



- the scheme for surveying Jersey's pondlife!

**Dr John W. Wilkinson**

Amphibian and Reptile Conservation



amphibian and reptile  
conservation 

# Level 2 Surveys



# Remember: Be Safe

- Assess hazards to yourself and others (including lone working)
- Especially important if it's your first survey at a site
- **Consider:** water, trips, steep slopes, heat, cold, animals etc.
- Don't survey if you feel unsafe!
- Regard all pond water as a possible source of disease
- Don't immerse cuts or consume food
- Wear appropriate clothing/footwear
- Consider gloves but in any case always wash hands thoroughly afterwards

# Biosecurity

- Clean equipment / footwear between sites (especially between ponds >1km apart)
- Helps prevent spread of invasive alien pond plants

## CHECK

**Check** your equipment, boat, and clothing after leaving the water for mud, aquatic animals or plant material. Remove anything you find and leave it at the site.

## CLEAN

**Clean** everything thoroughly as soon as you can, paying attention to areas that are damp or hard to access. Use hot water if possible.

## DRY

**Dry** everything for as long as you can before using elsewhere as some invasive plants and animals can survive for over two weeks in damp conditions.





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# Pondwatch Level 2



No experience required. Training is required



Five surveys, **January–May**



Spend **30–60 minutes** surveying using visual surveys, netting or torching



**Record** any pondlife that you see



**Take photos**, especially if you are not sure of what you have seen



Complete the survey form and **submit your results**

# Where to survey (*Level 2*)

Your own pond, a pond you are aware of and know the landowner, a pond the Natural Environment team require monitoring or another of your choice.

Make sure you have **permission from the landowner** and it is **safe** to do so.

**Landowner permission:** If you have chosen a pond of your own, get permission and fill out a [Landowner Survey Consent Form](#).







# When to survey (*Level 2*)

**Time of year:** January–May

Ponds contain water and amphibians are most likely to be seen in and around the water.

**Time of day:** Variable depending on pond condition and methods used. We recommend surveying at different times of the day with different methods.

**Number of surveys:** **Five**, using multiple methods, but you can carry out more if you want.



# What species? (*Level 2*)

You can record any pond-dwelling species, **BUT** we are particularly interested in observations of amphibians.

If you have received training and feel sufficiently competent, you can **opt-in** to record some **supplementary species**. These consist of two groups:

1. Invasive Non-Native (INN) aquatic plants
2. Dragonflies and damselflies (adults and nymphs)



# How to survey (*Level 2*)

## Equipment:

- Pondwatch JE survey form - Level 2 (available from <https://groups.arguk.org/jarg>)
- pen or pencil
- mobile phone (for emergencies)
- thermometer\*
- small safety torch
- high powered torch\*\*
- pond net\*

\*available to borrow from Natural Environment

\*\*available to borrow but limited availability

## *Optional (recommended):*

- camera (a smart phone camera is fine)
- species ID guides
- map of survey site





# How to survey (*Level 2*)

Infrastructure and Environment  
Howard Davis Farm, La Route de la Trinité  
Trinity, Jersey, JE3 5JP  
Tel: 01534 441600  
Email: [environmenenquiries@gov.je](mailto:environmenenquiries@gov.je)



## Volunteer Working Agreement Form

## Amphibian and Reptile Groups of the UK

VOLUNTEERS WORKING FOR THE CONSERVATION OF AMPHIBIANS AND REPTILES

This form is for the purpose of registering as a volunteer with Jersey Amphibian and Reptile Group (JARG) affiliated under ARG UK CIO (Charity no 1165504) part of ARG UK. I understand that I am not under any obligation to carry out voluntary work for ARG UK nor is ARG UK under any obligation to use my services.

