Herefordshire Nature Trust Ponds Project, Archaeological Input

March 2014

Report prepared by Tim Hoverd
Archaeological Projects Manager

Herefordshire Archaeology Report No. 344
Event No. EHE 80069

Herefordshire Archaeology
Environment, Planning and Waste
Places and Communities Directorate Herefordshire Council

Herefordshire Nature Trust Ponds Project, Archaeological Input

Event Number: EHE 80069

Herefordshire Archaeology is Herefordshire Council's county archaeology service. It advises upon the conservation of archaeological and historic landscapes, maintains the county Sites and Monument Record, and carries out conservation and investigative field projects.

Herefordshire Archaeology
PO Box 230
Blueschool House
Blueschool Street
Hereford
HR1 2ZB

Front cover image : The moat at Lower Brockhampton.

Contents

Summary:

Herefordshire Archaeology was contracted by Herefordshire Nature Trust to participate in the Herefordshire Nature Trust Ponds Project. Herefordshire Archaeology used historic map regression analysis to record the location, character and survival of ponds within thirty parishes on the eastern side of the county of Herefordshire. Herefordshire Archaeology also undertook a series of events, illustrated talks and site visits as part of the project.

The results were able to locate ponds in their original state, ponds which have survived but have been changed in shape and ponds which no longer survive. This data was mapped onto Herefordshire Council's GIS mapping system and a series of distribution maps and graphs produced.

The principal information required for the project was that concerning pond survival. This could be looked at as an area total or a parish total in a purely numerical form. The characterisation phase of the mapping meant that not only numerical data but typological data could be interrogated.

Contact details: Herefordshire Archaeology, Blueschool House, Blueschool Street, P.O.Box 230, Hereford, HR1 2ZB.

1. Introduction

This report (EHE 80069), provides an account of map regression analysis of historic ponds within thirty parishes of Eastern Herefordshire. This work formed part of the Herefordshire Nature Trust Ponds Project, a project funded by the Heritage Lottery Fund.

The ponds within each of the thirty parishes were mapped by comparison between the 1: 25 inch to 1 mile, 1st Edition Ordnance Survey Maps dating from the 1880's and modern mapping on Herefordshire Council's GIS System.

The ponds were located, their survival mapped and their character described. In addition to these tasks Herefordshire Archaeology participated in a number of events and site visits.

2. Aims and Objectives

The archaeological elements of the project were to map, characterise and assess the survival of ponds within thirty parishes. This information was then made available to Herefordshire Nature Trust in order for them to assess the ecological / habitat significance of selected ponds. The data was also used to enhance the Historic Environment Record (HER), for the county.

The parishes included within the study area were:

Avenbury, Bredenbury, Brockhampton, Bromyard and Winslow, Edvin Loach, Edwyn Ralph, Linton, Norton, Stanford Bishop, Stoke Lacy, Wacton, Coddington, Colwall, Donnington, Eastnor, Ledbury, Munsley, Wellington Heath, Acton Beauchamp, Ashperton, Bishops Frome, Bosbury, Canon Frome, Castle Frome, Cradley, Eggleton, Evesbatch, Mathon, Much Cowarne and Stretton Grandison.

Ponds were characterised as to their role / intended use within the landscape. These ranged from ponds clearly associated with farming to ponds associated with mills and other industrial processes and ornamental / designed landscape ponds and moats.

