

## GCN Survey: Questions ecologists should be asking.

What's your view?? Let us know at [admin@gcntraining.co.uk](mailto:admin@gcntraining.co.uk) or on [LinkedIn](#)

1. Does licensed bottle trapping, undertaken in accord with the English Nature Great Crested Newt Mitigation Guidelines 2001 (EN GCN MG) aquatic survey methodology, result in previously unidentified injury and distress to the newts captured.
2. What was the original rationale/research used to inform the adoption of bottle trapping as an acceptable great crested newt (GCN) aquatic survey method in the UK.
3. Is there any existing empirical and/or anecdotal evidence indicating likely newt injury, distress, or harm arising from the use of bottle trapping as a survey method.
4. Why does Natural England (NE) continue to advise that bottle trapping should be undertaken as a primary GCN survey/monitoring method given that there are alternatives available i.e., eDNA survey, torch survey, egg search, box traps or, netting.
5. Why is it deemed acceptable to deploy bottle traps with no air bubble for up to 12 hours (refer to EN GCN MG page 57 para 8.6.3)
6. How much oxygen is available to captured newts within an air bubble created when a bottle trap is deployed.
7. What is the dissolved oxygen saturation level of the water held within a bottle trap.
8. How much oxygen does an individual newt require/use to survive when it is caught in a bottle trap.
9. What factors influence the initial oxygen levels and subsequent oxygen use/reduction rates in a bottle trap during the period it is deployed i.e. temperature, time, newt activity, number of newts and/or other species caught.
10. At what point does the oxygen level in the air bubble or dissolved in the water within a bottle trap fall and/or the bodily waste levels rise to a level that would be likely to cause captured newt/s to become distressed or injured or unconscious then suffocate/die or trigger Hepatic Oxygenogenesis.
11. What is Hepatic Oxygenogenesis (refer to pages 6, 89 & 90 Newts in your Pond and Garden Second Edition 2023 James Grundy and The Open Zoology Journal 2009 2 1-7 11874-3366/09 2009 Bentham Open).
12. Why has specific reference within the EN GCN MG to dead or unconscious GCN not received greater prominence or triggered greater debate among ecologists and could such events potentially relate directly to Hepatic Oxygenogenesis (refer to EN GCN MG page 57 para 8.6.3).
13. What, if any, published GCN survey licence return data is available from NE or Natural Resources Wales (NRW) or NaturScot relating to newt deaths/injury and/or the suspension of licenced bottle trapping surveys.
14. What, is the value of establishing a Small, Medium or Large GCN population size class in the context of development related mitigation projects, given that GCN population size survey accuracy variance ranges between 2% and 30% (refer to EN GCN MG page 27: para 5.8.3.1).

15. Given that GCN eDNA survey, the four NE GCN licensing policies and the GCN District Level Licensing scheme can be used to formulate appropriate mitigation/compensation (without bottle trapping) why is the use of bottle trapping still undertaken and widely advocated.
16. What are the views official/unofficial of other organisations and professionals regarding the use of bottle traps.
17. What are the animal welfare responsibilities associated with using bottle traps and the legal implications, under current UK Legislation, of causing injury, distress, or harm to captured newts and/or other species in a bottle trap.
18. What would be the implications, if any, of abolishing or restricting the use of bottle traps and/or redefining the methodology related to their use as part of GCN aquatic surveys.