### Volunteer details

Scheme: Pondwatch Level: / Reptilewatch level:

Full name:		Contact number:	
Correspondence address:		Email address:	
Post code:			
Emergency contact name:		Emergency contact number:	

### Important information

Before signing this form please read the following consent information carefully. It explains how your information will be used and provides a brief description of your rights under Jersey's Data Protection Law. For further information on how the Land Resource Management Team of Infrastructure and Environment handles personal data please visit [Land Resource Management's privacy policy and retention schedule \(gov.je\)](#)

### Your Consent - I am aware and agree

That the personal information supplied in this form, together with any other accompanying information, to be used for the sole purpose of processing my application to volunteer for ARG UK and I understand that it's an offence to knowingly submit false or misleading information with an application.

To my personal information being shared with your insurance provider in the event that it is necessary for me to make an insurance claim.

That any information I collect during my volunteering activities will be shared with other interested parties (such as the Jersey Biodiversity Centre) and will be used to provide published statistical data and reports.

I understand that under Jersey's Data Protection Law I have the right to withdraw my consent to the further processing of my information. (Should you wish to exercise this right please contact us on tel. 441600 or email [wildaboutjersey@gov.je](mailto:wildaboutjersey@gov.je)).

I have received sufficient training and/or instructions for the planned activities and believe that I am fit and healthy enough to carry out the voluntary work involved. I understand that it is my responsibility to consult my doctor if I have any concerns about my health prior to carrying out any volunteer work for JARG Jersey.

I understand that I should not do anything that I do not feel qualified to do and that I should not put others or myself in danger during the course of any voluntary activities and that I should contact the JARG Jersey co-ordinator for further advice and/or training if necessary.

I have read and understood the Surveying and Monitoring Risk Assessment (attached) and Lone Working Procedures (detailed below). I understand that the purpose of these documents are to remind me of any potential risks and I should use these to make my own assessment(s) prior to commencement of each volunteering activity. I understand

**Step 1:** Download a survey form and complete the Volunteer Working Agreement.

Return the agreement to the address shown.



# How to survey (*Level 2*)

**Step 2:** Visit your chosen pond during the day to familiarise yourself with the site and assess any risks. Update the risk assessment as necessary.

**Step 3:** Fill in your contact details on the form.

## **Pondwatch JE – Level 2 survey form 20\_\_**

Have you completed a Volunteer Working Agreement Form?

Y / N

*(delete as appropriate)*

Have you attended survey training?

Y / N

*(delete as appropriate)*

### **Contact details**

Name

Address

Tel

Email

Can we contact you if necessary?

Yes / No



# How to survey (*Level 2*)

**Step 4:** Record the pond details (name, location, type and construction).

## Pond details

Pond name

Pond grid reference

Pond location

*(address or description)*

Post code

Have you completed a Landowner Survey Consent Form?

Y / N

*(delete as appropriate)*

### Type of pond (tick one)

- |   |   |                                       |
|---|---|---------------------------------------|
| <input type="checkbox"/> Formal garden pond | <input type="checkbox"/> Farm pond        | <input type="checkbox"/> Natural pond |
| <input type="checkbox"/> Wild garden pond   | <input type="checkbox"/> School pond      | <input type="checkbox"/> Reservoir    |
| <input type="checkbox"/> Fish pond          | <input type="checkbox"/> Golf course pond |                                       |

### Pond construction (tick one)

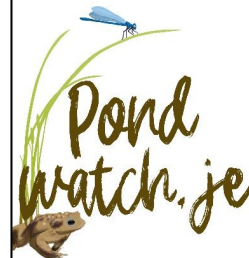
- |  |                                   |
|--|-----------------------------------|
| <input type="checkbox"/> Liner             | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Preformed plastic | <input type="checkbox"/> Clay     |
| <input type="checkbox"/> Other             | _____                             |



