





Wildlife & Ecosystem Services WG-Stakeholder Breakout

ASTM2 – Anchorage, AK Gerald "JJ" Frost – chair Natalie Boelman – WG lead





Participants

- Stakeholder representatives
 - Western Alaska LCC
 - Earth to Sky
 - Polar Knowledge Canada
 - The Wilderness Society (W Arctic Caribou Herd)
 - Alaska Fire Science Consortium
- ABoVE PIs
 - Boelman, Brinkman, Frost, Prugh





And... but... therefore

- ABoVE studies span federal, territorial, state, native lands...
- and ABoVE science questions highly relevant to interests of diverse stakeholders
- BUT many stakeholder groups exist, land ownership can be complex
- THEREFORE continue search for, engage with stakeholders especially regional non-profits





Stakeholders

- Tough to get everyone to one table
- "Under the radar" stakeholder groups:
 - Small regional non-profits
 - Industry
 - TOURISM
 - Vital part of northern economies
 - Overlap with other stakeholders (NPS, communities)
 - Oil, gas, mining, fisheries, timber, etc.





User needs

- Agencies, LCCs have compiled this information
 - Big list of user needs
 - Limited funds to address them!
- ABoVE investigators need to be realistic, every user will identify different needs
 - Subsistence species
 - Threatened/Endangered species
 - NPS "Vital signs"





User needs

- WATER
 - (ES WG would like to engage with Permafrost, Hydrology working group)
- FOOD SECURITY
 - Viability of populations
 - Accessibility in space, time
- CUMULATIVE EFFECTS



Key knowledge gaps

- Pay attention to community knowledge gaps (not just science knowledge gaps)
 - Early engagement
 - Two-way engagement
- Non-profits can help with communication
 - regional non-profits
 - Earth to Sky





Data gaps, knowledge gaps

SNOW

- *events* are critical for wildlife populations and accessibility, hunting success
 - Rain on snow
 - Extreme events (mid-Atlantic folks, beware!)
- Local stakeholders have a role to play
 - Community-based monitoring
 - Record ROS events





Field Measurements

What

- Field measurements of vegetation, soils, permafrost
- Mammal/bird telemetry data
- Snow surveys
- Community-participatory GIS





Field Measurements

- Where
 - Wrangell/St. Elias National Park (Prugh)
 - Yukon Delta National Wildlife Refuge (Frost)
 - Middle Yukon River (Brinkman)
 - Domain-wide (Boelman)
- Extensive contributions by agencies (telemetry data Boelman, Prugh)
- Stakeholders *are* the field data collectors for Brinkman study
- YDNWR biologists co-locating bird plots with the long-term plots sampled by Frost project





RS Measurements

- WALCC secured funding for YK Lidar
 - Frost project will provide some ground control data
- USFWS providing historical airphotos (YK)
- Many opportunities for ABoVE contribution in current, future phases





Mapping Efforts

Ecosystem mapping

Maps of ecosystem properties are great...

Increasing need for maps of <u>variability</u>
(critical for infrastructure, food security issue)





Modeling efforts

- Field measurements: cal/val
 - Community-based measurements
 - Met data to go with it





Long-term monitoring

- Of high interest to agencies
 - Expensive!
 - Can conflict with user groups (aircraft noise)
- ABoVE effort can make big contributions
 - Methods, products to count animals from space rather than from the air
 - Veg monitoring: satellite measurements can supplement field-based monitoring
 - Don't overlook chances to provide field measurements to agencies











