V1.0 February 2019

Reptilewatch JE

a new scheme for surveying Jersey's reptiles

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What is **Reptilewatch**?

An **island-wide effort to record Jersey's reptiles** with the aim of detecting changes in their conservation status.

Reptilewatch *replaces* the National Amphibian and Reptile Recording Scheme (NARRS).

By taking part, you will be helping us to improve our knowledge on the distribution and habitat requirements of Jersey's reptiles, and other wildlife.

(It's also a good opportunity for you to spend some time in nature too!)

What is **Reptilewatch**?

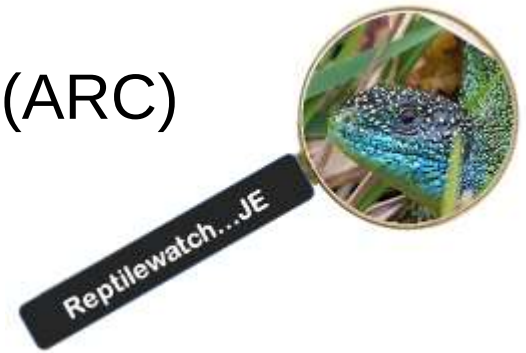
A **partnership** between

Jersey Amphibian and Reptile Group (JARG)

The Government of Jersey

Jersey Biodiversity Centre (JBC)

Amphibian and Reptile Conservation (ARC)



How can you get involved?

Reptilewatch is made up of 3 levels.

Choose the one that suits your experience and available time.

Level			Methods
1	30 minutes 1 survey	No experience required No training required	Visual
2 (widespread)	1–2 hours 6 surveys	No experience required Training is required	Visual, artificial refugia
2 (wall lizards)	30 minutes 6 surveys	No experience required Training is required	Visual
3	2+ hours Many surveys	Experience required Training is required	Visual, artificial refugia

Why survey for reptiles?

Threatened and secretive

Important part of the ecosystem

Why survey for reptiles?

Opportunity to discover many other species

Photo: Krissy Le Feuvre

Photo: Tim Ransom

Photo: Tim Ransom

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!
- Wear appropriate clothing/footwear
- Brambles, gorse, nettles and others are common
- Consider gloves but in any case always wash hands thoroughly afterwards

Reptilewatch Level 1

No experience or training needed

One survey, **March–October**

Spend **30 minutes** visually searching

Record any wildlife that you see

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

SUBMIT

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

Reptilewatch Level 2 – widespread

No experience required, training is needed

Six surveys, **March–October**

Spend **1–2 hours** visually searching and checking artificial refugia

Record any wildlife that you see

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

SUBMIT

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

Where to survey (*Lev. 2 - widespread*)

Site of your own choice **or** one provided to you by Natural Environment.

Sites assigned to 500 m grid to spread effort.

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

Landowner permission: If you have chosen a site of your own, get permission and fill out a Landowner Survey Consent Form.

Where to survey

Lowland heathland

Where to survey

Tussocky grass

Where to survey

Grassy, brambly bank (south-facing)

Where to survey

Field margins / hedgerows

Where to survey

Vegetated coastal cliffs and sand dunes

Where to survey

Manure / compost heaps

Where to survey

‘Lush’ grass

When to survey (*Lev. 2 - widespread*)

Time of year: March–October

Reptiles rely on heat from the sun to regulate their body temperature. Better chances in the spring (April to June) and autumn (mid-August to mid-October).

Time of day: Depends on the weather, but peaks of activity are generally in the morning and afternoon.

Good conditions include days with sun or partial cloud between 10 and 20°C.

Strong wind and heavy rain are generally bad, but sunny periods after rain can be productive. Long periods of hot dry weather are not favourable.

Number of surveys: Six, aiming for **3 visits in** spring, **2 visits in autumn**.

What might you see on a reptile survey?

Reptiles (adults, juveniles, sloughs (skin) and eggs)

- Slow worm (*Anguis fragilis*)
- Green lizard (*Lacerta bilineata*)
- Wall lizard (*Podarcis muralis*)
- Grass snake (*Natrix helvetica*)

***Alien* reptiles**

- Corn snake (*Pantherophis guttatus*)
- Red-eared slider (*Trachemys scripta elegans*)

Amphibians

- Western toad / crapaud *(Bufo spinosus)*
- Palmate newt (*Lissotriton helveticus*)
- Agile frog (*Rana dalmatina*)

What might you see on a reptile survey?

Small mammals (adults, juveniles, nests, faeces, burrows)

- Bank vole (*Myodes glareolus* ssp. *caesarius*)
- Wood mouse (*Apodemus sylvaticus*)
- Lesser white-toothed shrew (*Crocidura suaveolens*)
- Millet's, Common or French shrew (*Sorex coronatus*)*

Cockroaches

- Tawny cockroach (*Ectobius pallidus*)
- Lesser cockroach (*Ectobius panzeri*)

Beetles

- Glow worm (Lampyris noctiluca)
- Lesser stag beetle (*Dorcus parallelipipedus*)

What might you see on a reptile survey?

Butterflies and moths (adults, caterpillars, cocoons)

- Family Lasiocampidae
  - Drinker (*Euthrix potatoria*)
  - Fox moth (*Macrothylacia rubi*)
  - Oak eggar (*Lasiocampa quercus*)
- Subfamily Arctiinae (Tigers and ermines)
- Shoulder stripe (*Earophila badiata*)

Spiders

Ants

Plants

What species? (*Lev. 2 - widespread*)

You can record any wildlife, **BUT** we are particularly interested in observations of reptiles.

