for vaccinations relates to paid work then the employer should pay

for the vaccinations (even if the individual also regularly handle bats in a voluntary capacity). Updated guidance has been provided for GPs in the revised rabies Green Book chapter that was published back in July (<https://www.gov.uk/government/publications/rabies-the-green-book-chapter-27>) and updated rabies pre-exposure immunisation guidance from PHE.

Another change that came into effect earlier this year, applicable **across the British Islands**, relates to people who have severely impaired immune systems due to certain medications or illness and may wish to handle bats. These individuals may not respond fully to treatment with rabies vaccine following a bat bite and, as EBLV infections are fatal in humans, it may not be possible to treat them effectively. In these cases, careful counselling is essential to ensure the person is made aware of the potential risks. Further details about who would be considered to be immunosuppressed and what they should do next is available in guidance that was published by PHE this summer. The guidance is **aimed at medical professionals** and is available from: <https://www.gov.uk/government/publications/contraindications-and-special-considerations-the-green-book-chapter-6> along with further information about completing the request form for pre-exposure vaccinations that all GPs have to complete when pre-exposure vaccinations are requested, see: <https://www.gov.uk/government/publications/rabies-pre-exposure-prophylaxis-guidelines> (again this document is aimed medical professionals). The PHE Vaccine Update had a special rabies special edition back in August. As with the previous two publications it is targeted at health professionals but has sections on bats and immunosuppressed individuals, see: <https://www.gov.uk/government/publications/vaccine-update-issue-282-august-2018-rabies-special-edition>

4. Results of PHE & APHA Bat Workers Study

The first bat workers study was run in 2004 to improve the understanding of antibody responses before and after rabies vaccine booster doses. Findings from this study led to the current recommendation for a reinforcing dose (first booster) to be given one year after the primary course; followed by subsequent boosters given every 3-5 years.

Between 2010 and 2013, Public Health England and APHA carried out a second bat workers study which was open to all UK bat workers who were due a rabies booster vaccination during the study period. Participants completed a questionnaire and blood samples were taken before the booster doses and were tested for antibody levels.

A total of 150 bat workers, 77 male and 73 female aged between 29 and 81 years, participated in the study. The average antibody level was 17.8 IU/ml (range 0.29 – 631.3 IU/ml). Only one individual had a titre below the minimum level (0.5 IU/ml as recommended by the World Health Organization) and they were considered overdue for a booster having not had a vaccine for 6 years. The majority of participants (58%) reported no reaction to their most recent booster. The results of this study confirm that the current recommended vaccination schedule is robust in providing adequate immunity for individuals who regularly handle bats.

Although almost 60% of study participants reported being bitten by a bat at some time, relatively few reported receiving post-exposure treatment which is recommended for anyone who is bitten or scratched by a bat even if they have already been vaccinated. In addition, only 32% reported wearing gloves at all times when handling bats.

In summary, individuals regularly handling bats should ensure they continue to receive their booster doses at 3-5 year intervals and not put themselves at unnecessary risk of rabies infection by:

- always taking appropriate preventative measures, such as wearing gloves, to minimise their risk of exposure to EBLV when handling bats
- always reporting exposures to a health professional so that their risk can be assessed and life-saving rabies vaccination given if necessary

5. New Web Page and Leaflet from PHE

Public Health England (PHE) have published information for members of the public who have been bitten or scratched by a bat. The information can be found by following the link from:

<https://www.gov.uk/government/publications/rabies-risks-from-bat-bites> and includes information on bats and rabies, the risk of contracting rabies after a bat bite and how to treat a bite.

PHE have also produced a new leaflet 'Bat contact and rabies risk' aimed at members of the public and health professionals which is available from the web page above. It is also attached to this bulletin and there are links to it from the relevant pages of the BCT website at: http://www.bats.org.uk/pages/-bats_and_rabies-1099.html and http://www.bats.org.uk/pages/resources_for_bat_groups.html.

