

# Basic Raster Styling and Analysis

QGIS Tutorials and Tips



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QGIS is a free and open source geospatial software package. It provides a graphical user interface to a wide range of geospatial data formats and processing tools. QGIS is a powerful tool for working with spatial data, and it is a good choice for those who want to work with spatial data in a free and open source environment.



The data is available in two formats: 1990 and 2000. The data is available in two formats: 1990 and 2000. The data is available in two formats: 1990 and 2000.



- QGIS is a free and open source geospatial software package.



The data is available in two formats: 1990 and 2000. The data is available in two formats: 1990 and 2000. The data is available in two formats: 1990 and 2000.

1. Go to the [Population Density Grid, v3 download page](#). Select the *Data Attributes* as *.ascii format*, *1° resolution* and *1990 year*. Click *Download*. At this point, you may create a free account and login, or use the *Guest Download* button at the bottom to immediately download the data. Repeat the process for 2000 year data.

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**Recommended Citation:**

Center for International Earth Science Information Network - CIESIN - Columbia University, and Centro Internacional de Agricultura Tropical - CIAT. 2005. Gridded Population of the World, Version 3 (GPWv3): Population Density Grid. NY: NASA Socioeconomic Data and Applications Center (SEDAC). <http://sedac.ciesin.columbia.edu/data/set/gpw-density>. Accessed DAY MONTH YEAR.

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*Please check the Research Note field for issues pertaining to importing authors that are organizations.*

