

Targeted skills

By the end of this module, you will know how to:

- generate a grid with custom extent and resolution
- clip a grid with a polygon layer
- aggregate spatially an underlying point layers and produce a thematic map (but you know it already!)

Data

Exercise outline & memos

In this module, given our previous analysis, we would like to perform a fine-grained analysis of the outbreak situation at a higher resolution (large scale) in the south west of Romania, especially in these counties:

- Ialomița
- Constanța
- Călărași
- Brăila
- Tulcea

1. Data preparation

Your tasks:

1. Select counties of interest and save it as new layer
2. Select ASF outbreaks data covered by this new area of interest
3. Save it as a new layer

Once, this is done, we would like to create a new layer with one single feature/polygon representing the contour of the area formed by 5 counties selected. This transformation is called **dissolving**.

[In QGIS Processing Toolbox]

Write "dissolve" in the search box

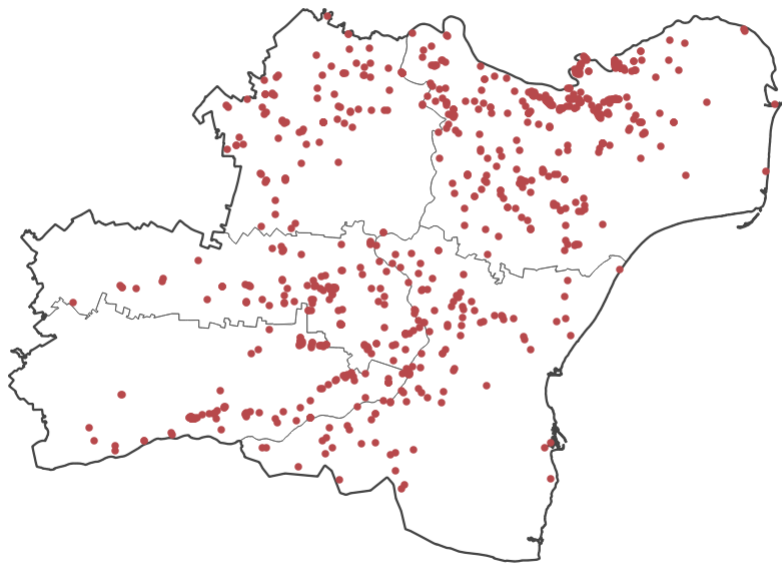
and double-click on Vector geometry Dissolve

Choose the layer of interest and "Run"

Save it as new layer

By now, you should have three new layers (see screenshot below):

- the ASF outbreaks for these 5 counties
- the 5 counties selected as a new layer
- a layer with one single feature representing the contour of these 5 counties



2. Generate and clip a grid

Now, we would like to generate a grid of 5km resolution. To do so:

[In QGIS Processing Toolbox]

Write "grid" in the search box

and double-click on Vector creation Create grid

and reproduce the settings below:

Parameters
Log

Grid type
Rectangle (polygon)

Grid extent (xmin, xmax, ymin, ymax)
26.2539978,29.71986198,43.73562241,45.49261475 [EPSG:4326]

Horizontal spacing
5.000000 kilometers

Vertical spacing
5.000000 kilometers

Horizontal overlay
0.000000 meters

Vertical overlay
0.000000 meters

Grid CRS
EPSG:32635 - WGS 84 / UTM zone 35N

Grid
[Create temporary layer]

☒ Open output file after running algorithm

0%
Cancel


Run as Batch Process...
Run
Close
Help

And finally, let's **clip** (using region of interest as a countour to the newly created grid):

[In QGIS Processing Toolbox]
Write "clip" in the search box
double-click on Vector overlay Clip
reproduce the settings below
and save it as a new layer


ParametersLog

Input layer

Grid [EPSG:32635] ... 

☐ Selected features only

Overlay layer

gadm-rom-level1-sw-dissolved [EPSG:4326] ... 

☐ Selected features only

Clipped

[Create temporary layer] ...

☒ Open output file after running algorithm

Clip

This algorithm clips a vector layer using the features of an additional polygon layer. Only the parts of the features in the Input layer that fall within the polygons of the Overlay layer will be added to the resulting layer.

The attributes of the features are not modified, although properties such as area or length of the features will be modified by the clipping operation. If such properties are stored as attributes, those attributes will have to be manually updated.

0%

Cancel

Run as Batch Process...

