

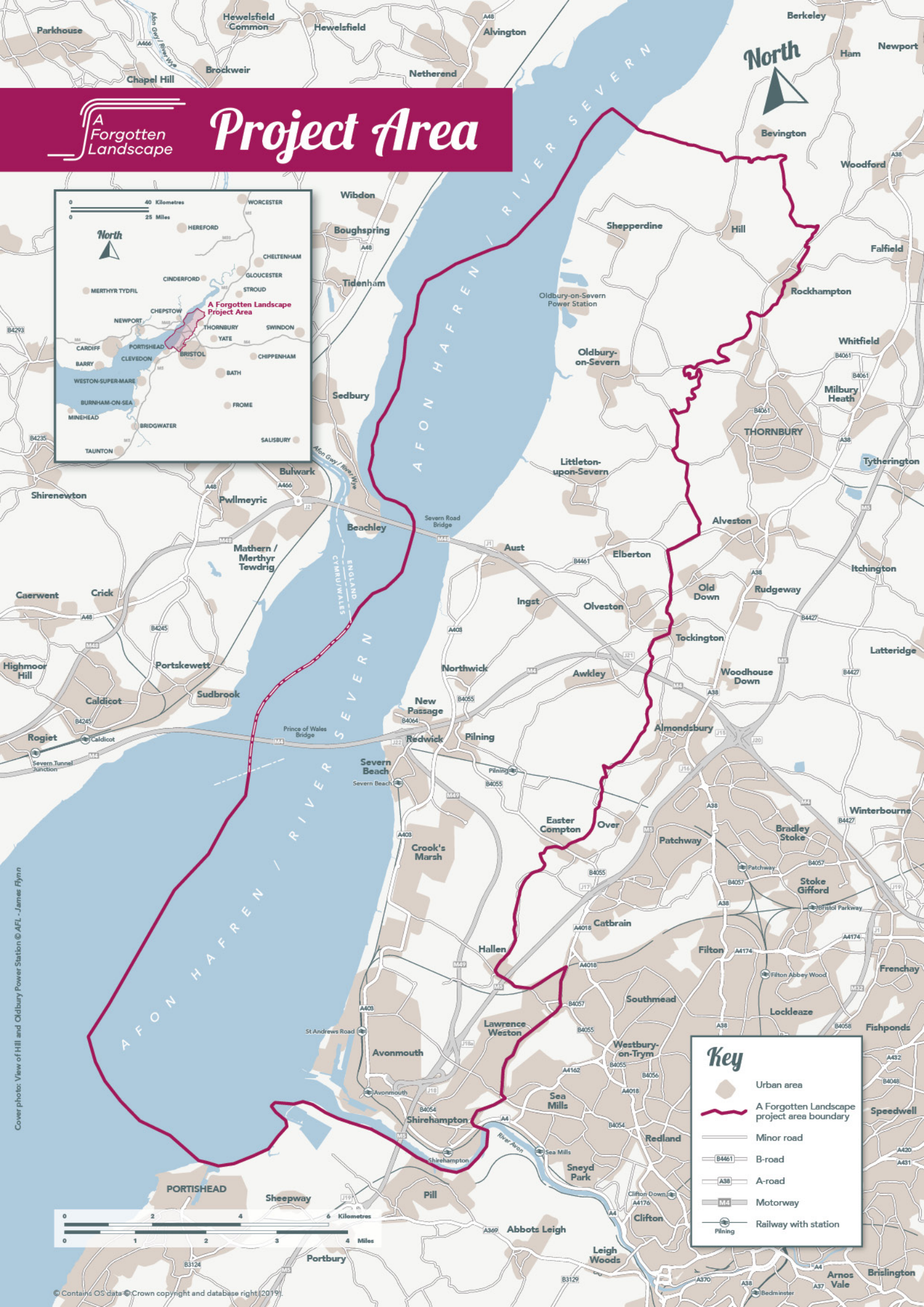


# *Volunteer Wildlife Surveys*

## *Final Report 2015 - 2018*



# A Forgotten Landscape Project Area



### Key

- Urban area
- A Forgotten Landscape project area boundary
- Minor road
- B-road
- A-road
- Motorway
- Railway with station
- Piling

Cover photo: View of Hill and Oldbury Power Station © AEL - James Flynn

# A Forgotten Landscape

## Volunteer Wildlife Surveys

### Final Report 2015 - 2018

**A** **Forgotten Landscape** (AFL) was a Landscape Partnership Scheme funded by the Heritage Lottery Fund (HLF) which ran for three years from 2015 to 2018. The scheme covered the area of the River Severn floodplain within South Gloucestershire and Bristol known as the Lower Severn Vale Levels. The scheme looked at the landscape in its broadest sense; in terms of wildlife, archaeology, history and geology and delivered 60 projects over its lifetime.