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

1. Small mammals
2. Cockroaches
3. Beetles
4. Butterflies and moths

How to survey (*Lev. 2 - widespread*)

Equipment:

- Reptilewatch JE survey form - Level 2 widespread (available from https://groups.arguk.org/jarg)
- pen or pencil
- mobile phone (for emergencies)
- 10–20 artificial refugia (available from Natural Environment)

Optional (recommended):

- camera (a smart phone camera is fine)
- species ID guides
- map of survey site
- Global Positioning System (GPS) / GPS phone app that allows you to record coordinates

How to survey (*Lev. 2 - widespread*)

Step 1: Download a survey form and complete the Volunteer Working Agreement.
Return the agreement to the address shown.

Growth, Housing and Environment,
Howard Davis Farm, La Route de la Trinité,
Trinity, Jersey, JE3 5JP
Tel: 01534 441600
Email: environmentenquiries@gov.je

Volunteer Working Agreement Form

ARG UK
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

Full name:		Contact number:	
Correspondence 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 Department of the Environment handles personal data please visit http://www.gov.je/howweuseyourinfo

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)

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.

How to survey (*Lev. 2 - widespread*)

Step 2: Visit your chosen site during the day at least four weeks prior to surveying 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.

Reptilewatch 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 (*Lev. 2 - widespread*)

Step 4: Record the site details (name and location).

Site details

Site name		Site grid reference	
Site location *(address or description)*			Post code

Have you completed a Landowner Survey Consent Form? **Y / N** *(delete as appropriate)*

Step 5: Assess the connectivity and patch size of reptile habitat at your survey site.

Site assessment (refer to *survey manual*)

Habitat connectivity

Which of the following best describes reptile habitat at your survey site? (*tick **one** only*)

- Completely isolated from other areas ☐
- Isolated by sub-optimal habitat ☐
- Linked by corridors of good habitat ☐
- Part of a larger area of good habitat ☐

Patch size

Estimated patch size of reptile habitat at your survey site (*tick **one** only*)

- <1 ha ☐
- 1–5 ha ☐
- 6–10 ha ☐
- 11–50 ha ☐
- >50 ha ☐

Reptilewatch

How to survey (*Lev. 2 - widespread*)

Step 6: Plan a 1–2 hour walking survey route that encompasses the most suitable parts of the site.

A map of the site can be useful for doing this.

Plan the route ahead of time and discuss it with the landowner.

Step 7: Lay out 10–20 artificial refugia along the route.

Note if permission was refused for any areas

Recommendations:

- Spread them evenly, choosing areas away from disturbance
- Press in to the vegetation and let them bed in before surveying
- Record their location on a map or using GPS and share with landowner
- Record the details on the ‘refugia list’ on the survey form

Refugia list (Use this table to keep track of your refugia and whether they have been checked on each survey)

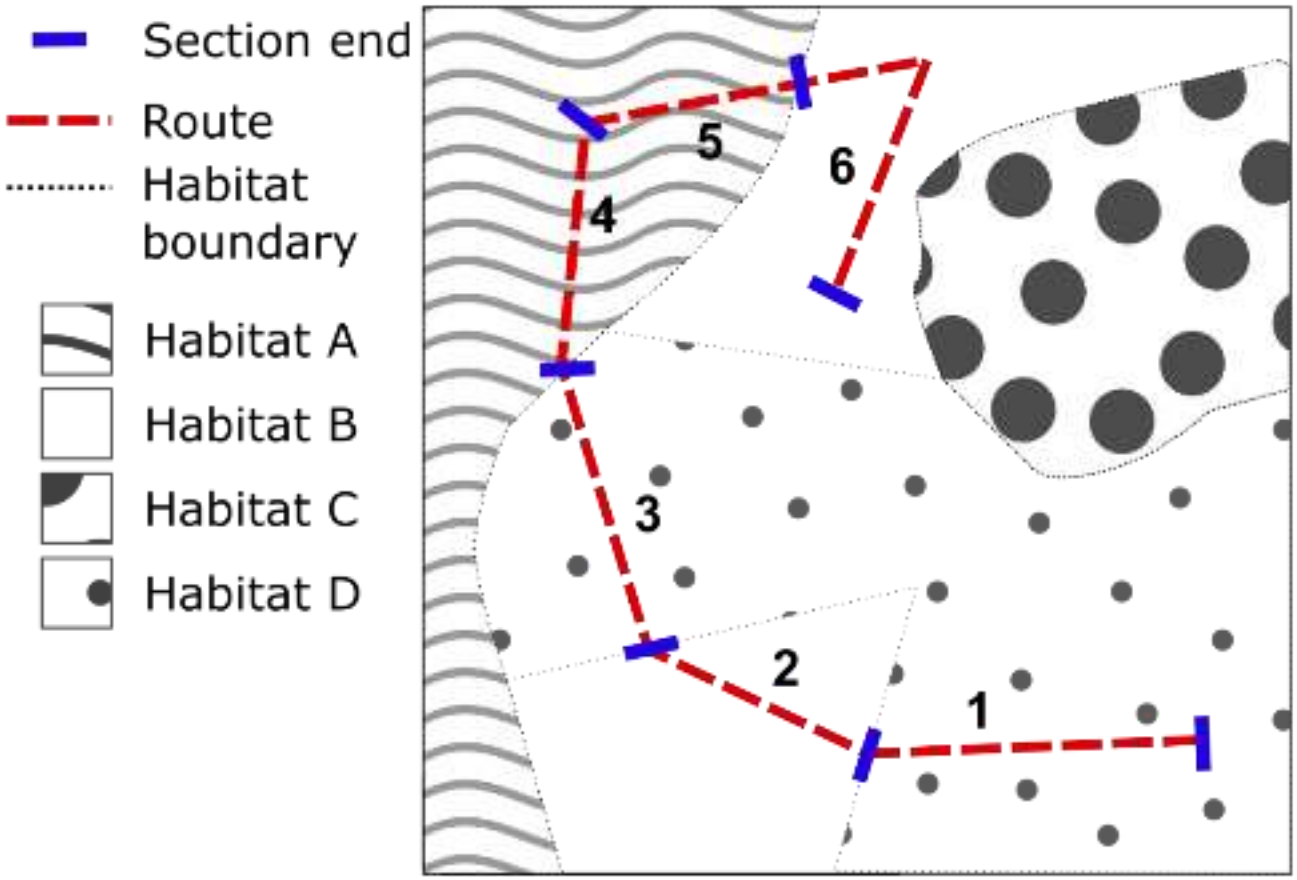
Refugium ID	Material	Section number	Visit number (tick if refugium checked on visit)						Notes
			1	2	3	4	5	6	

How to survey (*Lev. 2 - widespread*)

Step 8: Assess the habitat along your survey route and divide it in to sections based on habitat type.

