

SpawnWatch

2018 report

In 2018 we ran our first ever frog and toad spawn survey across Birmingham and the Black Country.



Figure 1 Breeding frogs in Walsall (c) Anna Webster

SpawnWatch was designed as a citizen science project to encourage members of the public to report any frog or toad spawn spotted in garden ponds or other local ponds. The survey was carried out as a collaboration between EcoRecord, the Birmingham and Black Country Amphibian and Reptile Group (B&BC ARG) and the Wildlife Trust for Birmingham and Black Country.

Why are we carrying out this survey?

We would like to update our records so that the information we hold is as current and comprehensive as possible. Many of our frog and toad records are now over 15 years old so the records generated as part of this survey will be useful in helping us to update our knowledge of the distribution and breeding sites of these key species so we can better protect them

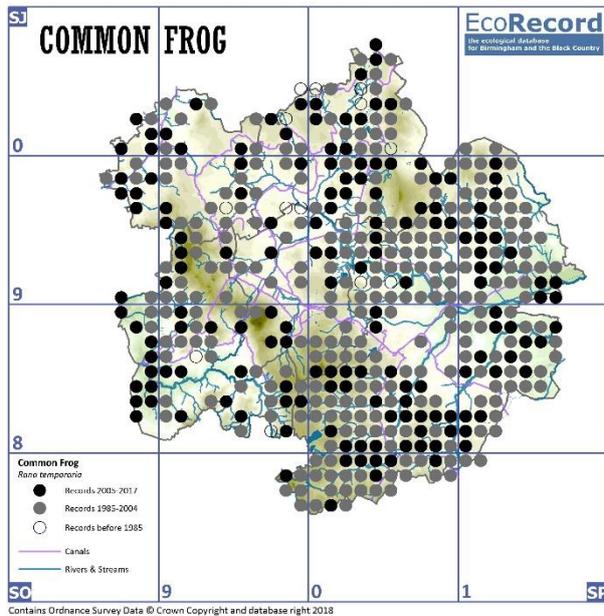


Figure 2 - Common Frog Records 1970 - 2017

As well as reporting on the presence of spawn we also asked participants to tell us about the date it was first sighted. We intend to run SpawnWatch annually, so we should hopefully be able to see if there are any year on year trends in the timings of spawn laying.

We are also collecting information on the amount of spawn laid in each pond, as well as other details about the pond, to see if we find out more about habitat preference and identify ponds that are particularly good for these species.

The information we gather as part of the survey will help us to understand more about amphibian populations across the urban area, and help organisations such as the Wildlife Trust and local Amphibian and Reptile Group to target future conservation efforts and survey.

What did we do?

We created a page on B&BC Wildlife Trust's website, along with an online recording form for people to submit their records. We also made extensive use of social media (EcoRecord's Facebook Group/Twitter) to promote the survey and capture additional records (<https://www.bbcwildlife.org.uk/Spawnwatch>). Graphics and simple ID guides which could be easily shared online, were also produced.

Have you seen any frog or toad spawn in Birmingham and the Black Country?

If so please send us a photo of it and let us know where and when it was seen. This will give us valuable information on the amphibian populations across the area.



Figure 3 - SpawnWatch graphic

2018 results

What was recorded?

SpawnWatch 2018 has generated 133 new breeding records of frog - along with 78 records of other garden wildlife including newts, hedgehogs and garden birds.

61 of these records were received via the online recording form. Of these, 23 records were supported by a photo to help us to verify the record. Most records received via Twitter or Facebook were also supported by photographic evidence. Additional records came from surveys carried out by members of B&BC ARG.

We received only one record of toad-spawn via the online form - and this was in a park pond rather than a garden pond. As toads are known to favour larger ponds for breeding, this doesn't come as a complete surprise. Toad spawn is also often more difficult to spot than frogspawn.



Figure 4 Breeding Toads (c) Amber Hopgood

When did frogspawn appear in 2018?

Winter and early spring 2018 were a bit of a rollercoaster in terms of weather, with two short wintery spells particularly impacting on frogs laying spawn.

