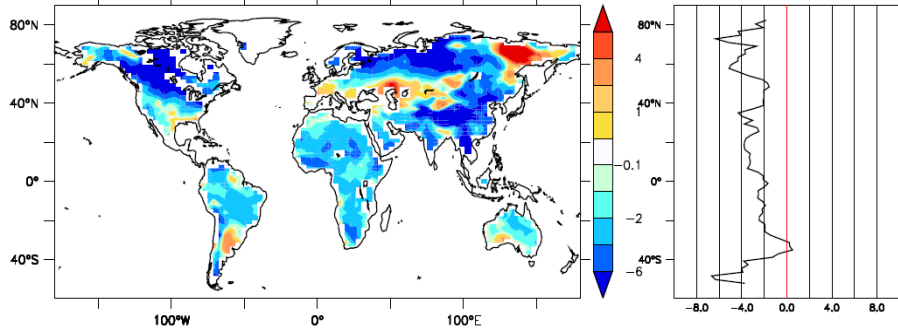
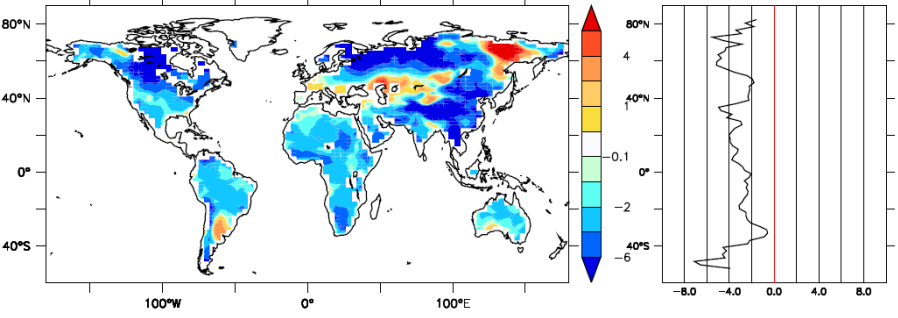


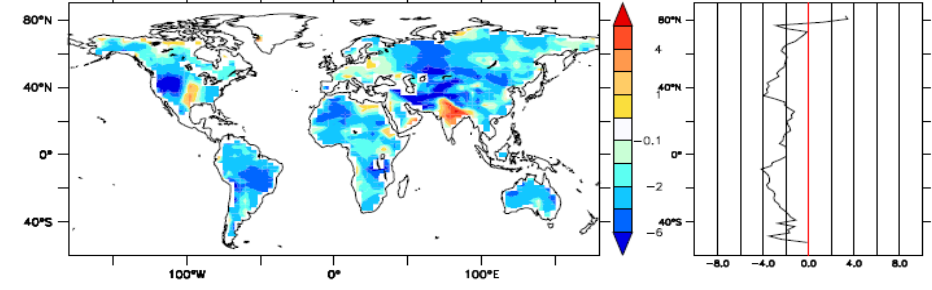
Difference: temp\_sol[l=1] - temp\_sol[l=1]  
Weighted Avg: -2.84 Std: 3.149 Min: -17.268 Max: 11.996



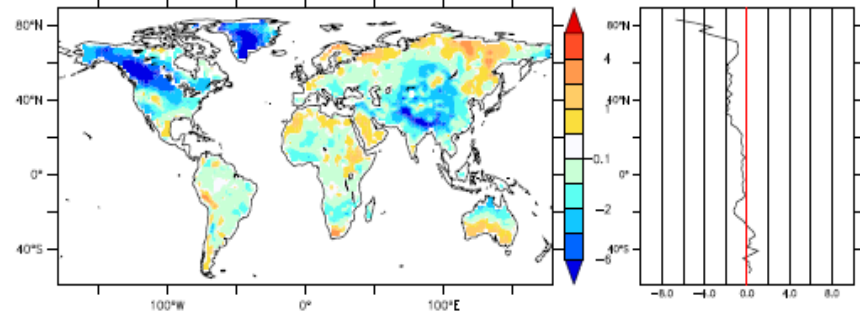
Difference: temp\_sol[l=1] - temp\_sol[l=1]  
Weighted Avg: -3.201 Std: 3.1 Min: -17.953 Max: 12.194



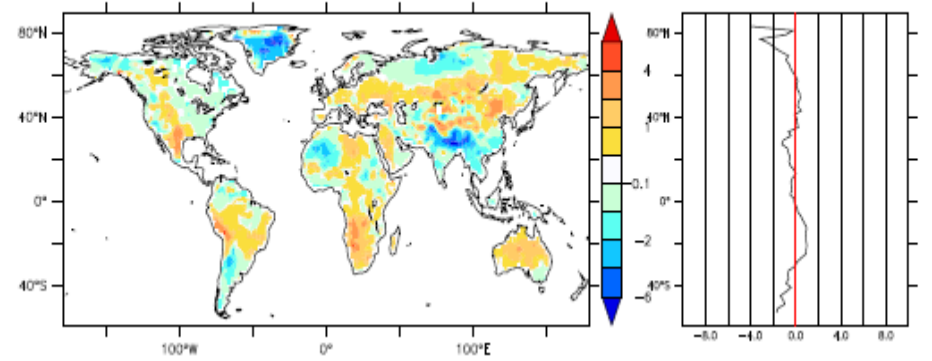
Difference: temp\_sol[l=7] - temp\_sol[l=7]  
Weighted Avg: -2.462 Std: 2.223 Min: -12.33 Max: 6.428



