Animal & Plant Health Agency

Small Animal Expert Group
Annual Summary 2024

Overview

The Small Animal Expert Group (SAEG) works collaboratively to gather, analyse, and share information on small animal health surveillance. SAEG non-APHA members include representatives from BSAVA, Cats Protection, Heathrow Animal Reception Centre (ARC), Defra trade team, Dogs Trust, RSPCA, SAVSNET at the University of Liverpool, VetCompass at the Royal Veterinary College, Veterinary Medicines Directorate (VMD). The group discusses potential risks and threats to the small animal population including those diseases that are zoonotic and pose a potential risk to public health, collaborating with experts in the field, and is a central hub of communication.

Intelligence gathered on emerging and significant small animal issues is fed both into and out from government. SAEG intelligence comes from various sources, including veterinary professionals who act as an early warning system by reporting unusual cases or by engaging with groups collating and anonymising clinical records and laboratory data. As valuable assets within a complex surveillance network, veterinary professionals are encouraged to maintain a population perspective, flag changes in disease trends, and always consider diseases with zoonotic potential as part of their differential diagnoses.

2024 Potential Risks and Threats

The SAEG aims to detect, investigate, and characterise new and reemerging threats in Great Britain's (GB) small animals. The following diseases represent some of the

noteworthy potential risks and threats covered by the SAEG and wider intelligence network in 2024.

TB in cats caused by *Mycobacterium caprae* infection

A cluster of 16 feline tuberculosis (TB) cases were identified and characterized in a collaborative investigation by the University of Edinburgh and APHA. All cases were in domestic cats being fed the same raw meat-based diet and infections were caused by *Mycobacterium (M.) caprae*. Cases were identified across England and Scotland during a 19-month period between July 2023 and November 2024.

All cases developed severe (often fatal) clinical disease. They were different breeds and came from geographically disparate areas. Infection with an organism of the *M. tuberculosis-complex* (MTBC) was initially detected by either PCR and/or interferon-gamma release assay (IGRA) testing. Isolation of *M. caprae* by bacteriological culture followed by whole genome sequencing (WGS) and phylogenetic analysis at the national reference laboratory for animal TB in APHA led to an epidemiological investigation and dissemination of findings to stakeholders.

Of the 16 suspect cases identified, nine were confirmed by strain-specific PCR and/or mycobacterial culture and WGS analysis. Phylogenetic analysis of the eight available culture isolates confirmed their close genetic relatedness, consistent with a common source of infection. None of the confirmed cats had access to raw milk, three were indoor-only, and none were owned or exposed to humans with active TB. All bacteriologically confirmed cases were fed the same make and varieties of raw pet food as part or all of their diet. Consumption of the batches of raw diet suspected of being contaminated occurred between April and June 2023.

M. caprae is a bacterium within the MTBC that can infect and cause TB in various species, including humans, thus contributing to the global zoonotic TB burden. Infections with *M. bovis* and *M. microti* (both members of the MTBC) are the most frequent cause of clinical TB in domestic cats in the UK. By contrast, *M. caprae* infections in animals are extremely rare in the UK and were hitherto restricted to a few isolated cases in deer and cattle in the Southeast of England. These cases represent the first reported cluster of feline *M. caprae* infections worldwide. Due to the risk of zoonotic transmission, APHA informed the public health authorities of each bacteriologically confirmed case, in a similar way to the more common cases of *M. bovis* infection in cats.

More information can be found at the following link:

Tuberculosis in young, raw-fed cats in the UK

Influenza A(H5N1) in pets

In March 2024, high pathogenicity avian influenza H5N1 was detected in dairy cattle in the USA. At the same time, farm cats which were thought to have had access to raw milk from affected cows in the USA, died following acute episodes of neurological and respiratory signs. By the end of 2024, the USA Animal and Plant Health Inspector Service officially detected high pathogenicity avian influenza in 51 domestic cats across 27 counties in 13 states. In the US, most infections in cats have been associated with avian influenza A(H5N1)-affected farms (poultry and cattle premises). However, this has not been the case for all reports. Though confirmation is unlikely, access to wild birds, raw milk, and commercially produced raw pet food are considered potential sources of infection.