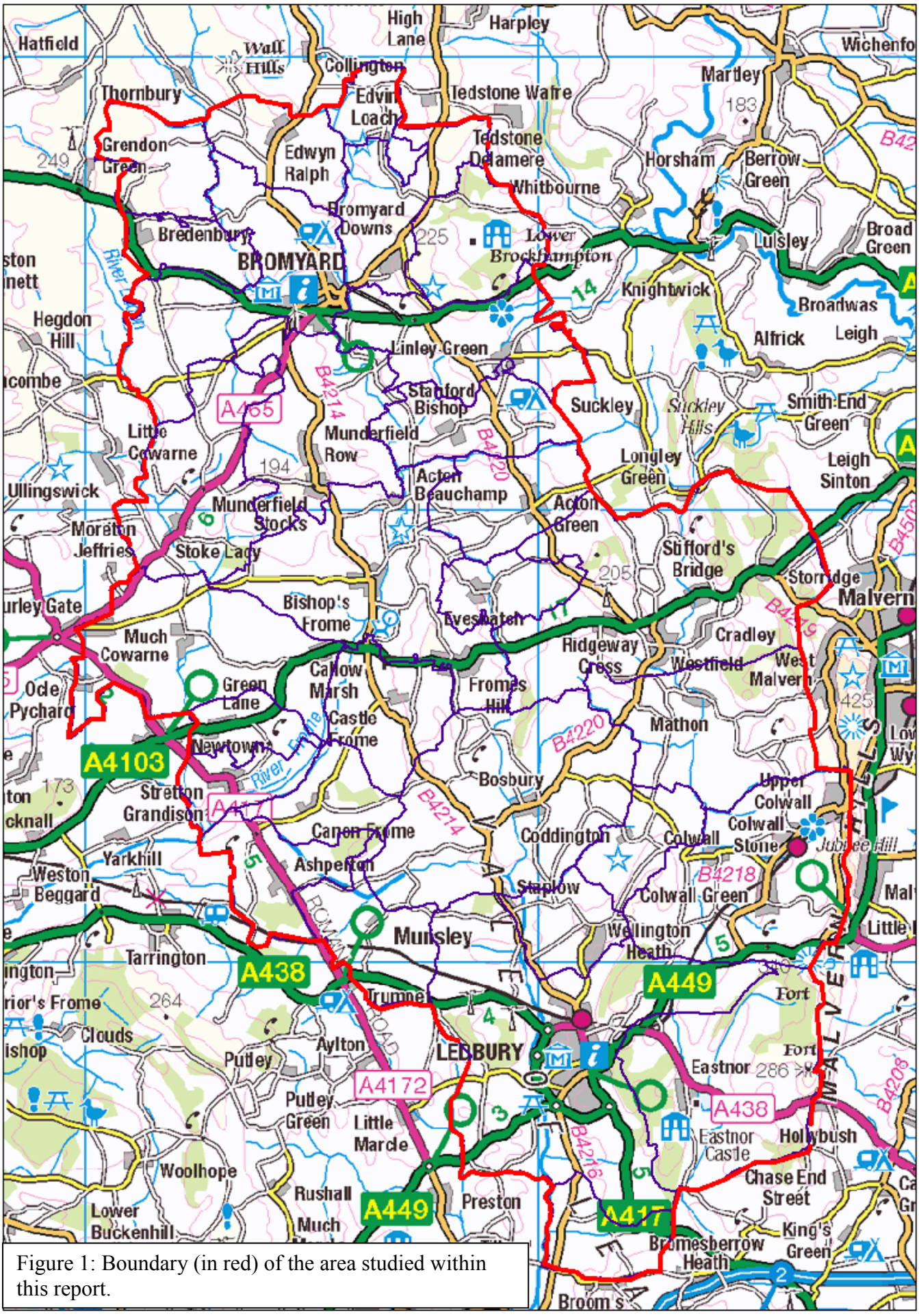


Figure 1: Boundary (in red) of the area studied within this report.

3. Methodology

Historic ponds in the Herefordshire Nature Trust Ponds Project area were mapped in order to provide an understanding of their former distribution, character and change. The Ordnance Survey 1st edition 25 inch to mile maps of the late 1880s were used as a "point in time record" of historic ponds as this represents the first consistent recording of ponds in the landscape. Earlier maps exist, such as the tithe apportionment maps, and these can show ponds although the accuracy and consistency of mapping is variable.

The project area was mapped parish by parish. The outline of the ponds was traced to create individual polygons for each pond so that the form could be compared to the form on modern maps.

Once the mapping was completed, data was input into four fields. These were:

1. **Reference Number** – A unique identifier for each pond composed of two letters derived from the parish name and two numbers (a sequential numbering of the ponds in a parish)

2**. HER Number** – Any reference number held in the Herefordshire Historic Environment Record (HER) relating to the pond or an associated feature.

3. **Character** – A simple coding for the character of the pond (see list below). Some ponds have more than one function. In these situations the dominant character was recorded.

FP = Field pond, a pond located within a field or on a field boundary with no other clearly discernible function other than to provide water for livestock.

FmP = Farm pond, a pond located in or adjacent to a farmyard that would have been used for water supply on the farm, livestock watering and cleaning farm machinery

FishP = Fish pond, a pond used to raise and farm fish. These have been defined either by the presence of them being named fishponds on historic maps or by their form (normally trapezoidal) and location to large farm or high status dwelling.

LP = Landscape pond, a pond that forms part of a designed landscape.

Moat = Moated site, a pond that is part of a medieval moated manor site.

