
My NASA Data - Mini Lesson/Activity

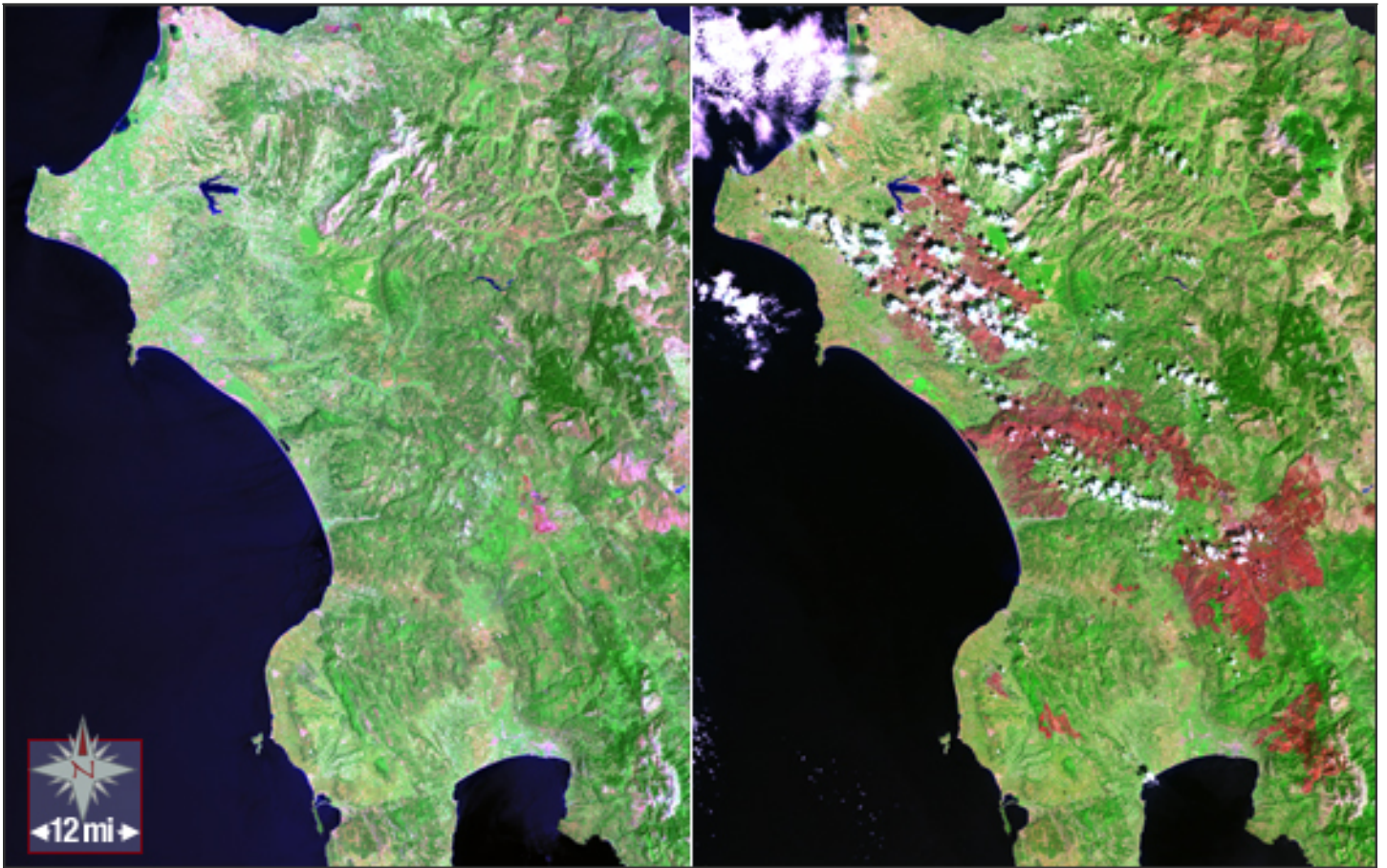
Estimating Biomass Loss from a Large Fire



Student Directions

Steps

1. Use a paper copy of the image to complete this activity. Check with your instructor on how to submit answers.
2. Using a metric ruler, and the conversion $1 \text{ mile} = 1.61 \text{ kilometers}$, what is the scale of the image in meters per millimeter?
3. About what is the total area, in square kilometers, of this photo of Greece and its surroundings?
4. About what was the land area, in square kilometers, that was burned? (Burned areas show up in red in the image on the right.)
5. What percentage of the total area was lost to the fires?
6. Suppose that a typical forest in this region contains about 5.0 kilograms of biomass per square meter. How many metric tons of biomass were lost during the fires?



[These before \(left\) and after \(right\) images were taken on July 18 and September 4, 2007 by Landsat-7. The red areas show the extent of the biomass loss from the fires.](#)

[Image Credit: NASA/USGS Landsat](#)

https://mynasadata.larc.nasa.gov/sites/default/files/inline-images/Greek_Fires_560.jpg

Sources:

- Image Credit: NASA/USGS Landsat
- Dunbar, Brian. "Earth Math Educator Guide." NASA, NASA, 30 May 2013, <https://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/...>

Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bell ringer, exit slip, etc. They take less than a class period to complete. Learn more on the "[My NASA Data What are Mini Lessons?](#)" page.

Teachers who are interested in receiving the answer key, please complete the [Teacher Key Request and Verification Form](#). We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.

My NASA Data Visualization Tool

- [Earth System Data Explorer](#)