Record:

- *the length of each survey route section*
- *the coordinates where the route sections start and end*
- *the route section each refugium is in*



How to survey (*Lev. 2 - widespread*)

Step 8: Assess the habitat along your survey route and divide it in to sections based on habitat type. Record:

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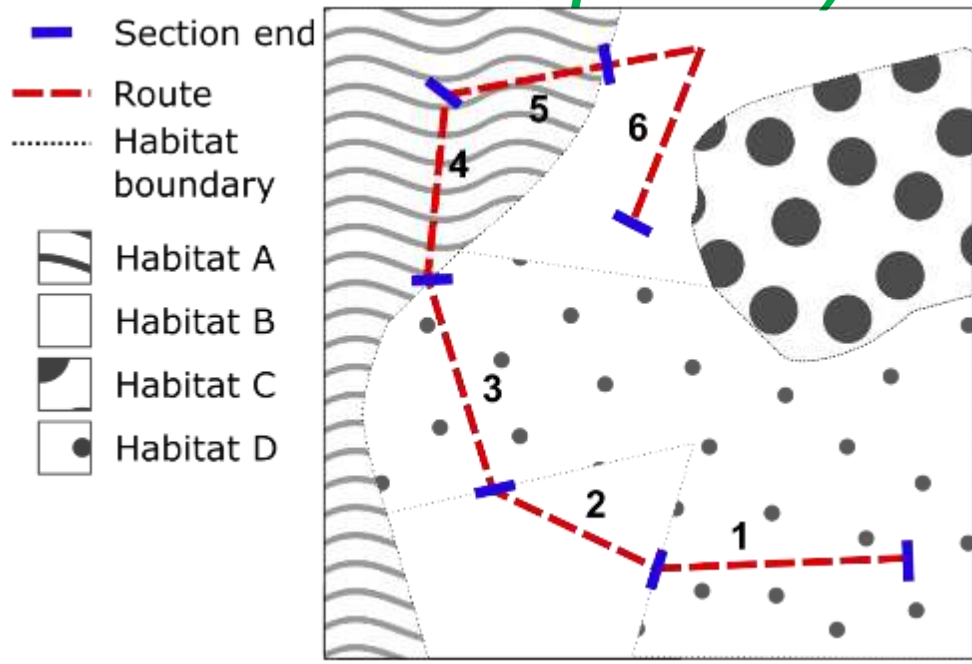

Survey route

Was permission refused for any areas? **Yes / No** How many artificial refugia did you lay out?

Describe the sections of your survey route. (*See handbook*)

Section number	Length (m)	Section habitat type	Habitat code	No. refugia	Section coordinates	
					Start	End
Example	*150*	*Dense scrub*	*h3*	*3*	*49.224204, -2.228506*	*49.225063, -2.226356*
1						
2						

How to survey (*Lev. 2 - widespread*)

Step 9: Plan a 1–2 hour walking survey route that encompasses the most suitable parts of the site.

A map of the site can be useful for doing this.

Plan the route ahead of time and discuss it with the landowner.

Step 10: Lay out 10–20 artificial refugia along the route.

Note if permission was refused for any areas

Recommendations:

- Spread them evenly, choosing areas away from disturbance
- Press in to the vegetation and let them bed in before surveying
- Record their location on a map or using GPS and share with landowner
- Record the details on the ‘refugia list’ on the survey form

How to survey (*Lev. 2 - widespread*)

DOING THE SURVEYS - **six** surveys March–October

Three in spring (April–June), **two** in autumn (mid-August to mid-October)

Step 11: Record the date, visit number, start time, cloud cover and which (if any) supplementary species you are recording.

Survey conditions

Visit no.:	**Average wind speed** (0–6, *choose **one** option*).	**Code**	**Specifications on land**		**Rain** (0–3, *choose **one** option*).
Date:		0	Smoke rises vertically		
Start time *(24h)*:		1	Slight smoke drift		
End time *(24h)*:		2	Wind felt on face and leaves rustle		**0 = none**
Time spent surveying (mins):		3	Leaves & twigs in constant motion		**1 = yesterday**
Cloud cover *(%)*:		4	Raises dust and small branches move		**2 = earlier today**
		5	Small trees in leaf begin to sway		**3 = during survey**
		6	Large branches move & trees sway		

Survey effort No. artificial refugia checked ☐ No. pre-existing refugia checked ☐

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

Small mammals	Yes / No	**Cockroaches**	Yes / No	**Beetles**	Yes / No	**Butterflies & moths**	Yes / No

How to survey (*Lev. 2 - widespread*)

Step 12: Spend 1–2 hours searching along your route. Check refugia and pre-existing refugia. Take photos of what you see. Tick off refugia as they are checked.

Refugia list (Use this table to keep track of your refugia and whether they have been checked on each survey)

Refugium ID	Material	Section number	Visit number (tick if refugium checked on visit)						Notes
			1	2	3	4	5	6	

Record your sightings, including:

What did you see? (continue on another page if needed)

Time (24h)	Species	Lifestage	Sex	Qty.	Certainty C=certain U=uncertain	Position O=in open U=under ref. T=on ref.	Location	
							Route section	Refugium ID / coordinates

How to survey (*Lev. 2 - widespread*)

Step 12: At the end of the survey record the end time, time spent surveying, average wind speed during the survey and rainfall. Also note the number of both artificial and pre-existing refugia checked.