IP = Industrial pond, a pond that is being used for an industrial purpose such as a water supply to a brickworks.

WSP = Water supply pond, a pond that has been constructed to supply water either associated with a waterworks for urban supply or for local supply to a country house.

4. **Survival** – A simple coding for survival was used. This was as follows:

T = True (Where the pond survives predominantly in the form it was depicted on historic mapping.

P = Partial (Where part of the pond survives, but much has been lost)

M = Modified (Where the pond site survives, but the historical form has been lost by later modification)

F = False (Where the pond has been lost)

The data was then available to be looked at in a number of ways depending on the types of question posed. The principal information required for the project was that concerning pond survival. This could be looked at as an area total or a parish total in a purely numerical form. The characterisation phase of the mapping meant that not only numerical data but typological data could be interrogated. This could enable informed comments to be made concerning the survival of each type of pond either globally (as part of 30 parishes) or on a parish by parish basis.

4. Current Knowledge

The current knowledge of historic pond distribution within Herefordshire is minimal. There has been no systematic recording of ponds marked on the 1st Edition Ordnance Survey Map (1886-7) and no checking to see if these ponds survive has been undertaken, (with the exception of ponds directly associated with or forming part of a specific archaeological project).

This project has enabled a significant area to be systematically mapped, ponds characterised and their survival recorded.

5. Field Survey Results

The systematic mapping of the 30 parishes included within the survey has highlighted areas of loss, survival and modification for individual parishes and also larger areas. For detailed interrogation, map regression analysis was undertaken for individual parishes. This enabled each pond present on the 1880's mapping to be traced and characterised. The traced shape of the pond was then compared to modern GIS mapping and Aerial Photographs in order to see if it had survived as per its original form or had been re-shaped or filled in completely. For ease of use and comparison parishes were grouped together within three geographically distinct areas forming the North Area, South Area and Central Area. (see tables 1 and 2).

The characterisation of the mapped ponds has been useful in identifying particular types of pond, and the survival of each type. It has helped to highlight types and or locations of historic ponds which have been under threat in the past and may be under threat in the future.

