

Land South of St Stephens Church, Hamsland, Horsted Keynes, West Sussex

Macar

Great Crested Newt Non-Licensed Method Statement

Pursuant to Condition 10 of Planning Permission DM/24/1253

Report Ref: 14252.GCNMethodStatement.vf1

Version	Created By	Reviewed By	Approved By	Date
VF	Kirsty Lockwood	Adam Dixon	Rob Whitlock	21/11/2025
VF1	Alice Desborough	Adam Dixon	Rob Whitlock	12/12/2025

This report has been prepared by the following:



Kirsty Lockwood BSc (Hons)
Assistant Ecologist



Alice Desborough BSc (Hons)
Ecologist

This report has been reviewed by the following:



Adam Dixon BSc (Hons), MSc, ACIEEM
Senior Ecologist

This report has been approved by the following:



Rob Whitlock BSc (Hons), MRes, ACIEEM
Associate Director

COPYRIGHT

The copyright of this document remains with Ecology Solutions. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Ecology Solutions.

PROTECTED SPECIES

This report contains sensitive information relating to protected species. The information contained herein should not be disseminated without the prior consent of Ecology Solutions.

Contents

1. Introduction	1
2. Ecological Evaluation	3
3. Legislation	5
4. Impact Assessment	6
5. Summary and Conclusions.....	10

Plans

PLAN ECO1	Site Location and Ecological Designations
PLAN ECO2	Ecological Features
PLAN ECO3	Pond Locations
PLAN ECO4	Amphibian and Reptile Constraint Areas

Appendices

APPENDIX 1	Tree Protection Plan, Drawing Number: J55.79/03, REV C, 05/11/2025, (Broad Oak Tree Consultants Limited - Extracted from Arboricultural Method Statement, Ref: J55.97)
APPENDIX 2	Amphibian Species Identification - Amphibian and Reptile Conservation (ARC) and ARG UK (2019)

1. Introduction

1.1. Background

- 1.1.1. Ecology Solutions was commissioned in October 2025 by Macar to produce a non-licensed method statement with regard to Great Crested Newt *Triturus cristatus*. This document supports the discharge of Condition 10 of the planning approval (Planning ref: DM/24/1253) for the development south of St. Stephen's Church, Hamsland, Horsted Keynes, hereafter referred to as the site (see Plan ECO1).
- 1.1.2. Ecology Solutions have produced various documents to support the original application by Rydon Homes (ref no: DM/20/4692) including an Ecological Assessment (8244.EcoAss.vf1, December 2020), Biodiversity Net Gain Assessment and Reptile Mitigation Strategy (8244.BNG and Reptile Mitigation.vf2, July 2022), Onsite Habitat Management Measures (8244.OnsiteHabitatManagement, May 2023) and Offsite Habitat Management Measures (8244.OffsiteHabitatManagement, May 2023). The planning application was subsequently granted in August 2023. A Reptile Mitigation Strategy was also completed in April 2024 (8244.Reptile Mitigation Strategy.vf) as part of the Reserved Matters stage.
- 1.1.3. The site has since been acquired by Macar, with the need for ecology related planning conditions to be discharged, in addition to discharging conditions relating to the Section 106 agreement of the Town and Country Planning Act 1990 relating to ecology.
- 1.1.4. The development proposal for the site includes the construction of 30 dwellings, with 30% designated as affordable housing. The development will feature a mix of unit types, including one-bedroom apartments and two-, three- and four-bedroom houses.
- 1.1.5. This method statement must be read alongside the Construction Environmental Management Plan (CEMP) provided separately. It details the mitigation measures to be adopted during the construction phase of the development. Their implementation will minimise the risk of adverse impacts occurring on Great Crested Newts that may be present locally and avoid any offence occurring in relation to this species.
- 1.1.6. Condition 10 is as follows:

Prior to the commencement of the development a Non-Licensed Great Crested Newt Precautionary Method Statement shall be submitted to and approved in writing by the local planning authority. This will contain precautionary mitigation measures and/or works to reduce potential impacts to Great Crested Newt during the construction phase. The measures and/works shall be carried out strictly in accordance with the approved details and shall be retained in that manner thereafter.

Reason: To conserve protected and Priority species and allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 (as amended) and s40 of the NERC

Act 2006 (Priority habitats & species) and to accord with Policy DP38 of the District Plan and HK10 of the Neighbourhood Plan.

1.2. Site Characteristics

- 1.2.1. The site comprises a single grassland field with boundary hedgerows and treeline (see Plan ECO2). It is located to the south of Horsted Keynes, West Sussex and is bordered to the north and east by existing housing and a church, with further grassland fields to the south and west.

2. Ecological Evaluation

2.1. Habitat Suitability

- 2.1.1. The site lies within an amber Great Crested Newt Impact Risk Zone, which encompasses areas of potentially suitable habitat for the species.
- 2.1.2. There are no ponds located within the site. The closest pond lies within 250m of the site boundary (Pond P1). This pond is located approximately 215m southeast of the site and is separated by a small road and grazed grassland. A second pond (P2) is located just over 250m from the site and is located approximately 70m from Pond P1. The locations of these ponds are shown on Plan ECO3.
- 2.1.3. A reptile translocation exercise was conducted within the site in October and November 2024. Results of the translocation exercise are summarised below.
- 2.1.4. During this exercise, a total of 18 Slow Worm *Anguis fragilis* and one Common Toad *Bufo bufo* were relocated to the receptor site, present along the eastern site boundary. Subsequently, a destructive search of the majority of the site was undertaken, systematically removing the habitat previously present. Amphibian and reptile exclusion fencing (hereafter referred to as 'reptile fencing') was established around the site boundaries prior to the translocation exercise, to prevent any reptiles and/or amphibians from re-entering the site. A walkover survey conducted in November 2025 found the reptile exclusion fencing intact and in good condition. It still represents an effective dispersal barrier to both reptiles and Great Crested Newts.
- 2.1.5. As such, much of the grassland within the site, that was previously considered to be suboptimal for Great Crested Newts due to regular management, has been removed as part of the translocation exercise. The areas outside of the existing exclusion fencing and the established receptor area still provide suitable habitat for Great Crested Newts. The hedgerows and tree belt provide some suitable terrestrial habitat, offering limited shelter and resting opportunities for newts, but these are situated beyond the reptile / amphibian fenceline.

2.2. Survey Results

- 2.2.1. Habitat Suitability Index (HSI) assessments were conducted on both ponds in 2019, which concluded a score of 0.8 for Pond P1 indicating the pond is of excellent suitability for Great Crested Newt. A score of 0.62 was obtained for Pond P2 indicating the pond is of average suitability for Great Crested Newt.
- 2.2.2. Pond P2 was subject to an environmental DNA (eDNA) assessment in May 2019 which was returned as negative for the presence of Great Crested Newt. Population size class surveys were undertaken of Pond P1 in May and June 2019 and a small population of Great Crested Newt was recorded (a peak count of 3 adults in any one survey). Updated surveys were attempted in 2023, however, access was not granted from the landowner and therefore such surveys could not be undertaken. It is considered likely that a small population

of Great Crested Newts is still present within Pond P1 and the species absent from Pond P2.

- 2.2.3. Given the off-site location of these ponds, the largely suboptimal terrestrial habitat within the site, completion of a translocation exercise and the presence of exclusion fencing on the western, southern and eastern site boundaries it is considered unlikely that Great Crested Newts would be present within the site.
- 2.2.4. Nonetheless, the development proposal has the utmost regard for Great Crested Newts. A series of mitigation measures are detailed within this method statement that will be adopted during the construction phase of the development. Their implementation will minimise the risk of adverse impacts occurring on any locally present Great Crested Newts and ensure compliance with the legal protections afforded to this species, even in the unlikely event of their presence.
- 2.2.5. This Non-licenced Method Statement approach is considered suitable in the context of the site, and it is considered that entry into the local District Level Licensing (DLL) Scheme is not required to provide relevant compensation. If the species were to be found on-site ahead of or during construction works, works would stop immediately and a site-based mitigation licence sought from Natural England. Alternatively, the scheme would opt into the NatureSpace DLL scheme.

