CONAS: utilizing community-based observation networks to maximize resilience in a changing Arctic

- Lilian Alessa, PhD. University of Idaho (PI)
- Andy Kliskey, PhD. University of Idaho (Co-PI)

- Presenter: Grace Beaujean, Research Associate
- Presenter: Sharon Merculief , St. George Community Research Associate

CONAS

Community Observation Networks for Adaptation and Security

To utilize distributed human observers as sensors to systematically observe and document Arctic environmental and globalization changes, which are of significance to understanding pan-arctic processes

CHUKOTKA

ALASKA

Kanchalan

Gambell

Savoonga

KORYAK

Tymlat

Togiak

Sand Point

KAMCHATKA

Nikolskoye

St. George

CONAS Timeline

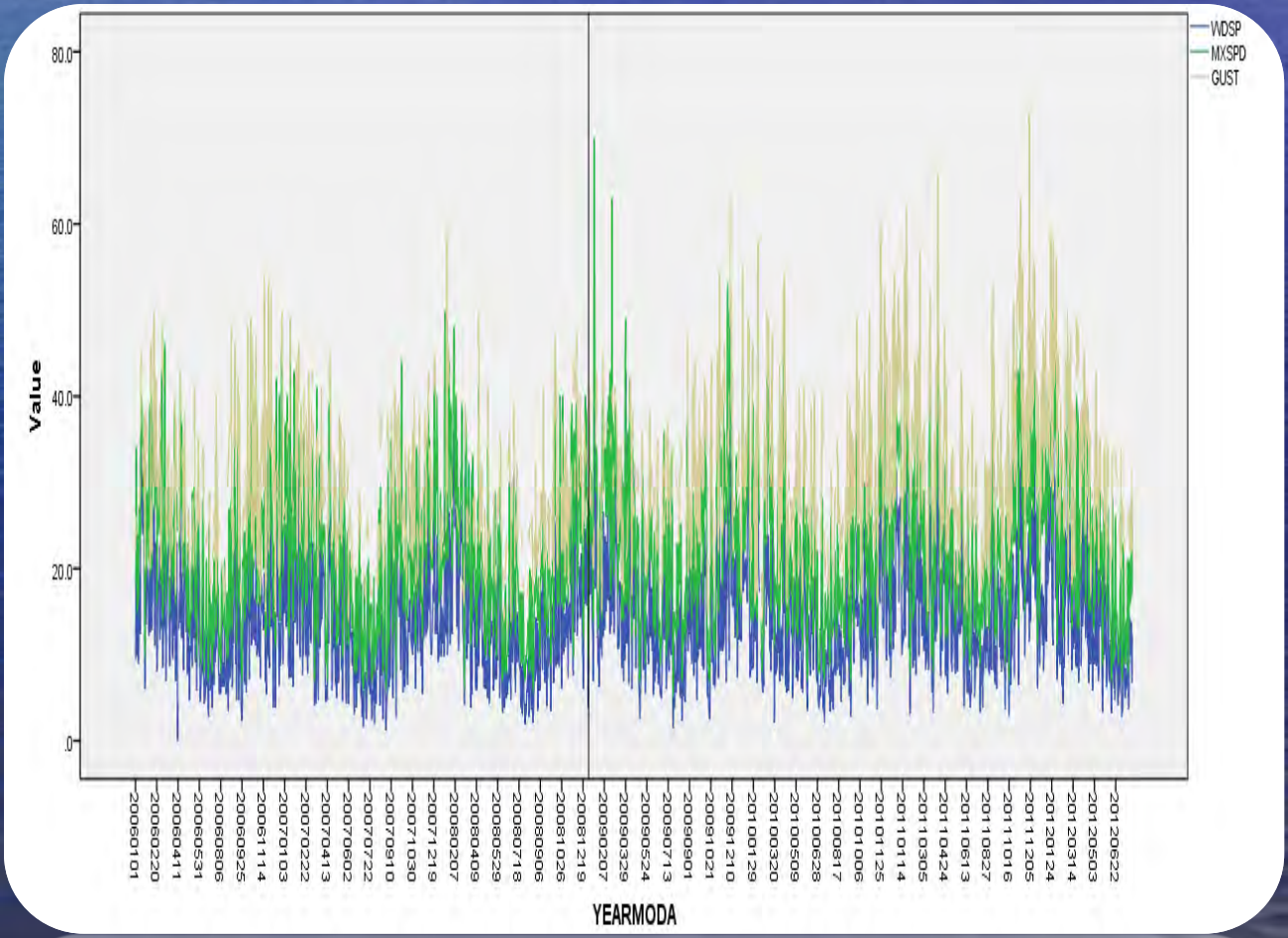
Data

- Quantitative; qualitative; spatial
- Collected:
  - Environmental changes
  - Changes in animal abundance, behaviors, movement
  - Species injuries/diseases
  - Changes in harvesting activities

Sick walrus caught Sept. 2012, Gambell

66.7% of respondents surveyed reported observing an increase in wind intensity.

"We started to get more high winds compared to what we used to have before; before we used to get storm warning, now we get hurricane force winds."



