

Epping Forest (Site 1)

Overview of site works:

- Pond restoration
- Tree works
- Hibernacula creation

Site Background:

Epping Forest is London's largest open space and a registered charity managed by the City of London. Located in the north of the city, straddling the border between Greater London and Essex, the Forest covers approximately 2,400 hectares with a variety of habitats including woodland, grassland and open water. It is of national and international conservation importance with over 50,000 ancient pollard trees and 100 lakes and ponds. Two thirds of the forest has been designated a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC). Epping Forest is accessible to the public and there are a number of visitor centres. It is frequently used for walking, dog walking and cycling, among other activities. The London T.O.A.D. project will focus on the Leyton Flats area, which is easily accessible and offers car parking and a café.

The water bodies currently present within the Leyton Flats area consist of: Hollow Pond, a large water body used for fishing which has minimal marginal or aquatic vegetation present; Eagle Pond, which does not allow fishing but does support swans and other waterfowl; Dog Pond, which has become significantly overgrown with *Typha* leaving virtually no open water and also contains *Crassula helmsii*, a fast-spreading non-native invasive species; and Cow Pond, which at the time of site visit in September was completely dry and significantly overgrown with vegetation. These waterbodies are shown on the map below (Fig. 1).



Fig. 1: Google Maps image showing current waterbodies on site

Epping Forest is known to support populations of Common Toad (*Bufo bufo*), although due to the previously 'common' status of the species it has never been surveyed in sufficient detail to establish

exact population sizes. Amphibian survey data for the Leyton Flats area is limited. Surveys of Cow Pond in 1999 and 2013 recorded Smooth Newt (*Lissotriton vulgaris*) but no other amphibian species. Toad records are present for Hollow Pond, with a single adult male recorded in 1999 and five adults recorded in 2013.

There is currently no management plan for the Leyton Flats area as a whole. Parts of the site to the East of Hollow Pond are under HLS management for acid grassland (restoration of grassland for target features) and scrub management (HC16 – restoration of successional areas of scrub), with the majority of the work for scrub management already completed and funding coming to an end in October 2018.

There are two existing volunteer groups active at the site: Epping Forest Conservation Volunteers (EFCV) and WREN group. The EFCV attend the site weekly and have been carrying out habitat management tasks within the Forest for the past 40 years. The WREN group are based in Wanstead and undertake occasional tasks in the area. These groups will benefit from our Toad focused volunteer training programme which will enable them to manage the restored pond and carry out monitoring surveys in the future.

Site proposals:

Common Toad have been recorded on site and breeding populations of the species are known to be present within the wider Epping Forest area, however the Leyton Flats area does not currently offer any ideal breeding habitat for this species. The Common Toad prefers to breed in large, deep ponds which do not dry up. Toads will coexist with fish much better than some other amphibian species, however the current usage of Hollow Pond for fishing and other recreational activities means that there is significant pressure put on the waterbody. It is also a popular site for dog walking and likely that dogs enter the pond at various points which will cause disturbance and reduce the ability of aquatic plant species to establish. The presence of waterfowl, which can predate the Common Toad and other amphibians, on Eagle Pond reduces its suitability for breeding, Dog Pond does not currently have the necessary depth of water and open areas required for a suitable breeding pond and Cow Pond is dry.

Cow Pond was originally 6900sqm in size, however during a site visit in September 2017 it was found to be completely dry and overgrown. Figures 2 – 4 below show aerial views of Cow Pond in 1992, 2003 and 2006 respectively (images belong to City of London, provided to Froglife by Andy Froud). Over the course of many years succession has occurred and this has caused the pond to dry up, no longer providing suitable breeding habitat for the Common Toad or other amphibian species.



Fig. 2: Aerial photo of Cow Pond, 1992



Fig. 3: Aerial photo of Cow Pond, 2003



Fig. 4: Aerial photo of Cow Pond 2006

The photos below show Cow Pond as it was during a site visit in September 2017:



Fig. 5: Cow Pond, showing current state of overgrown vegetation



Fig. 6: Cow Pond, completely dry in Sept 2017



Fig. 7: Overhanging trees around Cow Pond

Restoration of Cow Pond will be achieved as follows:

- Hand felling and removal of selected scrub and trees surrounding the pond – largely Willow (*Salix spp.*) – to increase light, reduce leaf fall into the pond and halt succession
- The resulting brash will be piled to create hibernacula, offering additional hibernation habitat
- Prior to any excavation works existing vegetation within the pond area will be cut to a height of 10cm to reduce its suitability for amphibian species
- An experienced contractor will use a mechanical excavator to restore the pond basin to a new size of 50m x 75m with a maximum depth of 2.5m
- All spoil will remain on site, being used to create a basking bank and cover brash piles to provide hibernacula
- Once these works are completed the pond will be left to fill naturally with water and colonise with plant species already present in the seed bed

Strategy:

Froglife will coordinate the project, in full consultation with Epping Forest site staff, and all works will be supervised by the Froglife Ecologist. Prior to commencement of any works a torchlight survey of all waterbodies within Leyton Flats will be carried out, including a walkover of the area which previously formed Cow Pond. This will provide up-to-date baseline data for the site. Following completion of the works Froglife staff will revisit the site in year 1, 3, 5 and 10 to carry out monitoring surveys and assess management requirements. The site staff and volunteers will be provided with training on managing the restored habitats and on amphibian survey techniques to enable them to manage and monitor the site in the future. Further details of the training programme can be found in [Appendix 8](#).

Budget:

The total cost of the restoration and habitat improvement works at Epping Forest will be £30,050 + VAT