2.3. **Background Records**

- 2.3.1. To compile information on amphibians within the site's locality, Ecology Solutions contacted Sussex Biodiversity Record Centre (SBRC). The data search returned no records of Great Crested Newt from within the site itself. The closest record returned was located approximately 1.2km south of the site in 2014.
- 2.3.2. The presence of Great Crested Newt records in the surrounding landscape is unsurprising, given that the site lies within an amber Great Crested Newt Impact Risk Zone and is bordered by suitable habitat to the south.

3. Legislation

- 3.1. Great Crested Newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence to:
- Deliberately kill, injure or take (capture) Great Crested Newts;
 - Deliberately disturb Great Crested Newts in such a way as to: -
 - (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
 - (ii) affect significantly the local distribution or abundance of the species to which they belong;
 - Damage or destroy any breeding or resting place used by Great Crested Newts; and
 - Intentionally or recklessly obstruct access to any place used by Great Crested Newts for shelter or protection.
- 3.2. European Protected Species (EPS) licenses are available from Natural England in certain circumstances, and permit activities that would otherwise be considered an offence.
- 3.3. Based on the results of previous surveys and professional judgement, it is considered unlikely that Great Crested Newts are present within the site and therefore a licence is not considered necessary to facilitate the proposed development. As detailed above, if the species were to be found on-site ahead of or during construction works, works would stop immediately and a site-based mitigation licence sought from Natural England or the scheme would opt into the local DLL scheme.

4. Impact Assessment

- 4.1. Great Crested Newts are known to travel up to 1 km in search of suitable breeding ponds; however, typical dispersal distances are generally within 500 m, depending on the availability of suitable terrestrial habitat and the absence of significant dispersal barriers. Given the limited suitability of habitats within the site, combined with the absence of on-site records, the presence of Great Crested Newt only in off-site locations, and the presence of on-site exclusion fencing, it is considered unlikely that Great Crested Newts disperse onto or rely on the site for any critical aspect of their life cycle.
- 4.2. Given that the nearest pond (P1) with known Great Crested Newt presence is located approximately 215m southeast of the site, it is considered unlikely that Great Crested Newts would be present within the area subject to construction works. Nonetheless, Natural England's Rapid Risk Assessment Tool indicates that an offence is 'highly unlikely' as a result of the proposed construction works, due to the distance from the known breeding pond.
- 4.3. A translocation exercise was conducted in October and November 2024 alongside a destructive search of the site. Regarding amphibians, a single Common Toad was translocated as part of the exercise. Reptile exclusion fencing was installed across the site prior to the translocation exercise to stop amphibians and / or reptiles from re-entering the site. The reptile exclusion fencing is to be moved into alignment with the identified Root Protection Areas (RPAs) of existing trees, as identified by the project arboriculturist (see Plan ECO4). These works will adopt a precautionary working method as detailed below.
- 4.4. The proposed development will involve the loss of species-poor modified grassland, which provides only low-quality terrestrial habitat and is considered suboptimal for amphibians. The retention of boundary hedgerows, however, will maintain potential dispersal corridors across the wider landscape (once the development is complete and reptile exclusion fencing removed). In addition, proposed landscaping will provide areas of modified and neutral grassland habitat, improving structural diversity and foraging opportunities, in addition to enhancing the northern retained hedgerow through bolster planting and gap filling, thus increasing its overall suitability for amphibians. These measures will ensure continued habitat connectivity and are unlikely to adversely affect the local Great Crested Newt population or its conservation status.

4.5. Location and Layout of Proposed Works

- 4.5.1. The development proposal includes the removal of vegetation within the site that lies within 250m of Pond P1, with further areas of vegetation to be removed being further than 250m from the waterbody. Due to the presence of reptile exclusion fencing across the site it is considered highly unlikely that any amphibians will be present within the site.
- 4.5.2. The proposed works will retain the majority of on-site boundary vegetation and manage areas of enhanced grassland as rough tussocky grassland to provide opportunities for reptiles post-development.

- 4.5.3. Prior to the construction phase of the development, the reptile exclusion fencing will be moved and aligned with the RPAs of existing trees. This will allow for a single continuous barrier that safeguards both retained trees, in addition to reptiles and amphibians. This exercise will result in new areas of suitable habitat from outside of the existing reptile exclusion fencing, where reptiles and amphibians may be present, to within the reptile exclusion fencing, once it has been realigned. As such, this exercise will adopt a precautionary working method as detailed below.

4.6. **Timing and During of Works**

- 4.6.1. The proposed works will be undertaken during daylight hours to reduce any potential for encountering Great Crested Newts which may be present within any terrestrial habitat.

4.7. **Precautionary Working Methods**

Movement of Reptile Exclusion Fencing

- 4.7.1. The reptile exclusion fencing will be repositioned to align with the RPAs of existing trees and retained boundary vegetation, as detailed by the project arboriculturist (see Appendix 1 and Plan ECO4). Although the location of existing reptile fencing is already broadly consistent with the identified RPAs, there remains a small risk of encountering reptiles or amphibians when the reptile fencing is realigned. Therefore, all works will follow a precautionary working method.
- 4.7.2. Realignment works will be undertaken under the supervision of an Ecological Clerk of Works (ECoW). The ECoW will begin by carrying out a fingertip search of the grassland areas to be brought within the reptile exclusion fencing (reptile and amphibian exclusion zone). If any hibernating reptile or amphibian is found, all works will stop immediately and will only resume during the active reptile season (which is April to September inclusive).
- 4.7.3. Should no reptiles or amphibians be found during the fingertip search, the areas of grassland to be brought within the realigned reptile fenceline, will then be subject to a habitat manipulation exercise, using hand tools, such as a strimmer, thereby making the areas unsuitable for reptiles and amphibians (the grass will be cut to 100mm).
- 4.7.4. Following this, the reptile exclusion fencing shall be affixed to the outer side of the Heras fencing which is proposed to delineate the RPAs. The sandbags present on-site will then be moved around the feet of the Heras fencing to ensure that it is an effective exclusion barrier. The ECoW will sign-off on the works once completed.
- 4.7.5. In areas where boundary vegetation is absent, such as along the northern site boundary, the reptile exclusion fencing will be kept in place to prevent reptiles and amphibians from re-entering the central exclusion area and to maintain an effective exclusion barrier around the site.

Construction Phase Works

- 4.7.6. Potentially damaging construction activities include vegetation clearance, soil compaction, impact piling, plant, machinery and vehicle operation, general construction works, lighting, noise, dust and surface run-off pollution.
- 4.7.7. To mitigate against any potential offences that may occur during the construction phase of the development a number of precautionary measures are detailed below.
- Construction materials to be stored at slight elevation to ensure newts do not use these areas for refuge during construction;
 - Reptile exclusion fencing to remain in place during construction works to prevent newts from venturing back onto the site;
 - Contractors briefed on the potential presence of Great Crested Newt, provided with identification sheets for Great Crested, how to minimise disturbance and the necessary response if any Great Crested Newt were found; and
 - If Great Crested Newts were found, works will stop immediately, and an ecologist contacted for advice. A licence would then be required to continue works. No contractor is to handle the animal as this would constitute an offence.
- 4.7.8. The majority of grassland outside of the reptile exclusion fencing is to be retained and enhanced as part of the development proposal. These areas will be designated a Biodiversity Protection Zone (BPZ) (see Plan ECO4). Should any areas of suitable grassland, outside of the realigned reptile/amphibian exclusion fencing be removed, they will be subject to a localised passive displacement exercise during April to September in favourable weather conditions. This exercise would involve a two-stage habitat manipulation with grass cuts undertaken using a hand strimmer with an initial cut of 200mm followed by a cut of 100mm 24 hours later. All cuttings and other debris will be removed from the area to be impacted to avoid inadvertently creating places of refuge. All works will be undertaken under the supervision of an ECoW.
- 4.7.9. Once the final cut has been undertaken a destructive search will commence. As part of the destructive search, topsoil will be stripped in a systematic manner using a small excavator with a flat edged bucket to a depth of approximately 50mm to 100mm.
- 4.7.10. Any spoil created as a result of the works will be removed from the construction area and stored in an elevated position off the ground or removed from the surrounding area into areas of unsuitable habitat, such as hardstanding, to minimise the risk of offering new refugia opportunities for Great Crested Newts.
- 4.7.11. Following the completion of a destructive search, works would only proceed once the ECoW considers that no further opportunities remain within the construction area.

