

Supplement of Biogeosciences, 11, 4271–4288, 2014
<http://www.biogeosciences.net/11/4271/2014/>
doi:10.5194/bg-11-4271-2014-supplement
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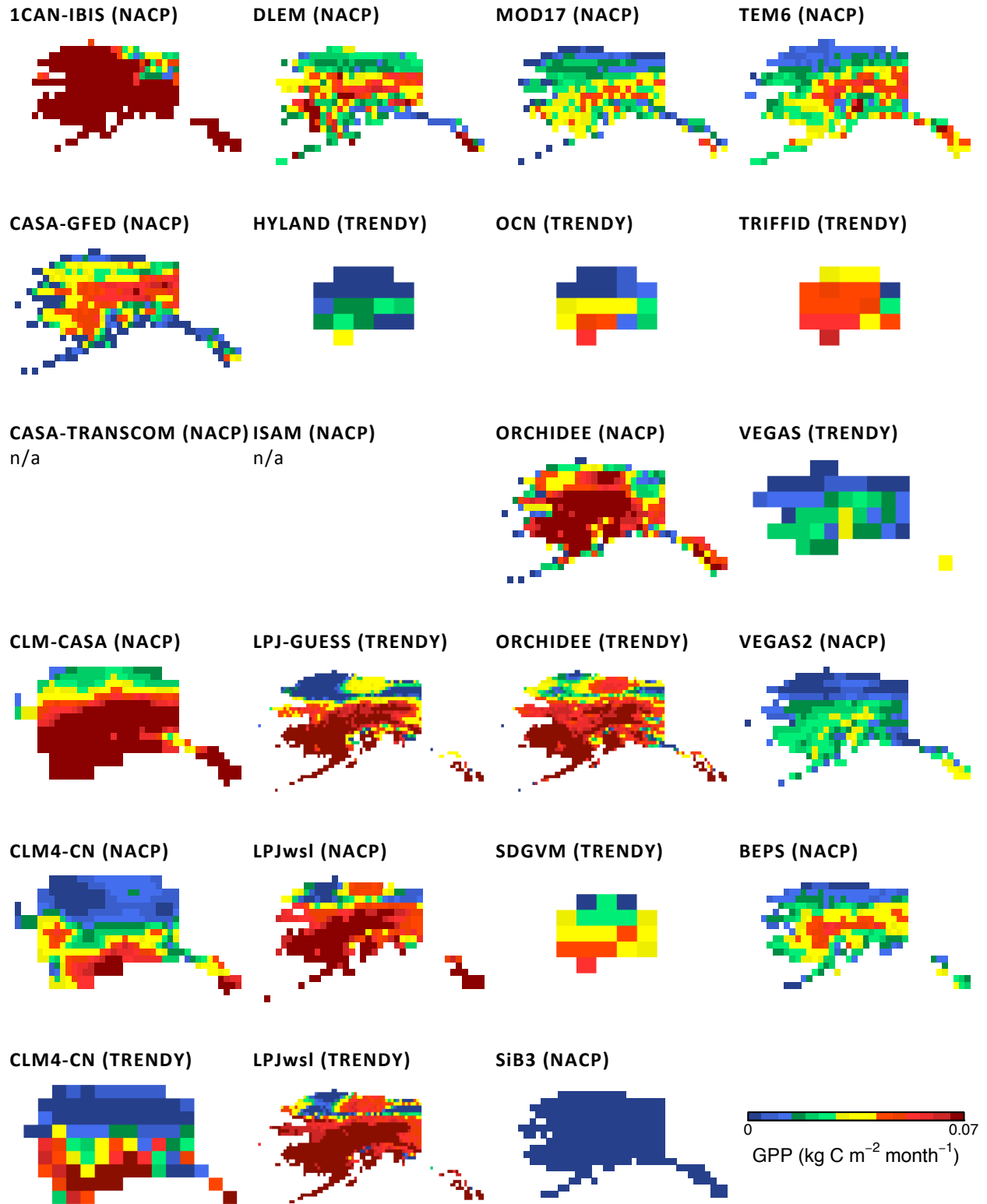


Supplement of

Carbon cycle uncertainty in the Alaskan Arctic

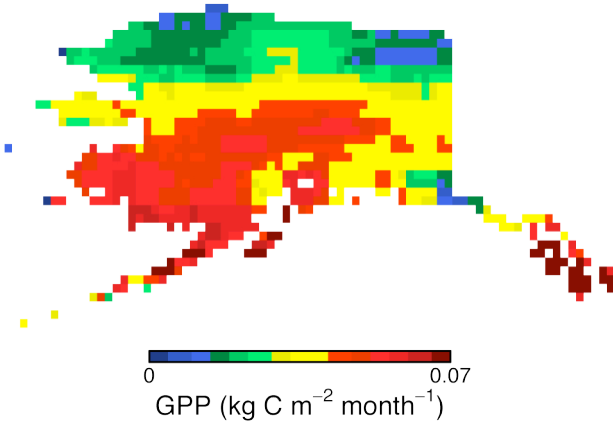
J. B. Fisher et al.