The Volunteer Wildlife Surveys project was run in conjunction with the Bristol Regional Environmental Records Office (BRERC) and recruited and trained volunteers to survey:

- *Ponds and Newts*
- *Orchards*
- *Ditches and Rhines*
- *Water Voles*
- *High Tide Roosts (waterfowl & waders)*

The records collected were then sent to BRERC to digitise electronically thus enabling the data to be easily accessible.

BRERC have digitised the habitats onto their GIS layers and over 4,000 species records have been added to the BRERC species database. All information will be made available to South Gloucestershire Council staff, other AFL partners and to data enquirers to the records centre. In addition, the species information will be available on the BRERC website via their Interactive Maps [www.brerc.org.uk](http://www.brerc.org.uk).

During the lifetime of the project 1,227 wildlife surveys were carried out by 80 different people.



Volunteer surveyors gathering in bottle traps © AFL

Total number of wildlife surveys carried out: **1,227**

# Ponds & Newts

*Pond surveys: 105*

*Pond surveyors: 13*

*Great Crested Newt surveys: 67 surveys at 33 ponds*

*Great Crested Newt surveyors: 8*

*Species records added to BRERC species database: 350+*

*In total 110 different ponds were surveyed by AFL volunteers.*

**P**onds are a common feature of the Lower Severn Vale Levels; the land is low-lying and the majority of the agriculture is grazing therefore ponds would historically have been created to provide livestock with water.

Ponds are naturally a temporary feature in the landscape - over the long term they can become filled in by sediment or can dry up as drainage patterns change either naturally or deliberately. In the short term they may also be seasonal i.e. only hold water at certain times of the year or they may be filled in by landowners. AFL surveyors found that 9% of ponds surveyed had been filled in.

Conversely, ponds can be created relatively easily and 36% of the ponds surveyed were recorded as less than 50 years old. These factors make assessing the number of ponds in an area problematic as it is unlikely to be accurate and any count would only ever be a snapshot. The most common type of pond encountered in this survey were farm ponds (43%).

The initial pond surveys included an assessment of the pond and surrounding landscapes as to whether they were suitable for newts. In total 70 were assessed as 'good' or 'moderate'. This information was used to inform locations for more detailed surveys for Great Crested Newts during the breeding season (newts only visit ponds to breed for a short time in spring). Great Crested Newts are a protected species in the UK as they are rare across their range where they occur. South West England does, however, hold a significant proportion of the international population.

15 sites with Great Crested Newts were identified - 14 of these are new sites for the BRERC area.

| Parish                 | Number of ponds*<br>(within AFL area) | Known Gt Crested Newt sites<br>(within AFL area) | Ponds surveyed | Ponds scoring Good or Moderate for newts | Ponds surveyed for Great Crested Newt | Ponds with newts found<br>(Gt Crested Newt/<br>Smooth/<br>unidentified) | Ponds with Gt Crested Newt found | New Gt Crested Newt sites |
|------------------------|---------------------------------------|--------------------------------------------------|----------------|------------------------------------------|---------------------------------------|-------------------------------------------------------------------------|----------------------------------|---------------------------|
| Hill                   | 122                                   | 2                                                | 12             | 9                                        | 10                                    | 6                                                                       | 4                                | 4                         |
| Rockhampton            | 26                                    | 0                                                | 12             | 6                                        | 7                                     | 7                                                                       | 6                                | 6                         |
| Oldbury-on-Severn      | 165                                   | 3                                                | 12             | 8                                        | 1                                     |                                                                         |                                  |                           |
| Thornbury              | 11                                    | 0                                                |                |                                          | 2 (outside project area)              | 2                                                                       | 1                                | 1                         |
| Aust                   | 139                                   | 5                                                | 44             | 31                                       | 5                                     | 4                                                                       | 1                                | 1                         |
| Olveston               | 69                                    | 1                                                | 21             | 12                                       | 4                                     | 1                                                                       | 1                                | 1                         |
| Pilning & Severn Beach | 101                                   | 21                                               | 3              | 3                                        | 4                                     | 3                                                                       | 2                                | 1                         |
| Almondsbury            | 17                                    | 1                                                | 1              | 1                                        |                                       |                                                                         |                                  |                           |
| Avonmouth              | 30                                    | 3                                                |                |                                          |                                       |                                                                         |                                  |                           |
| Henbury                | 7                                     |                                                  |                |                                          |                                       |                                                                         |                                  |                           |
| Kingsweston            | 4                                     | 1                                                |                |                                          |                                       |                                                                         |                                  |                           |
| <b>Totals</b>          | <b>691</b>                            | <b>37</b>                                        | <b>105</b>     | <b>70</b>                                | <b>33</b>                             | <b>23</b>                                                               | <b>15</b>                        | <b>14</b>                 |