- 4.7.12. If any reptiles or amphibians (other than Great Crested Newts) are encountered within the construction area, they will be carefully removed to suitable habitat outside of the construction area by the ECoW. In this instance, the receptor area will be the adjacent tussocky grassland in the east of the site.
- 4.7.13. The measures proposed align with the Reptile Mitigation Strategy prepared for the initial planning application for the site, which has been reviewed and approved by the Local Planning Authority.
- 4.7.14. In addition, all proposed works will be in accordance with all relevant Pollution Prevention Guidelines (PPG) published by the Environmental Agency (EA) to ensure there are no impacts to the known breeding pond as a result of the construction of the site.

Site Vigilance During Unsupervised Works

- 4.7.15. All site staff will be made aware of their responsibilities if a Great Crested Newt is recorded during site works, to avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended) and under the Habitats Regulations 2017.
- 4.7.16. If a Great Crested Newt is recorded within the reptile exclusion fencing zone, all works must cease immediately, and a suitably qualified and licenced ecologist contacted for advice. A Natural England EPS licence may be required to allow work to continue, which would cause delays to proposed works.
- 4.7.17. An identification sheet for Great Crested Newts is provided at Appendix 2, to ensure that all contractors are aware of the key physical characteristics of this species (see Appendix 2).

Reptiles and Other Amphibian Species

- 4.7.18. If any reptiles or other amphibian species are encountered within the construction area during the site works, they will be carefully removed, following guidance from the appointed ecologist to the receptor area along the eastern site boundary.
- 4.7.19. No additional habitat removal other than that stated within this method statement will occur without the prior approval from the assigned ecologist and a further method statement being provided.

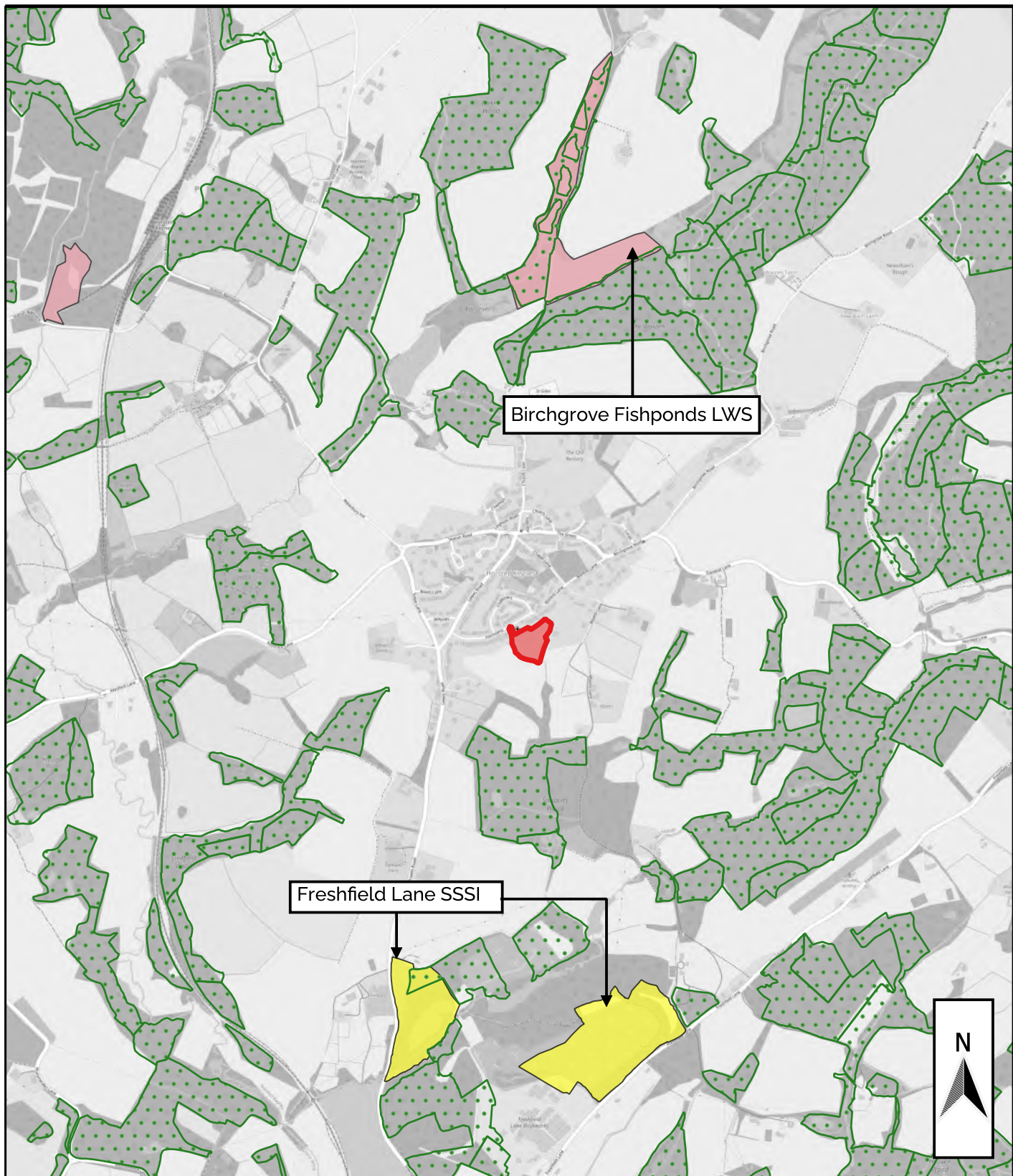
5. Summary and Conclusions

- 5.1. Ecology Solutions has completed a Great Crested Newt Non-Licensed Method Statement to be read alongside the CEMP for the land south of St. Stephens Church, Hamsland, Horsted Keynes, West Sussex. This is pursuant to Condition 10 of 'DM/20/4692'.
- 5.2. The method statement details the precautionary and mitigation measures to be adopted during the realignment of the on-site reptile exclusion fencing and the construction phase of the development. Their implementation will minimise the risk of adverse impacts on any Great Crested Newts that may be present locally, despite the site being largely suboptimal for the species and no records of Great Crested Newts being present on-site. Any off-site populations are unlikely to disperse regularly onto the site due to habitat limitations and dispersal barriers.
- 5.3. A translocation exercise previously undertaken at the site found no Great Crested Newts within the site boundary. Reptile / amphibian exclusion fencing was subsequently installed across the site, to prevent any reptiles and / or amphibians re-entering the site. As such, amphibian and reptiles are considered absent from the areas within the exclusion fencing. The realignment of the reptile exclusion fencing will follow a fingertip search and subsequent habitat manipulation prior to the fencing being moved, to ensure any reptiles and amphibians remain absent from within the fenced works area.
- 5.4. Should any further suitable vegetation outside of the realigned exclusion fencing be removed, this will be subject to a passive displacement exercise (April to September inclusive) and only permitted under the supervision of an ECoW who will re-locate any identified amphibians or reptiles as part of these works. This will include a cutting regime of the grassland, followed by a destructive search.
- 5.5. Overall, this non-licensed approach is considered appropriate for the context of the site. Retention of hedgerows, progressive habitat clearance, and landscaping enhancements will maintain connectivity and reduce the risk of disturbance. Entry into the local NatureSpace District Level Licensing (DLL) Scheme is not required to provide relevant compensation. Condition 10 of '24/01959/RESMAJ' can therefore be discharged.