Correspondence to: J. B. Fisher (jbfisher@jpl.nasa.gov)

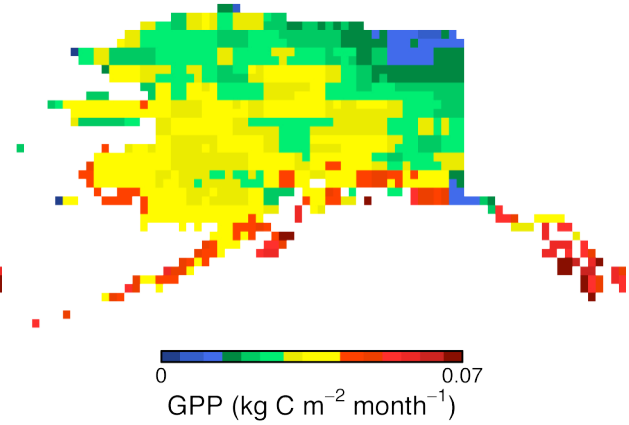


SI 1. Mean annual (2003) Gross Primary Production (GPP) for Alaska.

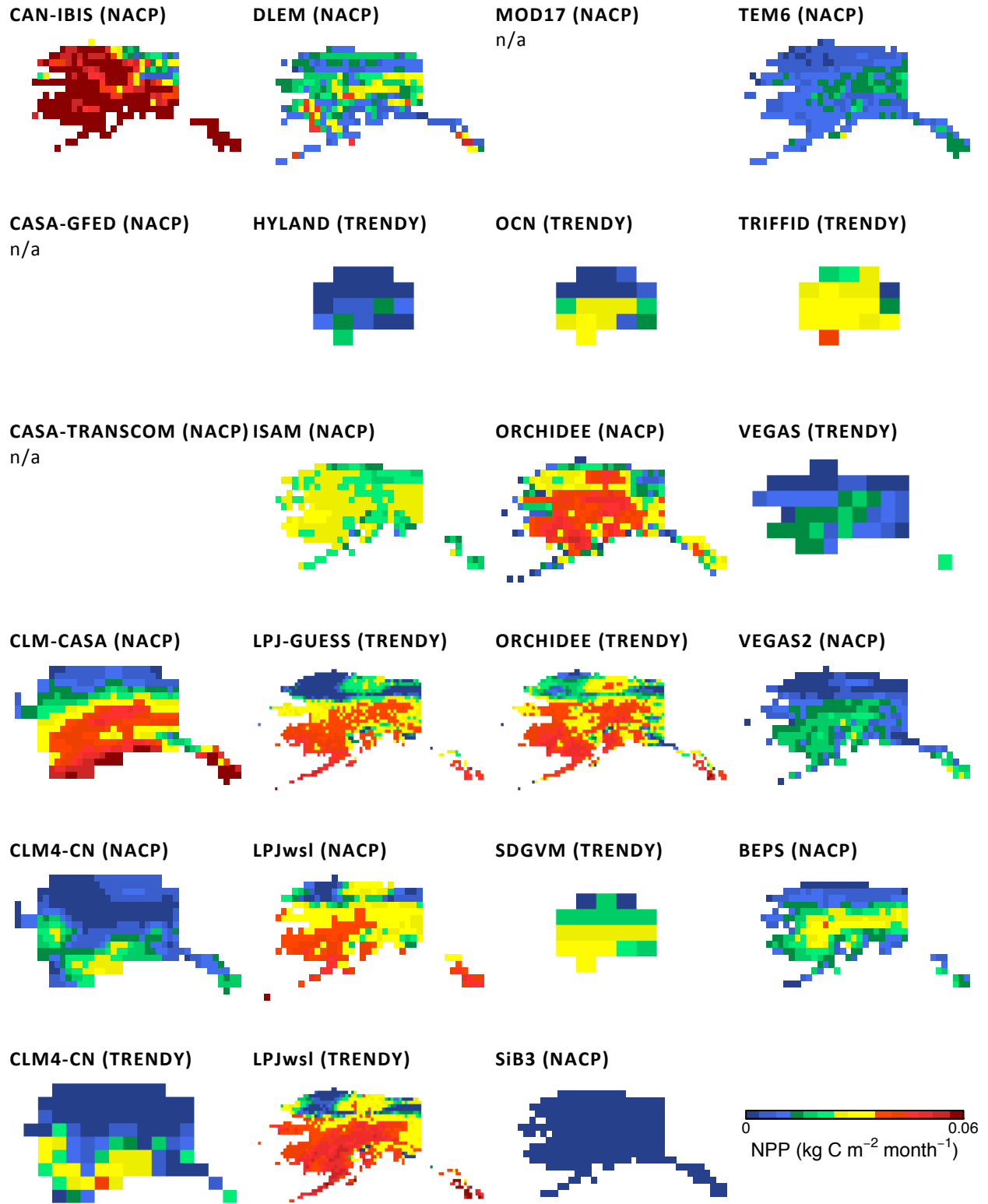
a) Multi-Model (23) Mean GPP



b) Standard Deviation

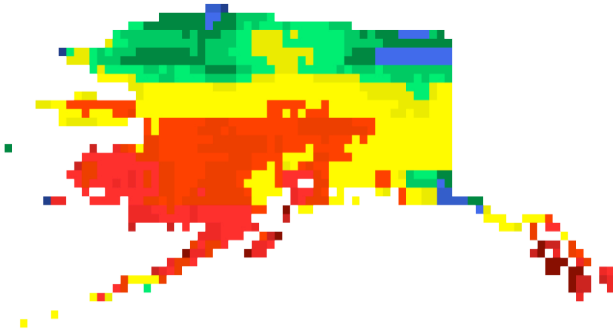