Our first report of frogspawn-laying activity began on the 22nd February and lasted until 25th when temperatures dropped, and snow storms arrived. The freezing temperatures are thought to have killed off at least some of the spawn.

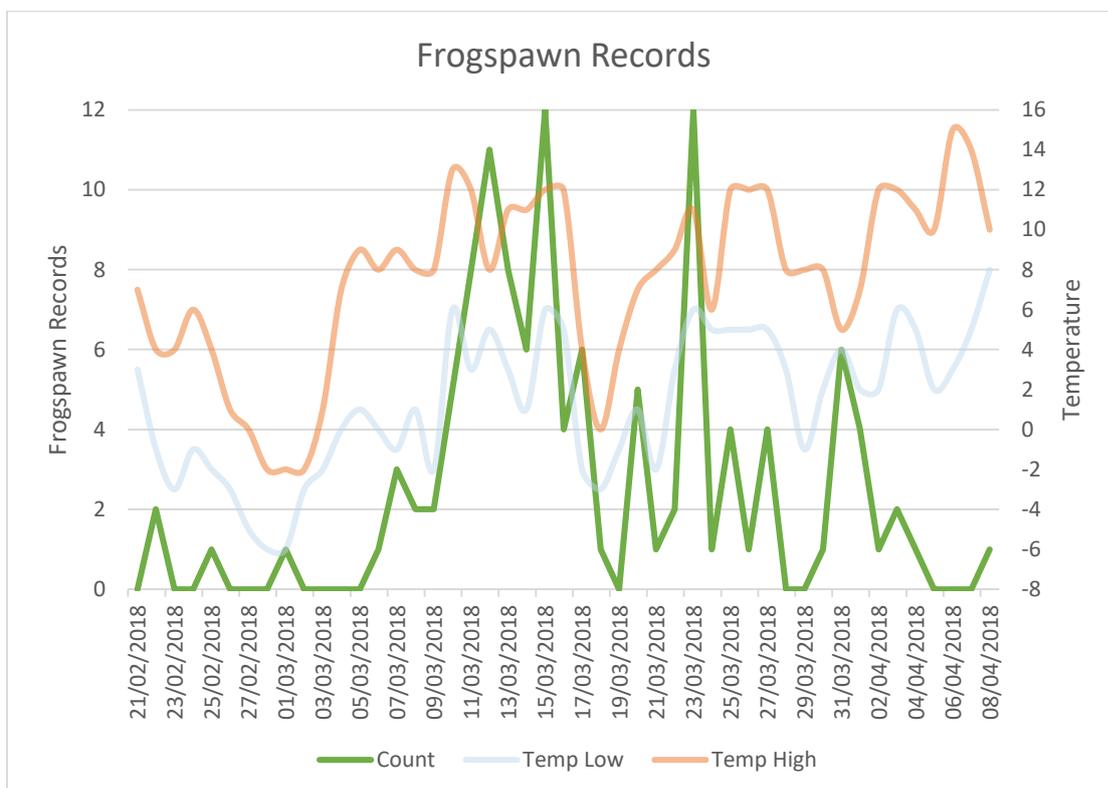


Figure 5 Frogspawn with snow

By the 3rd of March temperatures began to rise again and this was accompanied by reports of frogspawn appearing at a number of ponds across the area. Interestingly, in the ponds where frogspawn had been laid before the cold snap, a second batch of spawn was then laid once night-time temperatures improved.

A second shorter cold spell occurred between 17th to 19th March and this also corresponded with a dip in reported frogspawn. As this spell was shorter than the previous spell in February, this would have had a much lower effect on clumps of frogspawn that had already been laid.

Reports of frogspawn continued until the 8th April, and tadpoles had been reported as emerging from 3rd April onwards. Frogspawn sightings peaked on the 15th and 23rd March.



Where did frogspawn appear?

We received records of breeding frogs from ponds across the whole of Birmingham and the Black Country. Due to the survey being shared on Twitter we also received records from as far afield as Yorkshire and Surrey.