Plans

PLAN ECO1

Site Location and Ecological Designations



KEY:

- SITE BOUNDARY
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- LOCAL WILDLIFE SITE (LWS)
- ANCIENT WOODLAND



Cokenach Estate
Barkway | Royston
Hertfordshire | SG8 8DL

info@ecologysolutions.co.uk

14252: LAND SOUTH OF ST STEPHENS
CHURCH, HAMSLAND, HORSTED
KEYNES, WEST SUSSEX

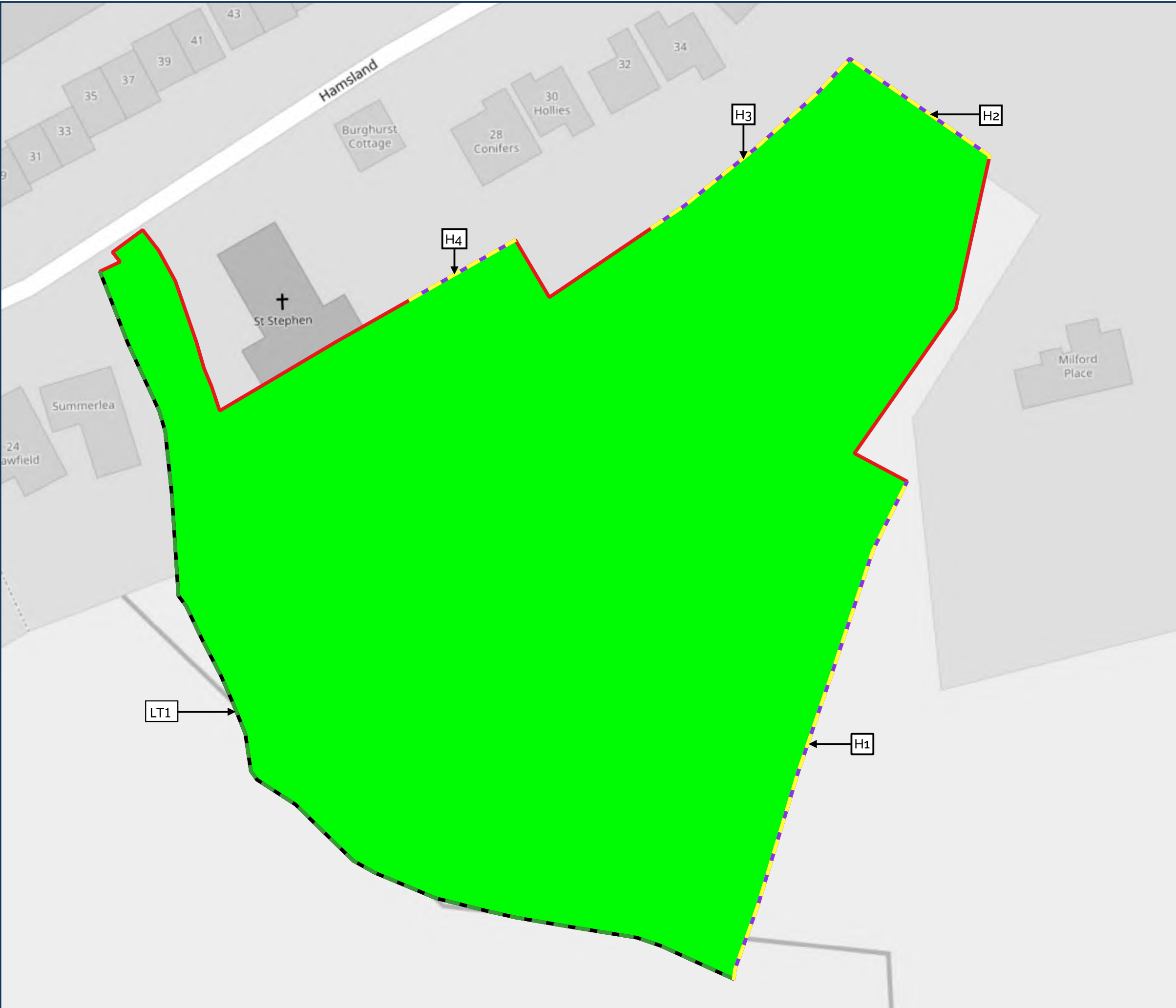
PLAN ECO1: SITE LOCATION AND
ECOLOGICAL DESIGNATIONS

Rev: A
Nov 2025

PLAN ECO₂

Ecological Features

Based upon the Ordnance Survey map with permission of the Controller of His Majesty's Stationary Office, © Crown Copyright. Ecology Solutions Ltd, Cokenach Estate, Barkway, Royston, Hertfordshire, SG8 8DL 100044628



KEY:

SITE BOUNDARY

HABITATS

MODIFIED GRASSLAND

HEDGEROWS

LINE OF TREES

NATIVE HEDGEROW

Habitats remain consistent with those identified during the initial site visit in March and April 2019.



Cokenach Estate,
Barkway, Royston
Hertfordshire, SG8 8DL
info@ecologysolutions.co.uk

14252: LAND SOUTH OF ST STEPHENS
CHURCH, HAMSLAND, HORSTED
KEYNES, WEST SUSSEX

PLAN ECO2:
ECOLOGICAL FEATURES

Rev: A
Nov 2025

PLAN ECO₃

Pond Locations



- KEY:**
- SITE BOUNDARY
 - 250M BUFFER ZONE
 - 500M BUFFER ZONE
 - PONDS



Cokenach Estate,
Barkway, Royston
Hertfordshire, SG8 8DL
info@ecologysolutions.co.uk