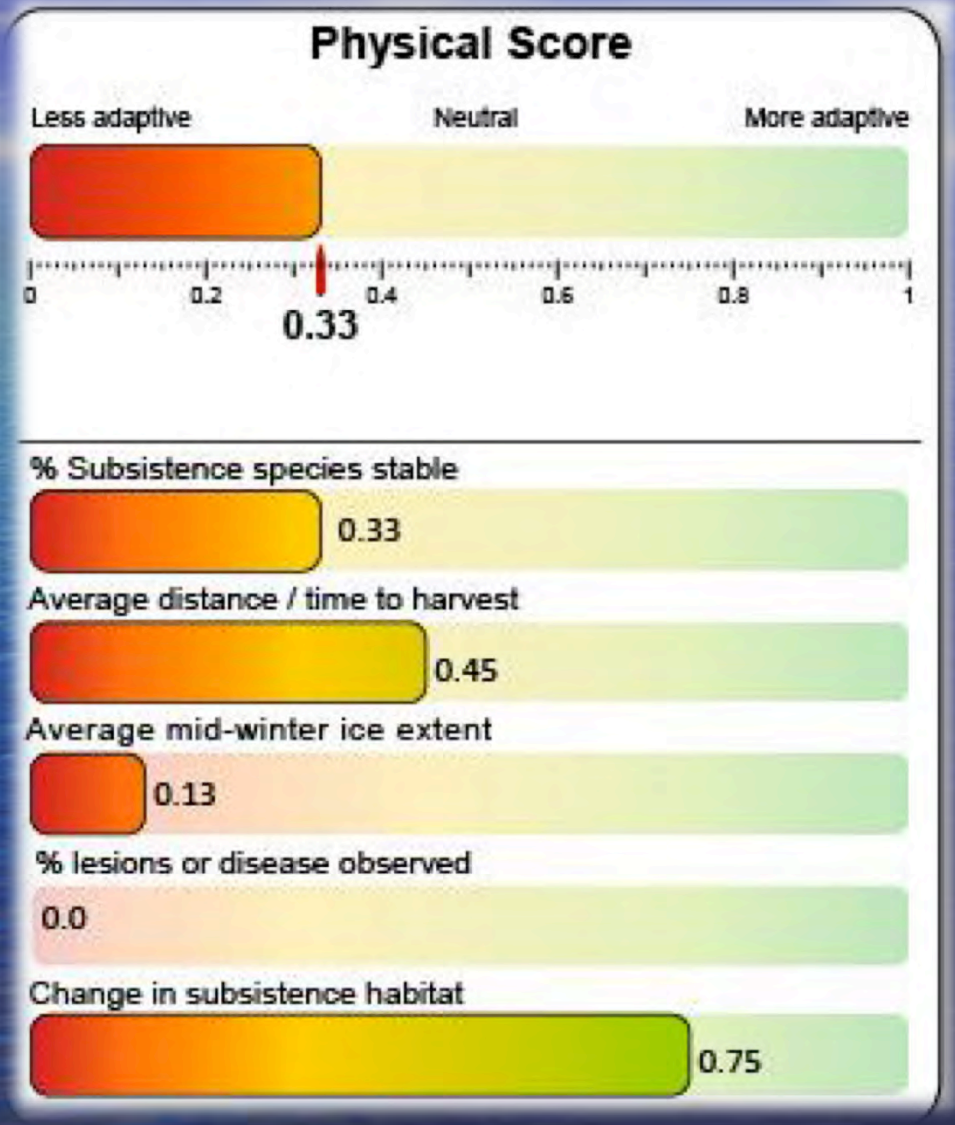
CONAS moving forward

- Goals (similar to BSSN)
- Focus on adaptation
- Utilizing BSSN data to inform survey design, adaptation discussion, etc.

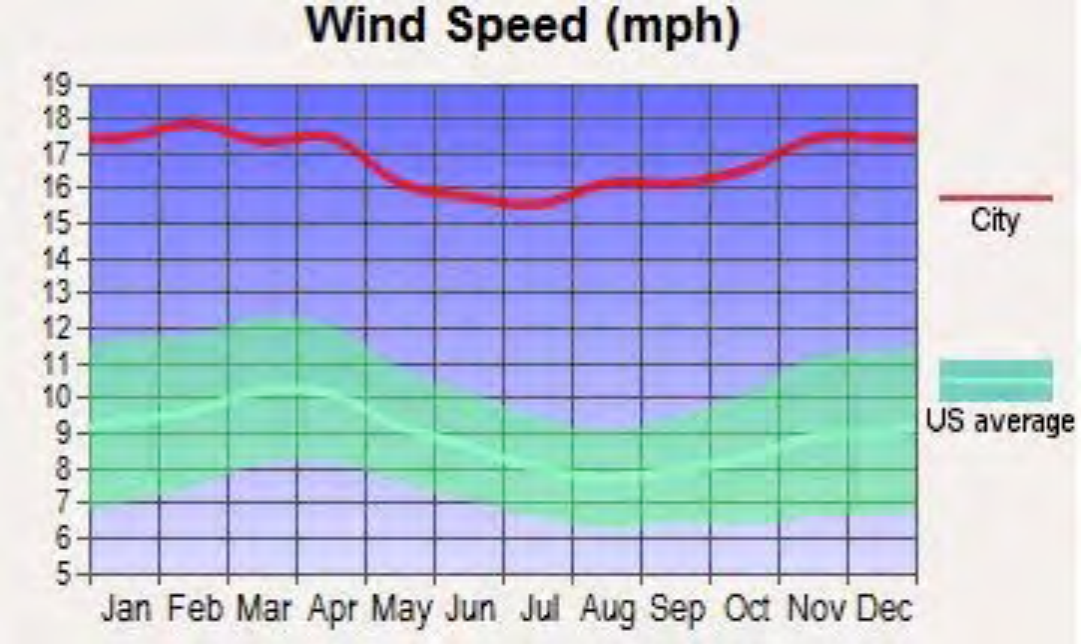
Adaptive Capacity Indicators (ACI's)

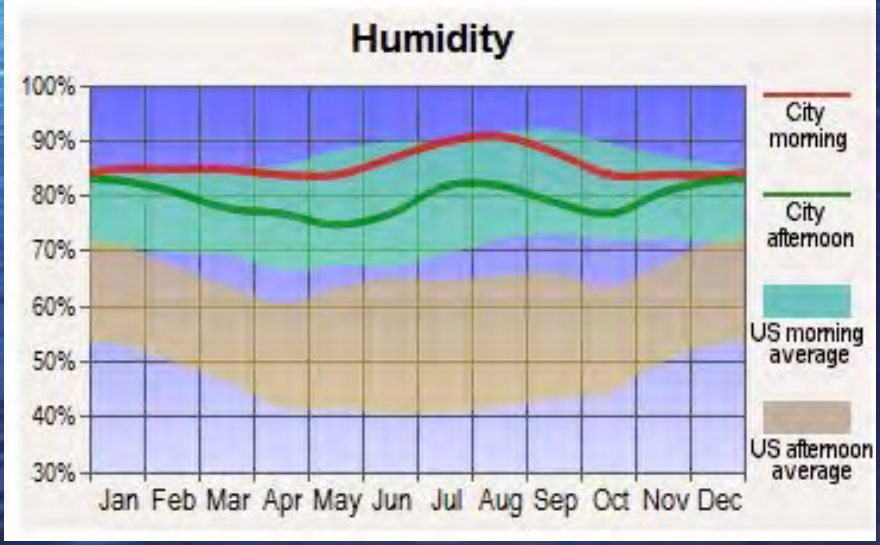
- What are ACI's?
- Focus on social ecological systems
- How they can be used?
- BSSN and CONAS trends can be used as starting point for conversation on potential risks
- Important to including local voices/perspectives
- Can be used as early warning systems to anticipate and plan responses without sacrificing critical components of culture and identity