6. Request for Dead Bats for APHA Passive Surveillance Programme

The bat in items 1. and 2. were tested under the Animal & Plant Health Agency (APHA) passive surveillance programme to monitor for EBLV in Great Britain. More than 15,000 bats have been submitted since 1986 and 23 have been found to be infected through testing under this programme (22 Daubenton's bats with EBLV2 and 1 serotine bat with EBLV1). A saliva swab collected from a Daubenton's bat under an APHA/Scottish Government active surveillance scheme in 2008 also tested positive for EBLV2, making a total of 24 EBLV positive bats in all, including the most recent cases.

Of the more than 15,000 bats submitted to the scheme fewer than 500 have been Daubenton's bats and fewer than 200 have been serotines. EBLV has also been found in other species in continental Europe. We would therefore like to take this opportunity to encourage bat workers to submit **all** dead bats (for example ones that have died in care, been found during roost visits, etc.) for testing. The passive surveillance programme is important to our understanding of the distribution of EBLV2 in the UK.

APHA are especially interested in Daubenton's bats, Natterer's bats, Brandt's bats, and serotines as well as any vagrant species (including any common bent-winged bats) but **all** species are accepted.

As was explained in the [June Bat Group Bulletin](#), whilst other labs in Europe test all submitted bats, a decision was taken back in 2012 to not test all bats in the UK. This was because of the considerable amount of UK surveillance funds they were taking due to the very high numbers of pipistrelles submitted and the need to test them in high containment. The World Organisation for Animal Health (OIE) has finally permitted the use of a cheaper method (reverse transcription polymerase chain reaction/RT-PCR) for reporting rabies. This has allowed APHA to review how they test the bats submitted for the passive surveillance scheme and hopefully, despite their limited resources, they will once again be able to test some/all of the non-contact pipistrelles submitted to them.

Please contact the National Bat Helpline (enquiries@bats.org.uk or 0345 1300 228) if you would like a pack to submit a bat for testing.

7. BCT Advice & Guidance

As a result of the latest cases we have updated our advice and guidance information and the relevant pages on the BCT website. The 'Good Practice Guidelines on Bats & Rabies', guidance on 'Wearing Gloves when Handling Bats', and a separate document aimed at bat rehabilitators caring for Daubenton's bats are available from the BCT website at: http://www.bats.org.uk/pages/resources_for_bat_groups.html along with a Frequently Asked Questions document aimed at bat handlers. It is important this information is shared with bat group members. Additional information under the bats and diseases section of the BCT website at: http://www.bats.org.uk/pages/-bats_and_rabies-1099.html

Please note there will be a further comprehensive review of the Bats & Rabies Good Practice Guidelines over the winter to update some of the flow charts aimed at bat groups that run their own helplines, dealing directly with calls from members of the public.

8. Plans for Disease Risk Management Video for Bat Carers

Those of you who receive the Bat Care Bulletin will have seen that we are putting together a video to help bat carers manage disease risk. BCT will be working with three highly experienced carers — Tracey Jolliffe, Maggie Brown and Gail Armstrong — to put together a training video providing step by step guidance on how to manage disease risk and care for higher risk bats. It will take us some time to get this put together but we hope it will be produced ready for next spring. Once completed we will make the video available via BCT's YouTube Channel.

The video will use the existing supplemental guidance for bat rehabilitators as a starting point. However, we would welcome suggestions from bat carers, so please tell us what you'd like to see! You can e-mail your suggestions to Lisa Worledge at lworledge@bats.org.uk and please copy in Laura Brown, BCT's Bat Care Coordinator, at lbrown@bats.org.uk

Kind regards,
Lisa

Lisa Worledge
Head of Conservation Services
Bat Conservation Trust, Quadrant House, 250 Kennington Lane, London SE11 5RD
Direct line: 020 7820 7176
National Bat Helpline: 0345 1300 228 (hours of service are 09.30 to 16.30, Monday to Friday)