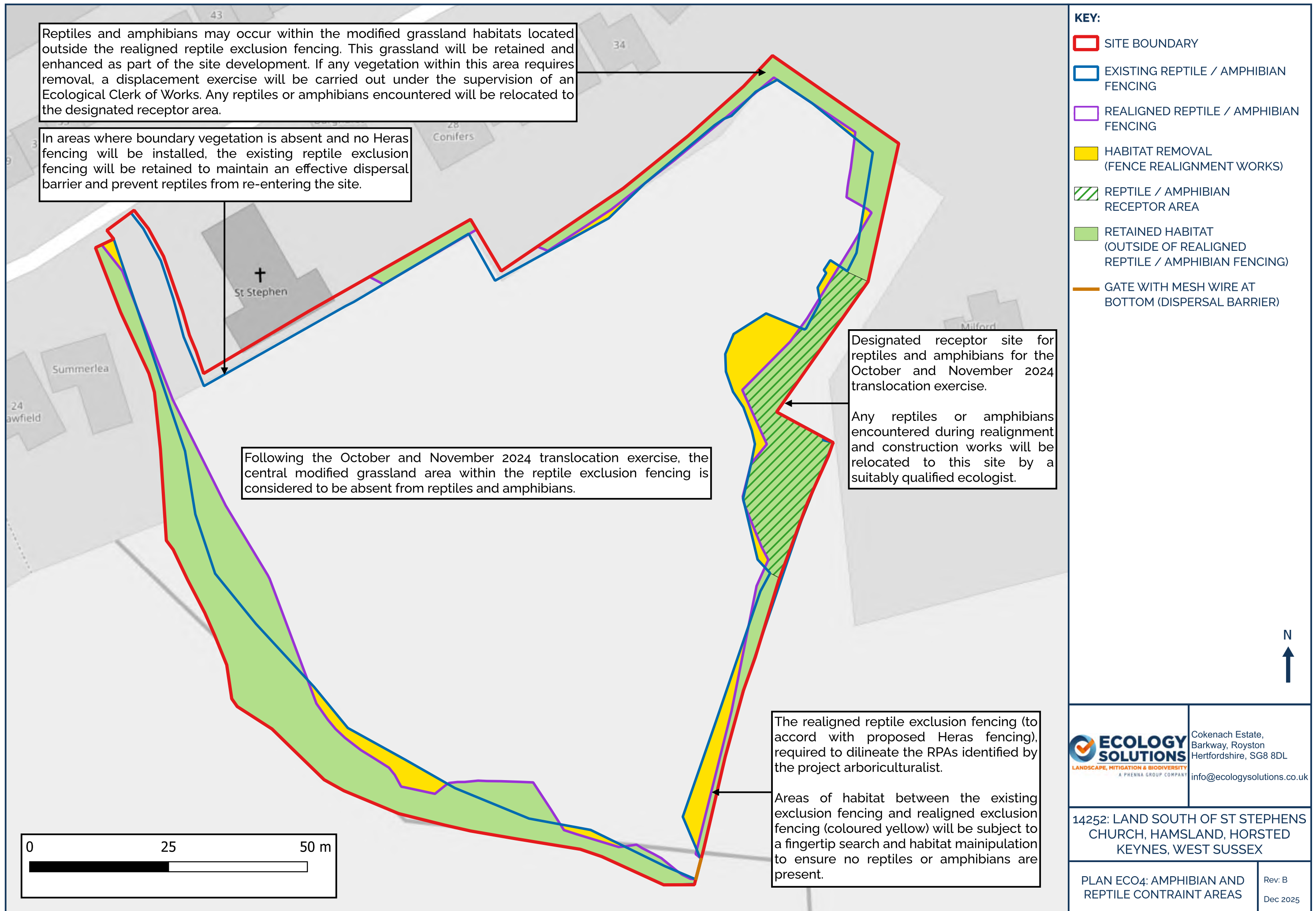
14252: LAND SOUTH OF ST STEPHENS
CHURCH, HAMSLAND, HORSTED
KEYNES, WEST SUSSEX

PLAN ECO3:
POND LOCATIONS

Rev: A
Nov 2025

PLAN ECO4

Amphibian and Reptile Constraint Areas



Appendices

Appendix 1

Tree Protection Plan, (Drawing Number:
J55.79/03, REV C, 05/11/2025),
(Broad Oak Tree Consultants Limited -
Extracted from Arboricultural Method
Statement, Ref: J55.97)



Broad Oak Tree Consultants Ltd
Laurel House
Burwash Road
Broad Oak
Hastfield
East Sussex
TN21 8SS
Tel: 01435 862444
Email: office@broadoaktrees.co.uk

LAND SOUTH OF
ST PETER'S CHURCH
HAMSLAND
HORSTED KEYNES
EAST SUSSEX

TREE PROTECTION PLAN

G1 - T42 Tree numbers

BS Category of Condition

T2 BS Condition A
T4 BS Condition B
T5 BS Condition C
T17 BS Condition U

Crown spread
BS Calculated root protection areas
Tree to be removed for safety/short lifespan
Tree to be removed for development
Protective fencing location
Ground protection

TREE PROTECTION INFORMATION
Protective fencing and ground protection measures to be installed at locations specified prior to commencement of any site works.

Protective fencing to comprise scaffold uprights driven into the ground to 60cm, depth at no more than 3m spacing. Upright to be braced within high usage/construction/demolition areas. Windbreak panels to be securely fixed to uprights to produce a continuous barrier. Waterproof signs to be attached to every 5th panel declaring 'TREE ROOT PROTECTION ZONE - KEEP OUT' or similar wording. Fencing to be constructed in accordance with fig. 2 and section 6 Specifications of BS5837:2012. Ground protection measures to comprise a single thickness of side butting scaffold boards over a 100mm, compressible layer laid onto a geotextile. For machinery access, interlocking road plates will need to be utilised.

The fenced protection zones around retained trees, hedges and shrubbery are to be regarded as sacrosanct and none of the following are to occur within these areas:

- Storage or disposal of any soil, building materials, machinery, fuel or waste residues of any description.
- Siting of any temporary structures of any description including site offices/sales buildings, temporary car parking facilities, porta-loos, storage compounds or temporary hard standing areas.
- Excavations, soil/turf stripping, raising/lowering of existing levels or alterations to the existing natural surfaces/ground conditions of any other description.
- Location of temporary drainage, water supplies or any other temporary underground services.
- No use, movement or parking of any machinery or vehicles of any description.
- Additionally, no fires shall be lit within 20m, of the trunks of any trees or the centre line of any hedgerow to be retained.

All services to be installed to the requirements of NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees'. Any runs within retained tree root protection areas to either be bored/moled or any hand excavation to be supervised by the Arboricultural Consultant.

DRAWING NO. J55.79/03 Rev C

Scale: 1:300 at A1

Added to by: NL

05/11/2025

Appendix 2

Amphibian Species Identification - Amphibian
and Reptile Conservation (ARC) and ARG UK
(2019)

Amphibian Identification

Common frog

Adults 6-7 cm.
Smooth skin, which appears moist.

Coloration variable, includes brown, yellow and orange. Some females have red markings on lower body.

Usually has a dark 'mask' marking behind the eye.

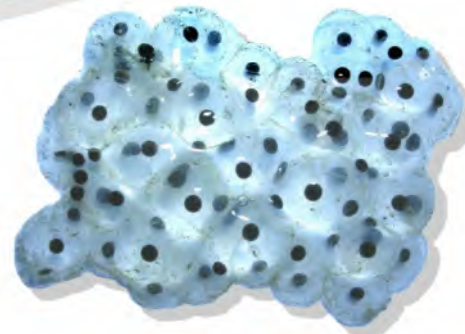
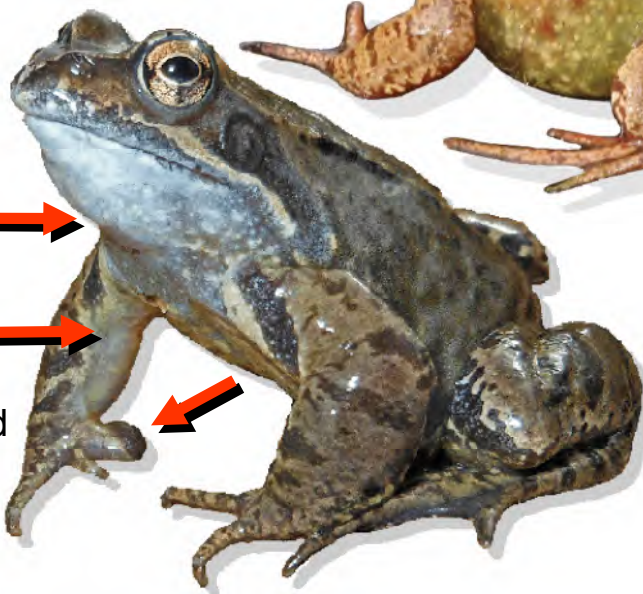


Breeding male

Grey/pale blue throat.

Thick front legs.

Dark (nuptial) pad on inner toes of the front feet.



Spawn is laid in gelatinous clumps.

Markings also variable, including varying amounts of black spots and stripes.



Young froglets look like smaller versions of the adults.

Common toad

Adults 5-9 cm. Rough skin. Brown with darker markings. Less commonly, some individuals are very dark, almost black, others are brick-red.

Breeding pair



Makes small hops rather than jumps of common frog.

Toadlets transforming from the tadpole stage are often very dark in colour.



Males smaller than females. Breeding males can also be distinguished by dark (nuptial) pads on innermost two toes of the front feet.



Toad spawn is laid in gelatinous strings, wrapped around vegetation. Less conspicuous than common frog spawn.



Juveniles are similar colours to adults, including brick-red.



Natterjack toad

Similar in size and appearance to common toad, but with a pale stripe running along the back.



Strictly protected species, requiring a licence to handle or disturb.



This is a rare species, unlikely to be found outside specific dune and heathland habitats.

Tadpoles

On hatching common frog and toad tadpoles are black. As they develop, common frog tadpoles become mottled with bronze, whereas toad tadpoles remain uniformly dark until the last stages of development.

Common frog and toad tadpoles generally complete development in the summer, but development rates are variable; some tadpoles may not transform until later in the year, or they may even remain as tadpoles over winter, becoming much larger than normal.