RunCloseHelp

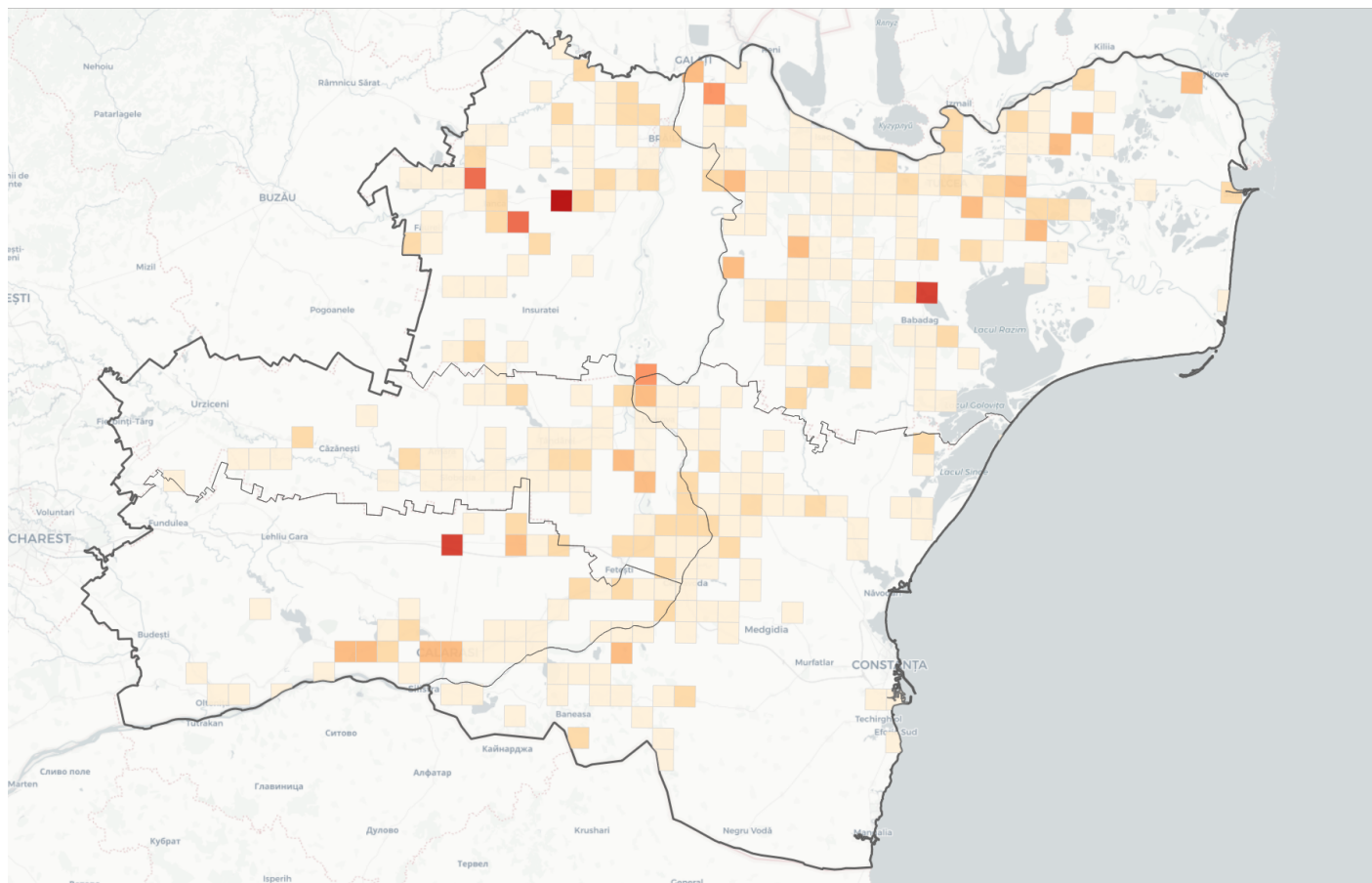
3. Thematic mapping of sum of ASF cases

Now it is your turn. By now, based on modules covered these last 2 days, you should be able to:

- aggregate the nb of cases of the ASF outbreaks dataset into each individual grid;
- produce a thematic map of the sum of number of cases in the gridded layer.

YOUR TURN ...

You could come up with a thematic analysis similar to the one below:



We will see in a later module, how to produce a map publication ready including legend, north arrow, titles, ...