SEA ICE PREDICTION NETWORK (SIPN)

Template for Pan-Arctic Sea Ice Outlook Core Contributions

June Report (Using May Data)

**Required*

1. *Contributor Name(s)/Group

Mr. Persistence

2. *Type of Outlook projection
___model _**?**__statistical ___heuristic

If you use a model, please specify:
Model Name Persistence
Components of the model: Atmosphere__, Ocean__, Ice__, Land__, Coupler___
For non-coupled model: Ice _**X**_, Ocean___, Forcing___

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

5.8 or 4.9 x 10^6 km^2

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

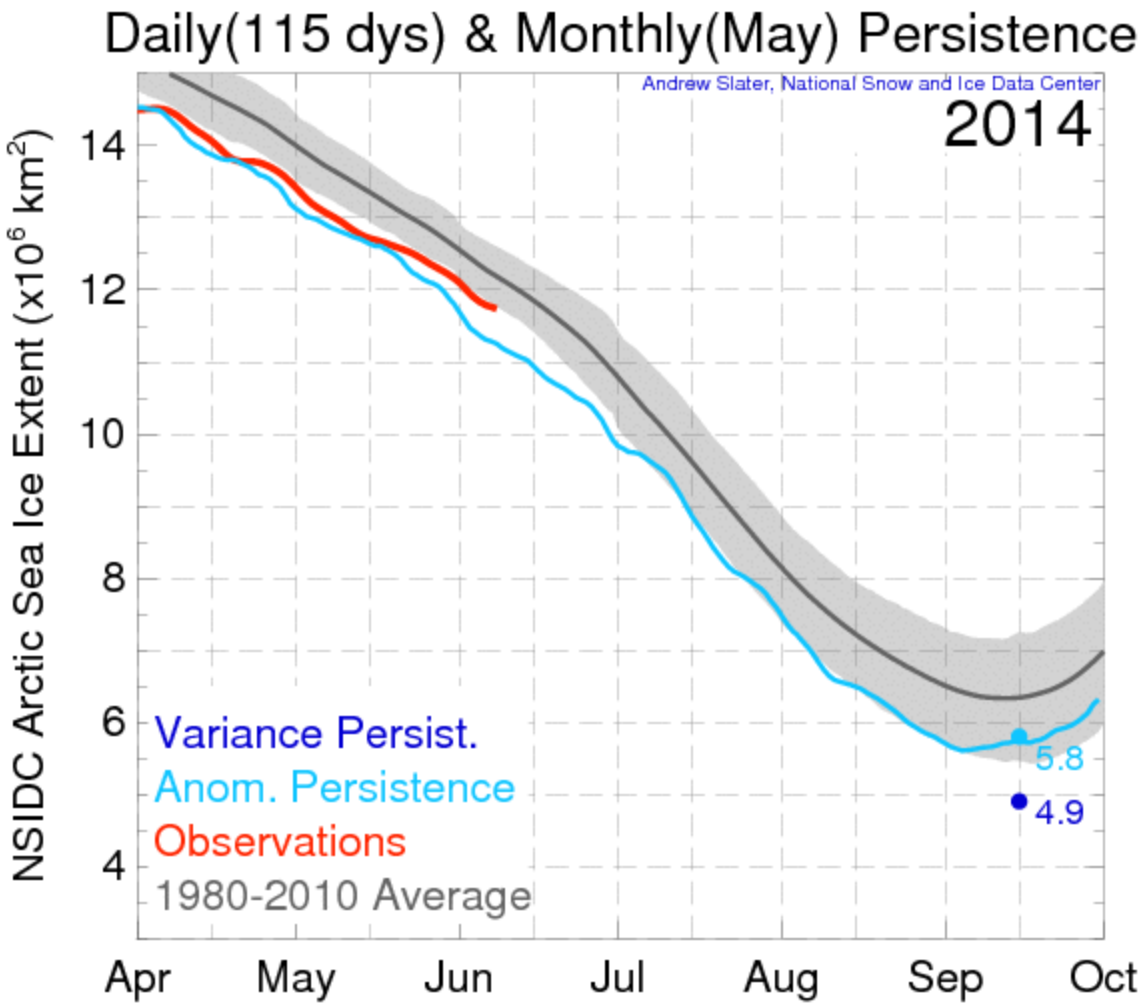
Persistence can be computed in several ways. I have looked out to Sept. for the sake of comparison.

1) Daily anomaly persistence at 115 days lead time (so that I can go all the way to Sep 30th), then compute mean for Sept = 5.8

2) Persist the absolute anomaly from May to Sept (using NSIDC monthly value, not mean of daily). Sept = 5.8 (semi-coincidence that it's the same)

3) Persist the standard normal deviate from May to Sept (using NSIDC monthly). Labeled as "Variance Persistence". Sept = 4.9

All three methods have a skill value of less than -1.0 i.e. **absolutely no skill**!
Skill = as per Schroder et al. 2014 (for +18yrs of data).
Shading on 1980-2010 Average is 1 Std. Dev. in the plot below.



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

No uncertainty estimates, but methods have no skill ….

6. Short explanation/assessment of basis for the uncertainty estimate in #5 (1-2 sentences)

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 long lead time. The methods contain no skill.