In all cases, various clinical signs were described within a few days of infection, which included anorexia, lethargy, pyrexia and dyspnoea. Neurological signs were also often seen but varied depending on the part of the brain the virus affected and included ataxia, anisocoria, nystagmus, tremors, hyperaesthesia, and eventually seizures and death. Disease progression was often rapid. Risk factors are considered to be consuming infected raw poultry, milk or wild bird, or having access to the outdoors in an area where Influenza A(H5N1) in wild birds has been detected.

Suspicion of infection of Influenza A(H5N1) in a UK pet is notifiable. Published guidance can be found here: Influenza A (H5N1) infection in mammals: suspect case definition and diagnostic testing criteria - GOV.UK (www.gov.uk)

More information can be found at the following links:

Findings of Avian Influenza in Wild Birds: Avian Influenza in Wild Birds (arcgis.com)

Highly Pathogenic Avian Influenza A(H5N1) Clade 2.3.4.4b Virus Infection in Domestic Dairy Cattle and Cats, United States, 2024 - Volume 30, Number 7—July 2024 - Emerging Infectious Diseases journal - CDC

Spillover of highly pathogenic avian influenza H5N1 virus to dairy cattle | Nature

Corynebacterium ulcerans

Corynebacterium ulcerans was first isolated from cases of throat infection in humans in 1926, with zoonotic outbreaks initially associated with direct contact with farm animals or consumption of unpasteurised milk. Most recent zoonotic incidents have been associated with contact with companion animals such as dogs and cats. *C. ulcerans* can be asymptomatically carried in the throat of some dogs and cats. *C. ulcerans* has also been isolated from skin lesions, nasal discharge, and other anatomical sites of clinically unwell dogs and cats. The organism can produce diphtheria toxin, which can cause human

disease with the same clinical signs as cutaneous or respiratory diphtheria caused by *C. diphtheriae*.

2024 Investigations summary

During 2024, APHA assisted with 55 pet index cases of toxigenic *C. ulcerans* involving cats and dogs, and seven human index cases. The pet index cases comprised 20 feline index cases and 35 canine index cases. The clinical presentation of these pet index cases is illustrated in Figure 1.

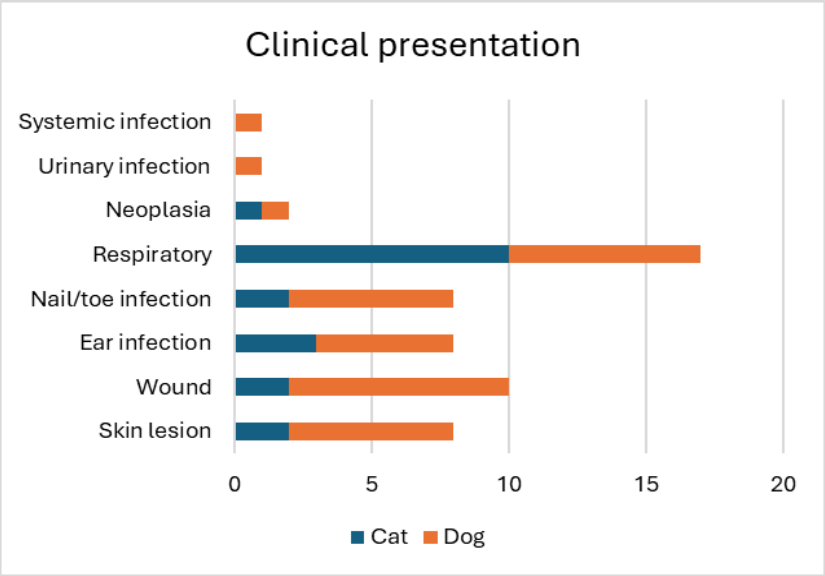

Figure 1. Clinical presentations of cat and dog animal index cases of toxigenic *C. ulcerans* during 2024

During 2024, the most common presentation for cats was upper respiratory tract infection (10/20). For dogs, infected wounds (8/35), upper respiratory tract infection (7/35), skin lesions (6/35) and nail/toe infections (6/35) were common presentations.

