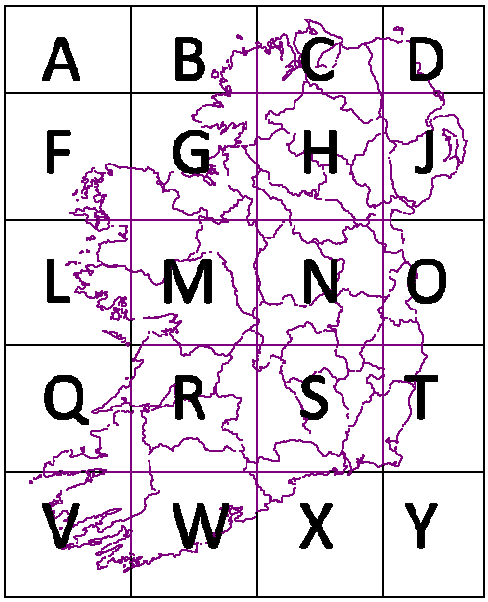
TAKING A GRID REFERENCE FROM AN ORDNANCE SURVEY (OS) MAP

Step by step guide: based on using the OSI Discovery Series 1:50,000 scale

I. Get a map that covers your location.

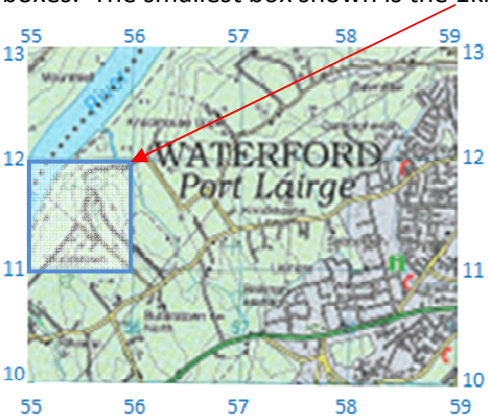
II. Find your location on the map.

III. Write down the letter of the 100km^2 grid that your location is in. This will be written on the map. **Beware**; the map may overlap parts of two 100km^2 grid squares so two letters may be printed on the map. Bold lines on the map will indicate which square your location is in**.**

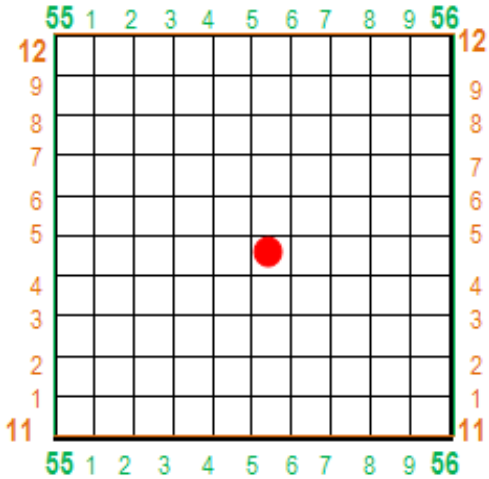


Map of 100km grid squares with associated letters

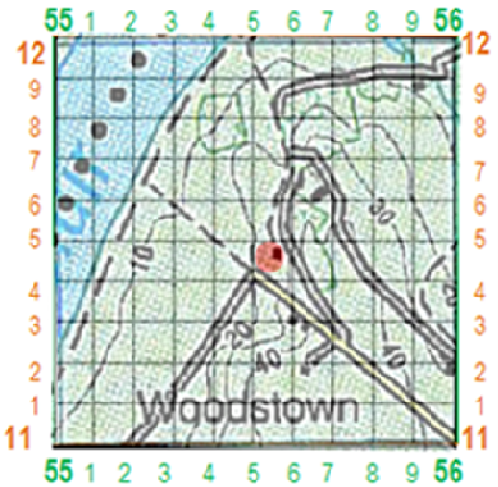
IV. Each 100km^2 box in broken down into a series of smaller boxes. The smallest box shown is the 1km^2.



V. To get a grid reference at a 100**m^2** resolution a letter and 6 figures are required. You must first record the EASTING. Locate the first vertical grid line to the left of your location. Read the numbers labelling the line either in the top or bottom margin or on the line itself. Write down the two digit number. Now imagine that there are a further nine vertical lines between this first line of the box and the last. Estimate in from left to right how many lines it is to your location. Write down this number. On grid box below: **555**



VI. Now record the NORTHING. [It is the same procedure as in step five but now looking at the horizontal lines.] Locate the first horizontal grid line below your location. Read the numbers labelling the line either in the left or right margin or on the line itself. Write down the two digit number. Now imagine that there are a further nine vertical lines between this first line of the box and the last. Estimate in from bottom to top how many lines it is to your location. Write down this number. On grid box: **114**



VII. Put the letter and three digit easting then the three digit northing numbers together and you now have a 100m^2 grid reference for your location. The grid reference for location marked with the red dot is **S555114**. This is the grid reference for the National Biodiversity Data Centre just outside Waterford City.

TAKING A GRID REFERENCE AND OTHER COORDINATE TYPES FROM A GPS

The use of Global Positioning System (GPS) handsets is becoming more commonplace for the biological recorder. The accuracy of the position given can be quite high so a full resolution reading can be submitted to the Data Centre. It should be noted that while the Data Centre will store the full resolution given it will display the record to a resolution of $100m^2$. Before taking a reading it is important to correctly set your GPS unit to the coordinate system you want to use. The table below provides some guidance on the coordinate systems accepted by the Data Centre, the GPS unit set-up, and notes on their formatting for submission.

Example coordinates are for the location of the National Biodiversity Data Centre

Coordinate system	Example Coordinate format	GPS Unit set-up	Notes on submission
OSI Alpha Numeric	S5553811470	Position Format: Irish Grid (IG) Map datum: Ireland 1965	Please do not have spaces between the characters.
Irish Grid (IG) aka Irish National Grid (ING)	255538 111470	Position Format: Irish Grid (IG) Map datum: Ireland 1965	Please enter the easting and northing coordinates in separate headed columns. Six digits must be given for each easting and northing. For ITM, the zero before the easting and northing can be removed.
Irish Transverse Mercator (ITM)	655400 611500	Position Format: Irish (ITM) Map datum: ETRF 89 or WGS 84	
Latitude/Longitude ETRF89 is preferred but WGS84 is also accepted	Submit Lat/Long in **decimal degrees** Lat (N): 52.25264 Long (W): 007.18751	Position Format: hddd.dddd° Map datum: ETRF 89 or WGS 84	Please enter the latitude and longitude in separate headed columns

TAKING A GRID REFERENCE FROM A WEBSITE

There are a number of online resources for retrieving grid references and some of these are listed below. These online maps all behave in a similar way by clicking on the rough location of your site and zooming in to finer resolution layers (maps and aerial photos).

http://maps.biodiversityireland.ie	Use the tool to click on your location and read Irish Grid (IG) reference from right side column.
http://maps.osi.ie/publicviewer	This gives the reference in Irish Transverse Mercator (ITM)
www.gridreference.ie	Please give normal grid reference or 10 digit grid reference
http://www.biology.ie/convert.php	This gives the grid reference in both latitude and longitude and OSI Alpha Numeric.