\*Calculating the number of ponds in an area is not straightforward; the measure that was used was a count of the text "Pond" on the Ordnance Survey Mastermap information.



# Orchards

Orchards surveyed: 86

Surveyors: 18

Species records added to the BRERC species database: 460+

**T**raditional Orchards are designated as a priority habitat in the UK as they are hotspots for a wide variety of wildlife. However, nationally we are losing orchards at an alarming rate. Orchards used to be very common in the AFL area and although numbers have declined a significant amount still remain.

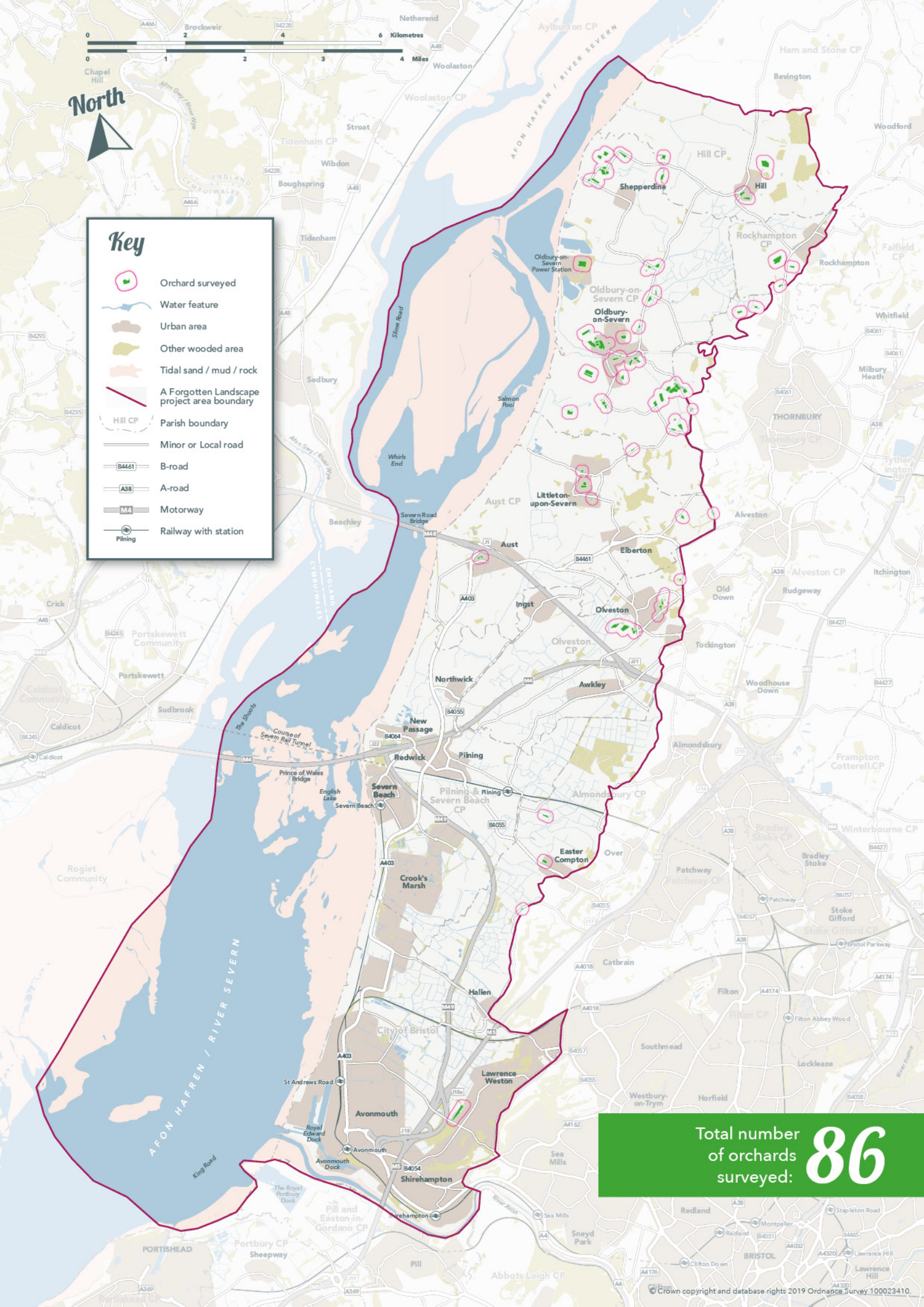
The People's Trust for Endangered Species (PTES) holds a map and database of Traditional Orchards which meet their clearly defined criteria. The AFL area contained 124 orchards as held on the PTES map. 75 of these (60%) orchards were surveyed by AFL volunteers who also surveyed 11 more orchards not on the PTES map.