APHA recommends surveillance swabbing of pet cats and dogs which have had close contact with an animal or human index case of toxigenic *C. ulcerans* to investigate potential transmission. Table 1 provides data on swabbed contact pets including where one or more contact pet has tested positive. Some pet index cases had no contact pets. The table also includes the human index cases with close contact with cats or dogs.

Table 1. Animal and human index cases of toxigenic *C. ulcerans* during 2024

Index case	Number of index cases*	No. of index cases with contact pets	No. of index cases with swabbed contact pets	Index cases with one positive contact pet	Index cases with > 1 positive contact pet
Cat	20	14	10	1	0
Dog	35	25	14	2	2
Human	7	7	3	1	0

*Index case = Animal index cases (cat or dog) and human index case
No. of = number of

Six of the cat index cases and ten of the dog index cases had no close contact with other pets. Surveillance swabbing of the contact pets was not done in all cases, with reasons including that the contact pets were already on antibiotics.

The results of swabbing animals associated with positive cases identified one contact cat of an index cat and two contact dogs (one dog for two separate canine index cases) that were found to be asymptomatically infected with toxigenic *C. ulcerans*. In addition, a multidog household presented twice during 2024 having two different index dogs on each occasion. For both index dogs in this household, there were two positive contact dogs.

Although there were seven human index cases with pets, only three chose to test the contact pets, which resulted in the detection of toxigenic *C. ulcerans* in one cat.

Toxigenic *C. ulcerans* investigations are multidisciplinary and APHA works closely with public health colleagues to investigate, manage, and provide advice regarding the animals involved. Typically, APHA will also liaise closely with the private veterinary surgeon to facilitate the taking and testing of swabs, antibiotic treatment, and post-treatment clearance swabs as appropriate. APHA also provides advice on health and safety procedures for private veterinary surgeons and pet owners, including information on cleaning pet bedding and pet toys. For animal index cases comprehensive information is available in the companion animal public health guidance (see more information below).

More information can be found at the following links:

Zoonoses and Veterinary Public Health: Annual Report 2024

Public health management of toxigenic C. ulcerans in companion animals - GOV.UK

Reporting *Salmonella* in dogs

In 2024, there were 482 *Salmonella* isolations from dogs including 77 isolations of *S.* Typhimurium, 39 isolations of *S.* Infantis, and 17 isolations of *S.* Enteritidis, all important causes of human disease. Figure 2 shows the number of isolations over the past five years for the most reported serovars in dogs in 2024.