Survey conditions

Visit no.:	**Average wind speed** (0–6, *choose* ***one*** *option*).	**Code**	**Specifications on land**		**Rain** (0–3, *choose* ***one*** *option*).	
Date:		0	Smoke rises vertically			
Start time *(24h)*:		1	Slight smoke drift			
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		6	Large branches move & trees sway			

Survey effort No. artificial refugia checked ____ No. pre-existing refugia checked ____

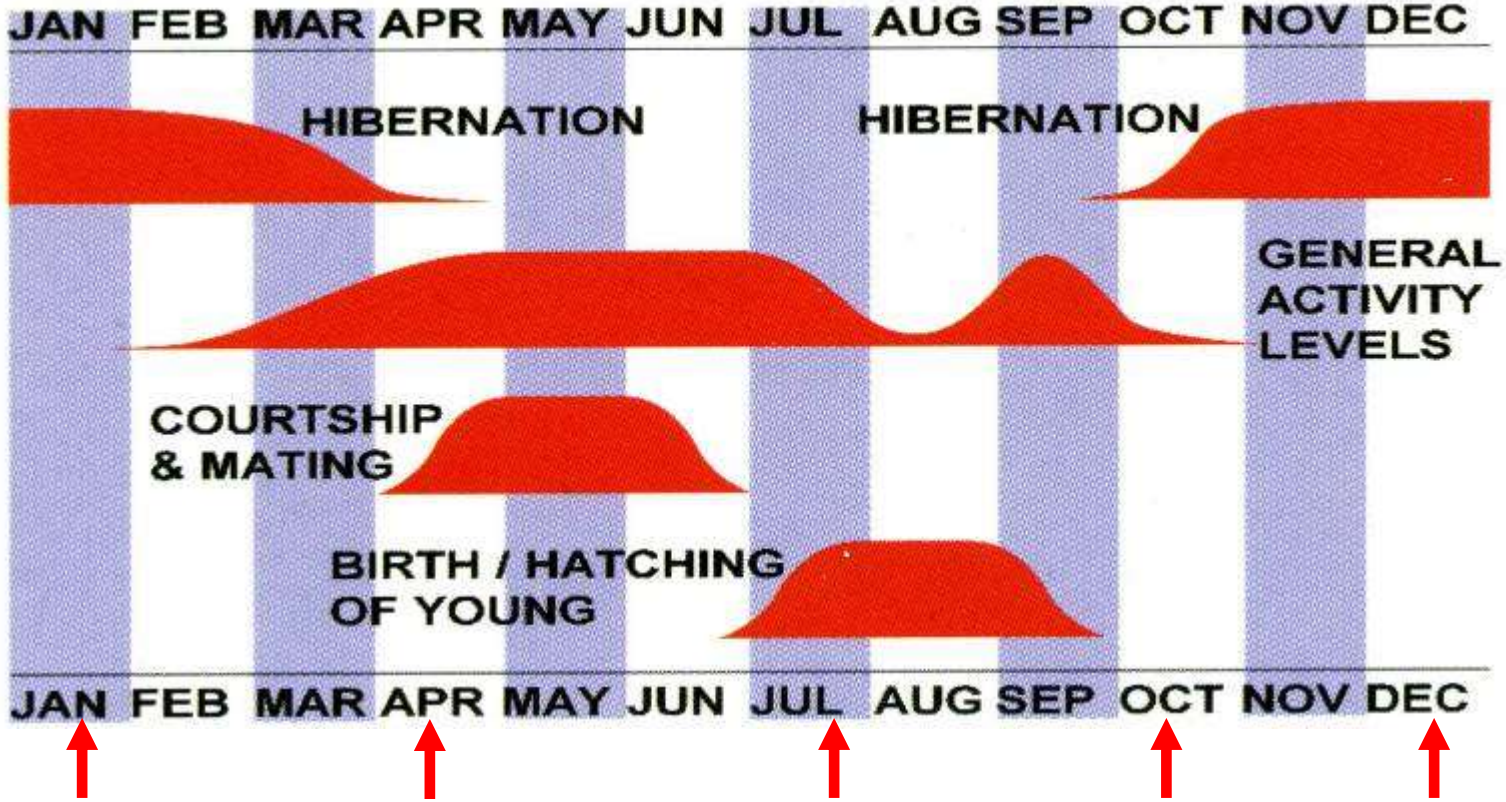
Supplementary species *(which other species are you surveying for?)*

Small mammals	Yes / No	**Cockroaches**	Yes / No	**Beetles**	Yes / No	**Butterflies & moths**	Yes / No

Step 13: Submit your results, even if you don't see anything. **Absence data is very useful!**

Reptile survey tips

Time of year:



Bad | Best | Variable/ Poor | Good | Bad

Reptile survey tips

Time of day:

- Early spring and autumn - middle hours of the day (c.11am-3pm)

- Late spring – mid morning (c.9-11am) and late afternoon (c.4-6pm)

- Summer – short periods in morning (c.7-9am) and evening (6-8pm); hot weather can produce totally negative results

Reptile survey methods

Visual searching:

- Reptiles need to warm themselves up (bask)
- They often stay partially hidden or very close to cover
- Look at interfaces between vegetation types and along edges!
- Walk slowly, scanning the ground as you go

Reptile survey methods

Visual searching:

- Reptiles need to warm themselves up (bask)
- They often stay partially hidden or very close to cover
- Look at interfaces between vegetation types and along edges!
- Walk slowly, scanning the ground as you go

Reptile survey methods

Artificial refugia:

- Used by reptiles to warm up without being visible to predators
- Both artificial and existing refugia work!
- Check and replace refugia carefully, taking care not to trap or injure animals

Reptile survey methods

Pre-existing refugia:

- Check pre-existing objects (carefully), often made of:
  - Metal
  - Wood
  - Plastic

Reptilewatch Level 2 – wall lizards

No experience required, training is needed

Six surveys, **March–October**

Spend **30 minutes** visually searching

Record any wildlife that you see

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

SUBMIT

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

Where to survey (*Lev. 2 – wall lizards*)

Site of your own choice **or** one provided to you by Natural Environment.