15 orchards were recorded as orchards no longer - mostly because there were less than 5 trees remaining. For the rest of the orchards 80% contained old trees and only 50% contained young trees. 41% contained both - so could be considered in 'good' or 'excellent' condition. 8 orchards consisted entirely of young trees.

28% of the remaining orchards were recorded as suitable for Noble Chafer *Gnorimus nobilis*; an endangered beetle that lives in old, traditional orchards. There are no previous records from the AFL area (or indeed Avon as a whole) although the beetle is found nearby in Gloucestershire. The survey asked volunteers to look for signs of this elusive beetle, however no Noble Chafers were found.

Orchards are an excellent habitat for Mistletoe to occur; it seems to prefer more open habitat than woodlands and it is commonly found on Apple - it was recorded from 53% of all remaining orchards surveyed.

| Parish                 | Number of Orchards within AFL area (PTES) | Number of Orchards surveyed by AFL | Orchards recorded as no longer present | Remaining Orchards with some old trees | Remaining Orchards with some young trees | Remaining Orchards with young and old trees |
|------------------------|-------------------------------------------|------------------------------------|----------------------------------------|----------------------------------------|------------------------------------------|---------------------------------------------|
| Hill                   | 13                                        | 5                                  |                                        | 4                                      | 3                                        | 2                                           |
| Rockhampton            | 5                                         | 3                                  |                                        | 3                                      | 3                                        | 3                                           |
| Oldbury-on-Severn      | 64                                        | 53                                 | 10                                     | 36                                     | 18                                       | 15                                          |
| Thornbury              |                                           | 4                                  |                                        | 4                                      | 1                                        | 1                                           |
| Aust                   | 13                                        | 7                                  | 1                                      | 5                                      | 4                                        | 3                                           |
| Olveston               | 15                                        | 10                                 | 3                                      | 6                                      | 4                                        | 3                                           |
| Pilning & Severn Beach | 11                                        |                                    |                                        |                                        |                                          |                                             |
| Almondsbury            | 3                                         | 3                                  | 1                                      | 2                                      | 1                                        | 1                                           |
| Avonmouth              |                                           |                                    |                                        |                                        |                                          |                                             |
| Henbury                |                                           |                                    |                                        |                                        |                                          |                                             |
| Kingsweston            |                                           | 1                                  |                                        | 1                                      | 1                                        | 1                                           |
| <b>Totals</b>          | <b>124</b>                                | <b>86</b>                          | <b>15</b>                              | <b>61</b>                              | <b>35</b>                                | <b>29</b>                                   |



# Ditches & Rhines

*Ditch surveys: 581; totalling 91.4 km*

*Surveyors: 29*

*Species records added to BRERC species database: 730+*

*58.2 km (64% by length) of the ditches were recorded as "wet"; with water present at the time of survey.*

**D**itches and rhines are a classic floodplain habitat and are valuable places for wildlife. A wide range of species depend on them including Water Vole, Otter, Kingfisher and numerous plant, fish and invertebrate species. Furthermore, they are important corridors to allow species to move through the landscape.

