# Shoreham and District Ornithological Society

## A guide to the use of grid references and the website gridreferencefinder.com                    Spring 2019

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## SDOS Grid Reference Guide to Birding Locations

The Ordnance Survey National Grid is a series of squares 100 x 100km that is overlain on England and Wales

Each 100x100km Square is designated by two letters. Much of Sussex is in Square TQ but small areas of the extremities of the two counties overlap into SU, TV and TR. Two letters are therefore the first component of a unique Grid Reference e.g. TQ3403 which is at the centre of Brighton Marina.

Each 100x100km square is divided into ten thousand squares 1x1km. These squares are contained within the numbered grid shown on the margins of 1:25000 OS Maps and the numbers in any grid reference represent the intersections (Eastings first, Northings second) of grid lines on the map.

Thus the grid in square TQ is numbered 0 – 99 horizontally (Eastings) and 0 – 99 vertically (Northings) on the map to produce a 1x1km grid. Therefore TQ3403 at Brighton Marina is located at Easting line 34 and Northing line 03.

The precedence of Eastings before Northings has also been described as 'along the corridor and up the stairs' or 'horizontal before vertical' to make the process easier to remember. It is the key thing to remember when trying to find a grid reference on a map.

A grid reference can have four, six, eight or ten numbers. Four figures as in TQ3403 is fine for big locations like Brighton Marina, ten figures (e.g. TQ3412303123) is very powerful with a 1m grid, but six figures (a 100m grid) is widely used and six figure grid references can be estimated by eye fairly easily on 1:25000 scale maps. The SDOS list uses six figure grid references.

 The number of numbers in a grid reference is always even (2,4,6,8,10) so to find the originating intersection (e.g.TQ3403) you split the number in half and identify the first two numbers in each sequence. Thus TQ3412303123 splits as 34123 and 03123 and 3403 is the originating intersection.

The two remaining numbers 123 and 123 are telling us that the intersection point TQ3412303123 is 123m East of 34 and 123m North of 03. This level of accuracy means that it is possible to find a grid reference for a small bush or a park bench.

This level of detail generally isn't possible using a map but is quite easy to do using a Website on your computer because some Websites also allow you to look at an aerial 'photograph'. This is a valuable innovation because in the past we had to interpret the nature of the ground from a map; now we can look at it directly on an image and, even better, we can increase the scale in order to see small things.

For a further explanation of how grid references work with diagrams and other illustrations try logging into getoutside.ordnancesurvey.co.uk or, for greater detail, greenmansoftware.co.uk

# How to use gridreferencefinder.com to locate places and visualise your birding trip – a tutorial using a Windows PC

It is best to practice in the first instance using a computer or laptop with a good sized screen and a separate mouse. Open your browser and type gridreferencefinder.com into the search bar. This site carries advertisements. These are not particularly obtrusive but if you are running an ad-blocker in your browser you may need to disable the blocker before the site will load (just google a question like 'how to disable ad blocker in (insert browser name)'. If problems persist then other websites are available to find grid references on a map (again try Googling).

Open [gridreferencefinder.com](gridreferencefinder.com) in your browser and you will see a map of the British Isles and on the left side is a series of search boxes. Into the one labelled Grid References type TQ3403. This box deals with 4, 6, 8 or 10 figures by splitting them as in the previous explanation.

You should now see an air photograph of Brighton Marina with a super-imposed display panel showing ten and six figure grid references, an X and Y easting and northing, latitude and longitude (useful for your car sat -nav system), an address and a postcode. You can get rid of the display panel by clicking on the cross and you are left with the pointer blob that shows the grid intersection. You can grab the photo with the left mouse button and move it about. There is also a side bar on the right of the screen with which you can manipulate the display.

By using the scrolling wheel on the mouse you can enlarge or reduce the scale of the photograph. Try grabbling the photo and pulling it to the right to get the traffic roundabout at the west end of the Marina. Place the mouse arrow in the middle of the roundabout and right click to get a new display panel with a fresh panel of information that locates the centre of the roundabout.

Next reduce the scale a bit with the mouse scroll wheel and drag the image westwards along the coast to Shoreham Fort. Now right click on the centre of the car park. This gives TQ233046, exactly the same as the grid reference in the SDOS list, because it was done in exactly the same way. At the bottom of the screen is a box 'show points on an OS map' Click this and it opens a map in a new window that can also be reduced and enlarged.

Go back to the air photo (the previous window at the top of the screen) and drag it to the north of Shoreham to see the Mill Hill gyratory. Then find the northern car park at Mill Hill. You can easily see the south exit gate because the chalky path is obvious. About ten metres west of the gate are two bushes so type in TQ2114707432. That is the grid reference for a bush which should be indicated by the pointer. This facility could be useful for describing the location of flowers or other small features.

Both maps and aerial images have disadvantages. Maps need interpreting and, if they are on paper, have limitations relating to their scale. With air photographs it can be difficult to see terrain in forested areas and it can be tricky to identify the tops of hills and bottoms of valleys but this Website enables one to move between the two mediums at a variety of scales and greatly simplifies both finding a known grid references and determining the grid reference of an unknown location. You can also print the screen to take it with you into the field.