Tadpoles of water/green frogs grow larger than native frog and toad tadpoles. There are usually mottled markings on the base of the tail and the belly is usually white.

Frog



Toad



Water frog

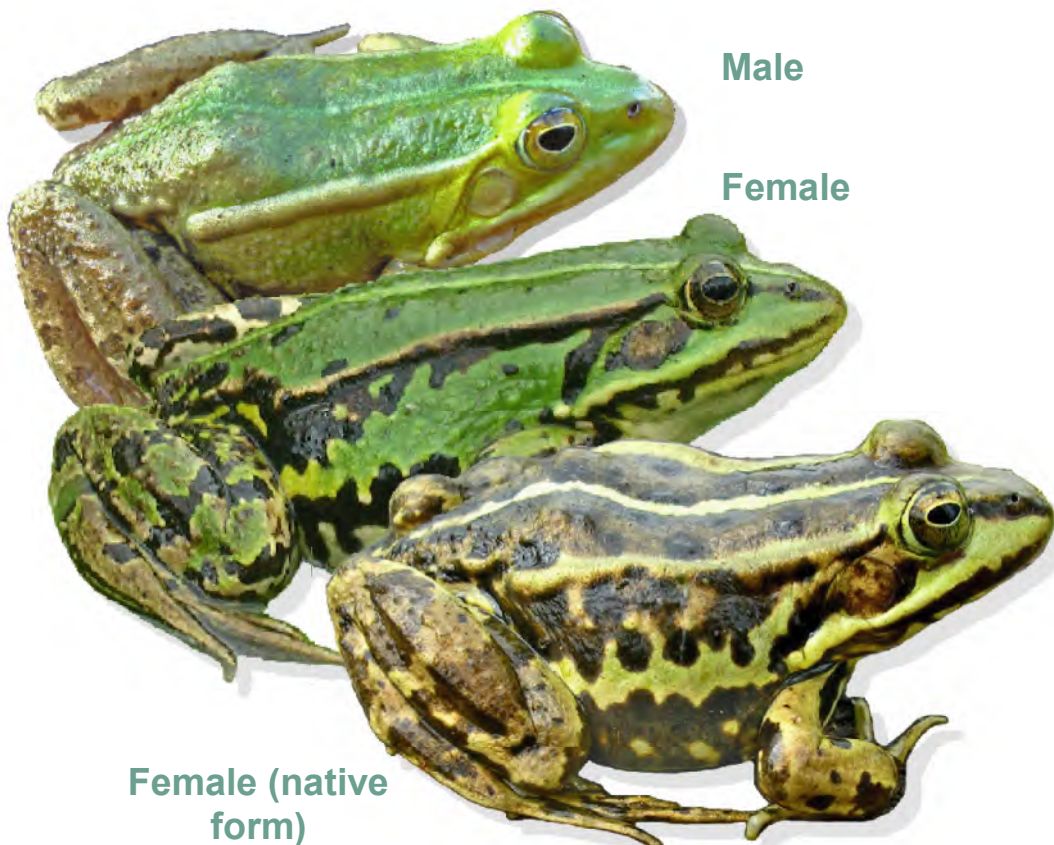


Water/green frogs

This is a group of non-native frogs, including pool, edible and marsh frogs (although there is one population of pool frogs which is native). There is considerable variation in colour and markings within each species, so identification by eye can be difficult. Water frogs breed in late spring/early summer. Males call loudly at this time and sporadically later in the summer. The calls are a useful way of distinguishing the species and can be heard on the *Alien Encounters* website (www.alienencounters.org.uk).

Pool frog

Pool frogs are similar in size to the common frog.



Male

Female

Female (native form)



Calling marsh frog

Calling pool frog

Calling male water frogs inflate a pair of balloon-like vocal sacs, one either side of the head. These sacs are dark grey in marsh frogs, white in pool frogs and pale grey in edible frogs.

Edible frog

Grows to a little larger than the common frog.



Marsh frog

A large frog growing to 13 cm (much larger than the common frog). Variable coloration and markings. May, or may not, have pale dorsal stripe. Marsh frogs usually have some vivid green coloration, but some can be predominantly brown.



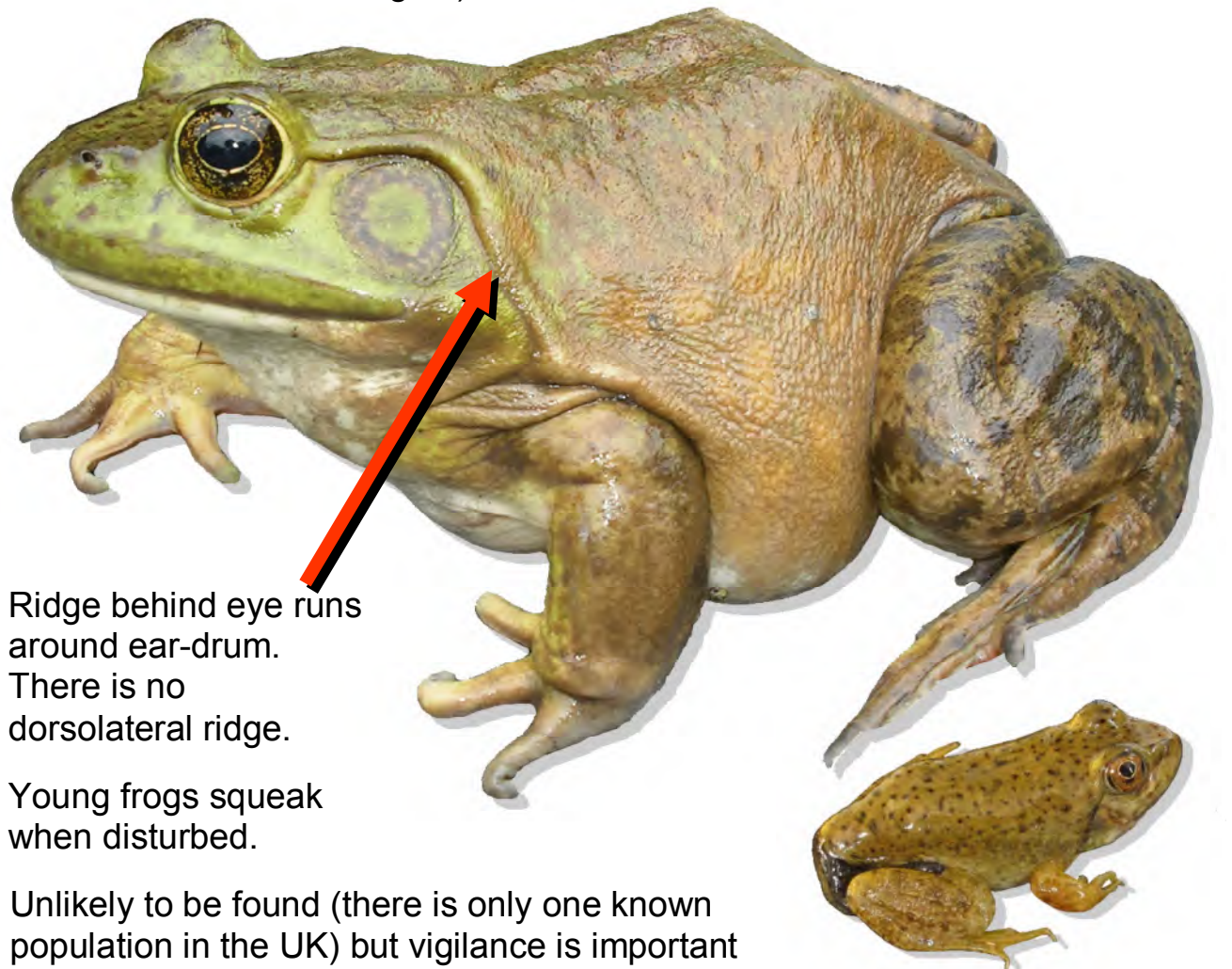
Sometimes mistaken for North American bullfrog, but marsh frogs have dorsolateral ridges and calling males have paired vocal sacs, either side of the head (both features absent in bullfrogs).