Fortifications, garden walls, rocky areas, areas regularly exposed to the sun

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

Landowner permission: If you have chosen a site of your own, get permission and fill out a Landowner Survey Consent Form.

When to survey (*Lev. 2 – wall lizards*)

Time of year: March–October

Reptiles rely on heat from the sun to regulate their body temperature. Wall lizards love the sun!

Time of day: Depends on the weather. Sunny periods or those with partial cloud are suitable.

Strong wind and heavy rain are generally bad, but sunny periods after rain can be productive.

Number of surveys: Six, aiming for **3 visits in** spring, **2 visits in autumn**.

What species? (*Lev. 2 – wall lizards*)

You can record any wildlife, **BUT** we are particularly interested in observations of wall lizards and other reptiles.

How to survey (*Lev. 2 – wall lizards*)

Equipment:

- Reptilewatch JE survey form - Level 2 wall lizards (available from https://groups.arguk.org/jarg)
- pen or pencil
- mobile phone (for emergencies)

Optional (recommended):

- camera (a smart phone camera is fine)
- binoculars
- species ID guides
- map of survey site
- Global Positioning System (GPS) / GPS phone app that allows you to record coordinates

How to survey (*Lev. 2 – wall lizards*)

Step 1: Download a survey form and complete the Volunteer Working Agreement.
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To my personal information being shared with your insurance provider in the event that it is necessary for me to make an insurance claim.

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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.

How to survey (*Lev. 2 – wall lizards*)

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

Step 3: Identify either:

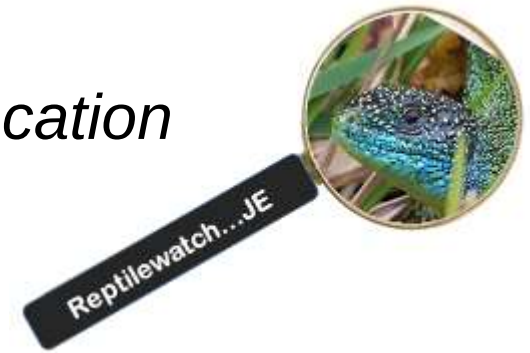
- a walking survey route that will take ~ 30 minutes, **or**
- a fixed point from which you can visually search the habitat

Tips:

Plan your route / fixed position in advance using online maps

Discuss with the landowner

If surveying from a fixed position, record the location on a map or using GPS



How to survey (*Lev. 2 – wall lizards*)

Step 4: Fill in your contact details and the site details on the form.

Reptilewatch JE – wall lizard 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**

Site details

Site name

Site grid reference

Site location *(address or description)*

Post code

Have you completed a Landowner Survey Consent Form? **Y / N** *(delete as appropriate)*

Reptilewatch

How to survey (*Lev. 2 – wall lizards*)

Step 5: Assess the connectivity and patch size of reptile habitat at your survey site.

Site assessment (refer to *survey manual*)

Habitat connectivity

Which of the following best describes wall lizard habitat at your survey site? (*tick **one** only*)

- Completely isolated from other areas ☐
- Isolated by sub-optimal habitat ☐
- Linked by corridors of good habitat ☐
- Part of a larger area of good habitat ☐

Patch size

Estimated patch size of wall lizard habitat at your survey site (*tick **one** only*)

- <50 m^2 ☐
- 50–200 m^2 ☐
- 200–1000 m^2 ☐
- 1–5 ha ☐
- >5 ha ☐

How to survey (*Lev. 2 – wall lizards*)

DOING THE SURVEYS - **six** surveys March–October

Step 6: Record the date, visit number, start time and cloud cover. Also record the survey method(s) being used.

Survey conditions

Visit no.:	**Average wind speed** (0–6, *choose **one** option*).	**Code**	**Specifications on land**		**Rain** (0–3, *choose **one** option*).	
Date:		**0**	Smoke rises vertically			
Start time *(24h)*:		**1**	Slight smoke drift			
End time *(24h)*:		**2**	Wind felt on face and leaves rustle		**0 = none**	
Time spent surveying (mins):		**3**	Leaves & twigs in constant motion		**1 = yesterday**	
Cloud cover *(%)*:		**4**	Raises dust and small branches move		**2 = earlier today**	
		5	Small trees in leaf begin to sway		**3 = during survey**	
		6	Large branches move & trees sway			

Survey methods Walking **Yes / No** Stationary **Yes / No** Were binoculars used? **Yes / No**

How to survey (*Lev. 2 – wall lizards*)

Step 7: Spend 30 minutes looking for wall lizards along your survey route / from your fixed position.

Do not survey an area more than once in a visit.

Take photos of what you see.