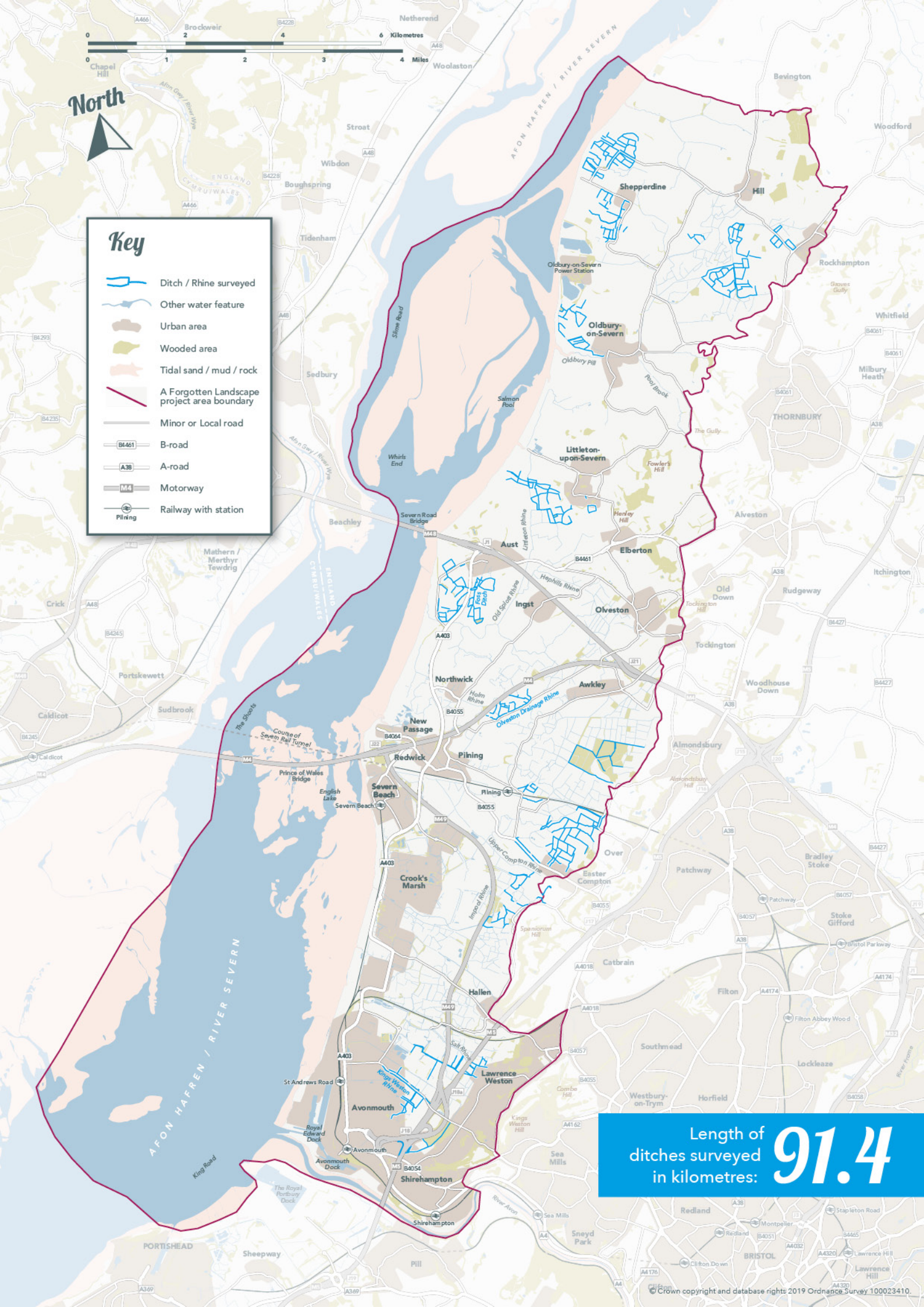
Within the AFL area there are hundreds of

kilometres of ditches and rhines that show up on maps, however past experience has shown that this is not always indicative of what you find on the ground.

Volunteer surveyors were sent out to specific areas with a map and were asked to walk the ditches and rhines shown to record where ditches were still present and whether or not they held water. This is valuable information as it can inform where to concentrate future surveys for species such as Water Vole and Otter. While the surveyors were walking the ditches and rhines they were also encouraged to survey plant and animal species they encountered along the way. 3 records of Kingfishers were recorded as part of the survey, 2 of which were in locations previously unrecorded.