# How to survey (*Level 2*)

## Step 5: Carry out a pond **habitat suitability** assessment.

Pond habitat suitability assessment (refer to survey manual)	
Pond area (m <sup>2</sup> ) when water is at its highest level. (Look for where wetland vegetation (e.g. rushes) stops).	
Number of years in ten pond dries up. <b>Never</b> dries; <b>Rarely</b> dries: no more than two years in any ten-year period, or only in drought; <b>Sometimes</b> dries: dries between three years in ten to most years; <b>Dries annually</b> . Estimate or ask landowner. (Choose one option)	1 = Never (0/10) 2 = Rarely (1–2/10) 3 = Sometimes (3+/10) 4 = Annually (10/10)
Water quality. <b>Bad</b> = clearly polluted, only pollution-tolerant invertebrates, no submerged plants; <b>Poor</b> = low invertebrate diversity, few submerged plants; <b>Moderate</b> = moderate invertebrate diversity; <b>Good</b> = abundant and diverse invertebrate community. (Choose one option)	1 = Bad 2 = Poor 3 = Moderate 4 = Good
% perimeter shaded. Percentage perimeter shaded (to at least 1 m from shore). Estimate.	
Waterfowl impact. <b>Major</b> = severe impact of waterfowl i.e. little or no evidence of submerged plants, water turbid, pond banks showing patches where vegetation removed, evidence of provisioning waterfowl; <b>Minor</b> = waterfowl present, but little indication of impact on pond vegetation, pond still supports submerged plants and banks are not denuded of vegetation; <b>None</b> = no evidence of waterfowl impact (moorhens may be present). (Choose one option)	1 = Major 2 = Minor 3 = None
Fish presence. <b>Major</b> = dense populations of fish known to be present; <b>Minor</b> = small numbers of crucian carp, goldfish or stickleback known to be present; <b>Possible</b> = no evidence of fish, but local conditions suggest that they may be present; <b>Absent</b> = no records of fish stocking and no fish revealed during survey(s). (Choose one option)	1 = Major 2 = Minor 3 = Possible 4 = Absent
Number of ponds. Number of ponds within 1 km not separated by barriers to dispersal. Check with Natural Environment or use a map (e.g. Google Maps satellite) to estimate. (Optional)	
Terrestrial habitat. <b>None</b> = clearly no suitable habitat within immediate pond locale; <b>Poor</b> = habitat with poor structure that offers limited opportunities for foraging and shelter (e.g. amenity grassland); <b>Moderate</b> = offers opportunities for foraging and shelter, but may not be extensive; <b>Good</b> = extensive habitat that offers good opportunities for foraging and shelter completely surrounds pond e.g. rough grassland, scrub or woodland. (Choose one option)	1 = None 2 = Poor 3 = Moderate 4 = Good.
Aquatic vegetation. Percentage of pond surface occupied by aquatic vegetation (March–May). Estimate.	





