



A report on GPS Location Surveys
around Ovington, Northumberland
for
Prudhoe's "Path-ology" Project
In partnership with
Ovington Linear Arboretum Project

September – October 2023 (v2)

INTRODUCTION

Prudhoe Pathforce rights-of-way group have been creating walks leaflets for nearly twenty years. In the the autumn of 2023, we began planning a new series of "walks media" based upon digital data and online-support for multi-media "tracking". In addition to traditional printed maps, our proposal is to provide GPS location data in a number of formats suitable for "smart" portable devices. We are also aware of the interests of cyclists and equestrians in having access to descriptions of local rides.

Our constitution caters for "Prudhoe and the surrounding parishes", so we were delighted to receive an invitation to attend a meeting at Ovington Social to learn about the "Ovington Linear Arboretum Project", an ecology-worthy proposal to plant trees along footpaths and bridleways in their surrounding countryside.

Our partnership is therefore a symbiotic one, enabling two parallel projects to provide benefits to local people and care of our ecology.

THE SURVEYS

The overview image in this report is the product of "on the ground" GPS tracks overlaid on to Open Street Map (OSM) using the GpsPrune software application. For later reference, we have found it convenient to mark nodal points in the network (major junctions and corners) with arbitrary labels based very loosely on compass cardinal points with respect to the centre of the area of interest.

Data captured "on the ground" must be adequate for "tracking" a path, but also be sufficiently detailed to provide "marker" locations for both existing trees and new plantings. The raw source data from our GPS trackers provides latitude and longitude to six decimal places. This claim of accuracy is insane, as it implies a location may be defined to within an area smaller than the screen of a pocket smart-phone (11 x 6.5 cm) . However, the 6dp data have been used to calculate geo-locations in other paradigms in the hope that this will avoid significant rounding errors.

OTHER GEO-LOCATION PARADIGMS

Beside Lat-Long, three other systems have been considered:

- [1] What Three Words
- [2] Plus-Codes (aka OLC – Open Location Codes)
- [3] UK National Grid References

[1] WHAT THREE WORDS ③ ///

Although this system has proven benefits of “site location” for emergency services, it has severe drawbacks for plotting routes. The main problem is that the 3m squares are not contiguous, that is, there’s no obvious relationship between the W3W labels used for adjacent squares. Online access is required to identify sites using W3W labels.

[2] PLUS CODES ∴

These neo-rectangles are based upon lines of latitude and longitude, and may be calculated off-line. They are derived from base-20 arithmetic, which allows each larger area to be sub-divided into 400 smaller units (20 x 20) . As an example, Ovington Social Club has a global PlusCode reference of **9C6W X493+HR**. However, as the prefix **9C6W** defines an area of about 7,000 sq.km, we may use **(Tynedale) X493+HR** as a unique regional reference without ambiguity. By adding one extra character **(9)**, we may define the location of the club’s bar (within 6 sq.metres) as **X493+HR9**.

[3] NATIONAL GRID REFERENCES ☐

This system has been used by surveyors, engineers and hikers for many years, and works very well when used in conjunction with Ordnance Survey (OS) maps. It has the advantage that scale-rulers may be used to estimate distances. However, the recent success of the free Open Street Map (OSM) for general community use has perhaps led to a decline in the general public’s preference for NG references. Although online resources exist to convert between Lat-Long and NG co-ordinates, the two systems are not rectilinear (Grid North is not True North is not Magnetic North.)

OPEN STREET MAP (OSM)

Members of Prudhoe Pathforce have contributed site data to OSM and it is now our choice as a background map upon which to plot tracks for leisure activities. It is compatible with many applications in open-source software and the Organic Maps application is freely available for use on smart-phones. Organic Maps also provides location data in a variety of paradigms and permits “favourite” locations to be stored.

