# Using ALOS/PALSAR and Radarsat-2 Imagery to Define Species Habitats in the Pantanal

K&C Initiative

An international science collaboration led by JAX

Project area: the Pantanal, Brazil

LOS

Project objective: is to define seasonal habitat suitable for threatened species and define corridors of connectivity for conservation areas on a regional scale. This has never been done in detail for the entire Pantanal, the worlds largest tropical wetland.

Costa, Telmer, Evans (UVic, Canada) and Tomas (Embrapa, Brazil)





## Outline of project plan:

LOS

Classified data will be followed by spatial analysis regarding animal behaviour attributes using functions such as 'least cost corridor' and 'resource selection functions' - to develop habitat maps

K&C Initiative

An international science collaboration led by JAX.

These maps will be informed by and validated using animal distribution data acquired from the Brazilian Agricultural Research Corporation in collaboration with Walfrido Tomas (EMBRAPA)

#### **Data requirements**

FBD imagery to cover 6 periods of the hydrological cycle in 2009/2010 (Jan, Feb, May, July, Sept, Nov)

Processing: best geometric and radiometric calibrations possible

## Time schedule:

LOS

> 2009/2010 – extension of field work and PALSAR imagery acquisition

K&C Initiative

An international science collaboration led by JAXA

Deliverable in 2011 - habitat maps covering the full hydrologic cycle including refuge zones, connectivity, compromised habitats and recommendations for conservation areas

### **Definition of deliverables:**

(1)Spatio-temporal home range maps and risk probability maps of threatened species including the Jaguar, Tuitui, Macaw and others

(2)Recommendation of conservation areas