Volunteer surveyors at a rhine © AFL



## Key

- Ditch / Rhine surveyed
- Other water feature
- Urban area
- Wooded area
- Tidal sand / mud / rock
- A Forgiven Landscape project area boundary
- Minor or Local road
- B461 B-road
- A38 A-road
- M4 Motorway
- Railway with station

Length of  
ditches surveyed  
in kilometres: **91.4**

# Water Voles

*Number of surveys: 49*

*Individual stretches of rhine surveyed: 16*

*Surveyors: 12*

*Species records added to BRERC species database: 50+*

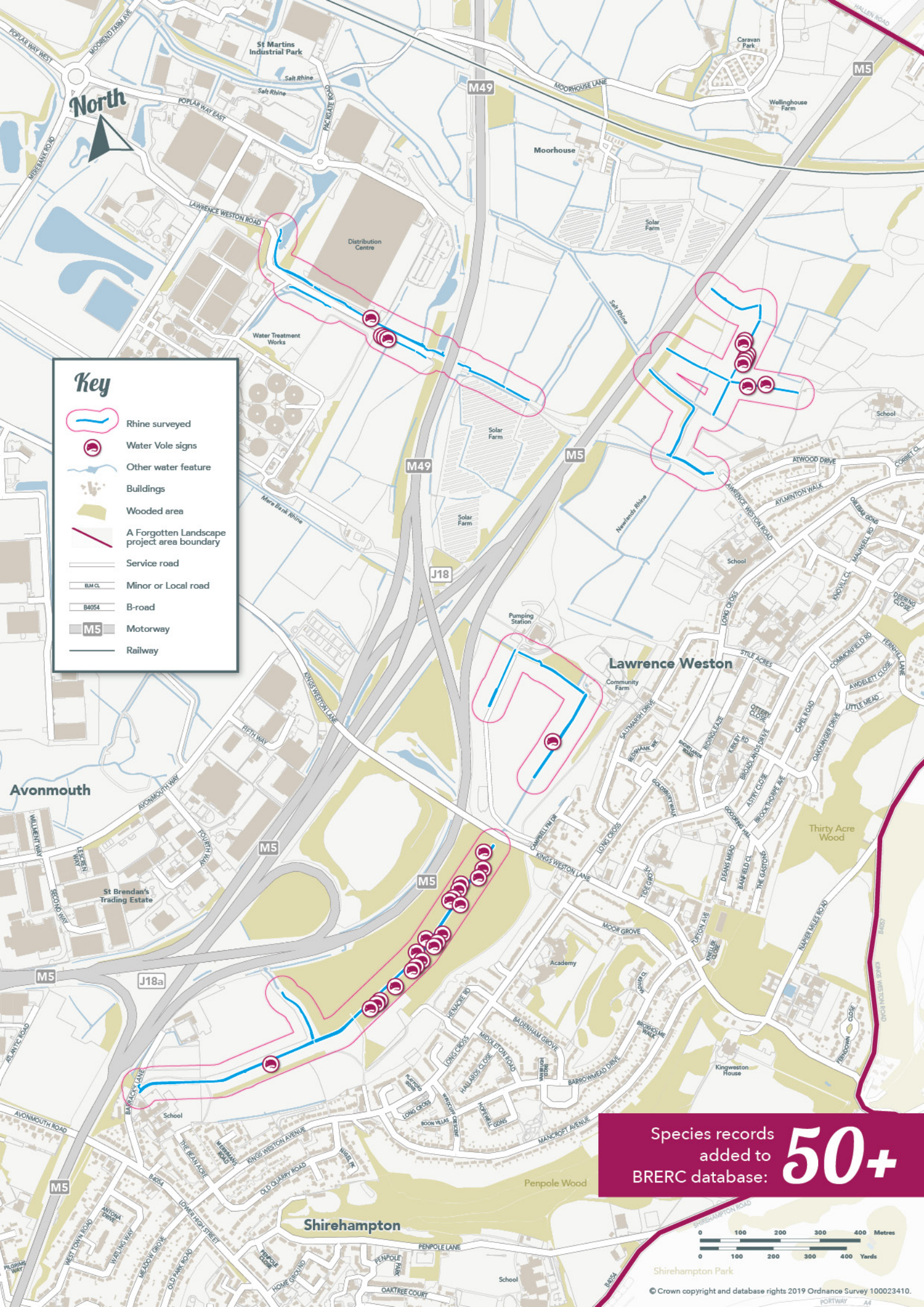
**W**ater Voles are a protected species in the UK. Their population has undergone a dramatic decline since the 1950s with loss of habitat and agricultural intensification being partly to blame along with the spread of the American Mink which predares very successfully upon the mammal. Within the AFL area there is a significant population of Water Vole in

the ditches and rhines of Avonmouth and Lawrence Weston.

