



Trichomonosis in Garden Birds

Agent

Trichomonas gallinae is a single-celled protozoan parasite that can cause a disease known as trichomonosis in garden birds.

Species affected

Trichomonosis is historically known to affect pigeons and doves in the UK. It can also affect birds of prey that feed on other birds that are infected with the parasite. The common name for the disease in pigeons and doves is “canker” and in birds of prey the disease is also known as “frounce”.

Trichomonosis was first seen in British finch species in summer 2005 with subsequent epidemic spread throughout Great Britain and across Europe. Whilst greenfinch (*Chloris chloris*) and chaffinch (*Fringilla coelebs*) are the species that have been most frequently affected by this emerging infectious disease, many other garden bird species, including the house sparrow (*Passer domesticus*), siskin (*Carduelis spinus*), goldfinch (*Carduelis carduelis*) and bullfinch (*Pyrrhula pyrrhula*), are susceptible to the condition.

Pathology

Trichomonas gallinae typically causes disease at the back of the throat and in the gullet.

Signs of disease

In addition to showing signs of general illness, for example lethargy and fluffed-up plumage, affected birds may drool saliva, regurgitate food, have difficulty in swallowing or show laboured breathing. Finches are frequently seen to have matted wet plumage around the face and beak. In some cases, swelling of the neck may be visible from a distance. The disease may progress over several days or even weeks, consequently affected birds are often very thin or emaciated.

Disease transmission

The *Trichomonas gallinae* parasite is vulnerable to desiccation and cannot survive for long periods outside the host. Transmission of infection between birds is most likely to be by birds feeding one another with regurgitated food during the breeding season or through food or drinking water contaminated from an infected bird.

Disease patterns

An epidemic of finch trichomonosis occurred throughout much of Great Britain in 2006 and 2007, and the disease has continued to cause large-scale mortality of finches in subsequent years. The number of outbreaks typically peaks in the late summer to autumn months, although they can occur throughout the year.

The geographical distribution where most finch trichomonosis outbreaks occurred shifted from western to eastern areas of Britain in 2007-08, but the disease is now established throughout the British Isles.

Finch trichomonosis has now been found in continental Europe, where it was first seen in Fennoscandia in 2008. Migrating chaffinches carrying the parasite from Britain are thought to be the most likely way that the disease spread to the continent.

Consequent to the emergence of finch trichomonosis, the UK breeding greenfinch population has declined from circa 4.3 million to circa 2.8 million birds which equates to an overall decline of 35% of the national population from 2006 to 2009. This represents the largest scale mortality of British birds due to infectious disease on record and demonstrates that infectious disease can cause dramatic declines of common wildlife species within a short time frame. The average number of greenfinches visiting gardens has declined by 50 per cent over the same time period. Whilst chaffinch populations reduced in the region of the trichomonosis outbreak in 2006, no further national decline has occurred in this species.

It is most probable that the parasitic infection in finches originated from pigeons and doves. Subsequent to trichomonosis becoming established in finches, it is likely that the majority of transmission is from finch to finch; however, spread of the parasite between finches and pigeons or doves is also likely to occur. It is probable that birds of prey become infected through the consumption of diseased songbirds, as is known to occur following predation of infected pigeons and doves, but the extent to which this happens and the potential significance to British birds of prey requires further investigation.

Risk to human and domestic animal health

Trichomonas gallinae is a parasite of birds and there is no known health threat to people or to mammals, such as dogs and cats. The parasite has the potential to affect captive poultry and pet birds.

Garden birds may carry other diseases that can affect people and pets, such as *Salmonella*, *Campylobacter* and *E. coli* bacteria. We recommend following sensible hygiene precautions as a routine measure when feeding garden birds and handling bird feeders and tables. Following these rules will help avoid the risk of any infection transmitting to people and help safeguard the birds in your garden against disease.

- Clean and disinfect feeders/ feeding sites regularly. Suitable disinfectants that can be used include a weak solution of domestic bleach (5% sodium hypochlorite) and other specially-designed commercial products (See *Further information*). Always rinse thoroughly and air-dry feeders before re-use.
- Brushes and cleaning equipment for bird feeders, tables and baths should not be used for other purposes and should not be brought into the house, but be kept and used outside and away from food preparation areas.
- Wear rubber gloves when cleaning feeders and thoroughly wash hands and forearms afterwards with soap and water, especially before eating or drinking. Avoid handling sick or dead birds directly. For instance, use disposable gloves or pick the bird up through an inverted plastic bag.

Diagnosis

Diagnosis of trichomonosis in wild birds relies on post-mortem examination and follow-up laboratory testing. The signs of the disease at post mortem are fairly characteristic, and a variety of tests can be used to confirm the presence of the parasite.

If you wish to report finding dead garden birds, or signs of disease in garden birds, please visit www.gardenwildlifehealth.org. Alternatively, if you have further queries or have no internet access, please call the **Garden Wildlife Health vets on 0207 449 6685**.

Control

Whilst medicines are available for the treatment of trichomonosis in captive birds, effective and targeted dosing of free-living birds is not possible.

Where a problem with trichomonosis exists, general measures for control of disease in wild bird populations should be adopted:

- Ensure optimal hygiene at garden bird feeding stations, including disinfection (See *Further information*)
- Consider leaving bird baths empty until no deaths occur. Otherwise, be particularly vigilant to provide clean drinking water on a daily basis. Empty and dry the bird bath on a daily basis (drying kills the *Trichomonas* organism).
- Feeding stations encourage birds to congregate, sometimes in large densities, thereby increasing the potential for disease spread between individuals when outbreaks occur. **If many birds in your garden are affected, we recommend that you consider significantly reducing the amount you feed, or stop feeding for a period (2-4 weeks).** The reason for this is to encourage birds to disperse, thereby minimising the chances of new birds becoming infected at the feeding station. Gradually reintroduce feeding, whilst continuing to monitor for further signs of ill health (See *Further information*).

Prevention

Following best practice for feeding garden birds is recommended to help control and prevent transmission of disease at feeding stations all year round (see *Further information*):

- Routine good table hygiene.
- Provision of clean and fresh drinking water on a daily basis.
- Provision of fresh food from accredited sources.
- Rotate positions of feeders in the garden to avoid build-up of contamination in any one area and pay particular attention to clearing food remains that fall onto the ground.

Further information

[Best feeding practices](#) should be followed at all times to help ensure that the birds visiting your garden remain healthy. More information can be found on the Garden Wildlife Health website www.gardenwildlifehealth.org. The GBHi booklet “Feeding Garden Birds – Best Practice Guidelines” is also available from the GWH team (by email: gwh@zsl.org, telephone: 0207 449 6685).

Scientific publications

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J.K. and Cunningham, A.A. (2011) Evidence of spread of the emerging infectious disease finch trichomonosis, by migrating birds. *Ecohealth* **8(2)**: 143-153. [doi: 10.1007/s10393-011-0696-8](https://doi.org/10.1007/s10393-011-0696-8).

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