



How does your forest glow?

by trina merrick

**Title based on NASA's Goddard Space Flight Center and Jet Propulsion Laboratory
multiple articles <https://svs.gsfc.nasa.gov/11317>*



Tropical Forest Canopy and Panama Canal, Barro Colorado Island, Panama

Earth's Lungs are in Danger



Before it's too late. www.wwf.org



What can we do?



On the
shoulders of
Giants

~Sir Isaac Newton

John Monteith

Photo credit the International Society for
Agricultural Meteorology

From Space First



*GOSAT, First Greenhouse Gases Observing
Satellite~Launched 2009*

Japan

Image courtesy of Shutterstock



Orbiting Carbon Observatory-2

Launched 2014

NASA

The faint red
glow from
space

~NASA



Video credit NASA data Visualization

Greenbelt, Maryland

Barro Colorado Island, Panama

The Smithsonian Tropical Research Institute



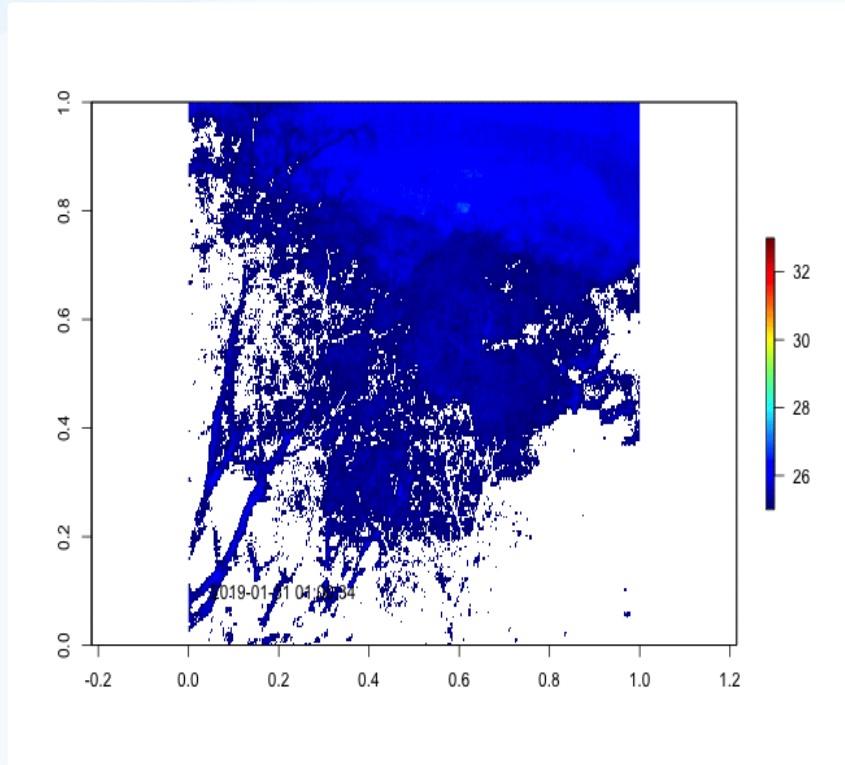
Getting Equipment Ready



Carrying Equipment through the jungle



Installing Cameras



GIF of canopy temperatures for 24 hours



*Measuring
the glow of
canopy
temperature*

*Thermal Camera on
the Tower*



*Measuring