**ENW** Use this format for EndNote and RefWorks software.

**RIS** Use this format for ProCite, Reference Manager and Zotero software.

**Data:**

**Geography:**  
Region » Global

**Data Set:**  
Population Density Grid

**Data Attributes:**  
.ascii 1° 1990

Download

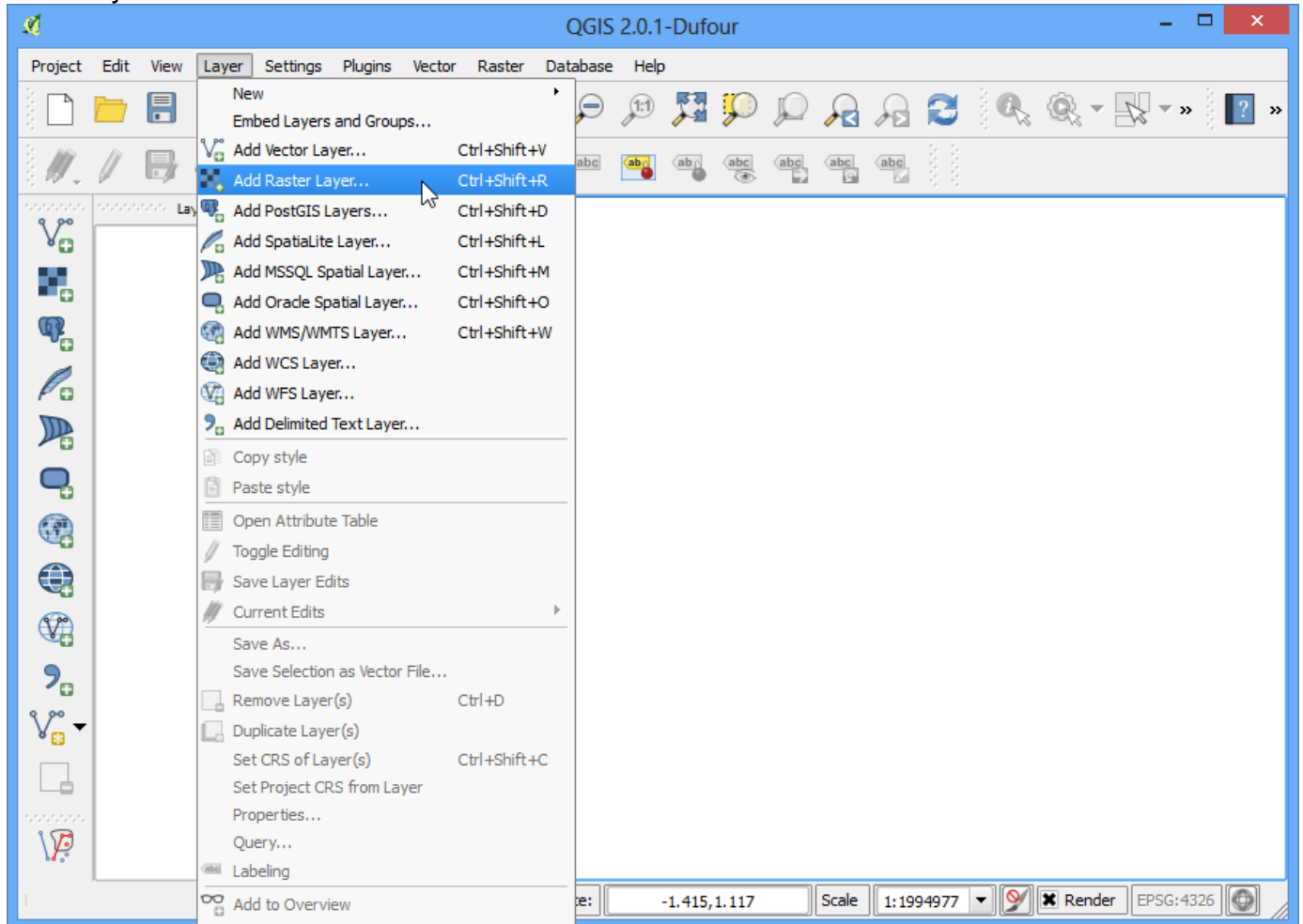
feedback and support

**2** ■■■ ■■■■■ ■■■■■ ■■■■.

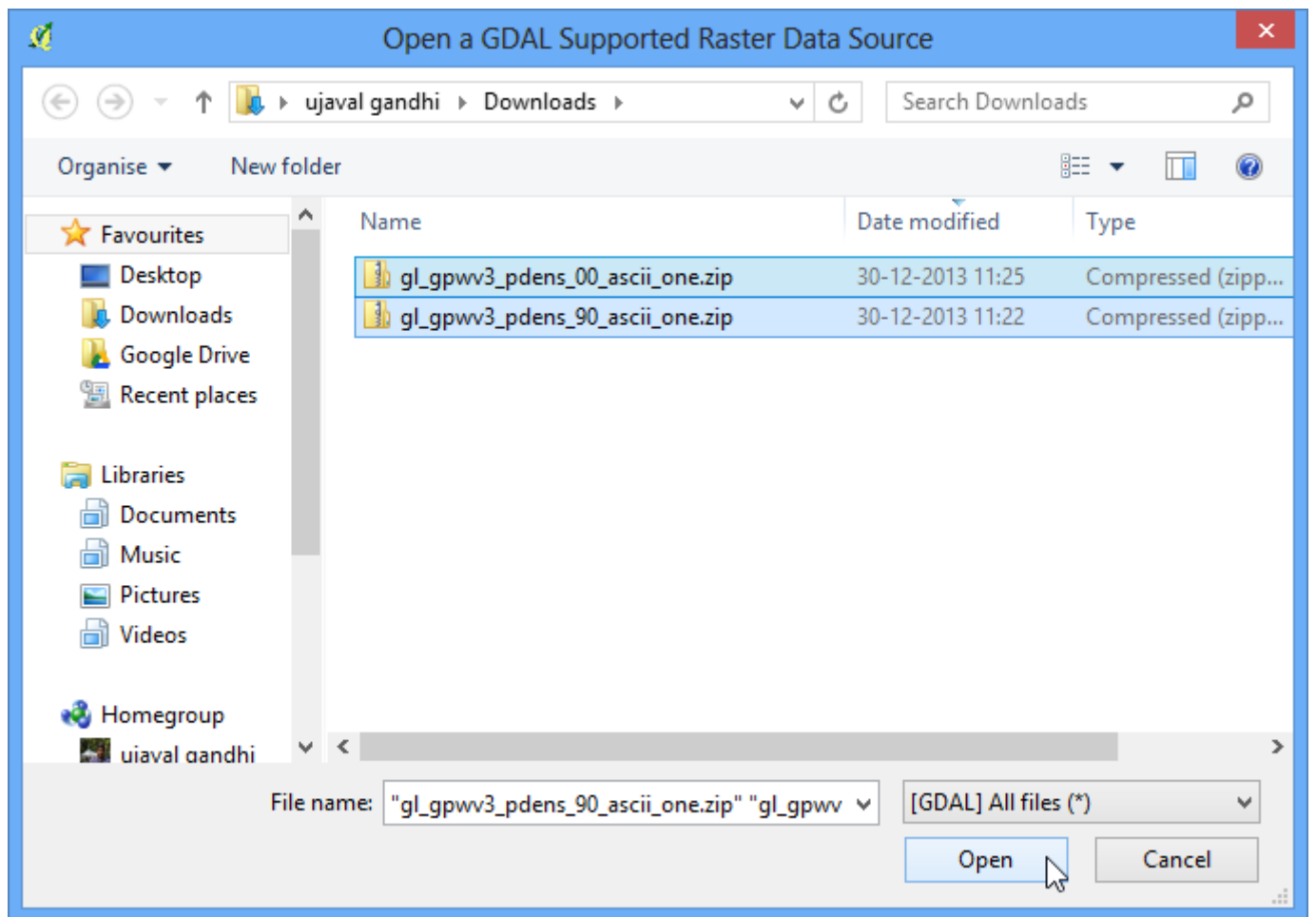
■■■■ ■■ [GPW3]