The surveyors were trained in recording Water Voles and their signs. They surveyed once a month from April to September. The surveyors reported no positive sightings of Water Voles themselves, however 7 individual stretches of rhine had signs or possible signs reported - such as lawns, latrines etc. Because the surveyors were monitoring areas where there have been records of Water Voles in the past the records of signs alone were accepted by BRERC even though there were no actual sightings of the animals.



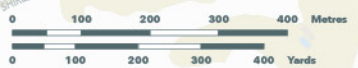
Water Vole © Natural England - Paul Lacey



## Key

- Rhine surveyed
- Water Vole signs
- Other water feature
- Buildings
- Wooded area
- A Forgotten Landscape project area boundary
- Service road
- Minor or Local road
- B4054 B-road
- M5 Motorway
- Railway

Species records added to BRERC database: **50+**



# High Tide Roost Counts

Surveyors: 17

Sites counted: 17

Number of counts: 339

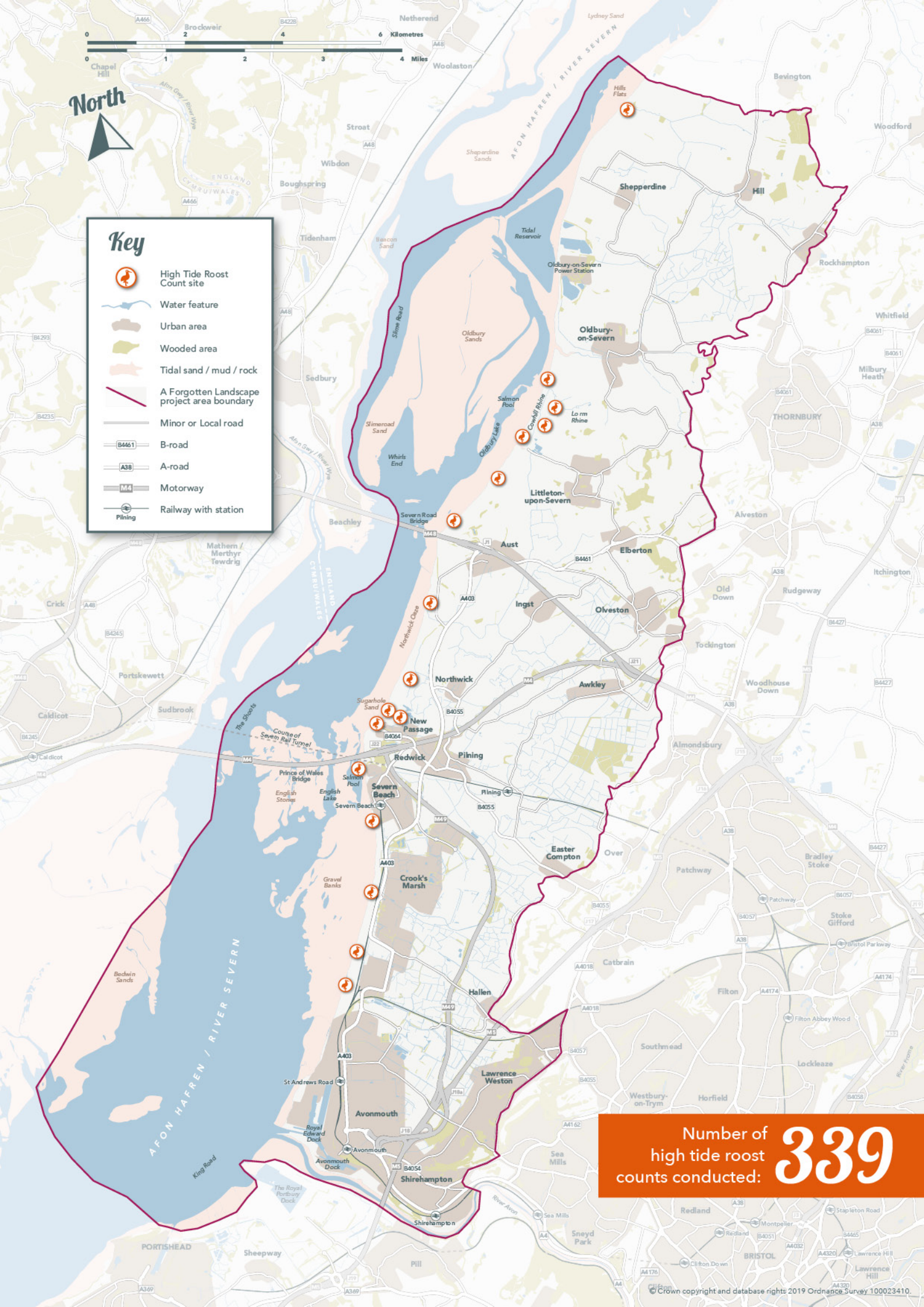
Species records added to BRERC species database: 2,300+

