AN UNFLINCHING LOOK

OUR CHANGING CLIMATE

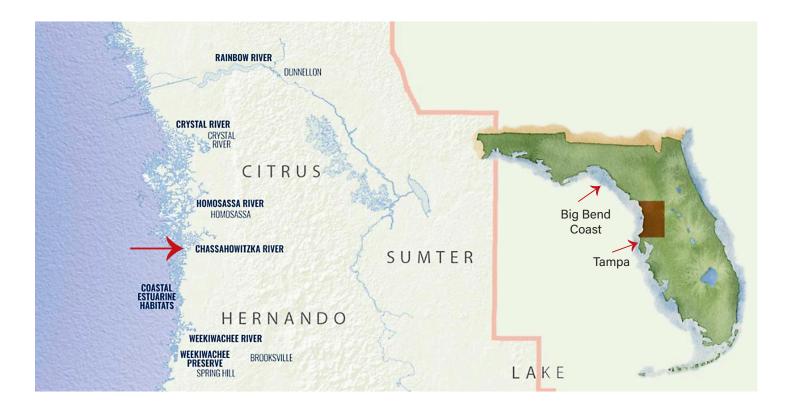
PHOTOGRAPHS BY BENJAMIN DIMMITT

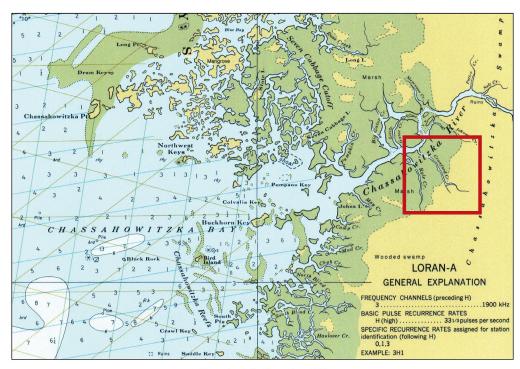


MAPS AND OTHER VISUALS

MAPS

- Map of Florida showing the location of the Chassahowitzka River and National Wildlife Refuge, 70 miles north of Tampa.
- Navigational map of Chassahowitzka Bay and Chassahowitzka River showing the primary area of photography.





Chassahowitzka River, circa 1977 National Oceanic and Atmospheric Administration, (Washington, DC: United States Coast and Geodetic Survey, 1977)

Primary Area of Photography

COASTAL INUNDATION

Cedar Key Sea Level 1938-2020 0.4 2 mm/v nm/y 12 mm/y 0.3 Sea Level (mm) 0.3 1950 1940 1960 1970 1990 2000 2010 2020 1980 Year

• One sea level rise graph illustrating the increase in the rate of coastal inundation from 1938–2020.

"Sea level rise from 1938 to 2017 (green line) was 2 mm per year but accelerated to 9 mm per year from 2000–2017 (blue line) and further to 12 mm per year from 2010 to 2017 (red line). This acceleration explains the loss of forest along Florida's upper Gulf Coast beginning around 2010. This data comes from the only long-term tide gauge in the region, located at Cedar Key, approximately 45 northwest of Chassahowitzka."

VIDEO: EFFECTS OF RISING SEA LEVELS

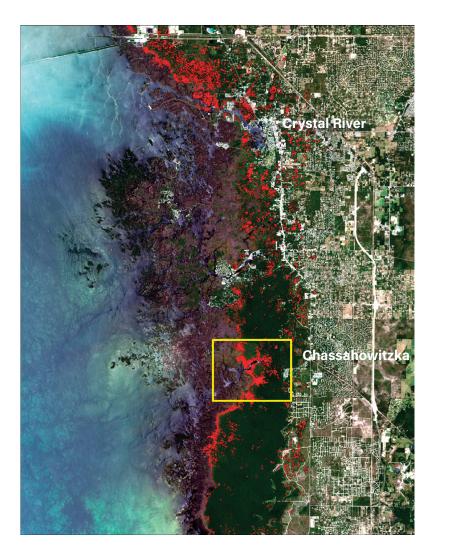
 One MP4 video showing the same view photographed five times between 2006 and 2022 that dramatically portrays the effects of rising sea levels. Viewers will see the thinning of a dense, thriving swamp forest and its slow conversion to a landscape of dead trees, sparse palms and salt-tolerant grasses.

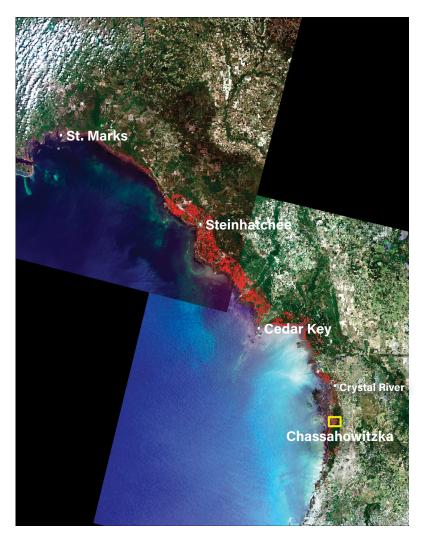
Video can be viewed here:



DEFORESTATION

 Two satellite photographs depicting the deforestation along the Gulf coast and a one page Deforestation Study Overview.





The satellite photograph on the left shows 20 miles of coastline along the Gulf of Mexico. The Chassahowitzka National Wildlife Refuge is within the yellow box. The red areas indicate deforestation caused by sea level rise.

The satellite photograph on the right shows 200 miles of coastline along the Gulf of Mexico with the Chassahowitzka National Wildlife Refuge within the small yellow box. The red areas indicate the extent of the deforestation caused by sea level rise.

SALTWATER INTRUSION

• Five pairs of side-by-side, before & after aerial photographs produced by the State of Florida portraying the damage caused by saltwater intrusion with notes and dates.



Figure 1, 2008–2019



Figure 2, 2006–2017



Figure 3, 2010–2017



Figure 4, 2008–2019



Figure 5, 2008–2019