11

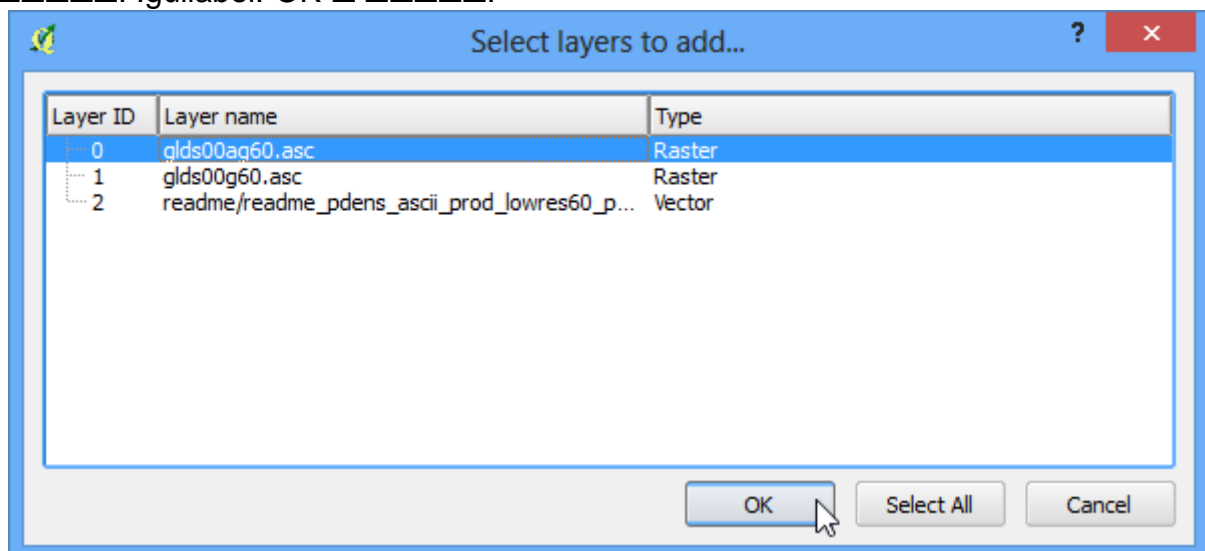
```
2. QGIS ■■■■■ ■■ ■■■ --> ■■■ ■■■ ■■ :menuselection: Layer --> Add Raster
Layer.. ■■■■■.
```



3. ■■■■■■ ■■■■■■ ■■■■■■. ■■■■■■ :kbd:`Ctrl` ■■■■■■ ■■■■ ■■■■■■ ■■■■■■. ■ ■■■■■■ ■  
■■■■■■ ■■■■ ■■■■ ■■■■■■. ■■■■ ■■ ■■ ■■■■ ■■■■■■ ■■ ■■■■ ■■■■■■.



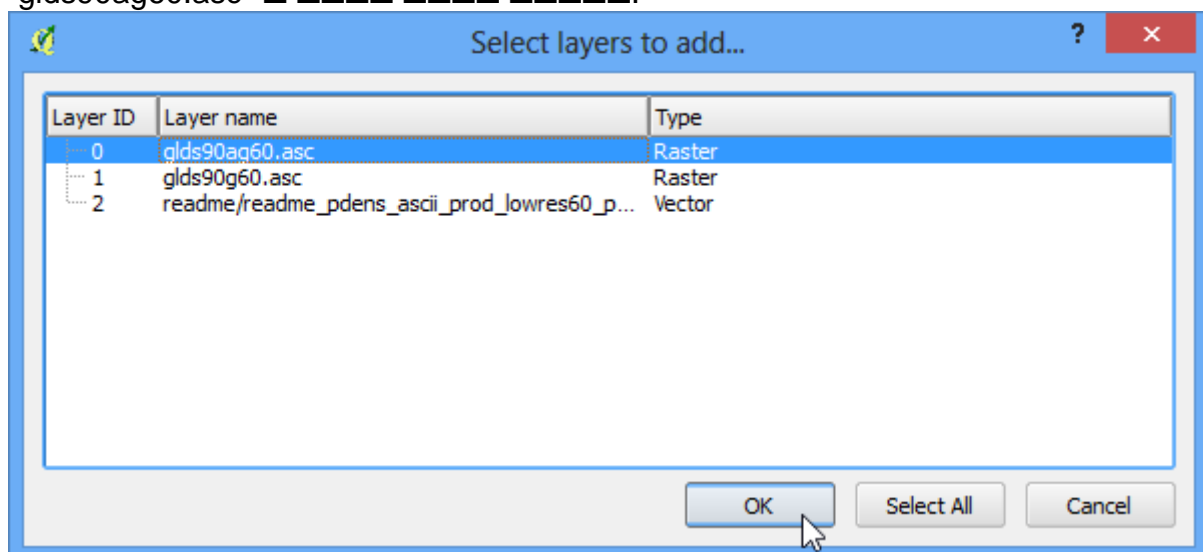
4. **2**. **a** UN **glds00ag60.asc**. **:guiabel: OK**.



5. **CRS**. **EPSG:4326**.



