## Guidance for using the Range tool for Article 17 reporting

The following note describes the procedure for using the Range Tool to create a range grid based on a species or habitat distribution. The resulting output is not an essential part of the Member States final data upload to CDR, however the range value is a requirement for the reporting format: field 5.1 for the species report and field 4.1 for habitats report. The recommended parameters to be used during this process are outlined in the Explanatory Notes and Guidelines for the period 2013-2018 (DG Env, 2017).

The range tool is accessed at: <u>http://discomap.eea.europa.eu/App/RangeTool/</u> (for the 10x10 km grid) <u>http://discomap.eea.europa.eu/App/RangeTool1x1</u> (for the 1x1 km grid)

To create an Eionet account please contact: <a href="http://www.heipdesk@eionet.europa.eu">heipdesk@eionet.europa.eu</a>

## Procedure (10x10 grid):

1) Login with an EIONET user account

Login	
EIONET user name	
Password	
Login	

2) Upload the zipped shapefile. Ensure that it contains all files associated with the shp.

The uploaded shapefile will be expected to include a valid .prj-file

The Range Tool will operate in the EPSG:3035 coordinate system.

If the uploaded shapefile is not in the EPSG:3035 coordinate system it will be reprojected first so that all calculations can be performed in EPSG:3035.

The uploaded shape-file may contain polygons of any shape, the tool will "render" any polygons into cells that align with one of the reference grids.

EEA Range tool		
	Quickstart Create a new transformation job by uploading one or more ( <b>zipped</b> ) <b>shapefiles</b> . Remember to include its companion files inside the zip (.dbf, .shx, etc). Please bear in mind that <b>only 10x10km grid cells</b> are supported in the uploaded files.	ZIP
	Choose File No file chosen	Start

3) **Choose the relevant transformation parameters**. Refer to the reporting guidelines for the appropriate parameters to use for either species or habitats distribution. The chosen gap distance needs to be increased by 1 grid cell as the gap is calculated from the cell center and not the cell edge (below is a gap distance of 4). The **code** field (habitats or species) is selected by default.

Prepare job
The following files have been uploaded, please specify transformation parameters below.
XX_Art17_habitats_distribution.shp
Please notice: parameters will be applied to all of the shapefiles. If this is not what you intended, click "Cancel", and compose a new zip containing only those shapes that share the same parameters.
If in doubt, include just one shapefile (with its auxiliary files) per zip
Transformation parameters
Select country
select
Do the uploaded files contain species or habitats data?
select
Specify the field that contains the species/habitat code
select
Range distance (meters)
50000
If you are unsure, leave the default value.
Cell size (meters)
10000
Cancel Continue

4) **Submit job**. At this point the process can be left to run in the background even if leaving the page. The length of time depends on the FME server. The clock icon below means the job is queued.



5) **Download file.** It may be necessary to click 'Refresh' to see if the process has been completed. The download (1 below) will be a zipped file containing a range shp and two text files (full and filtered) with the range area per habitat code per biogeographic/marine region in km<sup>2</sup> (example below). Files can also be deleted from the tool (2 below).

	Depending on job status, a number of actions o	are available for each job, including <b>download of the results file</b> .
*	XX_Art17_habitats_distribution.shp 2018-06-06 11:57 2018-06-06 12:11 undated	
	2010-00-00 12.11 updated	
Refresh		2

The resulting attribute table will contain information the presence (100) or absence (0) of the feature in a grid and also the grids recommended for deletion based on the criteria listed in 'To note' below.

FID	Shape	Code	ALP	ATL	BLS	BOR	CON	MAC	MED	PAN	STE	MATL	MBAL	MBLS	MMAC	MMED	REGION_CHK	CNTRY_CHK
270	Polygon	91E0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	keep	keep
271	Polygon	91E0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	keep	keep
272	Polygon	91E0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	keep	keep
273	Polygon	91E0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	keep	keep
274	Polygon	91E0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	keep	keep
275	Polygon	91E0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	remove	keep
276	Polygon	91E0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	keep	keep
277	Polygon	91E0	0	100	0	0	0	0	0	0	0	100	0	0	0	0	keep	keep

The .csv labelled 'full' contains the area of **all** range grids calculated per habitat/species code. The .csv labelled 'filtered' contains the range area **minus** the area of the grids recommended for deletion.

Code	ALP	ATL	BLS	BOR	CON	MAC	MED	PAN	STE	MATL	MBAL	MBLS	MMAC	MMED
7230	0	47900	0	0	0	0	0	0	0	9400	0	0	0	0
8110	0	19100	0	0	0	0	0	0	0	9400	0	0	0	0
3140	0	32500	0	0	0	0	0	0	0	7100	0	0	0	0
6410	0	35100	0	0	0	0	0	0	0	8600	0	0	0	0

Where a habitat/species code is not recognized in the country or region within the country, this will be denoted by '-' in the 'full' .csv file, and will not be present in the 'filtered' .csv file.

REGION_CHK	CNTRY_CHK
-	keep
-	keep
-	keep

A more detailed range tool description is available in the draft 'Reporting tool guidelines for the delivery of Article 12 and 17 data'. (http://cdr.eionet.europa.eu/help/habitats\_art17/)

## To note:

The tool identifies the following unsuitable areas that should be excluded from the calculated range:

-marine areas automatically included in the range of terrestrial features (REGION\_CHK); -terrestrial areas automatically included in the range of marine features (REGION\_CHK); -areas identified by the in the adjacent biogeographical or marine regions for which the feature is not noted on the checklist (REGION\_CHK)

Additionally, the 1 km range tool may display "**no\_info**" in the REGION\_CHK and the CNTRY\_CHK columns. These are cells where the tool is unable to assign suitability for inclusion in the range calculation, mainly due to complex coastlines or borders. The user should pay close attention to these grids and either keep or remove from their final range calculation.

The tool does not automatically remove any cells from the shape file but identifies cells for removal by the user based on the above criteria. Any other modifications of the file will require the user to recalculate the range values (km<sup>2</sup>).

Where a grid crosses a country boundary and multiple biogeographic regions, the regions identified within the cell will all be counted towards the range calculation even if the biogeographic region overlapping the cell occurs in the neighbouring country. The tool is not able to identify this as a potential grid for deletion from the range.

## Other information:

DG Environment. 2017. Reporting under Article 17 of the Habitats Directive: Explanatory notes and guidelines for the period 2013-2018. Brussels. Pp 188 (http://cdr.eionet.europa.eu/help/habitats\_art17/)