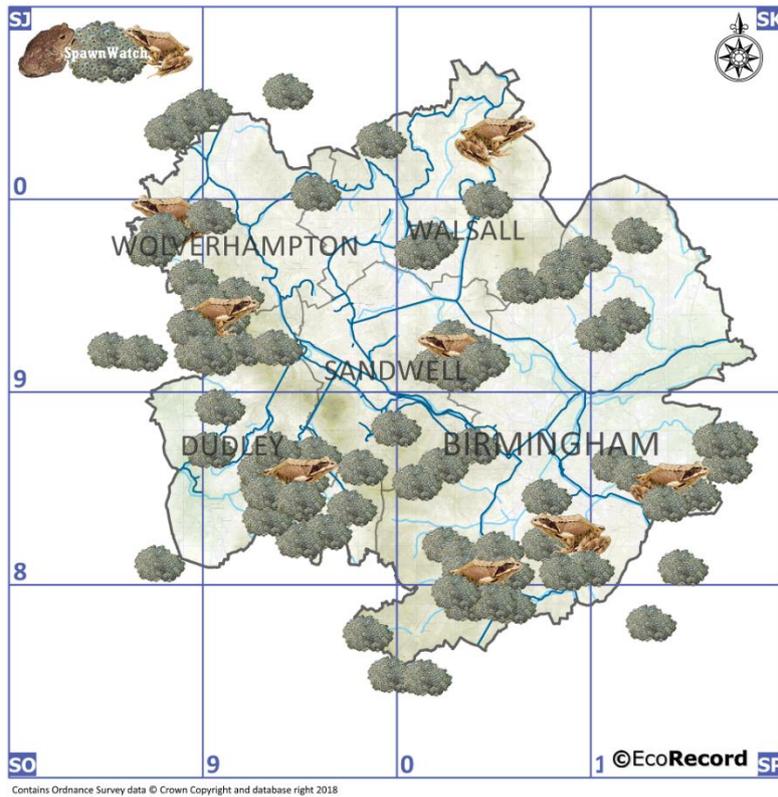
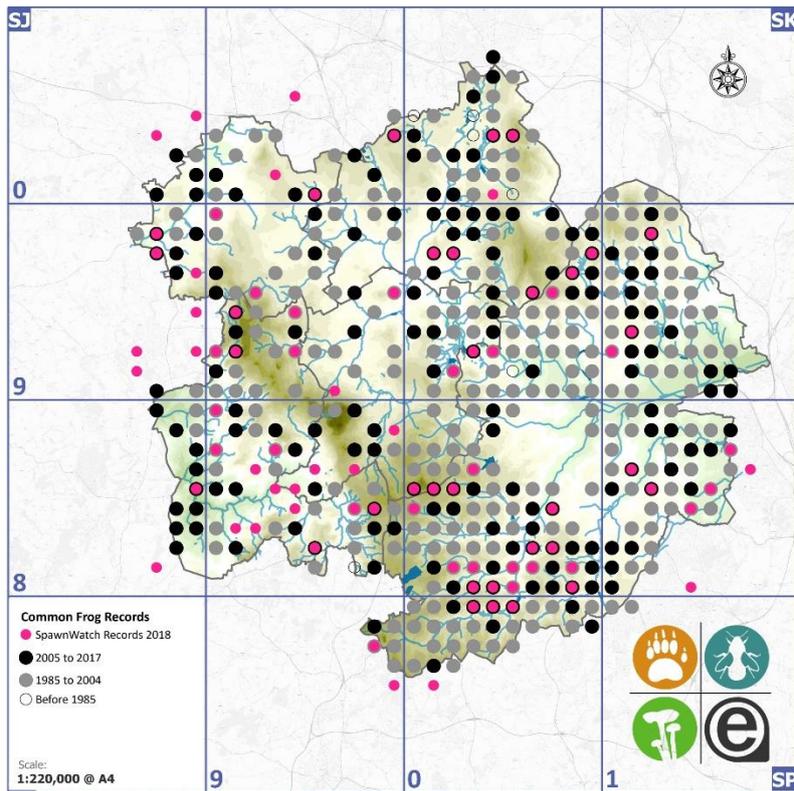