6. `glds90ag60.asc`



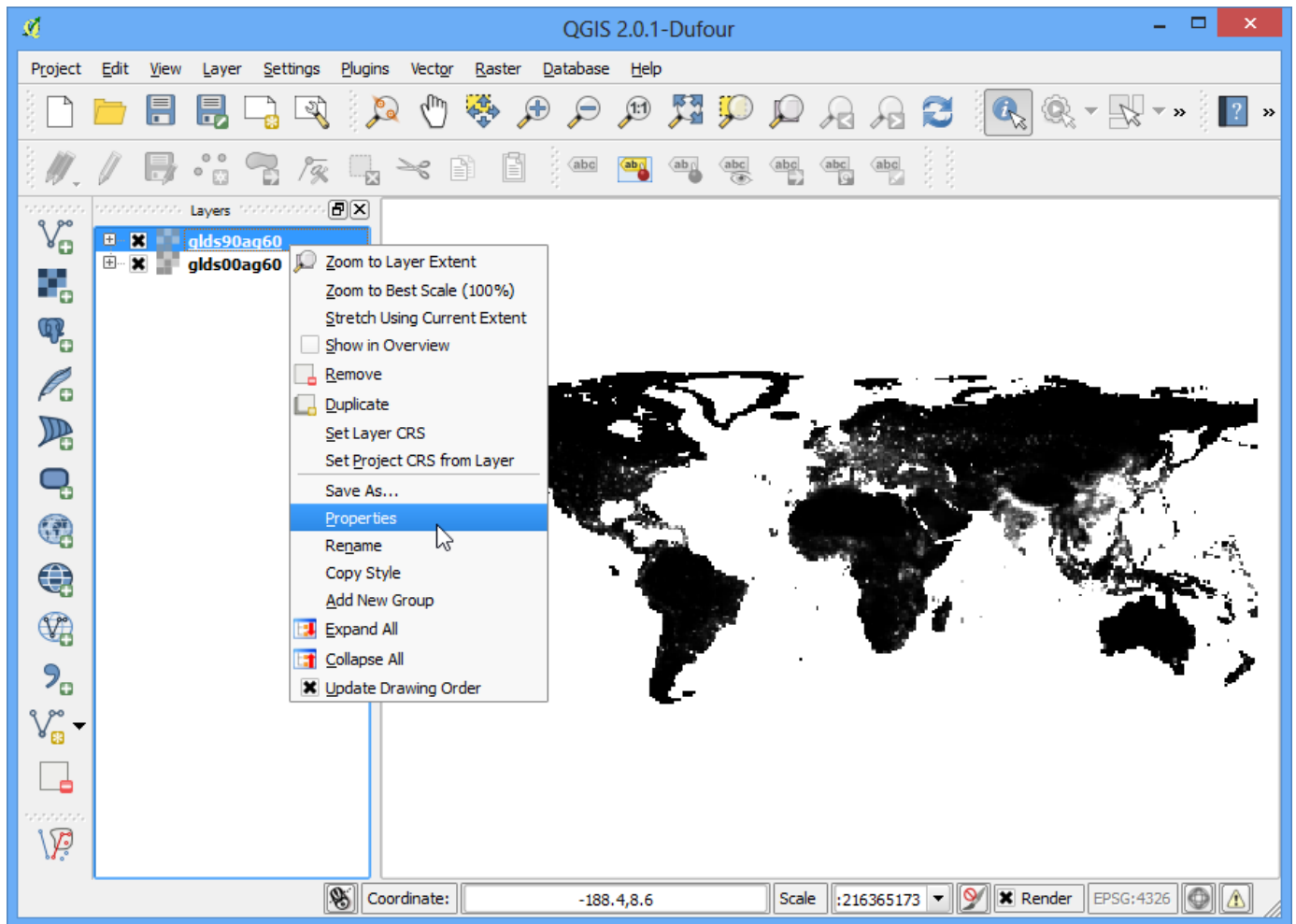
7. CRS `EPSG:4326`.











11. **Style** **Render type** **Singleband pseudocolor**  
**:guilabel: 'Generate a new color map'** **:guilabel: 'Classify'**  
**5** **:guilabel: 'OK'**

