

Reptilewatch JE Level 2 wall lizard handbook

Thank you for your interest in volunteering to be part of this project. Reptilewatch JE is an island-wide effort to record Jersey's reptiles, with the aim of detecting changes in their conservation status. By taking part, you will also be helping us to improve our knowledge on the distribution and habitat requirements of Jersey's reptiles and other species. It's also a good opportunity for you to spend some time in nature too!

In this handbook you will find out everything you need to know to become a Reptilewatch JE surveyor.

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Level 2 wall lizard surveys

Please note that you must have completed training to carry out Level 2 surveys.

Where to survey

You can either survey a site of your choice or one provided to you by Natural Environment. If you survey a site of your own choice, you will need to arrange landowner access (see below), whereas sites provided by Natural Environment will already have landowner permission arranged.

Arranging landowner permission

If you aren't the landowner, the coordinator will help you to identify and contact the owner to arrange permission to survey the site. A template introductory letter for requesting landowner permission is available from Natural Environment. Speaking with the landowner will also give you an opportunity to identify car parking locations, safety issues, where refugia may be laid (if allowed) and to build a relationship with them. A long-term aim of Reptilewatch JE is to gradually build the number of sites that can be accessed and repeatedly surveyed each year.

When to survey

Time of year: Jersey's wall lizards can be active between March and October; relying on heat from the sun to regulate their body temperature. There is a greater chance of seeing reptiles in the spring (April to June) and autumn (mid-August to mid-October) when the cooler weather means they have to bask for longer. In comparison, they do not need to spend much time in the open during the hottest summer months. With that said, wall lizards are sun-lovers, and may be found throughout the year in sunny conditions of a sufficient temperature.

Time of day: The best time of day to find reptiles depends on the weather, but peaks of activity are generally during the morning and afternoon. As the days get hotter and longer, the time that reptiles may be visible whilst basking becomes reduced and shifts further towards earlier in the mornings and later in the afternoon. Good conditions for spotting reptiles include days with sun or partial cloud with temperatures between 10 and 20°C. Strong wind and heavy rain are generally bad conditions for looking for reptiles, but sunny periods after rain can be productive. Long periods of hot dry weather are not favourable, though you may still find wall lizards in these conditions.

Number of surveys: You should aim to survey your site **six** times between March and October in suitable weather. If possible, conduct three visits in spring (April–June) and two in autumn (mid-August to mid-October). If you wish to, you can carry out more than six surveys.

Which species to record

You should record any wall lizard (*Podarcis muralis*) observations, as well as any incidental observations of other native reptile species.

How to survey

Equipment

You will need:

- a Reptilewatch JE Level 2 wall lizard survey form
- a pen or pencil
- a mobile phone (for use in the event of an emergency)

Optional (recommended):

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

The camera will allow you to take pictures of anything you are not sure about, which can help the Jersey Biodiversity Centre check the identification of what you recorded, and also so you can show others what you saw during your survey.

Binoculars will allow you to visually search habitat features from a distance.

The GPS will allow you to record a fixed survey position if you use one.

A printed map of your survey site will allow you to mark down your survey area and any wall lizard locations.

Preparation

Once you have chosen your site and arranged landowner permission (if required), carry out the following:

Step 1: Read, complete and return the [Volunteer Working Agreement Form](#).

Step 2: Visit your chosen site during the day to familiarise yourself with the site and assess any risks. Update the [risk assessment](#) as necessary.

Step 3: Identify either:

- a. a walking survey route that allows you to visually search most suitable parts of the site and that will take approximately 30 minutes to survey, **or**
- b. a fixed point from which you can visually search the habitat (e.g. by using binoculars to search a large wall).

Suitable habitats are often those regularly exposed to the sun and include dry stone walls, fort walls, steps, rocks, cliffs and quarries.

It can be helpful to plan your route or fixed survey position ahead of your visit using online maps, and to discuss it with the landowner or manager in case there are areas they would like you to avoid or that are high risk. If you are going to survey from a fixed position it is useful to record the location either by marking it on a map or recording the coordinates using a GPS. This will help you and other surveyors to survey from the same location in future.

Step 4: Fill in your contact details and record the site details (name, location).

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

How to survey

Please complete **six** surveys if possible between March and October, carrying out the following steps. If possible, conduct three visits in spring (April–June) and two in autumn (mid-August to mid-October):

Step 6: At the start of each survey first record the date, the visit number, start time and cloud cover. Also record which survey methods you will be using (walking, surveying from a stationary position, using binoculars). You can use more than one method in a survey.

Step 7: Spend 30 minutes visually searching for wall lizards along your survey route / from your fixed position, making sure you do not survey an area more than once in a visit. When possible, take photos of what you see but be careful not to disturb the habitat and wildlife. It's therefore best to take photos from a distance. Do not attempt to touch or handle any animals.