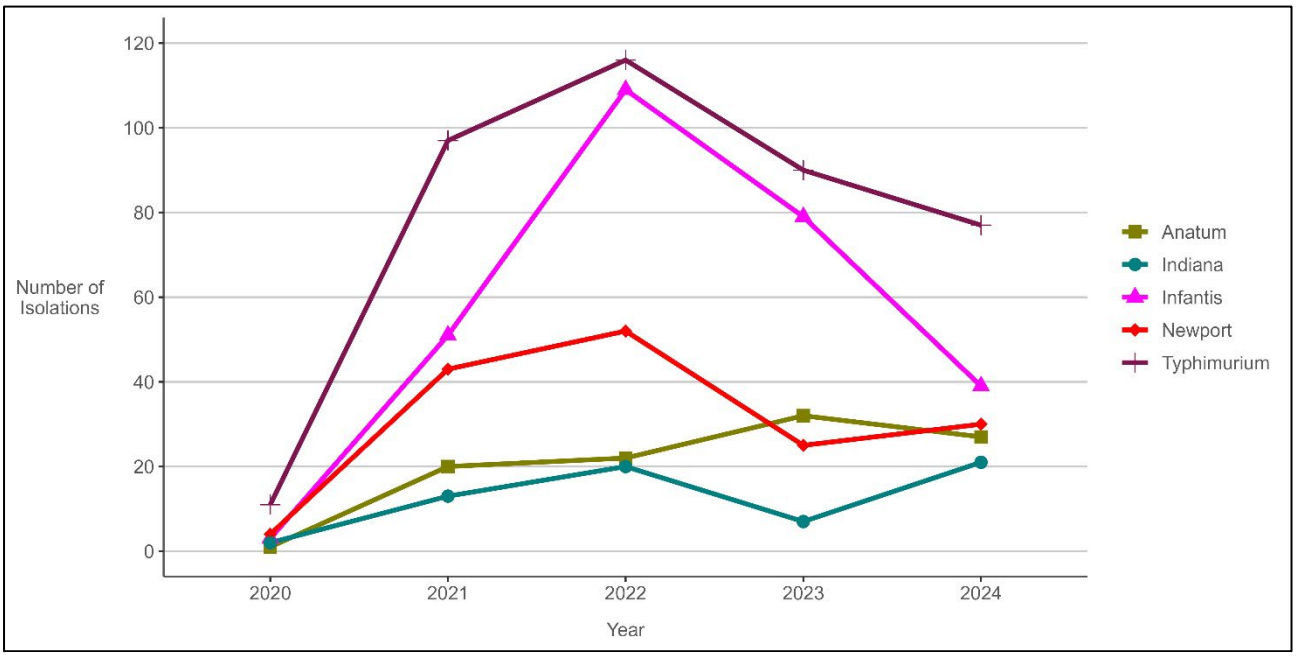

Figure 2. The 5 most common *Salmonella* serovars in dogs in Great Britain in 2024 and their trends over time since 2020

Salmonella in dogs became reportable following amendments to the Zoonoses Order in early 2021. The statutory reporting of *Salmonella* in dogs was introduced in England from 22 February 2021 and in Scotland and Wales from 21 April 2021. Reporting of *Salmonella* isolation from all species of pets is encouraged.

Further information is available in the APHA *Salmonella* in animals and feed in GB reports. The full 2024 report will be available in the autumn of 2025.

More information can be found at the following links:

Salmonella in animals and feed in Great Britain - GOV.UK

Code of practice: Salmonella Infection in Domestic Pets

Salmonella species infections in dogs: building the epidemiological picture

Brucella canis

In 2024, there were 333 epidemiologically separate incidents where evidence of infection with *Brucella canis was* reported to the APHA *Brucella* National Reference Laboratory.

Further information is available in the APHA Zoonoses and Veterinary Public Health quarterly and annual reports.

APHA, BSAVA, and the Health and Safety Executive (HSE) published a guidance for veterinary practice control measures to prevent transmission of *B. canis* to veterinary staff. This guidance is published alongside the existing 'Canine brucellosis: general information for veterinary staff' as well as the question-and-answer document on frequently asked *B. canis* questions. BSAVA provide a *B. canis* scientific document on the BSAVA library.

More information including appropriate mitigations can be found at the following links:

Zoonoses and Veterinary Public Health: Annual Report 2024

Canine brucellosis (Brucella canis): information for veterinary staff - GOV.UK

Brucella canis testing FAQ - GOV.UK

HAIRS risk assessment: Brucella canis - GOV.UK (www.gov.uk)

Brucella canis: information for the public and dog owners - GOV.UK (www.gov.uk)

BSAVA *Brucella canis* Hub

BSAVA *Brucella canis* Scientific Information Document (SID)

Horizon Scanning

Horizon scanning is a form of surveillance used to detect risks and threats across the world which pose a potential threat to the UK pet population.

Europe

Psittacosis in pet bird linked with human case – Denmark

March 2024: WHO published that there had been a rise in human psittacosis cases in Denmark, which is a zoonotic disease transmitted through contact with infected birds. Both wild and pet psittacines can become asymptomatically infected with the bacterium, *Chlamydia psittaci*. Most human cases noted exposure to either a wild or domestic bird, and in Denmark, a domestic pet bird linked with a human case tested positive. In GB, psittacosis (also known as avian chlamydiosis) is a reportable animal disease (in psittaciformes).

