




# EXPLORE AND ESTIMATE PANTHER NUMBERS, HABITAT, AND TERRITORY



Use National Geographic’s MapMaker to explore connecting wild areas through the lens of your local community. Follow the steps in the checklist, recording information and observations in the data table as you move through the checklist.

- Go to [mapmaker.nationalgeographic.org](http://mapmaker.nationalgeographic.org) and select “Launch MapMaker.”


- Click on the **Search**  in the upper left toolbar, and type in your county and state. Write your county name in the data table on the next page.


- Click on the **Sketch**  icon in the bottom toolbar. Select the **Line**  tool. Change the color to yellow.

- Use the **Line** tool to outline the boundaries of your county. County boundaries appear on the map in purple. (Tip: Click once to set each point and lines; Double-click to release when you have closed the polygon shape. Create a polygon roughly along curved boundaries—no need to be exact.) To fix a mistake, click on the **Arrow** tool in **Sketch**, click on the line, and click delete.

- Click on the **Basemaps**  icon in the bottom toolbar, and select **Imagery** (without labels)  as your Basemap. You should now see a satellite view of Florida with your county outlined in yellow. In the data chart, describe the types of land use.

- Optional: Click on the **Sketch** icon and select the **Polygon**  tool. Change the symbol to diagonal and outline each undeveloped area (no towns, agriculture, roads, or other buildings).

- Click on the **Measure**  icon in the bottom toolbar and select the **Measure** icon that pops up.

- Now select the icon for measuring **Area**  in the **Measure** box. Using this tool, outline the borders of your county to calculate the area and perimeter. (You can select the system of measurement, so check with your teacher.) Record the county area measurement in the data table and answer the related questions.

- Using the same technique, draw polygons around each undeveloped polygon and calculate their area. The **Area** tool will reset with each new measurement, so record each area, then click **New Measurement** to measure the next. Add the areas together to get the total area of green space and record that number. Answer the related questions.

- Study the map you’ve created to help in answering the remaining questions at the end.



Data Table

<p><b>NAME of county:</b></p>	<p>Studying the satellite image of your county, briefly describe the land use (e.g., urban, suburban, rural, or combination).</p>
<p><b>Record the AREA OF YOUR COUNTY (include unit of measurement):</b></p>	<p>Each panther needs _____ square miles of territory to roam. If all the land in the county is available and appropriate panther habitat, calculate the number of panthers your county could support. Explain your reasoning.</p>
<p><b>Estimate THE AMOUNT OF LAND AVAILABLE TO PANTHERS—by adding the areas of polygons of undeveloped land:</b></p>	<p>Does the available land in your county seem like suitable habitat for panthers? Explain.</p> <p>How many panthers do you think could live in your county based on your analysis? Justify your response.</p>



Study the map you created. Describe the areas that might be available for panthers. What do these look like? Are these areas connected?

Are there human-made structures or developments that seem to fragment suitable panther habitat? Describe.

Would you recommend creating one or more wildlife crossings in your county? Where and why?

Are there areas of undeveloped land that, if developed, might fragment wildlife habitat? Describe these areas.

What else would you like to know about this land that you can't determine from looking at satellite imagery?  
How might you find out this information?

