

Our Ref: 2020-01(08)

1st July 2022

Alastair Burgwin
The Old School House
Forshaw Heath Lane
Solihull
West Midlands
B94 5LH

Dear Alastair,

Re: Former Coventry Stadium, Binley Woods, Warwickshire

Ecolocation was instructed by Mr Alastair Burgwin on behalf of Brandon Estates Ltd on the 20th of May 2022 to undertake further ecological survey work of the former Coventry Stadium and its associated ponds for their suitability to support Great Crested Newt (GCN).



Figure 1: Location of ponds shown in blue; general site boundary shown in red.

Preliminary Reports

This letter report should be read in conjunction with the following reports:

- Ecological Impact Assessment of Coventry Stadium, written by Ecolocation, dated 5th July 2021;
- Addendum to Ecological Impact Assessment of Coventry Stadium, written by Ecolocation, dated 21st October 2021; and
- Biodiversity Impact Assessment of Coventry Stadium, written by Ecolocation, dated 27th of June 2022.

It was understood that the Site would subject to a future planning application for residential development and a Multi-Purpose Games Area (MUGA), in addition to a large area of Public Open Space (POS), including wildlife ponds. This is considered to be a major development, requiring planning consent; and as such, all ponds within the Site and within a 250m radius around the Site boundary should be assessed, unless separated from the application site by a barrier that amphibians cannot cross, such as a main road, a river, an expanse of bare ground or hard surface, arable land, or regularly close-mown amenity grassland.

Two on-site ponds and a further two within a 250m radius of the Site were evaluated (Figure 1). An initial Habitat Suitability Index (HSI) assessment was carried out on the 10th of June 2020 and whilst pond 1 was dry, ponds 2, 3 and 4 were identified as having “below average” suitability for GCN. However, since the habitats on Site were considered to offer suitable terrestrial habitat for GCN, their presence on Site could not be ruled out. Subsequently, an additional HSI assessment was completed on the 4th of October 2021. Ponds 1, 2 and 3 were recorded as dry, whilst pond 4 was extant. This second HSI survey identified ponds 2 and 3 as having “poor” suitability for GCN; and pond 4 as having “below average” suitability for GCN. Meanwhile, it was decided that pond 1 appeared to be an extension of pond 2, likely to flood in extreme conditions, particularly in the winter months, if at all.

Following this, further survey work for ponds 2 and 4 was requested by Warwickshire County Council (WCC) as part of the planning process in the form of a presence/likely absence survey; either through conventional methods or eDNA sampling within the GCN breeding season.

Environmental DNA (eDNA)

Environmental DNA (eDNA) is nuclear or mitochondrial DNA that is released from an organism into the environment. Sources of eDNA include secreted faeces, mucous, gametes, shed skin, hair, and carcasses. In aquatic environments, eDNA is diluted and distributed in the water where it persists for 7–21 days, according to the detection limits of qPCR approaches and associated fragment sizes, and depending on environmental conditions (Biggs *et al.*, 2014). This can be tested for by taking water samples from the pond and analysing using PCR techniques under laboratory conditions.

On the 9th of June 2022, twenty water samples were taken from the perimeter of pond 4 in accordance with standard methodology for field sampling of GCN DNA set out by DEFRA and the Freshwater Habitats Trust (Biggs *et al.*, 2014) by suitably experienced and licensed ecologist George Burton (Director, ACIEEM, GCN licence number: 2015-18862-CLS-CLS). The sampling kit was returned by courier to SureScreen Scientifics on the 9th of June 2022 and arrived at the laboratory for testing on the 10th of June 2022.

Limitations

Pond 2 remained dry, as was the possibly previously contiguous pond 1, so this was not subject to eDNA sampling; and only 30% of pond 4 was accessible for surveying due to dense vegetation cover, however the use of a 6m pole enabled samples to be taken from otherwise inaccessible areas.

There were no other significant limitations at the time of survey.

Results

Weather conditions

The weather conditions during the Site visit on the 9th of June 2022 were as follows:

Table 1: Weather conditions during the site visit.

Parameter	Recorded Figure
Temperature	17°C
Cloud cover	75%
Precipitation	Dry
Wind speed (Beaufort scale)	3 – Gentle Breeze

Pond 2

Pond 2 was located to the north of the Site, between a Site fence and an adjacent access route. At the time of survey, the pond was dry (Photos 1-3). Therefore, eDNA sampling could not be completed.