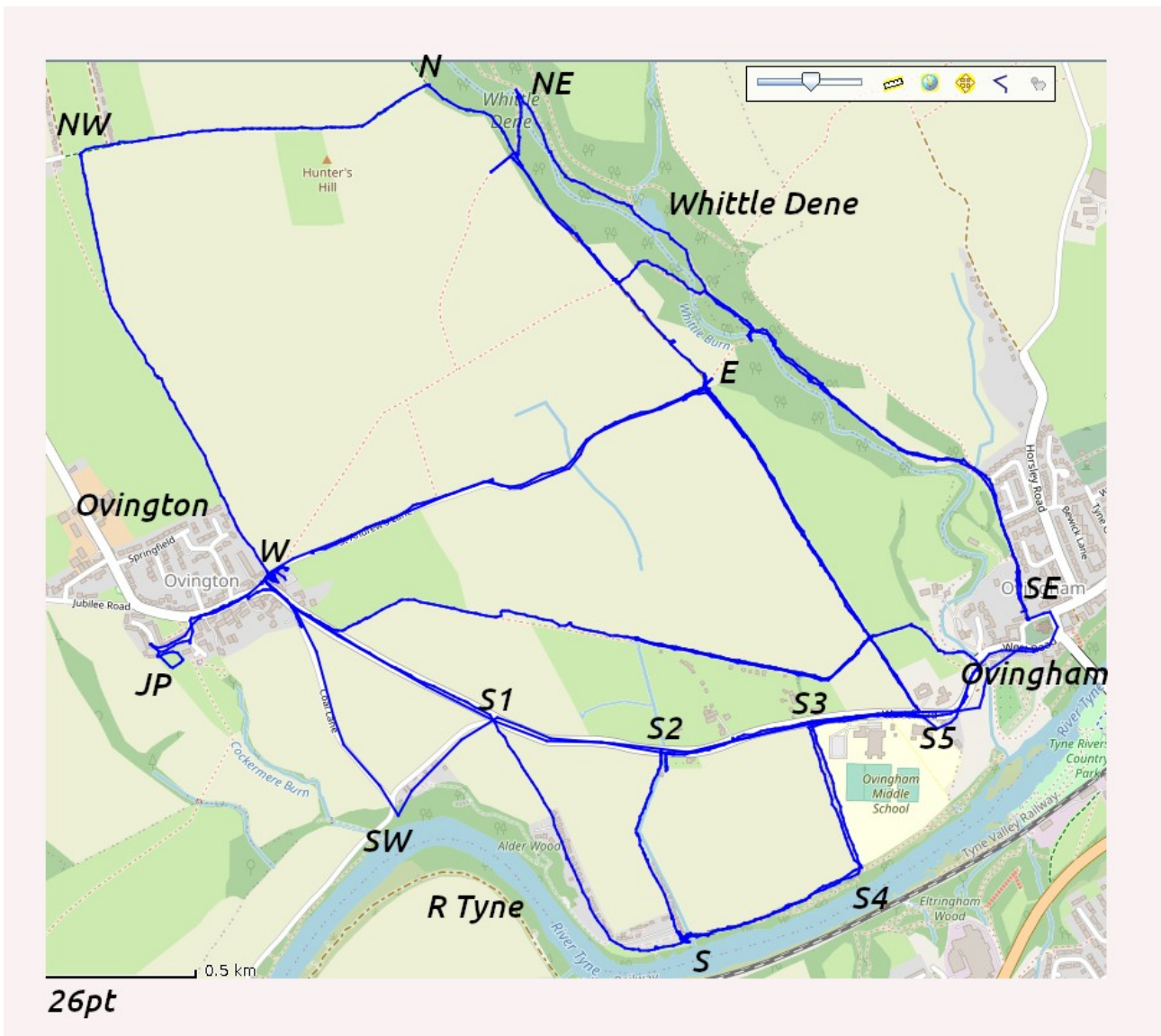
THE AREA MAP

In the image below we have used OSM as a background upon which to show the extent of our surveys up to date. The nodes (major junctions and corners) have been given arbitrary labels to assist further discussion.

The northern area comprises a rough quadrangle (W – E – N – NW – W) which is traversed by several minor paths (as yet, not tracked).

The area to the south of St Andrew's Lane (W – E) is more complex, including carriageways (W – SW – S1) and the "unofficial" path (S – S2) used in error.

Whittle Dene/Burn (NE – SE) may benefit from further surveys, and the joyful Joiner's Park (JP) was added at the request of the Arboretum group.



Details of the nodes are given in the tables below.

- Pete Barrett 28 October 2023 (version 2) added PROW numbers and minor corrections.