# How to survey (*Level 2*)

**Step 6:** Record the 3 most dominant habitats **around** the pond.

----- 5 m buffer

- - - 100 m buffer

..... Habitat boundary



Pond



Habitat A



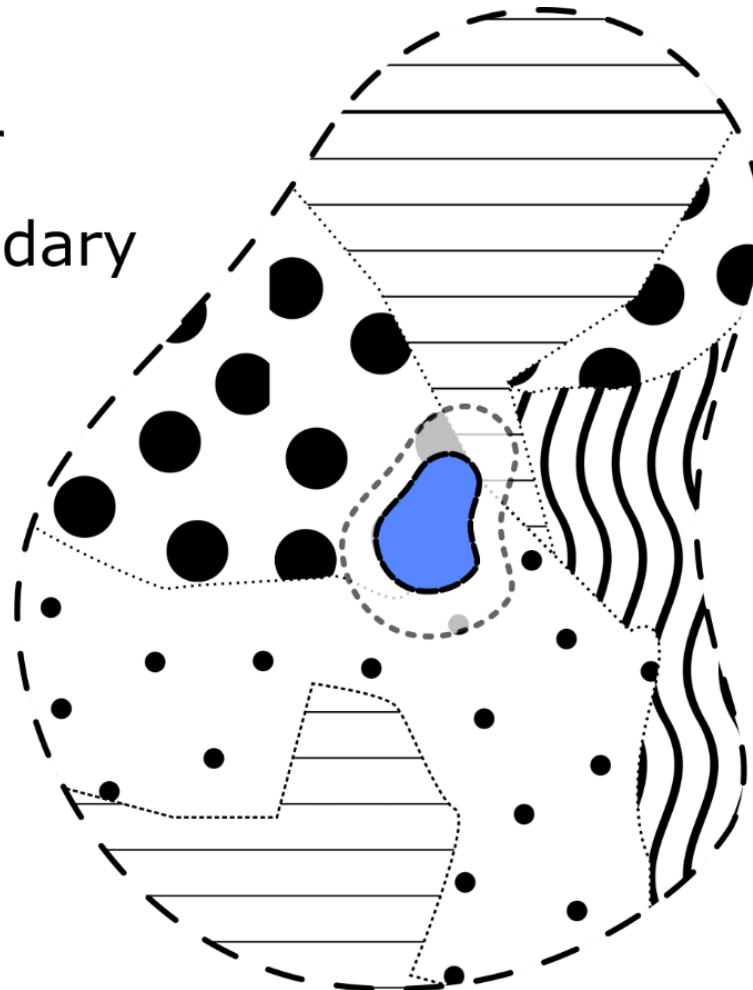
Habitat B



Habitat C



Habitat D



# Habitat classifications

**18 categories** (Sources: UK Habitat Classification Working Group, 2018; UK Habitat Classification Field Key 2018) – find out more at <http://ecountability.co.uk/ukhabworkinggroup-ukhab/>

‘Level 3’ habitat categories for all surveys.

Level 1	Level 2
Terrestrial	Grassland
	Woodland and forest
	Heathland and shrub
	Wetland
	Cropland
	Urban
	Sparsely vegetated land
Freshwater	Rivers and lakes



Tick the 3 most dominant in each buffer width

### Surrounding habitat assessment

Tick the three most dominant habitat types falling within 0–5 m and 0–100 m of the pond perimeter (the maximum water level) used to assess calculate the pond area.

0–5m	0–100m	Habitat and definition
		<b>Acid grassland;</b> Grasses and herbs on mineral deficient soils (pH < 5.5).
		<b>Calcareous grassland;</b> Grasses and herbs on shallow, well-drained calcareous soils.
		<b>Neutral grassland;</b> Grasses and herbs on neutral soils (pH 4.5–6.5).
		<b>Modified grassland;</b> Fast-growing grasses on fertile, neutral soils. Often dominated by rye-grass <i>Lolium spp.</i> and white clover <i>Trifolium repens</i> .
		<b>Broadleaved mixed and yew woodland;</b> Broadleaved and yew trees > 5 m high when mature with distinct canopy, where these trees exceed 20% of tree cover.
		<b>Coniferous woodland;</b> Coniferous trees (except yew) > 5 m high when mature with distinct canopy, where these trees exceed 80% of tree cover.
		<b>Dwarf shrub heath;</b> > 25% of plant species are from heath family.
		<b>Hedgerows;</b> Boundary line of shrubs, that at one time were continuous.
		<b>Dense scrub;</b> Patches of shrubs < 5 m high with continuous (> 90%) cover.
		<b>Bog;</b> Rain fed inundated / waterlogged habitats where peat has formed in the past.
		<b>Fen marsh and swamp;</b> Inundated / waterlogged habitats where water is supplied by ground water or slow-moving rainwater flows through and peat does not form.
		<b>Arable and horticulture;</b> Arable cropland (incl. orchards), commercial horticultural land, freshly-ploughed land, annual leys, rotational set-aside and fallow.
		<b>Built-up areas and gardens;</b> Urban and rural settlements, man-made built structures, waste and derelict ground, urban parkland and urban transport infrastructure (e.g. roads).
		<b>Inland rock;</b> Natural and artificial exposed rock surfaces (e.g. inland cliffs, caves, scree, quarries).
		<b>Supralittoral rock;</b> Region of rocky shore including cliffs and slopes immediately above the highest water level in the 'splash zone'.
		<b>Supralittoral sediment;</b> Region of shore immediately above the highest water level in the 'splash zone'.
		<b>Standing open water and canals;</b> Natural systems (e.g. lakes and pools), as well as man-made waters (e.g. reservoirs, canals, ponds, gravel pits).
		<b>Rivers and streams;</b> Rivers and streams from bank top to bank top, or extent of mean annual flood.