SI 2. NACP and TRENDY multi-model (n=23) Gross Primary Production (GPP) for 2003 a) mean, and b) standard deviation.



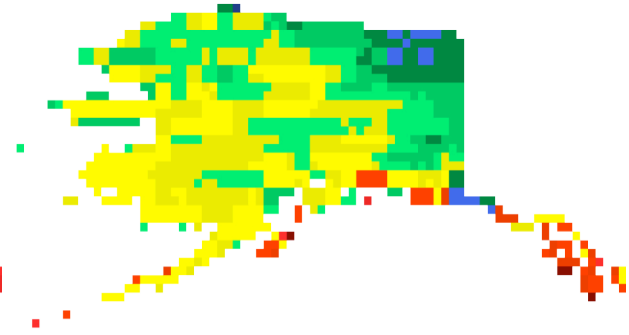
SI 3. Mean annual (2003) Net Primary Production (NPP) for Alaska.

a) Multi-Model (23) Mean NPP



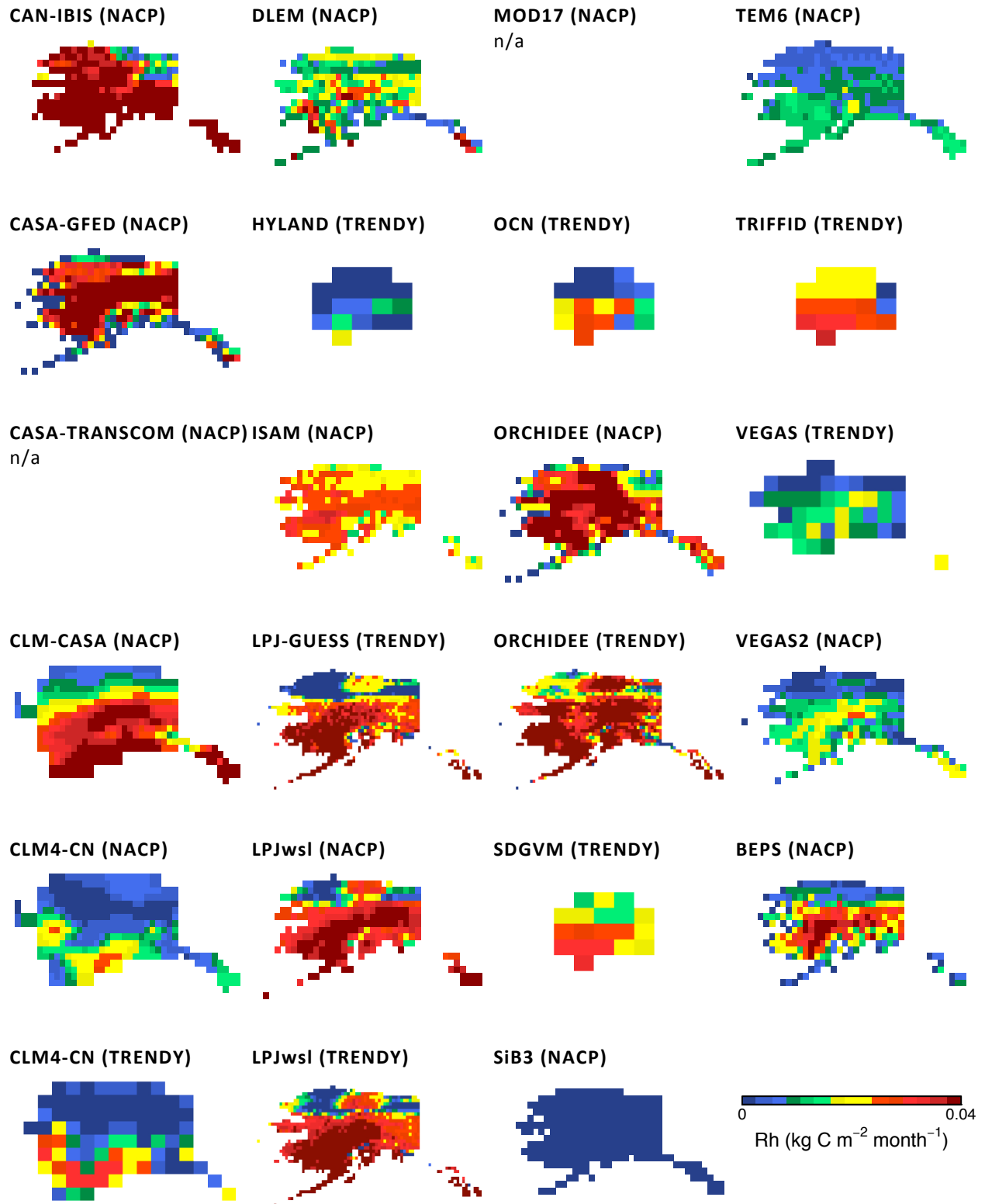
0 0.04
NPP (kg C m⁻² month⁻¹)