Step 8: When you encounter an animal during your survey, record as much of the following information as possible: the time, species, lifestage, sex, quantity, certainty of your identification (**C**=certain, **U**=uncertain) and the habitat code for the habitat the animal was seen in. The habitat codes are available on the survey form, and more information is available in the [habitat assessment](#) section of this handbook. If you wish, you can also record the location coordinates of where the animal was spotted or mark it on a map.

Step 9: At the end of the survey you should record the end time, time spent surveying, the average wind speed during the survey using the Beaufort Scale (0–6) (see Table 1) and the rainfall (**0**=none, **1**=yesterday, **2**=earlier today, **3**=during survey) – choosing the most recent applicable option.

Step 10: [Submit your results](#), **even if you don't see anything**. Absence data is very useful.

Table 1 Beaufort scale for assessing average wind speed on a scale of 0–6.

0	0–1	Calm	Smoke rises vertically
1	1–3	Light air	Slight smoke drift
2	4–7	Light breeze	Wind felt on face and leaves rustle
3	8–12	Gentle breeze	Leaves & twigs in constant motion
4	13–18	Moderate breeze	Raises dust and small branches move
5	19–24	Fresh breeze	Small trees in leaf begin to sway
6	25–31	Strong breeze	Large branches move & trees sway

Safety

It is very important to make sure you are safe at all times during your survey. Avoid surveying areas with uneven or unstable ground. Carrying a fully charged mobile phone is also advisable in case of emergency. A [risk assessment template](#) is available at the end of this handbook which you should modify to your needs. You are under no obligation to participate or complete the survey.

It is best to do your survey with someone else, but if you are on your own then make sure you tell a responsible person where you will be and when you expect to be back. Lone working procedures are described in the [Volunteer Working Agreement](#).

Submitting your results

Once you have finished your survey, make sure you submit your data. The preferred way is online at <http://jerseybiodiversitycentre.org.je>. Alternatively, you can email it to jbc@societe-jersiaise.org or post it to:

Reptilewatch JE
Natural Environment, Growth Housing and Environment
Howard Davis Farm
Trinity
JE3 5JP

If you are carrying out a Level 2 survey, you will need to be invited to fill out the appropriate online forms by your coordinator.

Please only submit your data using one method, as submitting through multiple avenues can lead to information being duplicated.

Resources

The survey forms, species ID guides and all other information needed for completing reptile surveys are available on the Jersey Amphibian and Reptile Group (JARG) website: <https://groups.arguk.org/jarg>.

Survey results can be submitted online to the Jersey Biodiversity Centre (JBC): <http://jerseybiodiversitycentre.org.je>.

Useful links:

Species Identification

Insects of the Channel Islands Facebook group (Insects) - <https://www.facebook.com/groups/518340844961982/>

Jersey Wildlife Facebook group (all wildlife) - <https://www.facebook.com/groups/225539340841170/>

Other

Amphibian and Reptile Groups of the UK (Up to date guidance for Amphibian and Reptile Groups) - <https://www.arguk.org>

Jersey Amphibian and Reptile Group Surveyors Discussion Page (Facebook) - <https://www.facebook.com/groups/590112634750709/>

UK Habitat Classification (habitat classification documentation and guidance) - <http://ecountability.co.uk/ukhabworkinggroup-ukhab/>

Google Maps (maps.google.co.uk) - useful for looking at satellite maps of your site.

Habitat assessment

This section gives a detailed explanation of how habitat assessments should be carried out, and the habitat classifications and measurements that Reptilewatch JE uses. This will help us compare surveys across years, assess changes in the habitat over time and calculate which habitats are best for which species.

The habitat classifications

Reptilewatch JE uses 18 habitat classes to define terrestrial and freshwater habitats (Table 2), as described in Level 3 of the UK Habitat Classification Scheme (UK Habitat Classification Working Group, 2018). An additional six classes derived from Level 4 of the UK Habitat Classification Scheme are used to describe built-up areas and gardens in greater detail for wall lizard surveys (Table 2). Further detail on the habitat definitions, their development and relation to other habitat classification schemes are available online at <http://ecountability.co.uk/ukhabworkinggroup-ukhab/>.

How to assess the habitats for Level 2 wall lizard surveys

For wall lizard surveys, it is necessary to record the habitat type in which your observations are made. The approach is outlined in the steps below:

- Step 1:** Carry out your survey as described in the 'how to survey' section on the survey form.
- Step 2:** When you observe a wall lizard, note down the details of your sighting (e.g. sex, lifestage) and record the Level 3 habitat code as shown in Table 2. If the wall lizard is in a **built-up area or garden**, use the appropriate code from the classifications listed in Level 4 of the classification scheme.

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Table 2 Habitat classifications for Reptilewatch JE, adapted from the UK Habitat Classification (UK Habitat Classification Working Group, 2018). Level 3 classifications should be used unless wall lizards occur in 'Built-up areas and gardens', in which case they should be recorded to their Level 4 habitat.