Level 3 habitat categories



# How to survey (*Level 2*)

Carry out **five** survey visits (if possible) between **January and May** following the next set of steps.

## Survey conditions

Visit no.:	Date:	Water clarity; ( <i>Circle one option</i> ).
⌚ Start time (24h):	⌚ End time (24h):	<u>Good</u> / Intermediate / Turbid
Air temperature (°C):		Rain; ( <i>Circle one option</i> ).
Bright moonlight:	<input type="checkbox"/> Yes <input type="checkbox"/> No	None / Yesterday / Earlier today / During survey
Wind disturbing water:	<input type="checkbox"/> Yes <input type="checkbox"/> No	% shoreline surveyed:
Water temperature (°C):		

## Supplementary species (*which other species are you surveying for?*)

Invasive Non-Native (INN) plants		Dragonflies and damselflies	
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**Step 7:** At the start of each survey record the visit number, date, the start time, air temperature, whether or not there is bright moonlight (night surveys only) and if wind is disturbing the water. Also record the water temperature, clarity, rainfall (choosing the most recent applicable option) and which (if any) supplementary species you are recording.





# How to survey (*Level 2*)

**Step 8:** Spend 30–60 minutes using any of the following three methods to survey the pond, aiming to use all three methods across your multiple survey visits.

**Visual search** (daytime): walk around the pond edge looking for all lifestages (including eggs).

**Netting:** Carried out from the pond bank at 2m intervals. Agitate the net through vegetation at the pond edge, in an arc spanning 2 metres. Move to the next 2-metre stretch and repeat.

**Torchlight survey** (night time): Consider risks carefully. If done on same day as netting, do **before** netting. Count amphibians seen in the 2m stretch in front of you. Move to the next 2-metre stretch and repeat.



# How to survey (*Level 2*)

**Step 9:** Record your sightings, including as much information as possible.

*Amphibian spawn and tadpoles can be difficult to count, so instead you can record a range (e.g. 10–20) or simply tick the box to indicate they were seen.*

**What did you see?** \*For tadpoles and spawn, write down a range (e.g. <10, 10–20 etc.).

Species	Lifestage	Sex	Quantity*	Certainty (C=certain, U=uncertain)

**Invasive non-native plants** (*delete as appropriate*)

Water fern (*Azolla filiculoides*)

Y / N

Parrot's feather (*Myriophyllum aquaticum*)

Y / N

New Zealand pigmyweed (*Crassula helmsii*)

Y / N

Canadian Pondweed (*Elodea canadensis*)

Y / N

# How to survey (*Level 2*)

**Step 10:** Record the end time, percentage of shoreline surveyed (and netted if applicable) and indicate which methods were used.

What method(s) did you use?

Visual

Y / N

Net

Y / N

% shoreline netted:

Torch

Y / N

**Step 11:** Once you have completed all of your surveys, record any supplementary information, including the date you first saw spawn in your pond (if applicable), if toads have been run over on nearby roads and if a grass snake has been seen in the pond.

## Supplementary information

When did you first see spawn in this pond this year?

Do migrating toads get run over on nearby roads?

(tick as appropriate)

Have you seen a grass snake in the pond?

Have you carried out water quality tests at this pond?



**Step 12:** Submit your results!



**Thanks for listening!**