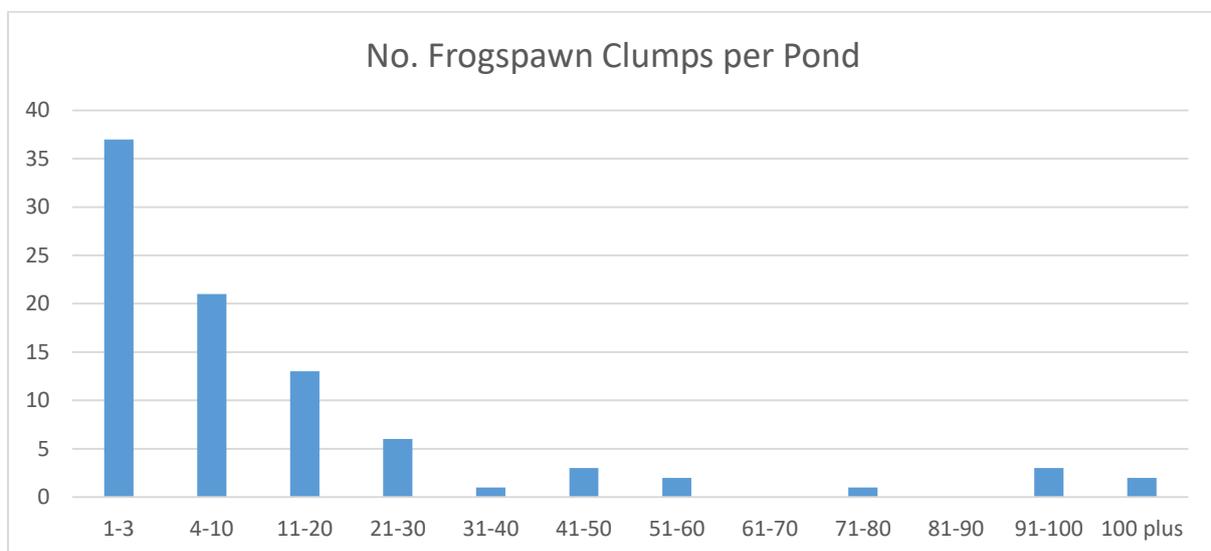
Figure 6 Map showing where frogs had been recorded in 2018



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Figure 7 SpawnWatch records overlaid on existing records

Recorders reported quite a range in the amount of frog spawn spotted in different ponds, with most found to contain between 1 to 3 clumps of spawn, while some recorders noted over 230! The average amount of frog spawn seen in ponds during the survey was 18 clumps.



Garden ponds accounted for 53% of the records received, with other records being mostly from ponds in schools, parks, allotments or other open space. One recorder reported finding spawn on their garden lawn, assumedly as a result of a pregnant frog being predated. In a couple of cases frogspawn had been found in tiny ponds - made from old washing up bowls.

Ponds in nature reserves tended to contain higher amounts of spawn - with ponds at Penn Common, Sutton Park, Cotwall End and Project Kingfisher containing particularly large amounts.

The highest amount of spawn spotted in a garden pond was 43 clumps in a garden in Wolverhampton. The average number of clumps seen in garden ponds was 6.5 compared to 34 for other ponds.

13 of the ponds with frogspawn, also contained fish. It's not known whether or not the spawn successfully developed into adult frogs in these ponds. This would be an interesting follow-up question.

What's Next?

SpawnWatch managed to engage a good number of people in the survey and it generated an impressive number of breeding frog records, especially given that the resource investment in the survey was relatively low.

The records generated as part of the survey provided us with up-to-date records for a number of 1x1km squares on our map, some of which had no recent records and seven squares for which we had no existing frog records.

We plan to re-run the survey in 2019 in order to begin to create a comparable year-on-year breeding frog dataset.

We will also look at ways of specifically targeting areas with no recent records to help fill in some of the gaps.

Do you have any other ideas on how to further develop the project for next year?