b) Standard Deviation



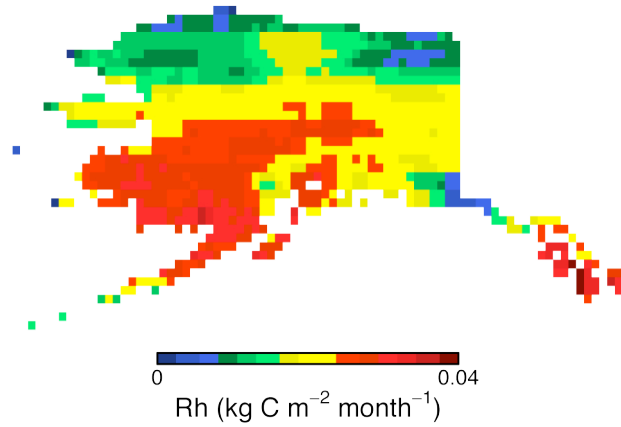
0 0.04
NPP (kg C m⁻² month⁻¹)

SI 4. NACP and TRENDY multi-model (n=23) Net Primary Production (NPP) for 2003 a) mean, and b) standard deviation.

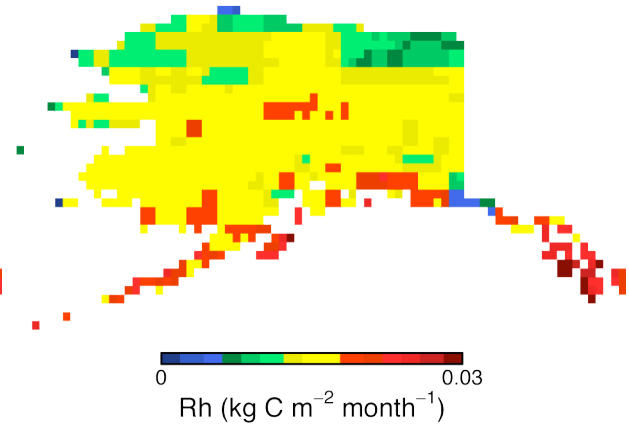


SI 5. Mean annual (2003) Heterotrophic Respiration (Rh) for Alaska.