North American bullfrog

A very large, non-native frog growing to 15 cm. Calls loudly and breeds during the summer (call can be heard on the *Alien Encounters* website www.alienencounters.org.uk).



Black spots on body of tadpole. The tadpole stage can last several years and tadpoles grow to a large size, exceeding 10 cm.



Ridge behind eye runs around ear-drum. There is no dorsolateral ridge.

Young frogs squeak when disturbed.

Unlikely to be found (there is only one known population in the UK) but vigilance is important to identify any additional released animals.

Froglet with remains of tail

Midwife toad



A small non-native species, growing up to 5 cm. Rough skin, so potentially mistaken for a juvenile common toad. Midwife toads, however, have vertical pupils (horizontal in common toad) and males carry the eggs.

Few established populations, which are usually associated with gardens.

Secretive, but has a distinctive call, a single, repeated tone, like an electronic bleep, given on warm summer evenings (can be heard on www.alienencounters.org.uk).



Male carrying eggs

Smooth newt

A widespread species which breeds in a variety of water bodies. Often found in garden ponds.



Male

Female

Both sexes have an orange or yellow belly stripe and rounded spots, which are larger in the male.



Male

Female

Grows to about 10 cm. Breeding male has an undulating crest running from head to tail tip.



Non-breeding male

Non-breeding adults live mostly on land. Juveniles live entirely on land.



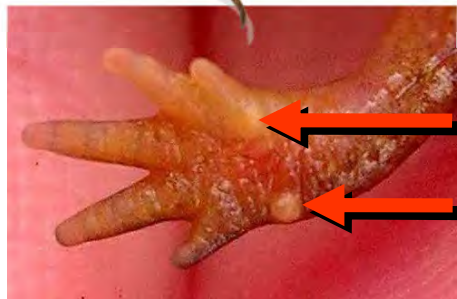
Juvenile (eft)

Palmate newt

Grows to 9 cm. Breeding male has a ridge running along the back, rather than a crest. Dark, webbed hind feet, and tail ends in filament.

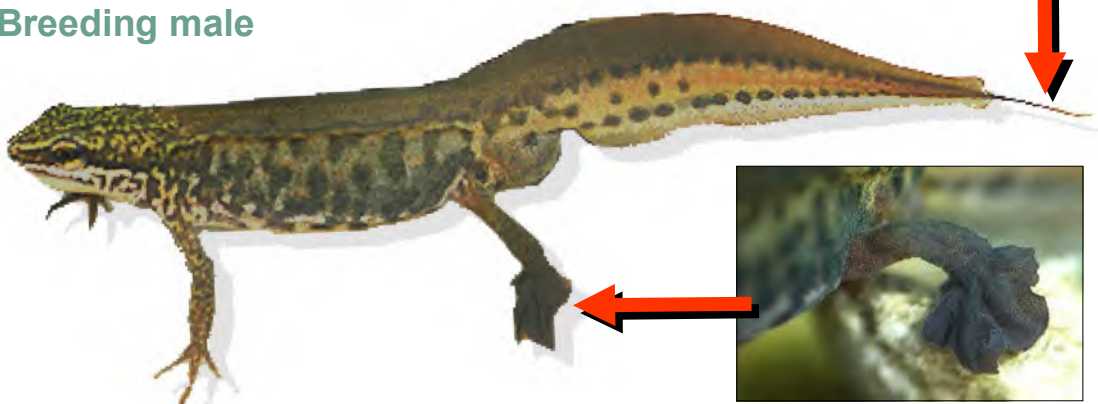


Non-breeding male



There are two pale coloured nodules on the underside of the hind feet of the female.

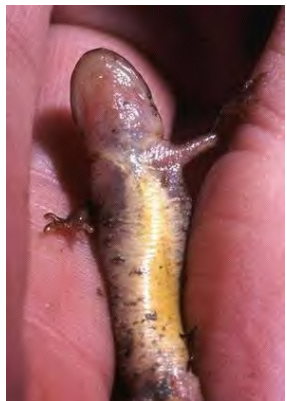
Breeding male



Female



Female looks similar to smooth newt.



Palmate



Smooth

Throat of palmate newt has no pigment (looks pink). Throat of smooth newt is off-white and usually spotted.



Underside (male)

Juveniles live on land.



Juvenile (eft)

Great crested newt

Grows to 16 cm, but usually smaller. Crest in male has break at base of tail. Silvery-white stripe towards rear of tail conspicuous.

Both sexes have rough, granular skins and yellow/orange bellies with irregular black spots.

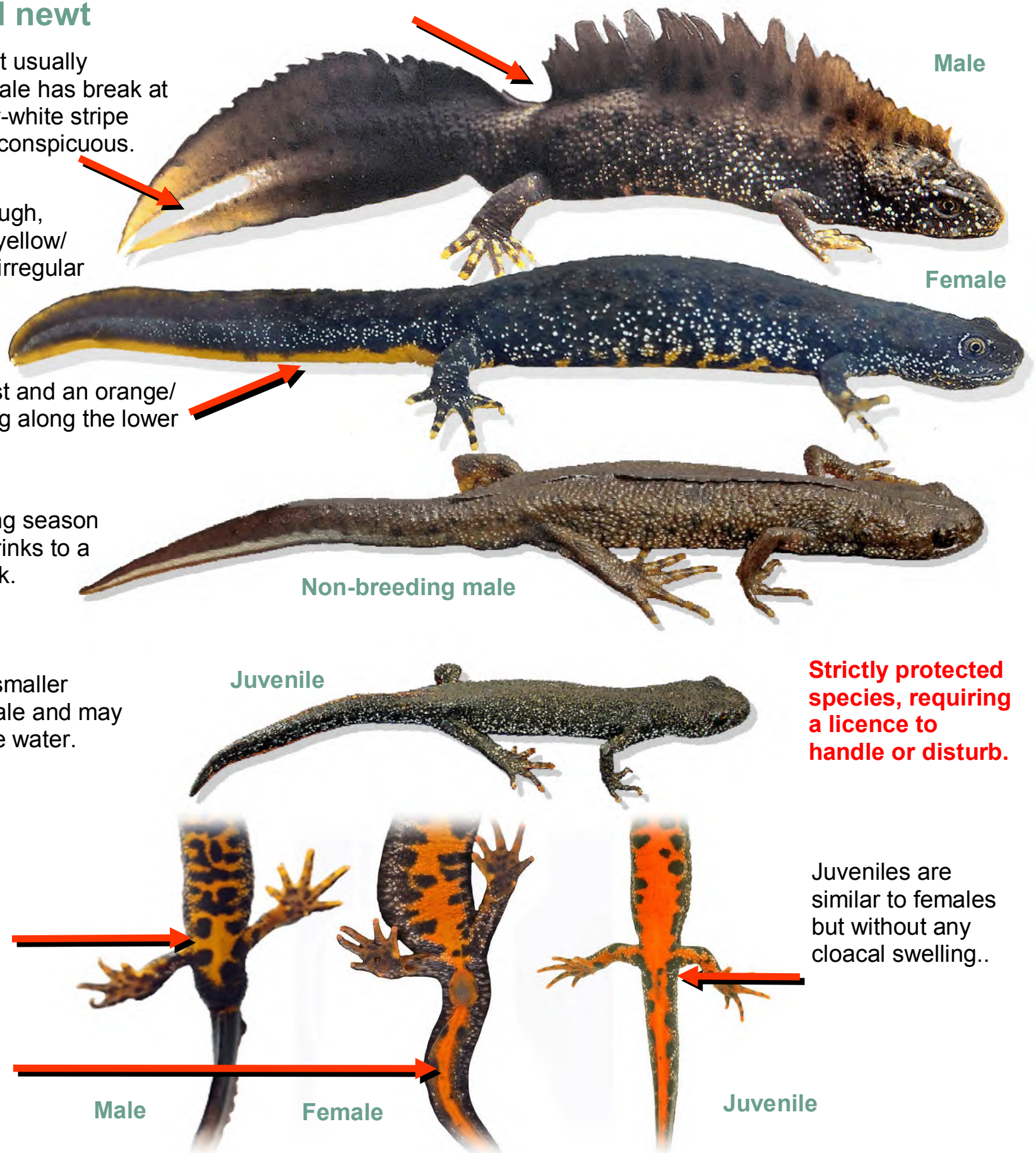
Female has no crest and an orange/yellow stripe running along the lower edge of the tail.

