

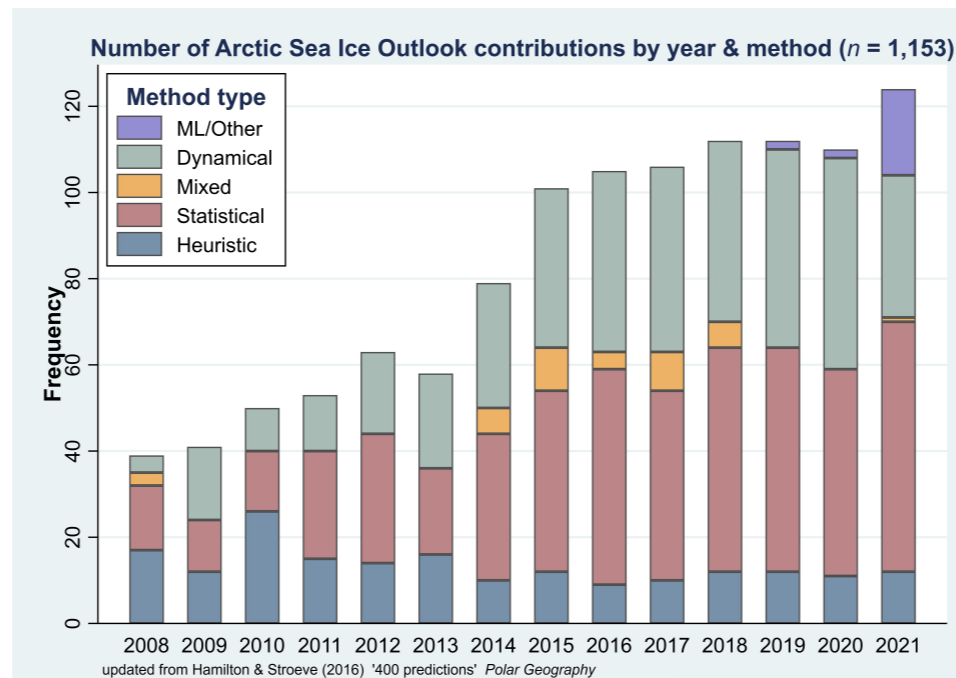
A community of practice approach to improving and communicating seasonal sea-ice forecasts

SIPN2 Team: U. Bhatt, P. Bieniek, E. Blanchard-Wrigglesworth, C. Borries-Strigle, H. Eicken, L. C. Hamilton, J. Little, F. Massonnet, W. Meier, J.E. Overland, M. Serreze, M. Steele, J. Stroeve, B. Turner-Bogren, R. Thoman, J. Walsh, M. Wang, and H. V. Wiggins.

*A41G - Subseasonal to Seasonal Climate Prediction, Processes, and Services
AGU Fall Meeting, New Orleans LA, 16 December 2021*

Key Messages

- This is a unique network
- 14 years of **Sea Ice Outlook** forecasts show skill
- Engaging public & stakeholders is key for progress