Lev. 1	Level 2	Level 3	Level 4 (wall lizards only)
Terrestrial	Grassland	g1: Acid grassland	
		g2: Calcareous grassland	
		g3: Neutral grassland	
		g4: Modified grassland	
	Woodland and forest	w1: Broadleaved mixed and yew woodland	
		w2: Coniferous woodland	
	Heathland and shrub	h1: Dwarf shrub heath	
		h2: Hedgerows	
		h3: Dense scrub	
	Wetland	f1: Bog	
		f2: Fen marsh and swamp	
	Cropland	c1: Arable and horticulture	
	Urban	u1: Built-up areas and gardens	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	s1: Inland rock		
		s2: Supralittoral Rock	
		s3: Supralittoral Sediment	
Freshwater	Rivers and lakes	r1: Standing open water and canals	
		r2: Rivers and streams	

ARG UK Generic Risk Assessment (modified for Jersey)



	Hazard	Risk	Control measures	Probability	Comment
1	Assault	Physical injury, sexual assault	Try to defuse any potentially confrontational situations. If possible, walk away. Contact police if unsure or feel threatened. Apply Lone Working Procedures.	Low	
2	Stings and bites	Diseases, allergic reaction	If known allergy to stings take appropriate medication on site. If feeling unwell after a site visit seek medical attention.	Moderate	
3	Ticks	Transmission of Lyme disease	Be aware of ticks (e.g. BADA-UK www.bada-uk.org) and take precautions in the field. Wear long trousers and long sleeves, use insect repellent, avoid brushing through tall vegetation, check clothing for ticks, consult a doctor in the event of tick bite.	Low to high depending on whether ticks present locally.	
4	Pond (etc.) water	Pond water may contain bacteria that may cause disease (e.g. <i>Leptospirosis</i> /Weil's disease).	Treat all pond (etc.) water as potentially pathogenic. Do not ingest, do not expose cuts on skin to pond water. Wear gloves to protect against scratches when working near water. Wash hands after immersion in pond water and especially prior to eating. If feeling unwell after accidental ingestion of pond water or contact with open wound seek medical attention.	High	
5	Ponds /deep water	Drowning	Take care when near water bodies. Do not lone work near water bodies. Take throw-rope when working near water.	Moderate	
6	Cold	Hypothermia	Wear appropriate clothing. Inform group leader if feeling cold.	Low/Moderate in winter	
7	Concealed holes/ditches	Physical injury, ankle injuries	Take care when walking through areas of deep habitat or areas where there is poor footing visibility. Avoid areas of poor footing visibility is possible.	High	
8	Dogs	Bites, lacerations, disease	Be wary of dogs off leads. Disinfect any bites and seek medical attention.	Moderate	
9	Exposure to sun	Sun burn	Where appropriate use sunscreen. Avoid midday sun if possible.	High	

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10	Hazardous waste/fly tipping	Cuts, lacerations, chemical burns, infection	Wear gloves when handling waste. If unsure of contents of containers or if known to be hazardous contact emergency services.	Moderate	
11	Heat and difficult terrain	Exhaustion, dehydration	Walking difficult terrain will cause extra fatigue in hot weather. Do not rush and drink plenty of water.	Low	
12	Old and partially buried structures (e.g. buried fences)	Tripping, ankle injuries	Take care when footing is not clearly visible. Look for signs nearby of structures e.g., partially collapsed fence.	Moderate	
13	Sharp grasses and thorny bushes	Eye injuries, cuts, lacerations, infection	Do not bend down or kneel in areas of Sharp sea grass or other sharp plants. Disinfect any lacerations or punctures	Moderate	
14	Sharp objects (e.g. tins)	Cuts, lacerations, infection	Take care when picking up any potentially sharp objects. Wear gloves if appropriate or desired.	High	
15	Shooting	Physical injury	Do not approach any person suspected of carrying a weapon. If there is shooting allowed on site establish where and when shooting will take place and avoid. In cases of unauthorised shooting contact the police.	Low	
16	Steep slopes/unstable ground	Physical injury, trips, ankle injuries	Try to avoid climbing steep slopes. Take care with footing.	Moderate	
17	Stock	Physical injury, trampling	Be aware of stock behaviour, if in doubt leave site. Do not take dogs on site.	Moderate	
18	Tree felling	Injury from felled timber	In forestry plantations look out for indications of felling in progress (posted notices, sounds of felling activity). Avoid areas where/when felling is in progress.	Low	
19	Working with children	Harm to children or allegation of improper behaviour made against adult	Ensure that any children attending an activity do so under the responsibility of a guardian.	Low	

Activity _____ Date _____ Assessor _____

Amphibian and Reptile Groups of UK (ARG UK) is a registered charity (number 1165504) committed to the conservation of native amphibians and reptiles and their natural environment by supporting the development of a network of independent volunteer amphibian and reptile groups (ARGs)

Sources

ARG UK (2018). ARG UK Generic Risk Assessment.

UK Habitat Classification Working Group (2018). The UK Habitat Classification at <http://ecountability.co.uk/ukhabworkinggroup-ukhab>