the glow of
the sun*

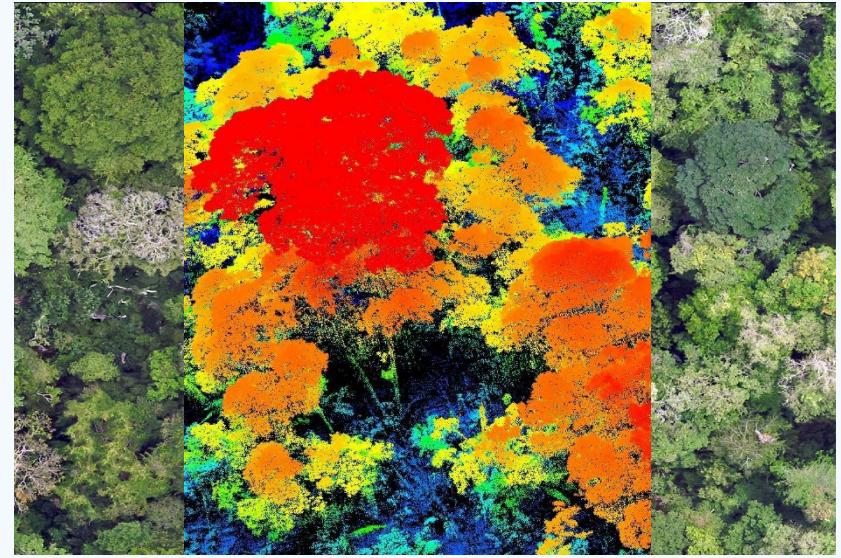
*Sun Sensors on the
tower*

GatorEye Flying Laboratory

The Tropical Forest Canopy



GatorEye Flying a mission at BCI

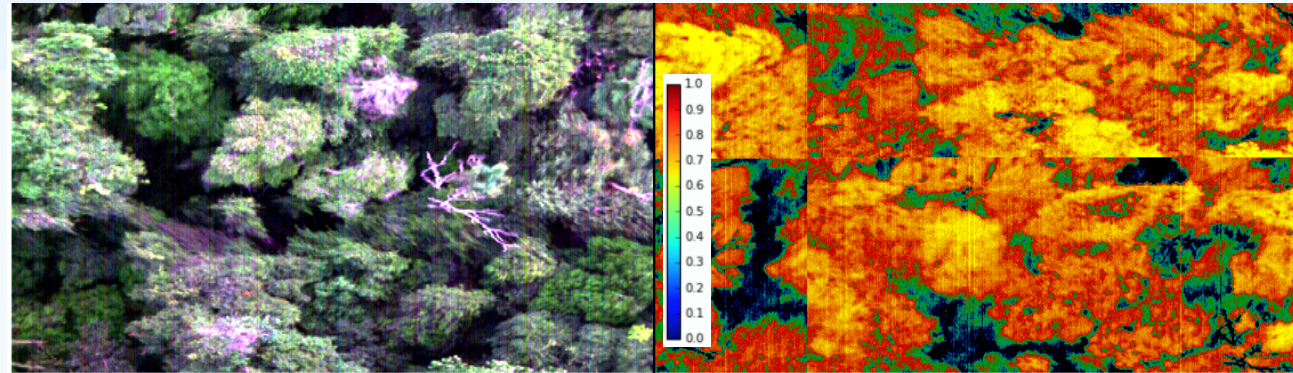


The glow of the tropical forest from GatorEye

How your forest glows

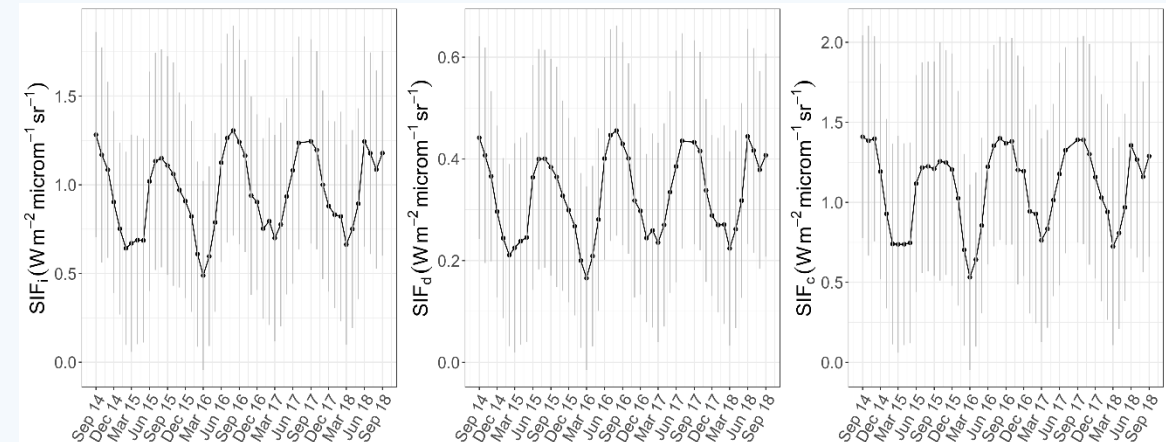
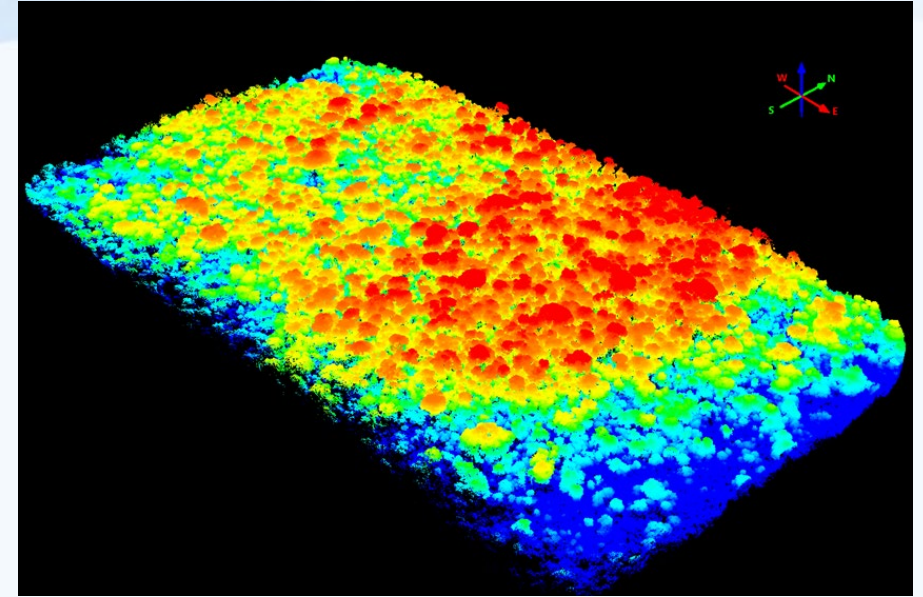
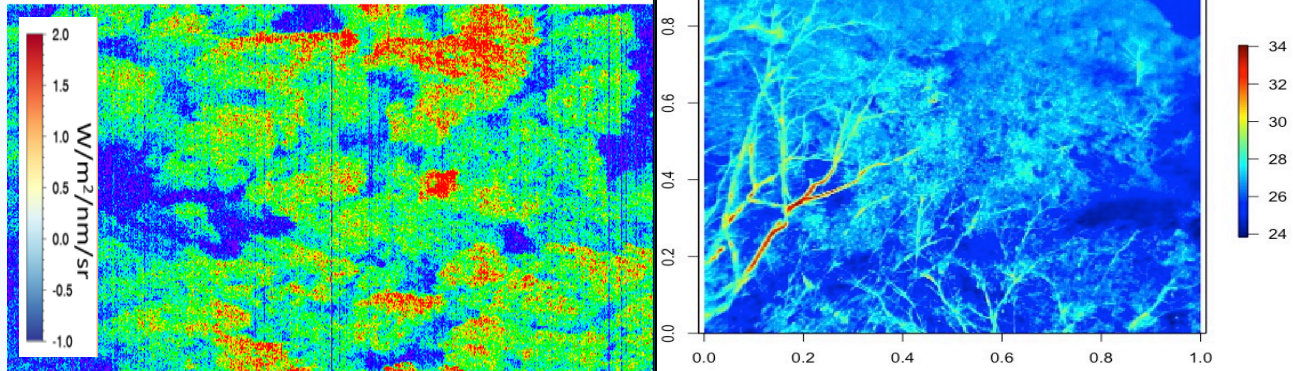
RGB

NDVI



Fluorescence

Canopy Temperature



We add up all the ways to get the heartbeat ♥ of the forest

Thank You!