Step 8: Record your sightings, including:

What did you see? (continue on another page if needed)

Time (24h)	**Species**	**Lifestage**	**Sex**	**Qty.**	**Certainty** (C=certain, U=uncertain)	**Habitat code**

Reptilewa

How to survey (*Lev. 2 – wall lizards*)

g1: Acid grassland

g2: Calcareous grassland

g3: Neutral grassland

g4: Modified grassland

w1: Broadleaved mixed and yew woodland

h1: Dwarf shrub heath

h2: Hedgerows

h3: Dense scrub

f1: Bog

f2: Fen, marsh and swamp

c1: Arable and horticulture

u1a: Open mosaic habitats on previously developed land

u1b5: Developed land sealed surface - Buildings

u1b6: Developed land; sealed surface - Other developed land

u1c: Artificial unvegetated, unsealed surface

u1d: Suburban/ mosaic of developed/ natural surface

u1e: Built linear features

s1: Inland rock

s2: Supralittoral rock

s3: Supralittoral sediment

r1: Standing open water and canals

r2: Rivers and streams

How to survey (*Lev. 2 – wall lizards*)

Step 9: At the end of the survey record the end time, time spent surveying, average wind speed during the survey and rainfall.

Survey conditions

Visit no.:	**Average wind speed** (0–6, *choose **one** option*).	**Code**	**Specifications on land**		**Rain** (0–3, *choose **one** option*).
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		6	Large branches move & trees sway		

Survey methods Walking **Yes / No** Stationary **Yes / No** Were binoculars used? **Yes / No**

Step 10: Submit your results, even if you don't see anything. **Absence data is very useful!**

Identifying reptiles

Grass snake

up to 1 m,
males are smaller

Slow worm

< 40 cm

Wall lizard

< 20 cm

Green lizard

< 40 cm

Comparing lizards

Reptile skins (sloughs)

Illegal Aliens!

Identifying Small Mammals

Jersey bank vole *(Myodes glareolus ssp. caesarius)*

Coat: Reddish / chestnut brown with the underneath varying between a light cream colour to a dark silvery grey.

Tail: Short, approx. half the body length

Head: Blunt nose, small eyes and small ears

Movement: Short legs cause a scurrying type of movement

Wood mouse *(Apodemus sylvaticus)*

Coat: Brown with the underneath being a paler cream colour. Sometimes there is a yellowy tinge to the flanks

Tail: Long with hairs, giving it a dark upper colour and lighter underneath

Head: Large bulging eyes and large ears

Movement: Large hind legs aid its quick bouncing locomotion to escape predators

Lesser white-toothed shrew *(Crocidura suaveolens)*

Coat: Typically grey in colour but have some reddish brown in it too and is paler underneath. The fur is dense and short.

Tail: About the length of the body (excluding head)

Head: Small and slender body with a long pointed snout with long fine whiskers, small eyes and rounded ears. White teeth

Movement: Quicker and more aggressive in character than the Millet's shrew

Millet's, Common or French shrew *(Sorex coronatus)*

Coat: Small with rich brown coloured fur with paler cream coloured sides and underneath. The two fur colours meet on the flanks showing the definite colour difference. The fur is short and dense

Tail: Short - about the length of the body

Head: Pointed snout with whiskers and small eyes

NOTE: Shrews tend not to stick around.
It can be very difficult to tell which species you have seen from a glimpse – therefore just record 'shrew' unless certain

Identifying Cockroaches

Two cockroach species

Tawny cockroach *(Ectobius pallidus)*

Lesser cockroach *(Ectobius panzeri)*

Small, native cockroach species.

May be found on the underside of refugia during surveys

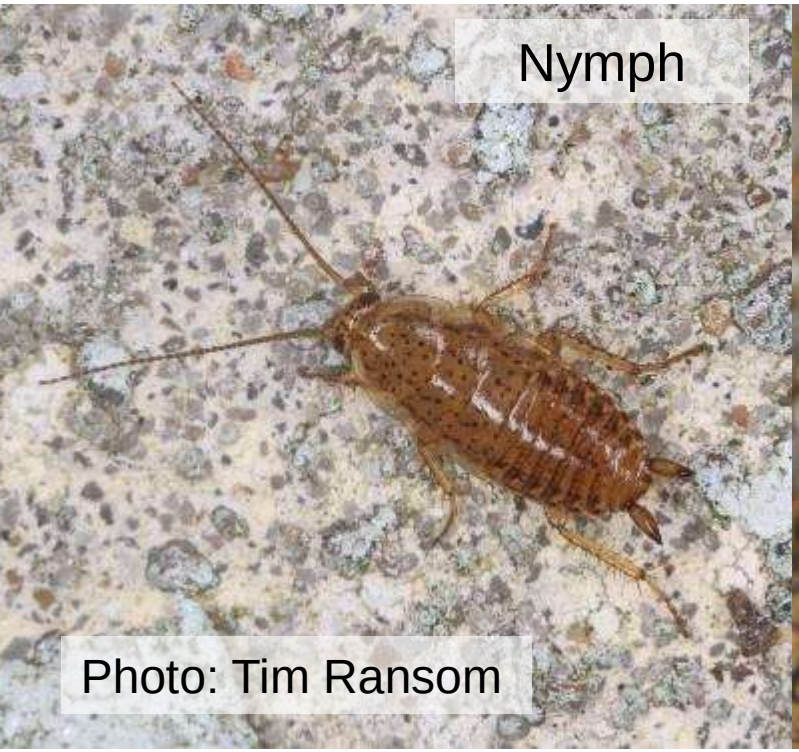
Source: Beckmann, B. Identification guide to native earwigs, cockroaches and naturalised stick-insects - https://www.orthoptera.org.uk

Tawny cockroach *(Ectobius pallidus)*

8–9.5 mm long

Colour: golden-yellow / brown all over (females may have dark brown on underside of abdomen)

Wings: full



Source: Beckmann, B. Identification guide to native earwigs, cockroaches and naturalised stick-insects - https://www.orthoptera.org.uk

Lesser cockroach *(Ectobius panzeri)*

5–8 mm long

Colour: darkish brown, speckled pattern on pronotum (‘shield’) (both sexes) and abdomen (female only)

Wings: males fully winged, females short-winged (cover <50% of abdomen)

Source: Beckmann, B. Identification guide to native earwigs, cockroaches and naturalised stick-insects - https://www.orthoptera.org.uk