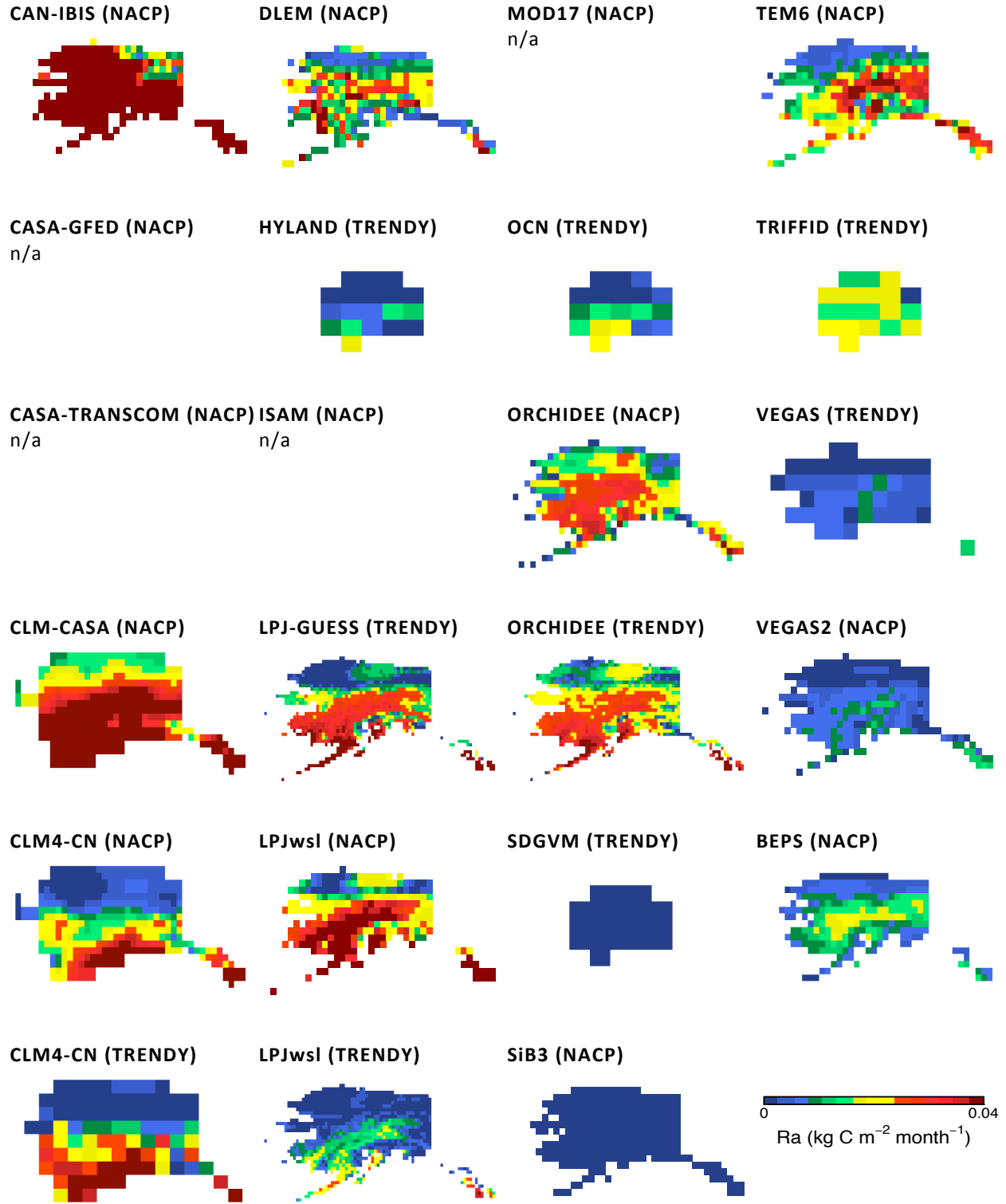
a) Multi-Model (23) Mean Rh



b) Standard Deviation

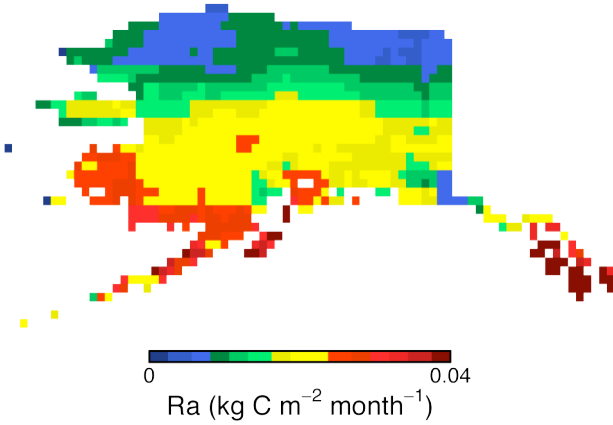


SI 6. NACP and TRENDY multi-model (n=23) Heterotrophic Respiration (Rh) for 2003 a) mean, and b) standard deviation.

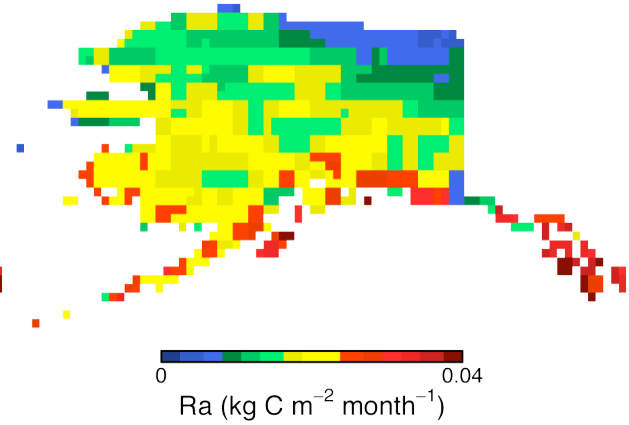


SI 7. Mean annual (2003) Autotrophic Respiration (Ra) for Alaska.