Photo 1: Pond 2.



Photo 2: Pond 2.



Photo 3: Pond 2.

Pond 4

Pond 4 was located against the Site's eastern boundary and was sampled for eDNA. The water samples tested by Surescreen Scientifics laboratory returned a "negative" result for the presence of GCN (Figure 4). This suggested that GCN were unlikely to be using Pond 4 during the 2022 breeding season. Additionally, the pond had been recorded as unsuitable for GCN on two separate previous occasions via HSI calculations (see previous reports referred to above). Therefore, it was anticipated that the proposed works would not have any significant, negative impact to this species.

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS (*TRITURUS CRISTATUS*)

SUMMARY

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

RESULTS

Date sample received at Laboratory: 10/06/2022
Date Reported: 13/06/2022
Matters Affecting Results: None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
4410	Pond 4 - Coventry Stadium		Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: ForensicEcology@surescreen.com

Reported by: Esther Strafford

Approved by: Esther Strafford

Figure 3: eDNA results of Pond 4.

Review and Conclusions

Pond 2 remained dry; and Pond 4 returned a “negative” result for GCN eDNA. In addition to this, the two HSI assessments carried out in June 2020 and October 2021, both identified Pond 2 as having “below average” and “poor” suitability to support GCN respectively whilst Pond 4 was given “below average” suitability on each occasion. Furthermore, at the time of surveying, no great crested newts, efts, or eggs were observed.

The Site maintains suitable foraging habitat for mature GCNs, particularly to the north where New Close Woods meets the northern Site boundary.

The trees along the eastern Site boundary could act as a commuting corridor, allowing amphibians to travel north towards more suitable terrestrial habitat in New Close Wood for hibernation, foraging, and/or shelter purposes. However, since no suitable breeding habitat was identified where the development is to take place, and ponds 2 and 4 were considered to have “poor” and “below average” suitability for GCN respectively; no GCN populations are expected to be present. It was therefore concluded that GCN were unlikely to be present on Site, and this species was unlikely to be affected by the proposed redevelopment of the Site.

No further survey work for this species was recommended and the results of this survey may be considered valid for a period of up to two years, after which an updated survey may be required. Appropriately timed precautionary measures to deter GCN from entering the Site before and during any potentially disturbing works should be employed and may include methods such as strimming, cutting, and regular mowing to make the development area undesirable. Additionally, it was considered possible that other common amphibian species such as common toad, common frog and smooth newt may occasionally be found on Site; and thus, the recommendations below allow for sensitive working methods to ensure that individuals are not unnecessarily harmed during works.

Recommendations and Mitigation

No further survey work is recommended at this stage; however, care should be taken when commencing work on Site. As such, precautionary principles should be implemented to ensure no possible risk to amphibians, including GCN, is caused:

- A suitably qualified ecologist must provide a toolbox talk to contractors in advance of any associated works commencing, and oversee the hand searching of debris, materials and/or welfare unit as/if they are lifted.
- Materials to be used on Site must not be stored on the ground adjacent to the development within the Site's boundary where they could become places of shelter for amphibians. If essential to store the materials nearby, they should be stored on hard standing or on pallets which should be placed at least 6m away from the works.
- Any excavations which will not be left in a tidy backfilled state overnight must be left trimmed, and with a rough-surfaced, 200mm wide board of untreated timber present, set at max. 45° angle from base to top to enable any animals falling-in to escape. In addition to this, any pipes over 120mm in diameter should be capped off at night to prevent animals entering.
- If at any point, a GCN is found, work must cease immediately, the animal protected from harm, and a suitably qualified ecologist contacted for advice on how best to proceed. GCN can only be moved by a licenced ecologist to a secure location.
- Should any other protected species be discovered before or during the works, Ecolocation or the local office of Natural England should be contacted for advice.
- Should any non-protected species be discovered on Site, these should be carefully moved by gloved hand from the development site, unharmed, to an area to be left undisturbed by the works.
- The above should be planned with the ongoing advice of a suitably qualified ecologist prior to commencement of any works

I trust the above is suitable for you use at the present time; however, please do not hesitate to contact me if you have any questions or queries.

Yours sincerely,

G. Retallick

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Assistant Ecologist



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