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KEY: 📌 Node name 📍 LatLon ⚡ Pluscode (9C6W ...)
 📏 UK Nat Grid ⚙ Description ③ What Three Words?

📌 OTN-OC [23UE]	⚙ Ovington Social Club (location of bar)
📍 54.968888, -1.895444	
⚡ X493+HR9	③ ///shielding.oatmeal.forgives
📏 406792 563 812	
📌 OTN-NW [23T7]	⚙ Junction of BW's near Overdene Stables 536/005 to south and 536/002 to east and west
📍 54.977328, -1.902175	
⚡ X3GX+W4J	③ ///invented.redeemed.prime
📏 406359 564751	
📌 OTN-W [23T7]	⚙ Junction of St Andrew's Lane (BT 536/018) and BW to Overdene 536/005 (to north)
📍 54.968987, -1.895698	
⚡ X493+HPX	③ ///baker.emeralds.inferior
📏 406775 563823	
📌 OTN-JP [23UA]	⚙ Joiner's Park at entrance to circuit track survey added at request of OLAP.
📍 54.967345, -1.899498	
⚡ X482+W6C	③ ///positive.novelists.oupost
📏 406532 563670	
📌 OTN-NE [23UE]	⚙ Bridge over Whittle Dene. Junction of paths 536/004 (to SW) and 527/011 (to N & S)
📍 54.978582, -1.887084	
⚡ X4H7+C5	③ ///duet.grades.decent
📏 407325 564892	
📌 OTN-E [23T7]	⚙ Junction of BW's at east end of St Andrew's Lane BW 536/020 to south and BW 536/002 to north
📍 54.97266, -1.880611	
⚡ X4F9+3Q3	③ ///cherubs.bridge.dates
📏 407741 564234	
📌 OTN-N [23T7]	⚙ Junction of BW's NE of Hunter's Hill BW 536/002 to west and south, BW 536/003 to north
📍 54.978685, -1.890118	
⚡ X4H5+FX	③ ///yachting.upcoming.bangle
📏 407181 564903	
📌 OTN-SW [23UA]	⚙ Junction of Coal Lane and Bywell Road
📍 54.964510, -1.891333	
⚡ X475+RF2	③ ///whimpered.daredevil.subtitle
📏 407056 563326	

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KEY: 📌 Node name 📍 LatLon ⦿ Pluscode (9C6W ...)
 📏 UK Nat Grid ⌘ Description ③ What Three Words?

📌 OTN-S1 [23UA]	⌘ Junction of Bywell Road and West Road Paths 536/011 and 536/016 to node "S"
📍 54.966078, -1.885856	
⦿ X486+CV	③ ///misted.disengage.backpack
📏 407278 563500	

📌 OTN-S [23UA]	⌘ Ferry Landing junction of paths 536/016 (west) and 536/013 (east)
📍 54.961663, -1.881353	
⦿ X469+MF	③ ///enhances.performed.buyers
📏 407695 563010	

📌 OTN-S2 [23UA]	⌘ West Road midway (arbitrary)
📍 54.965417, -1.881882	
⦿ X489+56	③ ///innovator.screeches.relations
📏 407661 563427	

📌 OTN-S3 [23UC]	⌘ West Road NW of school, path entrance to path 536/012 leading to node "S4"
📍 54.966020, -1.876952	
⦿ X48F+C6	③ ///prestige.televised.stall
📏 407976 563495	

📌 OTN-S5 [23UC]	⌘ West Road, opposite school BW 536/020 north to node "E"
📍 54.966194, -1.873131	
⦿ X48G=FP	③ ///erase.shook.passes
📏 408221 563515	

📌 OTN-SE [23UE]	⌘ NW of parish church, entrance to Whittle Dene path 535/005 to north
📍 54.968119, -1.869386	
⦿ X49J+66	③ ///outpost.observer.slopes
📏 408460 563730	

📌 OTN-S4 [23UC]	⌘ Path corner to S of Ovingham Middle School Junction of paths 536/012 (north) and 236/013 (west)
📍 54.963141, -1.875129	
⦿ X47F+7W	③ ///wide.assets.licks
📏 408093 563175	

📌	⌘
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⦿	③ ///
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