a) Multi-Model (23) Mean Ra

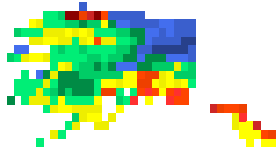


b) Standard Deviation

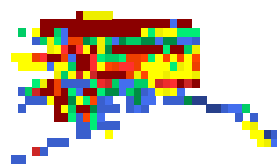


SI 8. NACP and TRENDY multi-model (n=23) Autotrophic Respiration (Ra) for 2003 a) mean, and b) standard deviation.

CAN-IBIS (NACP)

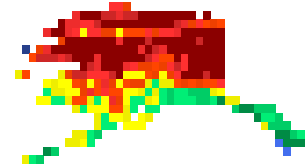


DLEM (NACP)



MOD17 (NACP)
n/a

TEM6 (NACP)



CASA-GFED (NACP)
n/a

HYLAND (TRENDY)



OCN (TRENDY)



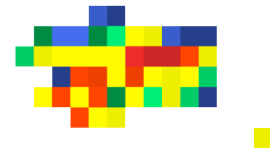
TRIFFID (TRENDY)



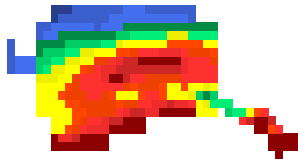
CASA-TRANSCOM (NACP) ISAM (NACP)
n/a

ORCHIDEE (NACP)
n/a

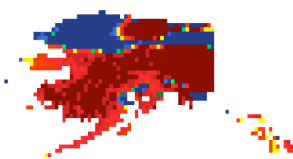
VEGAS (TRENDY)



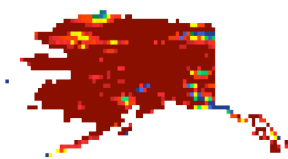
CLM-CASA (NACP)



LPJ-GUESS (TRENDY)

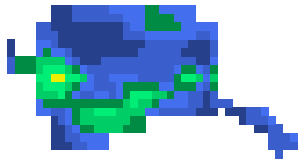


ORCHIDEE (TRENDY)

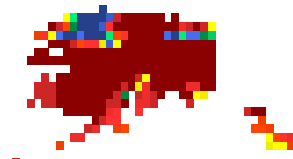


VEGAS2 (NACP)
n/a

CLM4-CN (NACP)



LPJwsl (NACP)

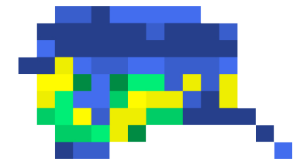


SDGVM (TRENDY)



BEPS (NACP)
n/a

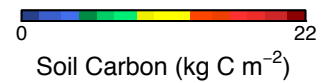
CLM4-CN (TRENDY)



LPJwsl (TRENDY)

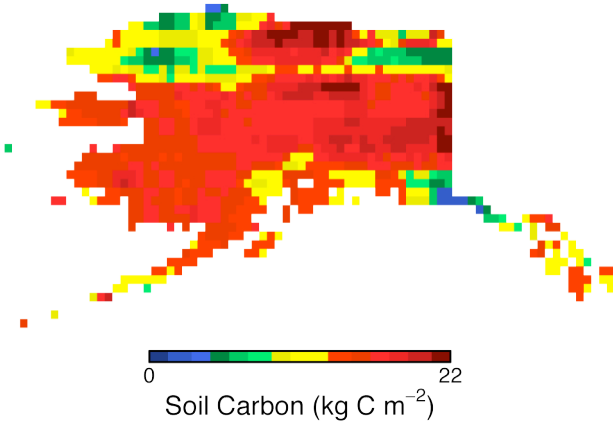


SiB3 (NACP)
n/a

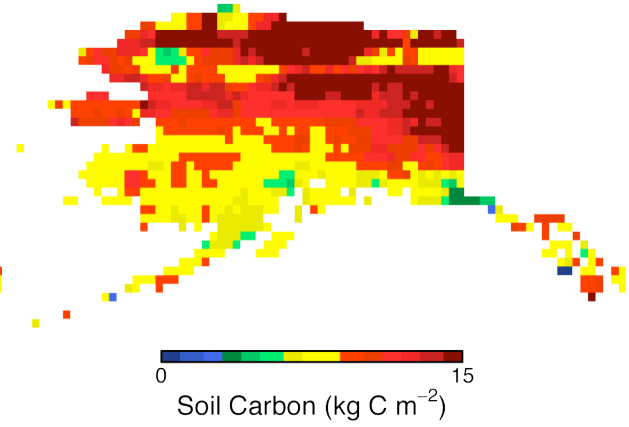


SI 9. Mean annual (2003) Soil Carbon for Alaska.