Psittacosis – European region (who.int)

Reportable diseases: immediate reporting requirements for diagnostic laboratories - GOV.UK

Salmonella Typhimurium – Norway

July 2024: In Norway, a *Salmonella* outbreak in people was linked to contact with birds and cats. The genetic profile of *Salmonella* Typhimurium human cases was similar to samples obtained from a cat. The local investigation made the presumption that the cat was infected by small birds carrying *Salmonella*. In the UK, *Salmonella* in dogs, but not cats, is reportable. While *Salmonella* is not reportable in cats, reporting of all species including cats and wildlife is encouraged.

Norway links Salmonella cases to animal contact | Food Safety News

Factitial hyperthyroidism – the Netherlands

August 2024: A case report from the Netherlands was published of a dog with factitial hyperthyroidism. The increased T4 concentrations were linked to consuming thyroid gland tissue-contaminated food. The dog had high serum T4 but low TSH and no detectable eutopic or ectopic thyroid tumours. The food was analysed and shown to have 7x the maximum dietary level according to the laboratory reference range. The dog was switched to a different diet and after two months, clinical signs had resolved and the dog's T4 was within the reference range.

Thyrotoxicosis secondary to consumption of food contaminated with thyroid tissue has been associated with raw as well as cooked meat-based diets. Clinical signs can be reversed by changing the diet, thus removing the source of exogenous thyroid hormone.

Food-induced thyrotoxicosis in a dog - Isidori - Veterinary Record Case Reports - Wiley Online Library

European bat lyssavirus type 1 – Netherlands

November 2024: European bat lyssavirus type 1 (EBLV-1) was detected in a cat in the Netherlands demonstrating acute neurological signs and aggression. A dead bat was found in the house a few weeks prior to the cat displaying clinical signs but was discarded with no further testing. The cat was not vaccinated against rabies.

European bat lyssaviruses (EBLVs) belong to the group of viruses that cause the disease rabies. This was the first case of EBLV-1 in a pet in the Netherlands and the fourth in Europe since 2000. Previous European cases of EBLV-1 infection in cats have been detected in France in 2003, 2007 and 2020. There have been no known cases of infected pets transmitting EBLV-1 to people.

Classical rabies vaccines provide some cross-immunity to EBLV-1 and EBLV-2. The risk of a pet contracting EBLV-1 or EBLV-2 from a bat is very low and there is no legislative requirement to vaccinate UK cats who do not travel abroad.

Rabies is a notifiable disease. Suspicion of rabies in an animal must be reported immediately by calling 03000 200 301 in England; 03003 038 268 in Wales; and the local field services office in Scotland.

As bats emerge from hibernation, their activity levels peak. EBLVs are found in bats across Europe, including the UK. Both EBLV-1 and European bat lyssavirus type 2 (EBLV-2) have occasionally been detected in bats submitted to the bat surveillance scheme (Bats: submission for rabies screening - GOV.UK). GB is officially free of classical (terrestrial) rabies.

WBVR study shows European Bat Lyssavirus type 1 in Dutch cat - WUR
Bat Rabies Dashboard | Tableau Public
Rabies in bats: how to spot it and report it - GOV.UK

Elsewhere in world

Yersinia pestis – USA

January / February 2024: At the start of the year, two press releases noted confirmed and suspected *Yersinia pestis* in cats in the USA. In California, plague was confirmed in a domestic cat, representing the first confirmed case in a cat since 2011. In Oregon, plague was confirmed in a person who was said to be infected by their cat. Cats are highly susceptible to *Yersinia pestis*, either through flea bites or from consuming infected tissues of rodents. Most cat cases present with sub-mandibular lymphadenitis, though they can develop pneumonic plague. Dogs are said to be less likely to develop clinical illness. *Yersinia pestis* is not found in Europe currently.