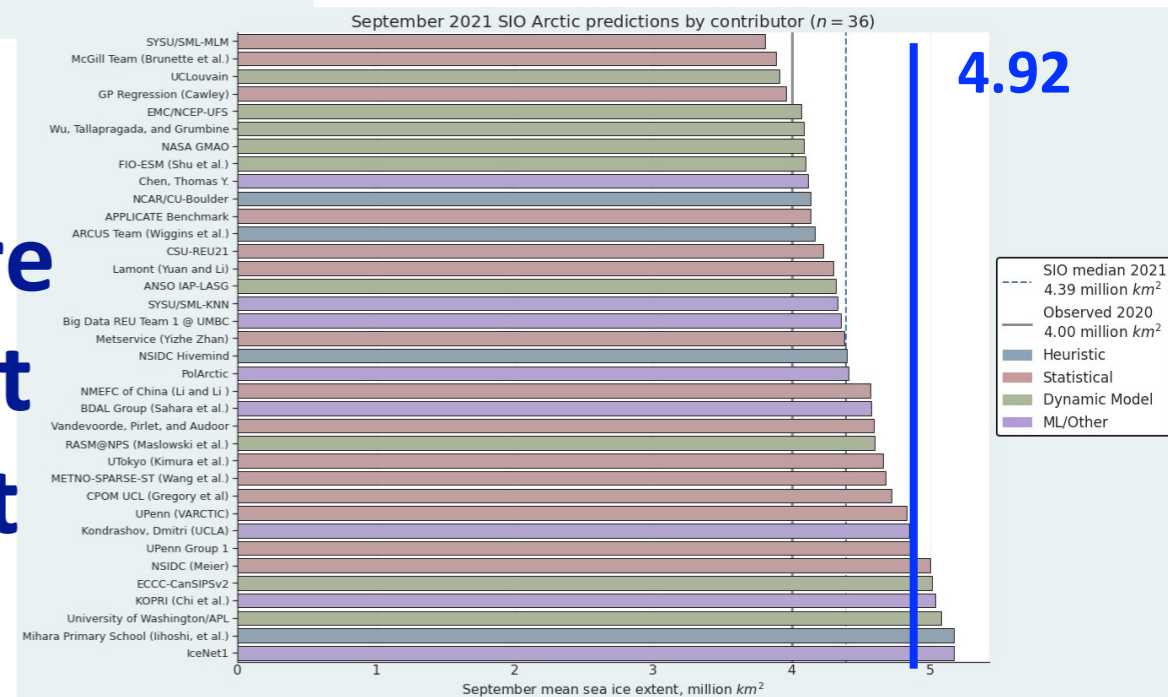


Larry Hamilton

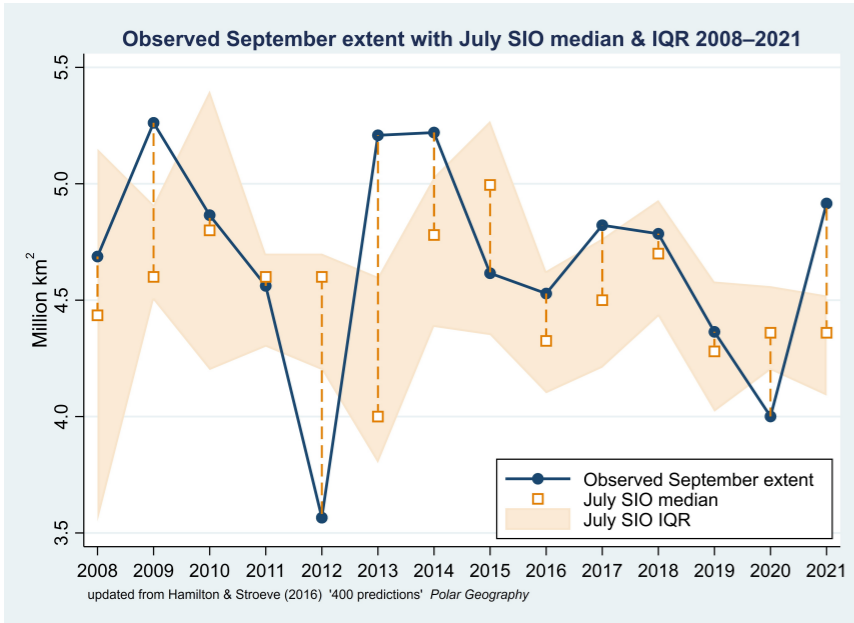
Number of contributions increasing

4.39

Signature Forecast Product

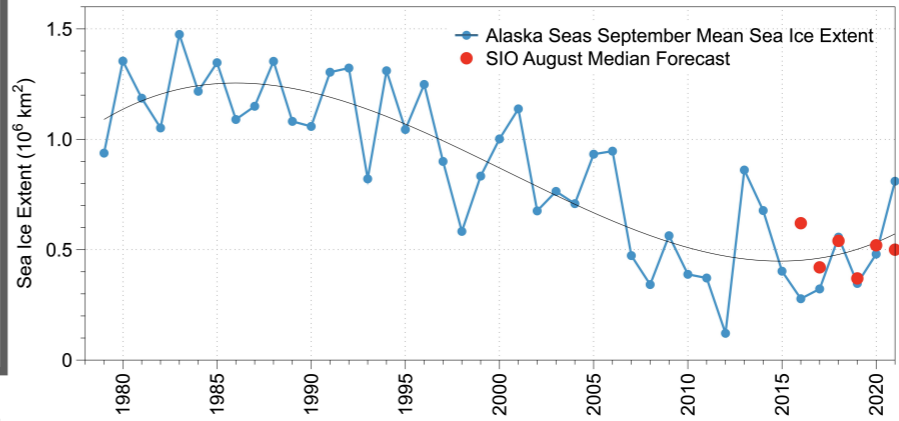


Identify Common Biases among SIO Forecasts

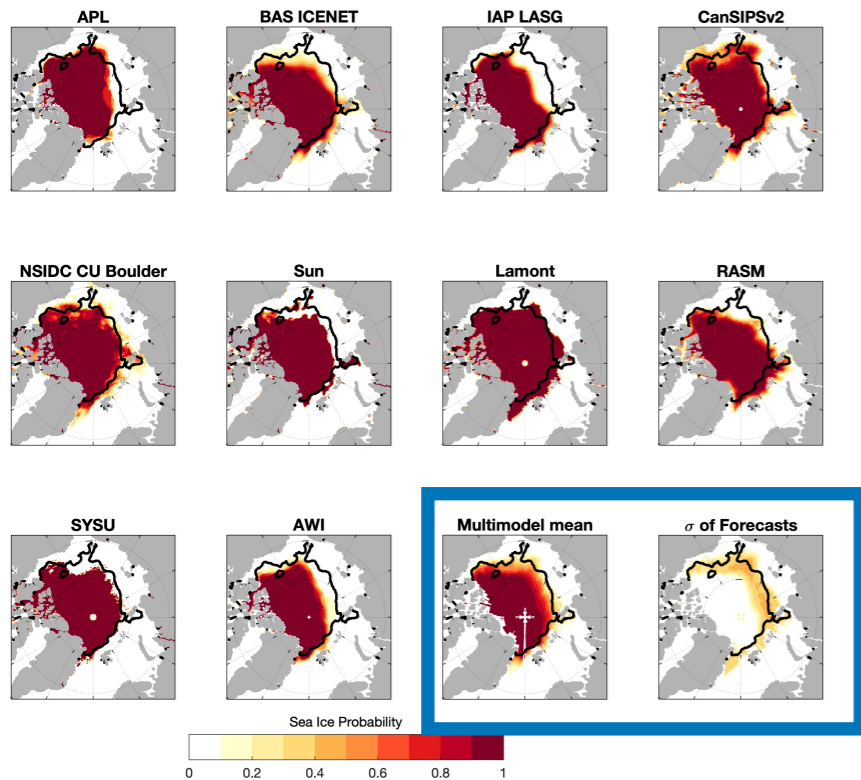


Forecasts do better when Obs close to trend

Larry Hamilton & Julienne Stroeve

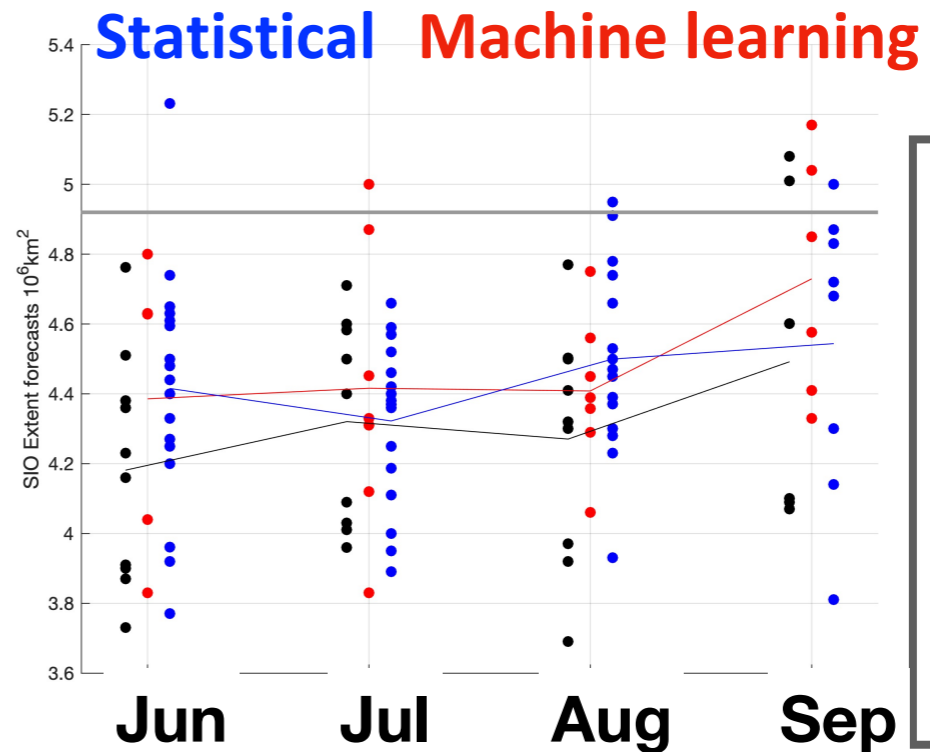


Alaska Seas also do better when Obs close to trend



Sea Ice Probability has skill over climatology

Ed Blanchard-Wrigglesworth



Skill goes up for all methods for September initialize forecasts

Ed Blanchard-Wrigglesworth



Sea Ice Prediction Network - Lessons/Next Steps

- **Working as a network is key to progress on difficult problems**
 - Provides a space for numerous models of different types to compare Pan-Arctic and Alaska Region forecast skill and biases - identify commonality
 - Fostered a community of sea ice forecasters and strengthened this unique *international* SIO network to advance seasonal sea ice forecasting
 - Engaged the public and stakeholders with SIO to reduce the gap between seasonal forecasts and actionable science
 - Created new data sets that inform sea ice predictability
- **Next steps...**
 - Quantify factors that contribute to SIO seasonal skill - weather, initial conditions, model bias, ..
 - Introduce SIO multi-model weighted forecast

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