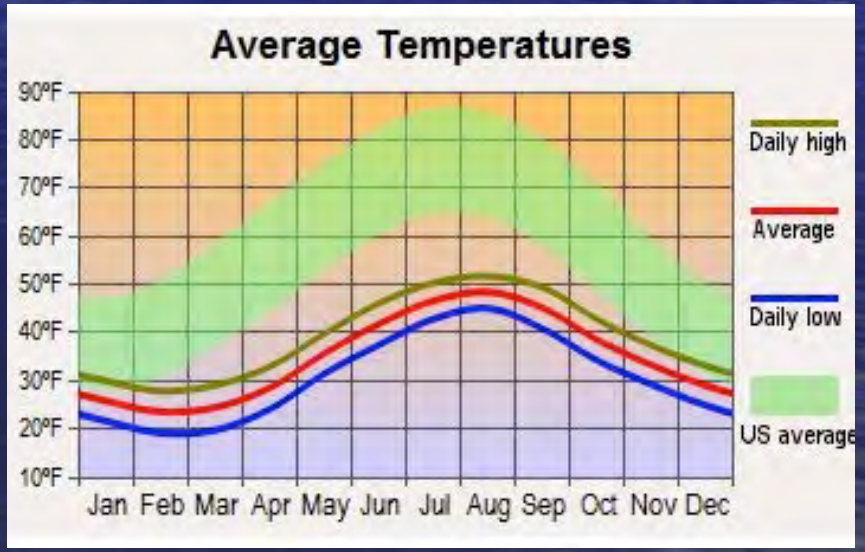
ACI's


Physical Score
Less adaptive
Neutral
More adaptive
0
0.2
0.4
0.6
0.8
1
0.33
% Subsistence species stable
0.33
Average distance / time to harvest
0.45
Average mid-winter ice extent
0.13
% lesions or disease observed
0.0
Change in subsistence habitat
0.75

St. George







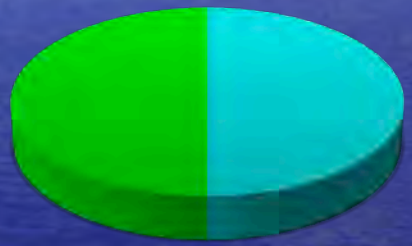
http://www.city-data.com/city/St.-George-Alaska.html

Change in species to change in economy

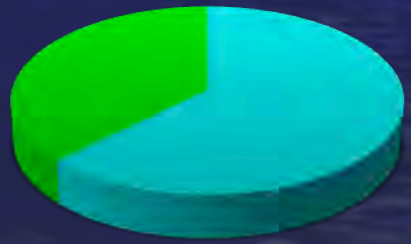
- Fur seal commercial harvesting ended in 1983
- Wash House for processing now abandoned

Halibut Harvesting

PY3



PY4



http://www.alaskajournal.com/Alaska-Journal-of-Commerce/September-Issue-5-2012/Final-action-scheduled-for-charter-commercial-halibut-split/

Adaptation powering our future

- New high efficiency fuel generator installed in Sept. 2014
- Benefits to the city; including lowering costs of energy and heating
- 95 kW wind turbine turned on Nov. 2014

http://www.akbizmag.com/Alaska-Business-Monthly/September-2014/Lowering-the-Cost-of-Rural-Energy/


Qaĝaasakung!
Thank you!