Evaluating a CONUS-wide DisALEXI Evapotranspiration product

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Objectives

Our main goal is to **develop, validate and evaluate DisALEXI ET products throughout CONUS**.

1. Develop a 70 m resolution DisALEXI ET product for the entire CONUS.
2. Evaluate the current DisALEXI algorithm over agricultural field validation sites.
3. Modify the algorithm if needed, especially over regions not covered by the current implementation.
4. Include an appropriate uncertainty quantification, based on leveraged existing research.
5. Make the data publicly available through LP DAAC.
Progress

- DisALEXI products are currently available for all ECOSTRESS daytime data acquired over CONUS!
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Validation over a variety of landcover types showed accuracy < 1 mm/day.
Progress

- Greatest source of uncertainty is temporal offset between VNIR and TIR inputs
Progress

• New DisALEXI incorporates STARS NDVI and albedo

DisALEXI-JPL
ECOSTRESS Collection 2 will also produce daily evapotranspiration and Evaporative Stress Index using the DisALEXI-JPL algorithm, limited to tiles within the continental United States.
Progress

- Updated ALEXI provides more accurate estimates over forests
Next steps

• Re-validate DisALEXI collection 2
• Incorporate STARS uncertainty into DisALEXI uncertainty