Outside the breeding season the male's crest shrinks to a ridge along the back.

Juveniles look like smaller versions of the female and may live on land or in the water.

Orange/yellow coloration on underside extends to flanks (not confined to central stripe). This continues along lower edge of tail in females.

Strictly protected species, requiring a licence to handle or disturb.

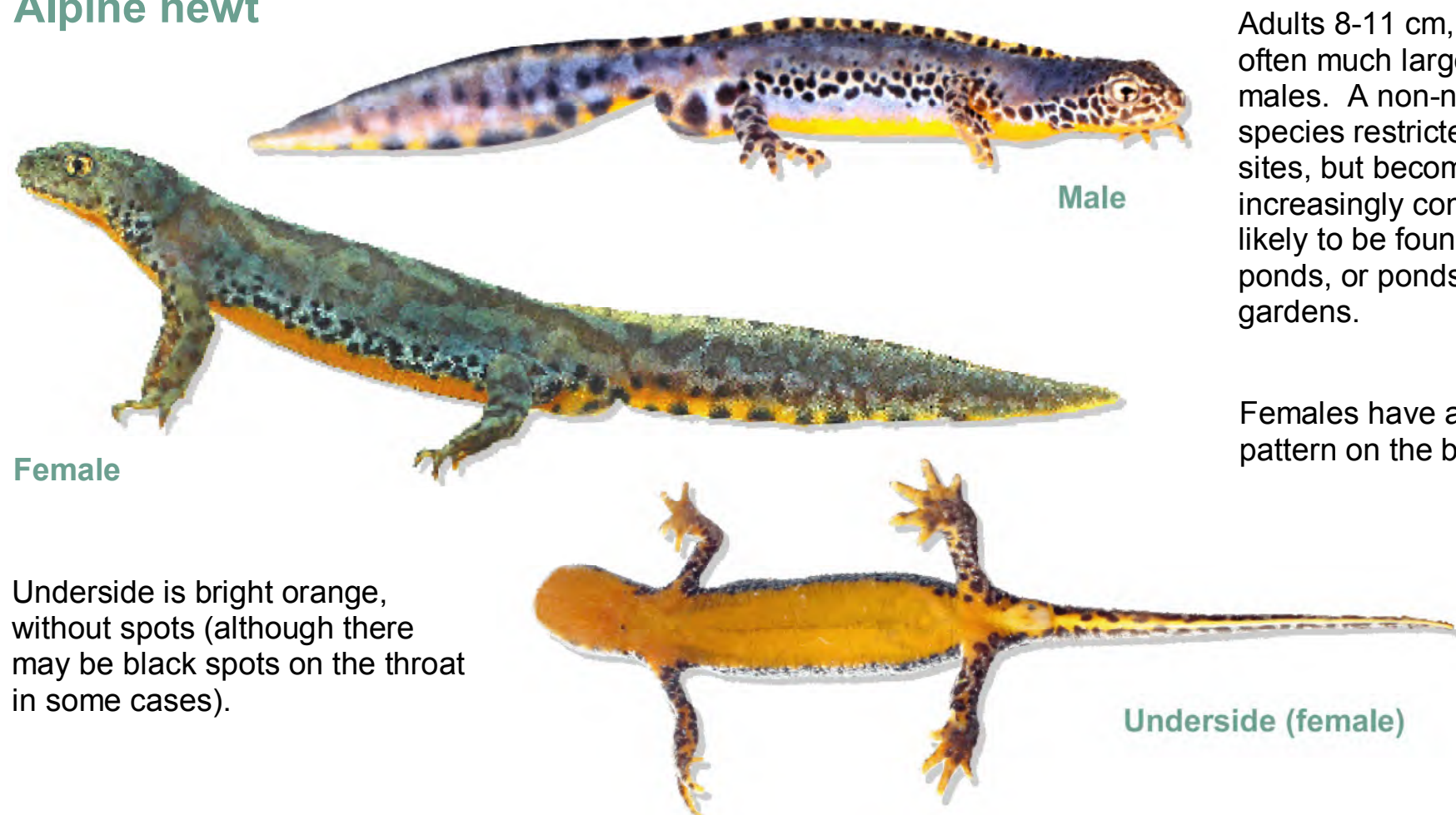


Alpine newt

Adults 8-11 cm, females often much larger than males. A non-native species restricted to few sites, but becoming increasingly common. Most likely to be found in garden ponds, or ponds near to gardens.

Females have a marbled pattern on the back.

Underside is bright orange, without spots (although there may be black spots on the throat in some cases).

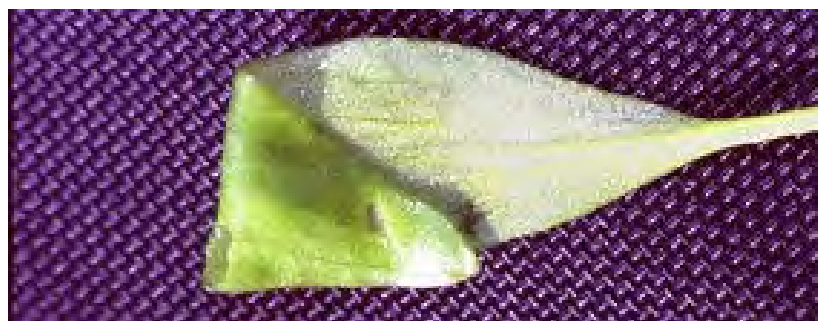


Newt eggs

Newt eggs are usually wrapped, singly, in vegetation. Leaves folded around great crested newt eggs are particularly conspicuous. To identify, unfold the leaf. Identification of undeveloped eggs is easiest.



Great crested newt eggs are white, sometimes with a tint of green or orange (jelly capsule 5 mm).



Eggs of smooth and palmate newts cannot be distinguished by eye, but they are smaller (jelly capsule 3 mm) than great crested newt eggs and are grey or beige when newly laid.



Several great crested newt eggs folded into a single blade of flote grass, giving a 'concertina' effect.

Newt larvae

Examine well-developed larvae (late May to July, or to August for great crested newts).



Great crested newt larvae (above) have long toes and blotches of dark pigmentation on tail fins. Grow to approximately 5 cm.



Palmate and smooth newt larvae (above) are indistinguishable in the field—but do not have the long toes or spotted tail fins of great crested newt larvae. Grow to approximately 3 cm.

Overwintering larvae and neoteny



Young newts usually leave the water in late summer or autumn, although sometimes they remain as larvae over the winter (e.g. smooth newt, right).



Exceptionally newt larvae grow to adult size, able to breed, but retaining their gills.

Further information Howard Inns (2011). *Britain's Reptiles and Amphibians*. WILDGuides.

Amphibian and Reptile Conservation (ARC) & ARG UK (2019)

Text and design John Baker, photographs John Baker, Fred Holmes, Jon Cranfield, Ray Cranfield, Chris Glead-Owen, Howard Inns, Mark Jones, Phyl King, Liam Russell, Duncan Sweeting and Rose Tichiner.

ARC www.arc-trust.org • **ARG UK** www.arguk.org

**amphibian and reptile
conservation**



ARG UK



info@ecologysolutions.co.uk | www.ecologysolutions.co.uk

Farncombe House | Farncombe | Broadway | Worcestershire | WR12 7LJ

Cokenach Estate | Barkway | Royston | Hertfordshire | SG8 8DL