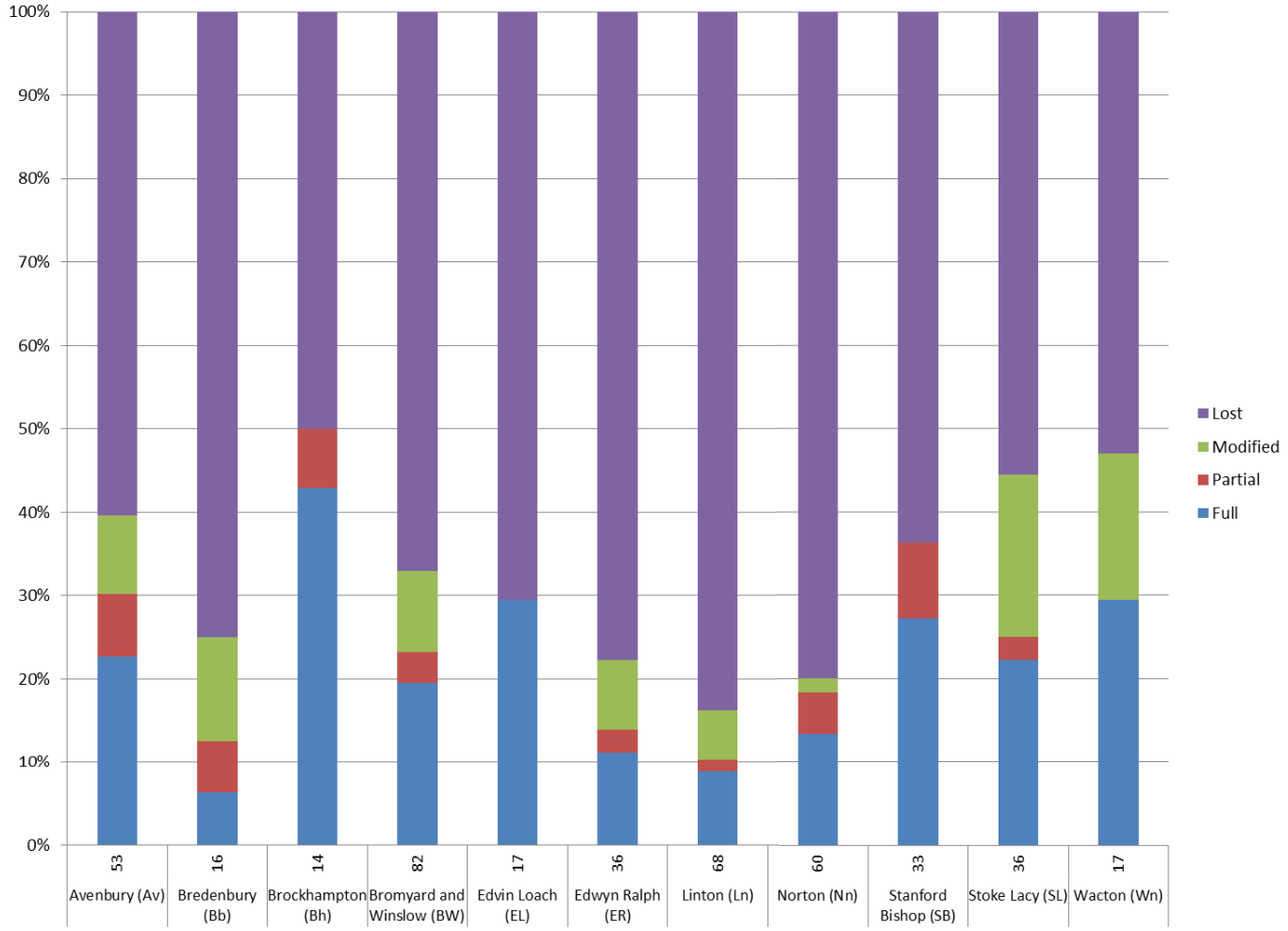
TABLE 1: Ponds by parish and area

NORTH AREA	TOTAL	Full	Partial	Modified	Lost
Avenbury (Av)	53	12	4	5	32
Bredenbury (Bb)	16	1	1	2	12
Brockhampton (Bh)	14	6	1	0	7
Bromyard and Winslow (BW)	82	16	3	8	55
Edvin Loach (EL)	17	5	0	0	12
Edwyn Ralph (ER)	36	4	1	3	28
Linton (Ln)	68	6	1	4	57
Norton (Nn)	60	8	3	1	48
Stanford Bishop (SB)	33	9	3	0	21
Stoke Lacy (SL)	36	8	1	7	20
Wacton (Wn)	17	5	0	3	9
North Area Total	432	80	18	33	301

SOUTH AREA		Full	Partial	Modified	Lost
Coddington (CD)	42	11	2	3	26
Colwall (CW)	67	34	3	2	28
Donnington (DN)	35	12	0	4	19
Eastnor (EN)	38	16	1	0	21
Ledbury (LB)	252	61	16	15	160
Munsley (MN)	43	8	2	6	27
Wellington Heath (WH)	15	1	1	1	12
South Area Total	492	143	25	31	293

CENTRAL AREA		Full	Partial	Modified	Lost
Acton Beauchamp (AB)	56	14	1	5	36
Ashperton (Ap)	54	11	0	4	39
Bishops Frome (BF)	104	16	2	5	81
Bosbury (Bs)	141	27	8	18	88
Canon Frome (CnF)	17	2	0	2	13
Castle Frome (CsF)	36	4	0	4	28
Cradley (Cr)	101	22	6	7	66
Eggleton (Eg)	39	10	1	6	22
Evesbatch (Ev)	23	6	1	1	15
Mathon (Mt)	85	30	5	4	46
Much Cowarne (MC)	103	29	2	15	57
Stretton Grandison (SG)	30	7	0	6	17
Central Area Total	789	178	26	77	508

TABLE 2: Sample graph showing percentage of survival within the north area



6. Discussion

The results suggest that a considerable percentage (64.3%) of all ponds have been lost over the last 120 years. These have either been purposefully in-filled or have been abandoned and have silted up over time to become permanently dry. Only 14% of all ponds which appear on the 1st Edition Ordnance Survey Mapping have survived in their original form, the remaining 22% have been modified. The majority of ponds lost comprised farm ponds and field ponds. This appears to be largely due to changes in agricultural practices and development within or in close proximity to farm yards. Landscape ponds (ponds within a designed landscape) and moated sites appear to have survived well – this is largely due to their protected status, the vast majority being within Registered Parks or within the curtilage of listed buildings.

7. Acknowledgements

Herefordshire Archaeology would like to acknowledge the support and co-operation Nigel Hands, Richard King and all at Herefordshire Nature Trust.

The author would like to acknowledge the work undertaken by Dr. Neil Rimmington during his time with Herefordshire Archaeology in the production of the GIS data for this project.