Press-Release-Confirmed-Plague-Domestic-Cat-01-26-24
Deschutes County confirms case of human plague in local resident | Deschutes County Oregon
Fleas (Siphonaptera) - Factsheet for health professionals

Babesia gibsoni – New Zealand

April 2024: New Zealand reported their first case of confirmed *Babesia gibsoni* in a clinically unwell dog. The pathogen was detected through a blood test, after which the dog was euthanised due to its severely deteriorated condition. There were no links to overseas cases. New Zealand is taking the detection of this exotic disease seriously and is encouraging vets and owners to call their biosecurity line if a dog is suspected to be infected. Canine babesiosis is still considered non-endemic in the UK, though there was a cluster of cases in 2016 in Essex.

Rare dog parasite discovered for first time in New Zealand | RNZ News

Exotic Worm and Worm-like Parasite Surveillance

APHA and the European Scientific Counsel Companion Animal Parasites (ESCCAP) UK & Ireland are collaborating to encourage diagnosis and reporting of exotic worms and worm-like parasites in dogs. The exotic worm and worm-like parasite project offers free-of-charge morphological identification of three potentially zoonotic parasites: *Linguatula serrata* ("Tongue worm"), *Thelazia callipaeda* ("Eye worm"), and *Dirofilaria repens* ("Skin worm"). The collaborative project aims to encourage diagnosis and reporting of these parasites. Sample specimens should be sent fresh or preserved in 70% ethanol (please do not put the parasites in formalin). Submissions can be made to APHA Carmarthen Parasitology with a completed submission form. More information on the project, as well as a submission form and guidance can be found here: Vets: free identification of exotic worms in dogs - GOV.UK

Small Animal Risks and Threats (SmART) Comms

The SAEG has launched a new communication tool for the timely notification of potential risks and threats in the small animal sector. The SmART Comms system (Small Animal Risks and Threats Communications) keeps veterinary professionals informed with prompt pet-related disease and health notifications. These notifications are relevant to and can be used to inform small animal veterinary practice decisions. This system is independent of existing notifiable disease alert systems.

By registering to receive SmART Comms you can decide how you wish to receive these notifications. Messages can be received via email, text message or both. If you wish to register to receive these notifications, then please email siu@apha.gov.uk with the email address you would like to register or the mobile telephone number, or both, if you wish to receive text alerts. Sign up for APHA disease alerts for vets - GOV.UK

Table 2: SmART Comms released in 2024

Month of release	Title of SmART Comm
October	High Pathogenicity Avian Influenza (HPAI) H5N1 in cats in USA
November	Myxoma virus variant detected in brown hares in Germany
December	Small Animal Expert Group's 2023 Annual Summary published on gov.uk

Publications

Bruno-McClung, E., Mackintosh, A. and Rawlins, M. (2024), *Salmonella* species infections in dogs: building the epidemiological picture. Veterinary Record, 195: 449-451. https://doi.org/10.1002/vetr.4988

O'Halloran, C., Gunn-Moore, D., Bruno-McClung, E., Ellis, R., Jones, J., de la Rua-Domenech, R., Miteva, I., & Pritchard, C. (2024). Tuberculosis in young, raw-fed cats in the UK. *Veterinary Record*, *195*(4), 156-156. https://doi.org/10.1002/vetr.4625

How to report a notifiable disease

Report it immediately by calling:

03000 200 301 if you're in England

- 03003 038 268 if you're in Wales
- your local Field Services Office if you're in Scotland

If you do not report it, you are breaking the law.

Additional resources

Animal disease scanning surveillance at APHA - GOV.UK

Disease factsheets | BSAVA Library

Small Animal Veterinary Surveillance Network (SAVSNET) - University of Liverpool

VetCompass

APHA SAEG member organisations

Data Protection:
For information on how we handle personal data visit www.gov.uk and search Animal and Plant Health Agency Personal Information Charter.

The report is available on GOV.UK at: https://www.gov.uk/government/collections/animal-disease-surveillance-reports.

Any enquiries regarding this report should be sent to APHA's Surveillance Intelligence Unit by emailing SIU@apha.gov.uk.

APHA is an Executive Agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and Food Standards Agency to safeguard animal and plant health for the benefit of people, the environment and the economy.