

SEA ICE PREDICTION NETWORK (SIPN)

Template for Pan-Arctic Sea Ice Outlook Core Contributions

August 2015 Report (Using July Data)

1. *Contributor Name(s)/Group

Mr. Persistence (Andrew Slater)

2. *Type of Outlook projection

___model statistical ___heuristic

If you use a model, please specify:

Model Name **Multi-Persistence**

Components of the model: Atmosphere___, Ocean___, Ice___, Land___, Coupler___

For non-coupled model: Ice , Ocean___, Forcing___

3. *September monthly average projection (in million square kilometers)

5.15 or 5.36 or 5.57 x 10⁶ km²

4. *Short explanation of Outlook method (1-3 sentences)

Persistence can be computed in several ways. I have looked out to Sept. for the sake of comparison and as a very basic benchmark.

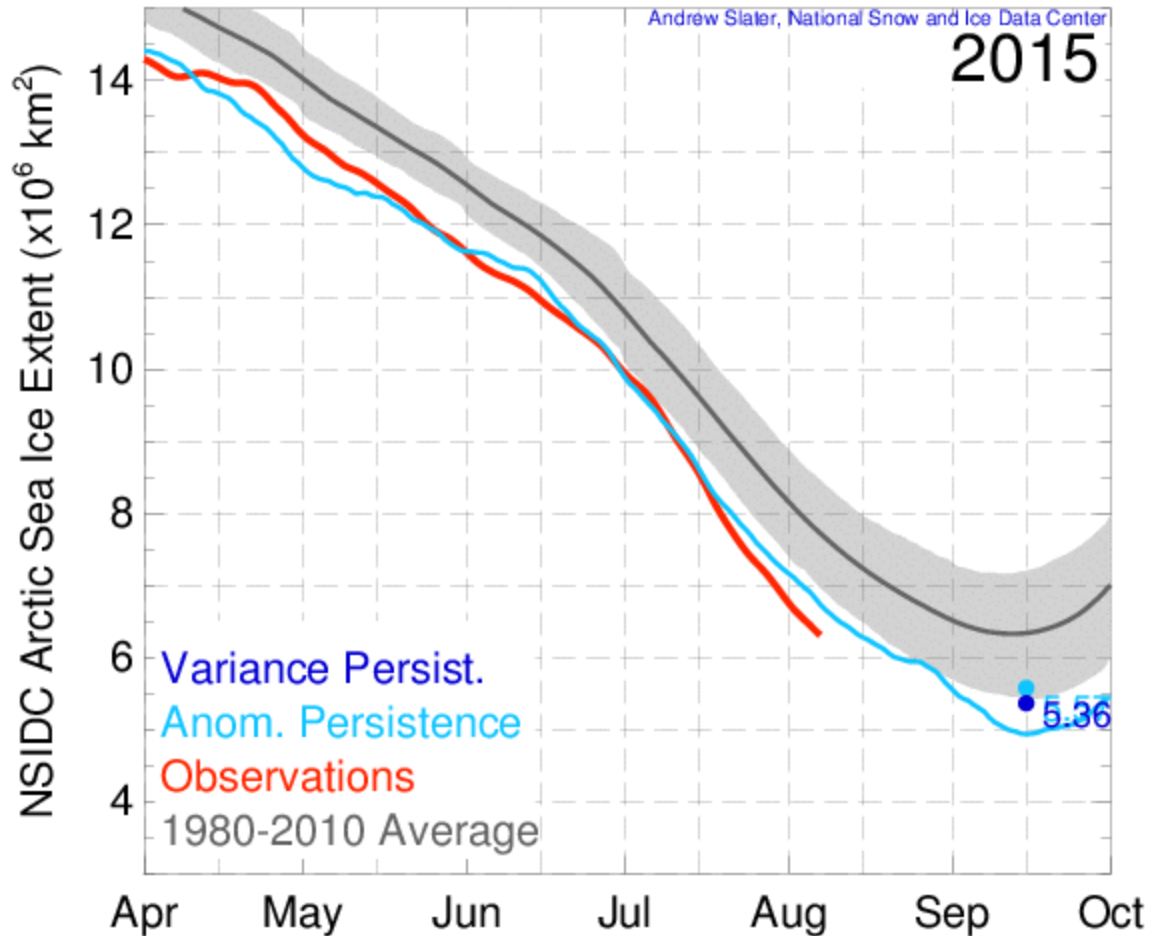
1) Daily anomaly persistence at 53 days lead time (so that I can go all the way to Sep 30th), then compute mean for Sept = 5.15

2) Persist the absolute anomaly from July to Sept (using NSIDC monthly value, not mean of daily). Sept = 5.36

3) Persist the standard normal deviate from June to Sept (using NSIDC monthly). Labeled as "Variance Persistence". Sept = 5.57

These methods have some true skill (as measured by Schroder et al., [2014]) at this lead time.

Daily(53 dys) & Monthly(June) Persistence



(Note: this plot includes a longer smoothing window than my operational 50-day forecast and the observed data sets are different – I was also lazy and did not)

5. Projection uncertainty/probability estimate (only required if available with the method you are using)

Didn't report it this time ... sorry.

7. * "Executive summary" about your Outlook contribution

1-3 sentences, to be used in Outlook summary: say in a few sentences what your Outlook contribution is and why. To the extent possible, use non-technical language.

Three different types of persistence forecasting at 53-day or 2 month lead time. At this shorter lead time, the methods do contain skill (as measured by Schroder et al., [2014]).