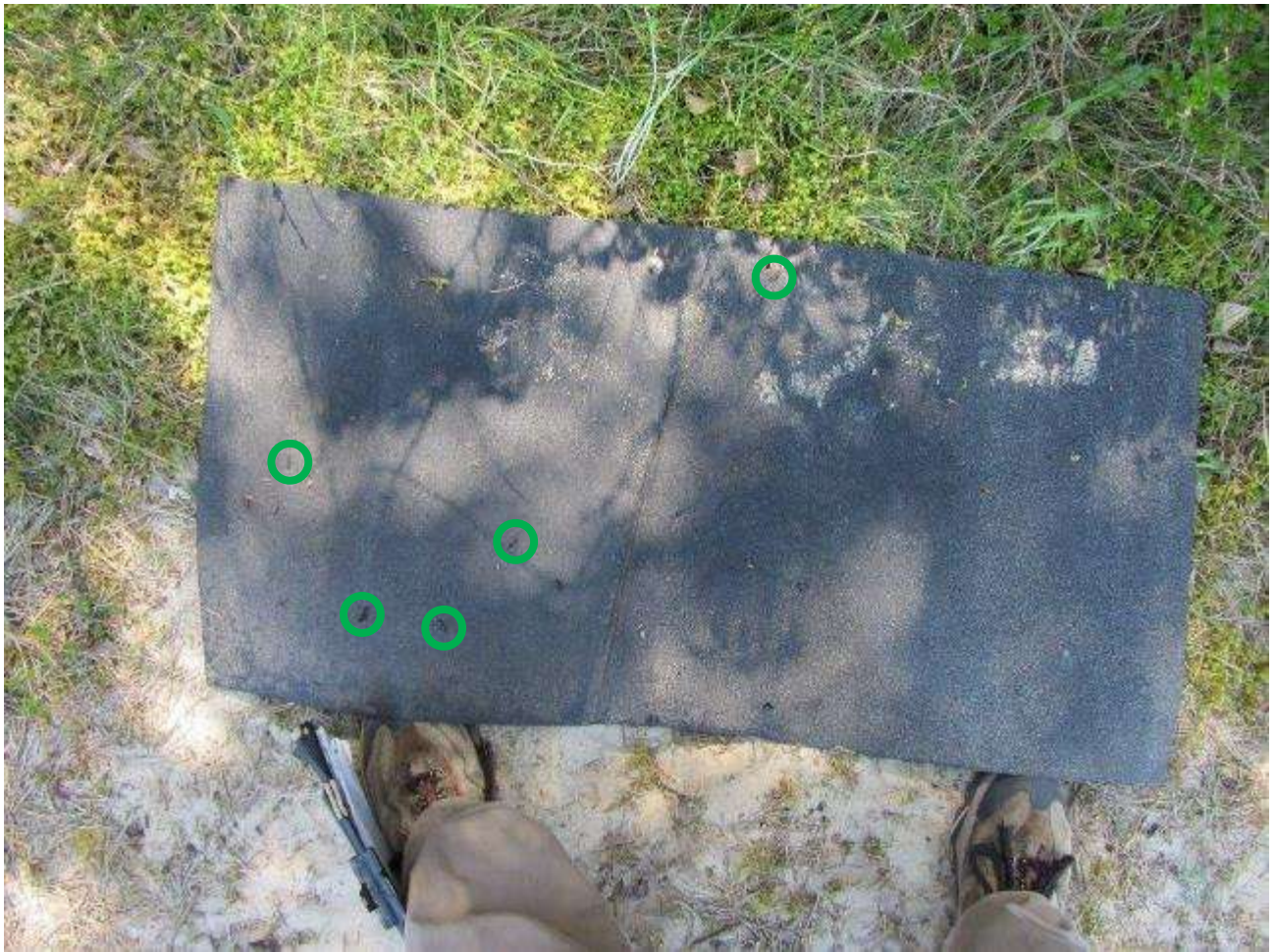
Identifying Beetles

Two beetle species of interest

Glow worm (*Lampyris noctiluca*)

Lesser stag beetle (*Dorcus parallelipipedus*)

Can be found under refugia



Glow worm *(Lampyris noctiluca)*

Up to 25 mm long

Blackish-brown in colour with yellow/cream
Active May–August
Could be confused with larvae of carrion beetles (Silphidae) or ladybirds

Photo: Tim Ransom

Photo: Krissy Le Feuvre

Lesser stag beetle *(Dorcus parallelipipedus)*

Up to 30 mm long

A large beetle with a wide head and large mandibles
Active May–September

Identifying Butterflies and Moths

Most likely to see (i.e. using refugia):

- Family Lasiocampidae
  - Drinker (*Euthrix potatoria*) – larva only
  - Fox moth (*Macrothylacia rubi*) – larva and cocoons
  - Oak eggar (*Lasiocampa quercus*) – larva and cocoons
- Subfamily Arctiinae (Tigers and ermines) – larva and cocoons
- Shoulder stripe (*Earophila badiata*) – adults

ID help at https://butterfly-conservation.org and http://www.ukleps.org/

Photo: Tim Ransom

Lasiocampidae – large and hairy

Drinker (*Euthrix potatoria*)
Caterpillars up to 70 mm
Grey with yellow spots, white tufts and orange hairs


Photo: Krissy Le Feuvre

Fox moth (*Macrothylacia rubi*)
Caterpillars up to 70 mm
Dark brown hairs on sides and shorter dark orange hairs on upper


Photo: Krissy Le Feuvre

Oak eggar (*Lasiocampa quercus*)
Caterpillars up to 70 mm
Variable in colour but often brown with orange and yellow


Photo: Krissy Le Feuvre

Subfamily Arctiinae (Tigers and ermines) – large and hairy

Photo: Krissy Le Feuvre

Photo: Krissy Le Feuvre

Photo: Krissy Le Feuvre

Shoulder stripe (*Earophila badiata*)