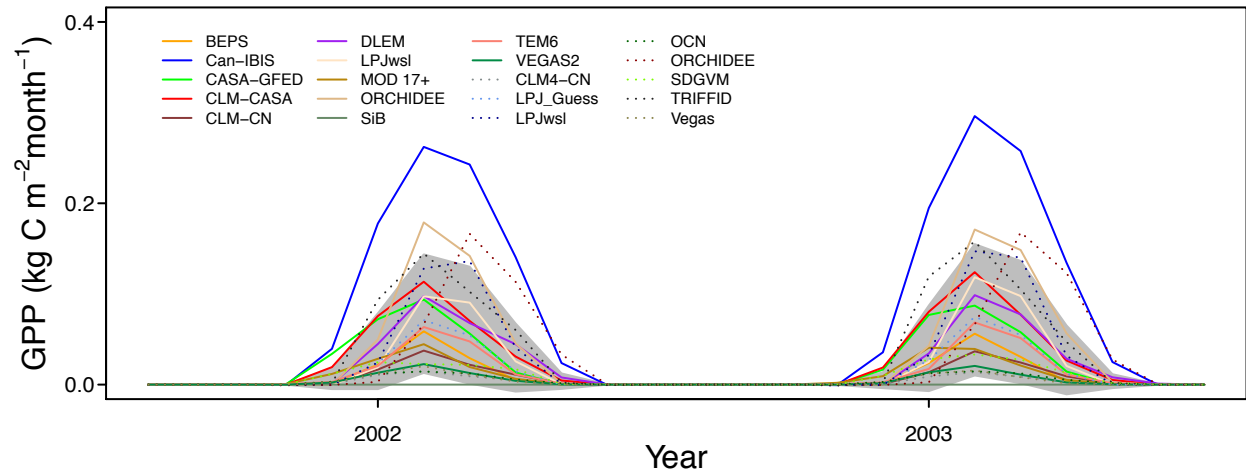
a) Multi-Model (23) Mean Soil Carbon



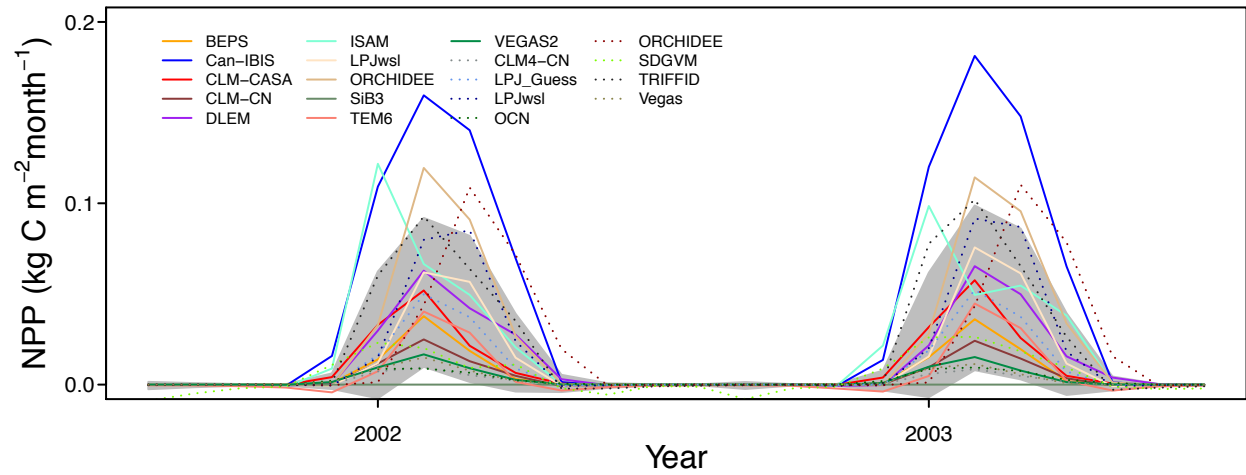
b) Standard Deviation



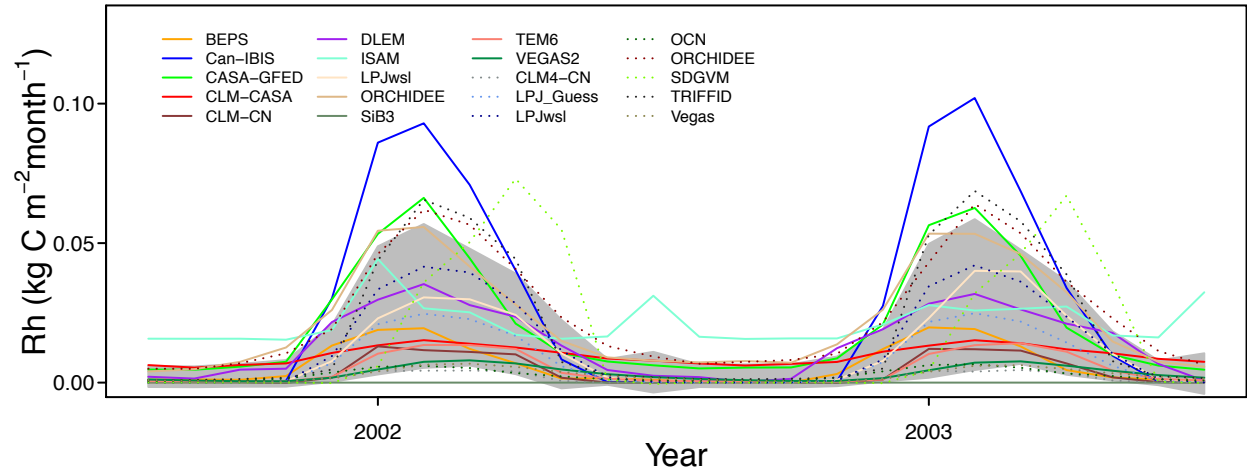
SI 10. NACP and TRENDY multi-model (n=23) Soil Carbon for 2003 a) mean, and b) standard deviation.



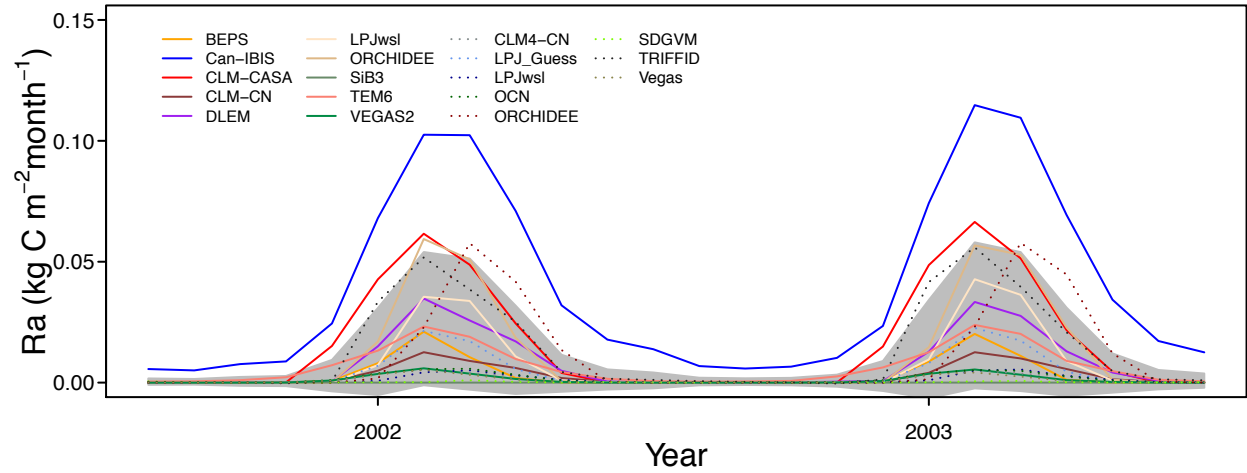
SI 11. Mean monthly Gross Primary Production (GPP) for the Alaskan Arctic for 2002-2003. NACP Regional models are solid lines, TRENDY models are dotted lines.



SI 12. Mean monthly Net Primary Production for the Alaskan Arctic for 2002-2003. NACP Regional models are solid lines, TRENDY models are dotted lines.



SI 13. Mean monthly Heterotrophic Respiration (Rh) for the Alaskan Arctic for 2002-2003. NACP Regional models are solid lines, TRENDY models are dotted lines.



SI 14. Mean monthly Autotrophic Respiration (Ra) for the Alaskan Arctic for 2002-2003. NACP Regional models are solid lines, TRENDY models are dotted lines.

a) Atqasuk vs. Air Temperature



d) Barrow vs. Air Temperature



b) Atqasuk vs. Precipitation



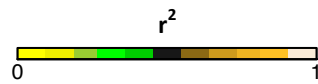
e) Barrow vs. Precipitation



c) Atqasuk vs. Air Temperature & Precipitation



f) Barrow vs. Air Temperature & Precipitation



SI 15. Spatial representation of the mean annual correlation (r^2) between the respective monthly site measurements at Atqasuk (a-c) and Barrow (d-f) for Air Temperature and Precipitation, and the pixel values for those variables from MERRA.