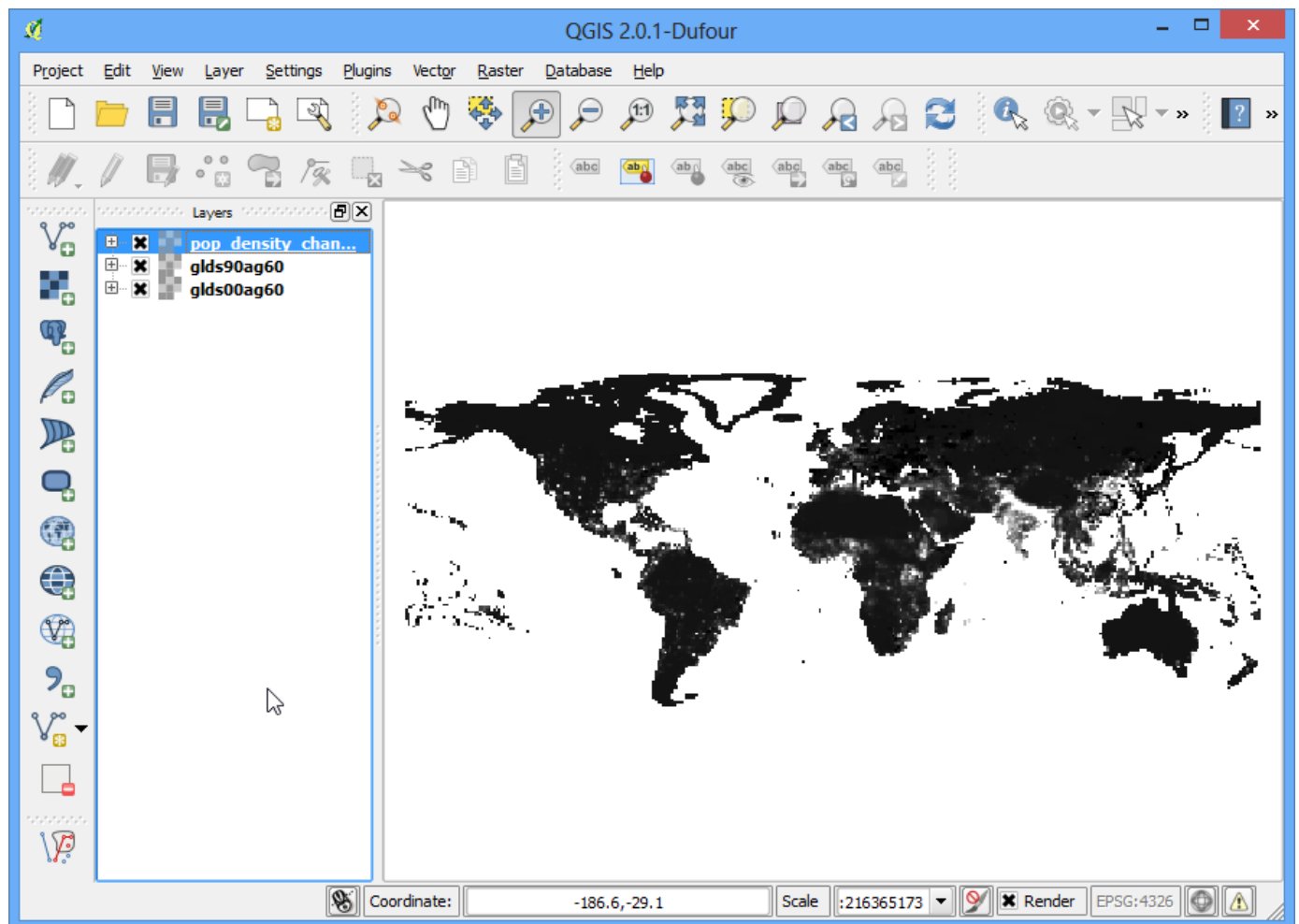


12. QGIS ■■■■■ ■■■■ ■■■■. ■■■■■ ■■■■ ■■ ■■■■ ■■ ■ ■■■■■. ■■ ■■■■ ■■ ■■■■■ ■■ ■■■■■.

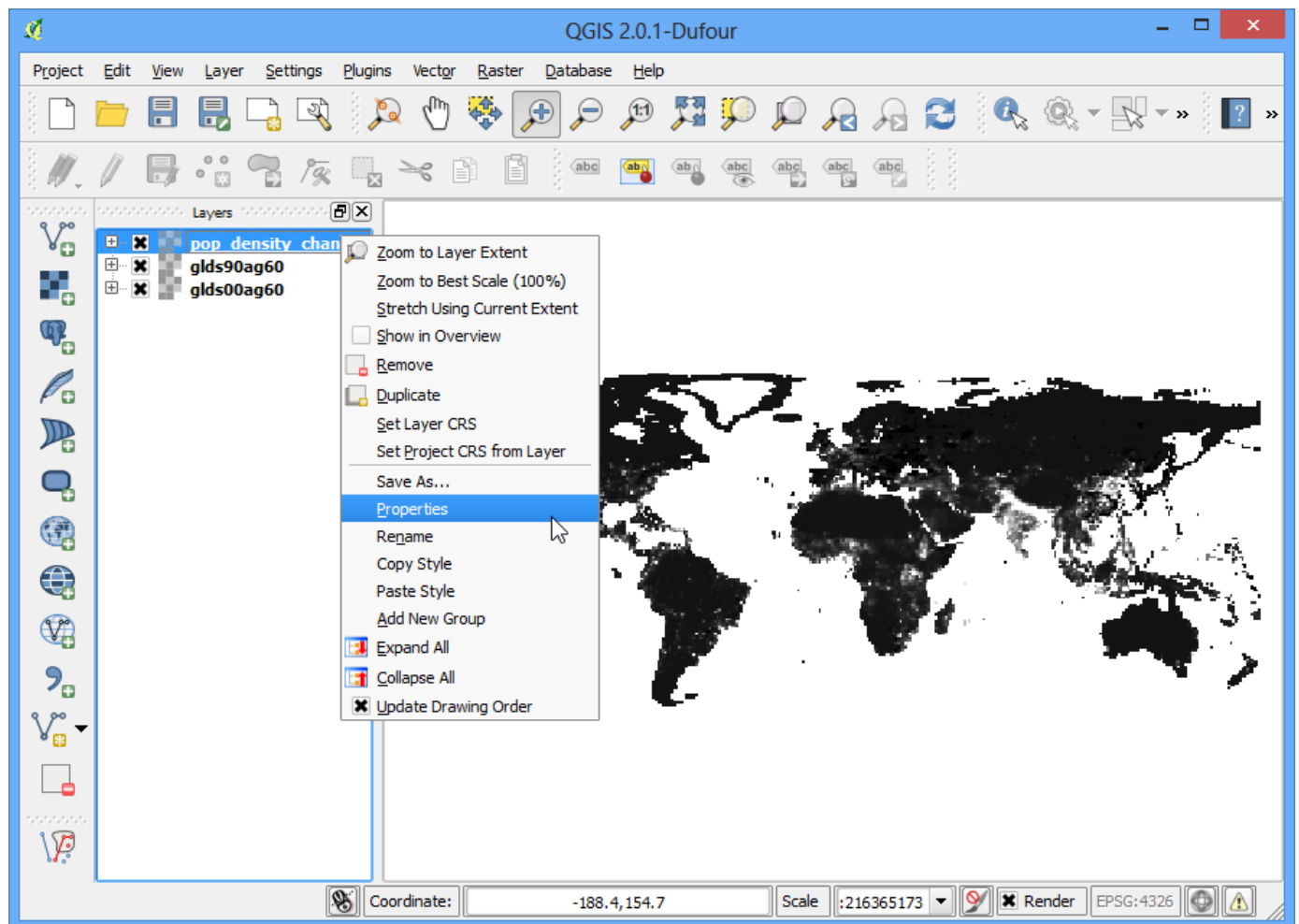




