Phase 1 Summary
Wetland Extent, Vegetation, and Inundation on the Amazon Floodplain
Laura Hess, UC Santa Santa Barbara

- **Map wetland extent, vegetation structure, and seasonal inundation for Mamirauá, Piagaçu-Purus, and Curuai prototype areas, Amazon floodplain**

- **Validation**

  - **Inputs (AUIG):** Fine Beam (2 FBD dates, 1 FBS) and ScanSAR (5 to 7 dates)

  - **Completed:** Version 1 mapping for 3 sites

  - **Remaining:** Validation; integration of FB & ScanSAR

  - **Updated data requirement:** None*

  - **Deliverables:**

    - Version 1 mapping, provisional validation: March 2009

    - Version 2 mapping, validated: July 2009

    - Methodology and field data: July 2009

Laura Hess, ICESS, University of California, Santa Barbara

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Phase 1 Summary
Wetland Extent, Vegetation, and Inundation on the Amazon Floodplain
## Laura Hess, UC Santa Santa Barbara

- **Map wetland extent, vegetation structure, and seasonal inundation for Altamaha River prototype site, Southeastern U.S.**

- **Validation**

  - **Inputs (AUIG):** Fine Beam (2 FBD dates, 5 FBS) and ScanSAR (5)

  - **Completed:** Preliminary analysis

  - **Remaining:** Mapping and validation

  - **Updated data requirement:** None*

  - **Deliverables:**

    - Mapping and methodology: March 2009

    - Validation: June 2009

Laura Hess, ICESS, University of California, Santa Barbara

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Extension Phase Proposal
An Inundated Wetlands Earth System Data Record for Tropical
and Sub-tropical Wetland Regions

Project summary

-Component of NASA MEaSURES project with K. MacDonald and B. Chapman

-Create PALSAR-based datasets of wetland extent, vegetation structure, and inundation periodicity for globally significant wetland regions

-Use fine-resolution (~100 m) products to calibrate long-term datasets with coarse spatial resolution, high temporal resolution

-Object-based classification using decision-tree classifier (Random Forests); KC investigator products will be used for training and validation (with simplified classes and lower resolution)

-Targeted to biogeochemistry, hydrology, climate change applications

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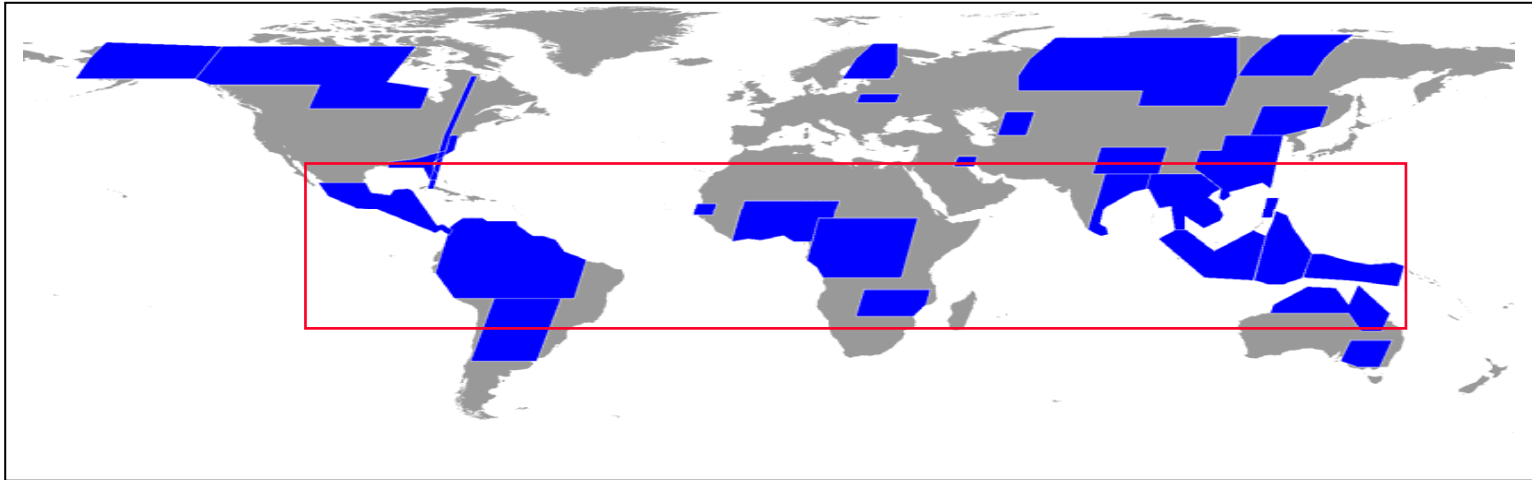
Priority 1 Areas (defined by ScanSAR polygons):

Northern South America, Pantanal & Paraná, SE U.S., Congo, Sudd, Okavango, Mekong, Indonesia, PNG, Alligator River

Priority 2 Areas: Niger Delta, Zambezi, Senegal, Ganges

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For each region, the requested inputs are

        - 1 FBD mosaic

        - 1 FBD or FBS mosaic in contrasting season

        - 1 year ScanSAR (same year as FBD or FBS)

        - gap filling as needed

To the maximum extent possible, these requests will be coordinated to correspond to archived or requested coverage of other team members, minimizing total data requests.

Laura Hess, ICESS, University of California, Santa Barbara

Products for all ScanSAR polygons:

- wetland extent

- min/max inundation

- seasonal inundation

- basic vegetation structure

- algorithm document and accuracy assessment

Delivery schedule:

- South America products: June 2010

- Prototype areas for SE Asia, Indonesia, Africa, Australia: Jan 2011

Laura Hess, ICESS, University of California, Santa Barbara