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

- Romania admin layer
- ASF outbreaks

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 Southeast 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 `gadm-rom-level1-se.shp`
2. 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 "gadm-rom-level1-se-dissolved"
```

1. Last, select ASF outbreaks data covered by this new area of interest and save as `asf-20180101-20190410-se.shp`

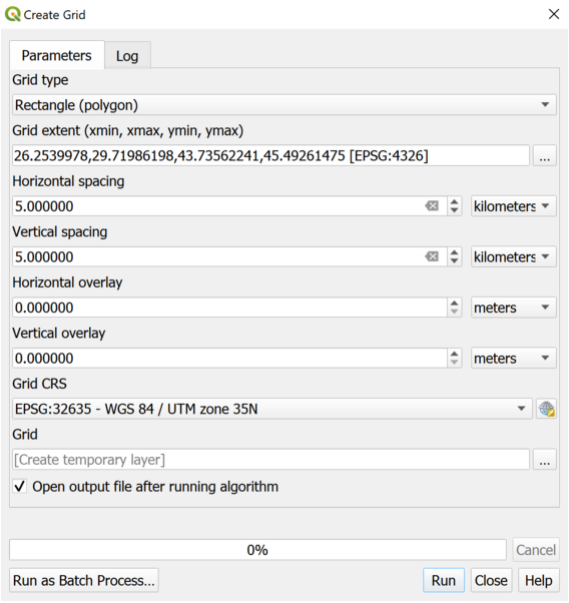
By now, you should have three new layers (see screenshot below):

- 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

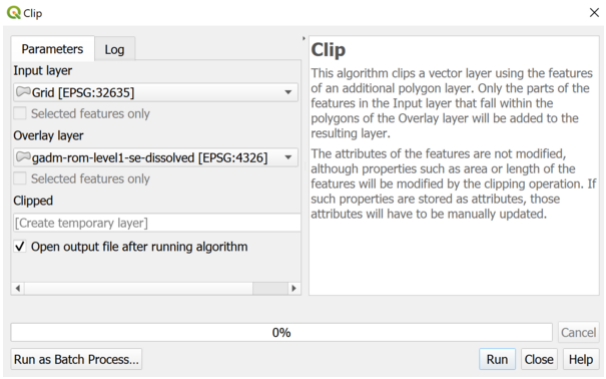
Now, we would like to generate a grid of 5km resolution. To do so:

```
[In QGIS Processing Toolbox]
Write "grid" in the search box
and double-click on Vector creation    Create grid
and reproduce the settings below:
```



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
```



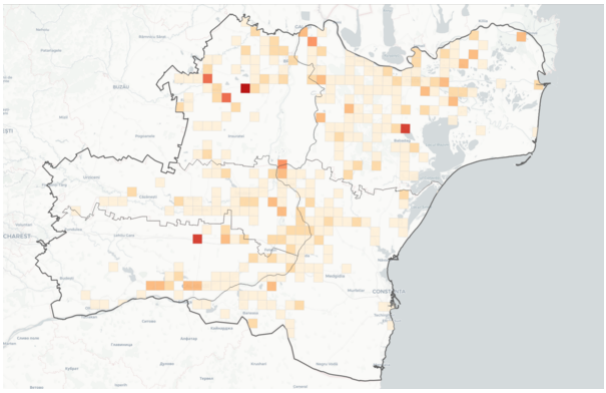
3. Thematic mapping of sum of ASF cases

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 sould 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, ...