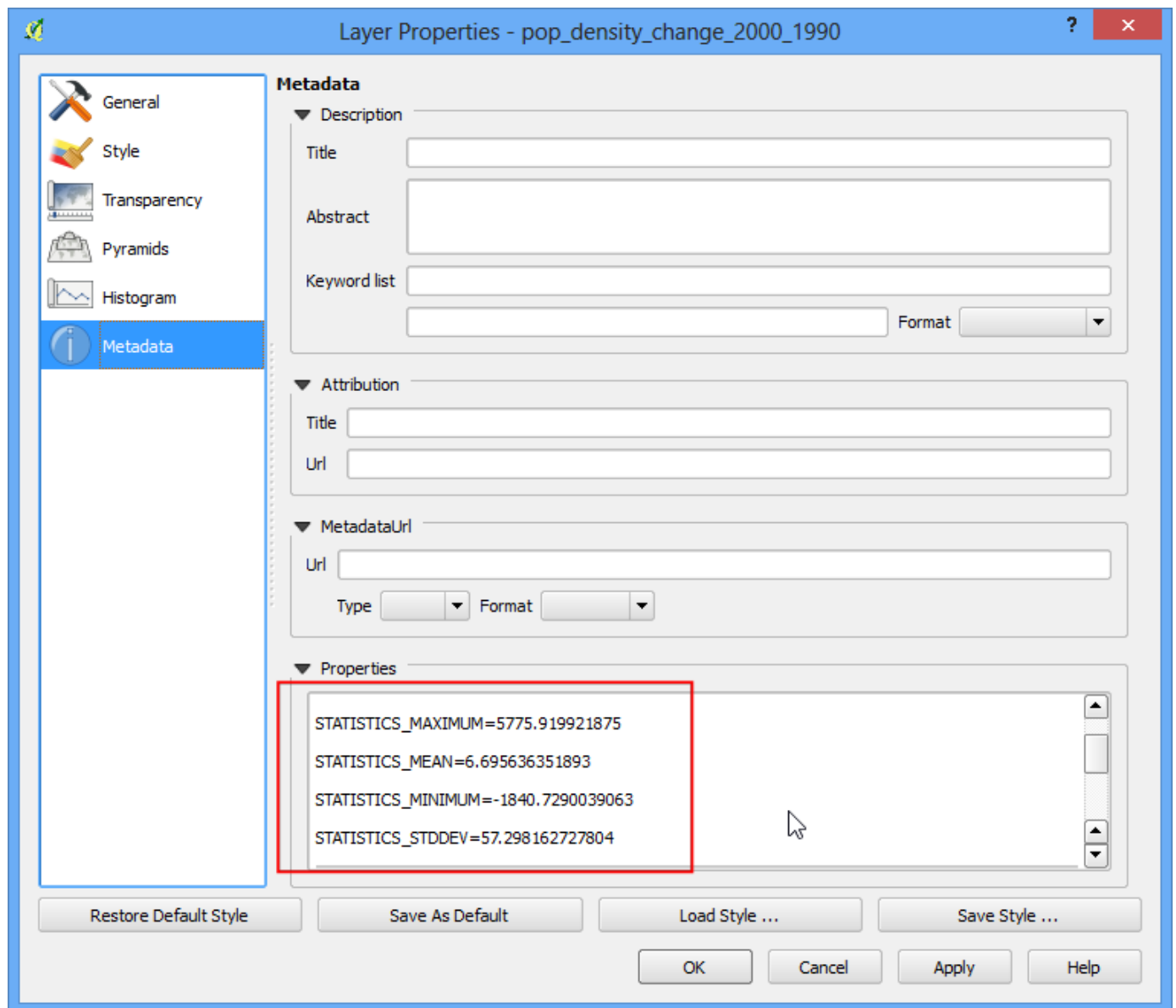




16. `pop_density_change_2000_1990``  
:guilabel: Properties

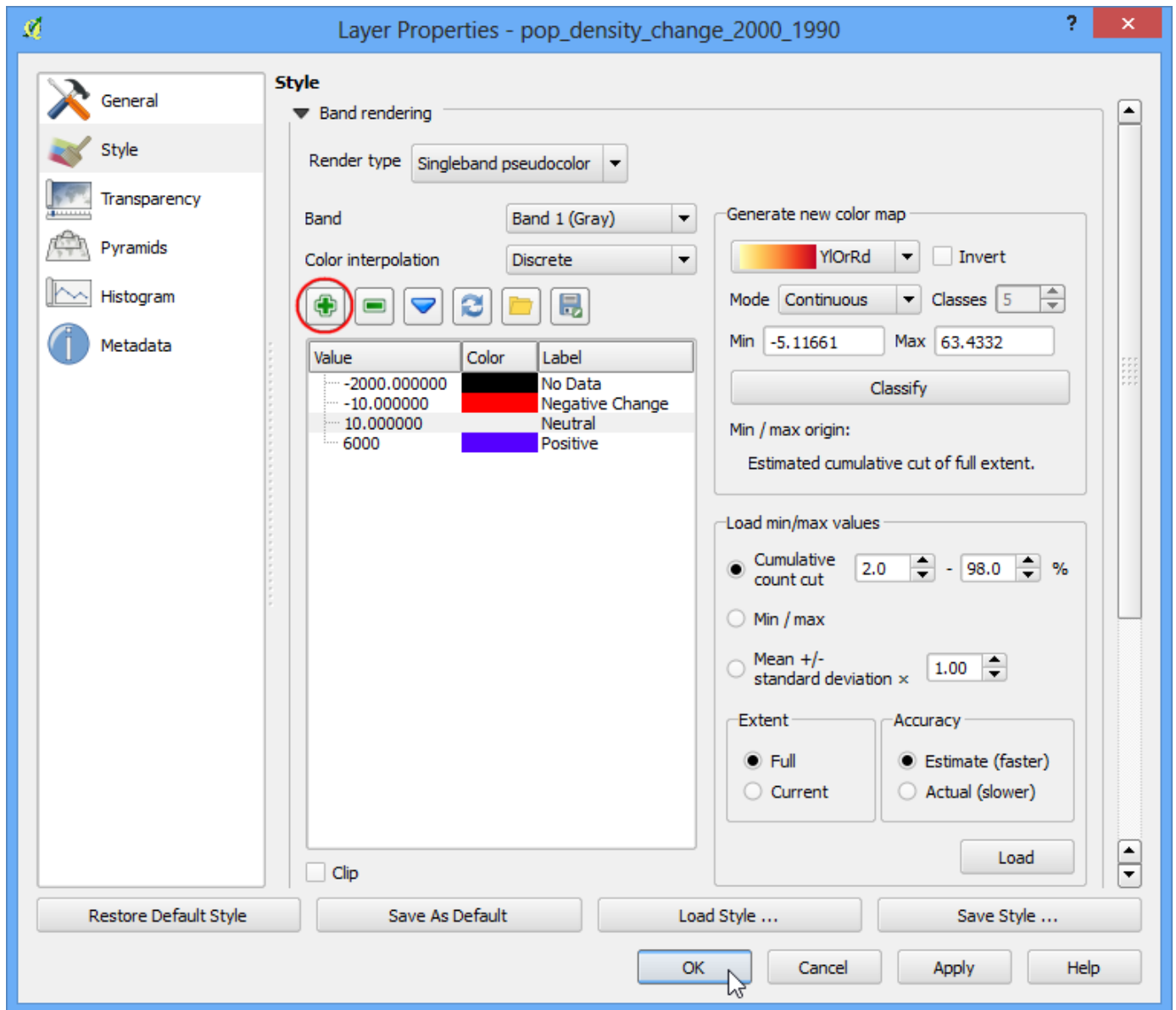


17. `self.metadata_dialog = QDialog(self, title="Metadata", flags=Qt.WindowStaysOnTopHint)`  
`self.metadata_dialog.setWindowTitle("Metadata")`  
`self.metadata_dialog.resize(400, 300)`  
`self.metadata_dialog.show()`

