Assessment of Great Crested Newt and Smooth Newt Populations at Bar Hill Crematorium

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Foreword

Great crested newts and smooth newts are two of the three UK's native newt species (Arnold, 1995; Avery, 1968). The smooth newt is the UK's most common newt species, with them being widespread throughout the whole of the British Isles; and commonly occurring in garden ponds. The great crested newt have suffered a massive decline over the past 50 years due to habitat destruction (Rennap *et* al., 2010) and so is legally protected under the 1981 Wildlife and Countryside Act and the 1994 Countryside Regulations (Edgar *et al.*, 2005), as well as under EU law.

Prior to and during the project at the crematorium, the authors were working on a similar project with Paul Furnborough (PF) (FrogLife) at Hampton Nature Reserve, Peterborough. This provided the gravitas needed to complete surveys at the crematorium with volunteers, under PF's great crested newt (GCN) license. Both authors are members of the Cambridgeshire and Peterborough Reptile and Amphibian Group (CPARG), with SJRA being on the CPARG committee.

Introduction

Surveys were undertaken in order to help assess the population sizes of great crested newts (*Triturus cristatus*) and smooth newts (*Lissotriton vulgaris*) at the site. The investigation was carried out after Guy Belcher (GB) (Cambridge City Council Nature Conservation Officer) contacted CPARG (Cambridgeshire and Peterborough Amphibian and Reptile Group) after potentially sighting great crested newts in one of the concrete lined ponds at the crematorium. GB had also told us that he had previously seen smooth newts in the ponds.

As the great crested newt has such a high level of protection it is important to do as much as possible to help the remaining populations (Olham *et al.*, 2000). Amphibian populations are declining around the world and like the great crested newt, the most common documented causes for such declines are susceptibility to multiple fungal diseases and habitat loss (Brito, 2008).

The smooth newt does not have the same levels of legal protection as the great crested newt but their numbers have still declined slightly in recent years for similar reasons to their larger cousins. This decline in local populations of amphibians may be explained by acidification of breeding ponds which leads to failed reproduction (Beebee & Griffiths, 2005).

Figure 1: Great Crested Newt juvenile from the pre-survey visit, note its deformed extremities.