Detailed analysis of the High Tide Roost Counts is being carried out by the RSPB and will be provided in a separate report due out in June 2019.

**A**longside the Severn Estuary there are a number of High Tide Roosts. These are areas just inland of the river where waterfowl and wading birds such as Dunlin, Redshank, Teal and Widgeon rest up at high tide waiting for the waters to recede and the mudflats to reappear. Volunteers were trained to identify and count the birds using these sites on a given date once a month.



High tide roost count © AFL - Garry Holden



## Key



High Tide Roost Count site



Water feature



Urban area



Wooded area



Tidal sand / mud / rock



A Forgiven Landscape project area boundary



Minor or Local road



B-road



A-road



Motorway



Railway with station

Number of  
high tide roost  
counts conducted:

339

# Legacy

**T**his project has collected over 4,000 new wildlife records that have been added to BRERC's species database. This data can be applied in a number of ways; it will be used by country ecologists when making decisions on planning applications and mitigation and it will lead to better informed decisions on habitat and species management. The records can also be used to inform future wildlife surveys and can be used as baseline data.

Although the formal AFL scheme has now finished there is still plenty of wildlife surveying continuing. With the exception of ditches and rhines all the volunteer groups are still in existence in various different forms.

## **Great Crested Newt surveying**

This group, together with the pond surveyors, will continue to carry out surveys with support and guidance from South Gloucestershire Council's Wildlife Officer. They are also considering affiliating with the Avon Reptile and Amphibian Group.

## **HighTide Roost monitoring**

This group will continue to survey the roost sites over the winter of 2018/19 with the

support and guidance of the RSPB. Once the report has been produced by RSPB they will meet to decide how best to continue in the future.

## **Orchard surveying**

This group has had two outcomes. In the south of the project area, a friends-type group is coalescing around a much neglected orchard discovered in scrub on Bristol City Council land. This group is supported by Bristol City Council and will also benefit from further support from Avon Wildlife Trust if their joint bid to HLF for their My Wild City project is successful. In the north of the project area, volunteers have set up a Community Interest Company that promotes juicing orchard fruit via lending juicing equipment at a not-for-profit rate and holding community juicing events.

## **Water Vole habitat monitoring**

This group wants to carry on monitoring local Water Vole habitat and contributing data to the national People's Trust for Endangered Species survey, but is considering refocusing their attention on areas closer to where the volunteers live.

January 2019



Great Crested Newt © Natural England - Peter Wakely



Kingfisher © Natural England - Julian Dowse



Rockhampton Ditch © AFL - James Flynn



Bird identification training © AFL



Lapwing © Stephen Judd



Canada Goose © 4PM



Orchard at Oldbury © AFL - James Flynn



Female Beautiful Demoiselle Dragonfly © 4PM



Volunteer training © AFL



Redshank © Stephen Judd



Moorhen © 4PM



Wetland area at Littleton © AFL - James Flynn

# *A Forgotten Landscape*



View of Prince of Wales Bridge © APM

*AFL was a partnership project with:*

South Gloucestershire Council | Bristol City Council | Natural England  
BRERC | Environment Agency | UWE | TCV | Avon Wildlife Trust  
RSPB | FWAG Southwest



[www.aforgottenlandscape.org.uk](http://www.aforgottenlandscape.org.uk)

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