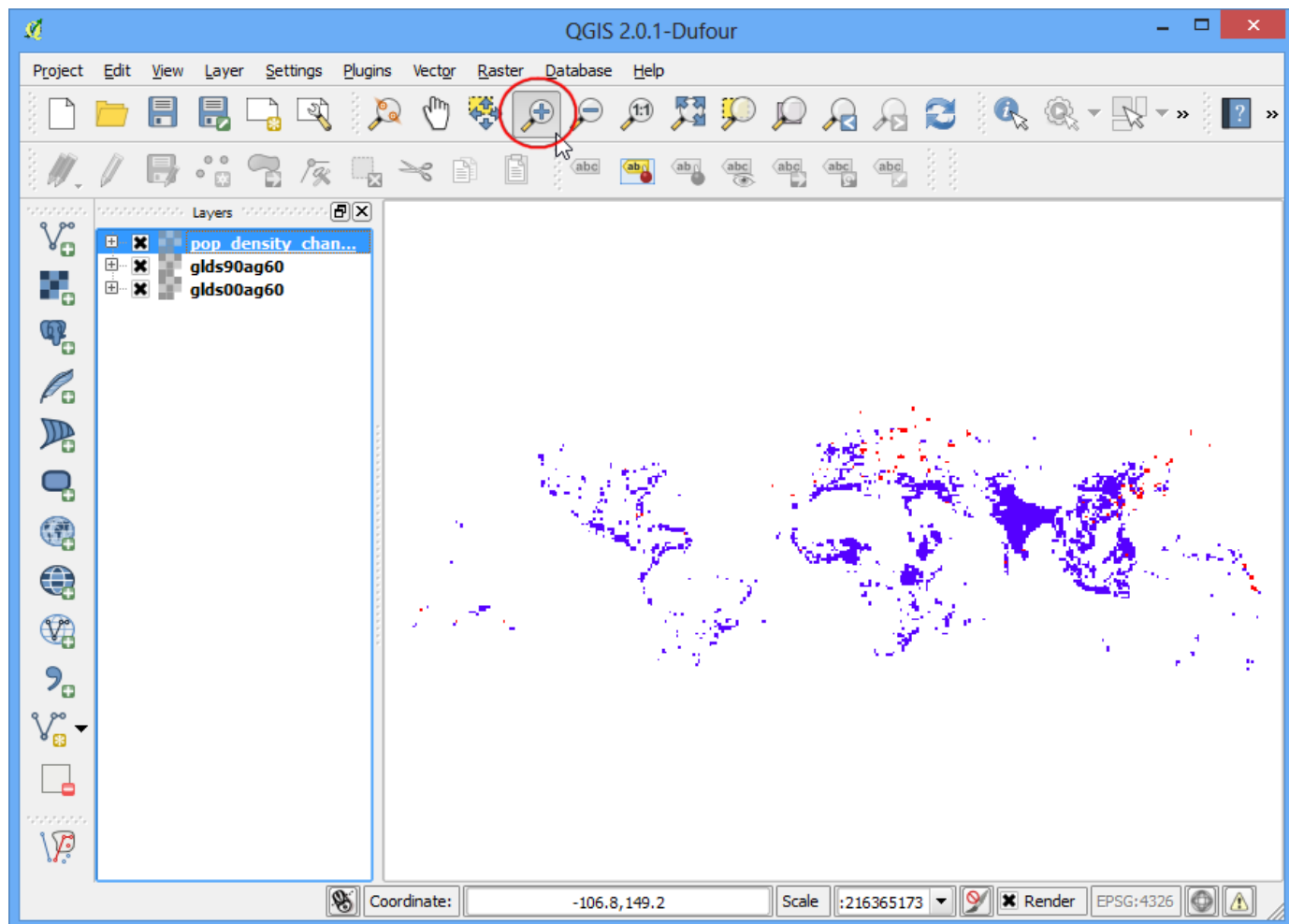


18. **Style** **Band Rendering** **Render type** **Singleband pseudocolor** **Color interpolation** **Discrete** **Add entry** **4** **-2000** **-2000** **No Data** **OK**





19. `self.zoom_in_button.setText('Zoom In')`



20. ■■■ ■■■ :guilabel: 'Identify' ■■■ ■■■■■, ■■■ ■■■■ ■■■■■■■■ ■■■■■ ■■■■■■■■ ■■■■■  
 ■■■ ■■■■ ■■■■ ■■■■ ■■■■ ■■■■■■.



21. ■■■ ■ ■ ■ ■■■■ ■■■■■■ '■■■' ■■■■ ■■■■■■. ■■ ■■■ ■■■■■ --> ■■■■ ■■■■  
 :menuselection: `Raster --> Raster calculator` ■■■■.



22. `pop_density_change_2000_1990@1 < -10`. `negative_pop_change_2000_1990`.  
 1 0. `negative_pop_change_2000_1990`.  
 0. `negative_pop_change_2000_1990`.  
 :guilabel: Add result to project. OK.



23. ■■■ ■■■■ ■■■■ ■■■■■■■■■■. ■■■■ ■■■■ ■■■■ ■ ■■■ ■■■ :guilabel: `Properties` ■■■■■■■■. ■■■■ :guilabel: `Transparency` ■■■■ ■■■■ no data value :guilabel: `Additional no data value` ■ 0 ■■■■■■■■. ■■■■ ■■■■ 0 ■■ ■■ ■■ ■■ ■■■■ ■■■■. :guilabel: `OK` ■■■■■■■■.



24. ■■■ ■■■■■■ ■■■■ ■■■■ ■■ ■■■■ ■ ■■■■■■.