Wingspan: 25–30 mm
Variable in colour
Forewings: Yellow-brown to yellow-white band
Hindwings: white with dark fringe

Assessing habitats

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

Grassland

Vegetation, not on waterlogged soils, with more than 75% cover of herbaceous species (grasses, sedges, rushes, herbs, forbs) with salt-tolerant species absent or occasional.

g1: Acid grassland	Dominated by grasses and herbs on a range of lime-deficient soils which have been derived from acidic bedrock or from superficial deposits such as sands and gravels. Such soils usually have a low base status, with a pH <5.5.
g2: Calcareous grassland	Dominated by grasses and herbs on shallow, well-drained soils which are rich in bases (principally calcium carbonate) formed by the weathering of chalk and other types of limestone or base-rich rock.
g3: Neutral grassland	Dominated by grasses and herbs on a range of neutral soils usually with a pH between 4.5 and 6.5.
g4: Modified grassland	Dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by abundance of rye grass *Lolium spp.* and white clover *Trifolium repens*.

Woodland and forest

Land with >25% cover of trees more than 5m in height.

w1: Broadleaved mixed and yew woodland	Vegetation dominated by trees >5m high when mature, which form a distinct, although sometimes open canopy with a canopy cover >25%. It includes stands of both native and non-native broadleaved tree species and Yew *Taxus baccata*, where the percentage cover of these trees in the stand exceeds 20% of the total cover of the trees present.
w2: Coniferous woodland	Vegetation dominated by trees that are more than 5m high when mature, which form a distinct, although sometimes open canopy which has a cover >20%, with stands of both native and non-native coniferous tree species (with the exception of Yew) where the percentage cover of these trees in the stand exceeds 80% of the total cover of the trees present.

Heathland and shrub

Vegetation with >25% cover of dwarf shrub species <1.5m high, or woody species up to 5m high.

h1: Dwarf shrub heath	Vegetation that has >25% cover of plant species from the heath family (ericoids).
h2: Hedgerows	A boundary line of shrubs, provided that at one time the shrubs were stock proof and more or less continuous.

Wetland

Any habitat that is waterlogged (water table at surface with standing water for between 50 and 70% of the year)

f1: Bog	Rain fed inundated or waterlogged habitats where peat has formed in the past.
f2: Fen marsh and swamp	Inundated or waterlogged lowland habitats differing from bogs in that water is supplied by ground water or slow-moving rainwater and this flows through them and peat does not form.

Cropland

Regularly or recently cultivated agricultural, horticultural and domestic habitats.

c1: Arable and horticulture	Arable cropland (including perennial, woody crops, and intensively managed, commercial orchards), commercial horticultural land (such as nurseries, commercial vegetable plots and commercial flower growing areas), freshly-ploughed land, annual leys, rotational set-aside and fallow.

Urban

Constructed, industrial and other artificial habitats

Additional ‘Level 4’ habitat categories for wall lizards in built-up areas.

For wall lizards!!

u1: Built-up areas and gardens	Urban and rural settlements, farm buildings, caravan parks and other man-made built structures such as industrial estates, retail parks, waste and derelict ground, urban parkland and urban transport infrastructure.	u1a: Open Mosaic Habitats on Previously Developed Land
		u1b5: Developed land; sealed surface - Buildings
		u1b6: Developed land; sealed surface - Other developed land
		u1c: Artificial unvegetated, unsealed surface
		u1d: Suburban/ mosaic of developed/ natural surface
		u1e: Built linear features

Sparsely vegetated land

Unvegetated, disturbed (regularly or drastically periodically) or sparsely vegetated habitats (permanently of periodically naturally unvegetated areas) inhabited by stress tolerating vegetation

s1: Inland rock	Natural and artificial exposed rock surfaces which are mappable, e.g. inland cliffs, caves, and screes and limestone pavements, as well as various forms of excavations and waste tips such as quarries and quarry waste.
s2: Supralittoral Rock	The region of rocky shore including cliffs and slopes immediately above the highest water level in the splash zone. Features that may be present include vertical rock, boulders, gullies, ledges and pools, depending on the wave exposure of the site and its geology.
s3: Supralittoral Sediment	The region of shore immediately above the highest water level in the splash zone).

Rivers and lakes

Inland surface waters (freshwater ecosystems)

r1: Standing open water and canals	Natural systems such as lakes, meres and pools, as well as man-made waters such as reservoirs, canals, ponds and gravel pits.
r2: Rivers and streams	Rivers and streams from bank top to bank top, or, where there are no distinctive banks or banks are never overtopped, it includes the extent of the mean annual flood.

Submitting your data

Online (*preferred*)

- Go to http://jerseybiodiversitycentre.org.je/ and fill in an online form with your results.

By email

- Email a copy of your form to jbc@societe-jersiaise.org.

On paper

- Return your form to: Reptilewatch JE, Natural Environment, Growth Housing and Environment, Howard Davis Farm, Trinity, JE3 5JP.

Find out more

- Survey forms and handbook - https://groups.arguk.org/jarg
- Submit your data - http://jerseybiodiversitycentre.org.je/
- UK habitat classification documentation - http://ecountability.co.uk/ukhabworkinggroup-ukhab/
- Information on Orthoptera (including native cockroaches) - https://www.orthoptera.org.uk/
- Identifying insects (Insects of the Channel Islands Facebook group) - https://www.facebook.com/groups/518340844961982/
- Identifying butterflies and moths - https://butterfly-conservation.org/ and http://www.ukleps.org/

Summary and sign up

- 3 (and a bit) levels of involvement
- Focus on reptiles with optional supplementary species
- Take photos!!!

*If you are interested in becoming a **Reptilewatch JE** volunteer, please sign up!*