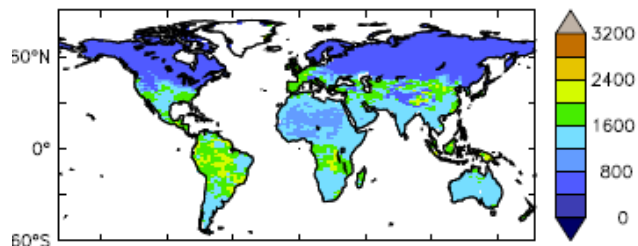
Difference: temp\_sol[l=-1] - temp\_sol[l=-1]  
Weighted Avg: -1.062 Std: 1.856 Min: -16.183 Max: 3.404



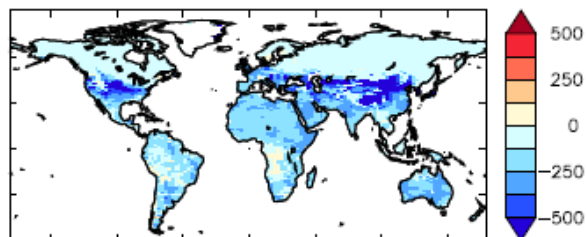
Difference: temp\_sol[l=-7] - temp\_sol[l=-7]  
Weighted Avg: -0.103 Std: 1.336 Min: -9.138 Max: 6.139



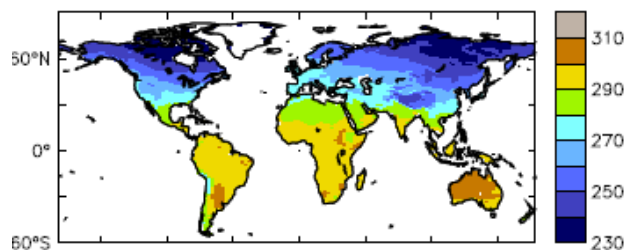
(i) INERTIA( $W/m^2/Ks^{0.5}$ ): OLD, DJF(10Y)



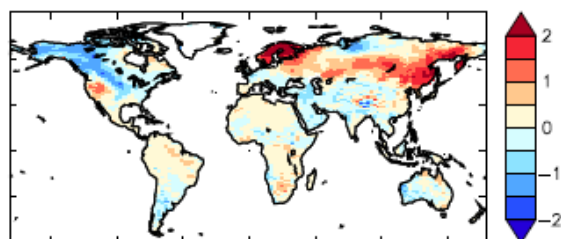
(j) INERTIA( $W/m^2/Ks^{0.5}$ ): NEW-OLD, DJF(10Y)



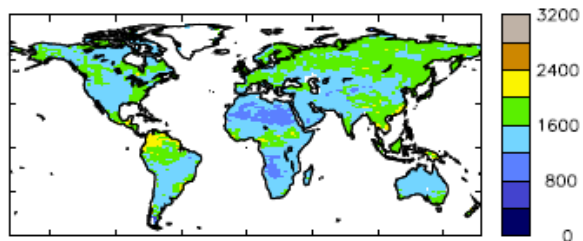
(m)  $T_s(K)$ : OLD, DJF(10Y)



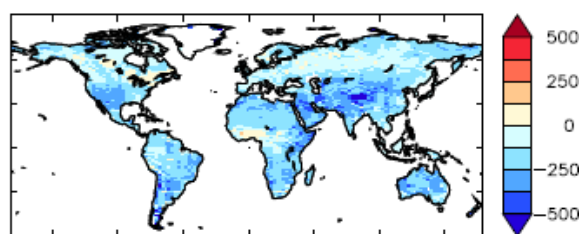
(n)  $T_s(K)$ : NEW-OLD, DJF(10Y)



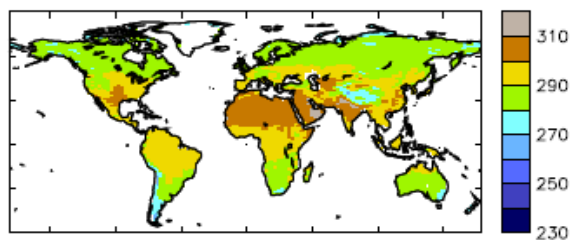
(k) INERTIA( $W/m^2/Ks^{0.5}$ ): OLD, JJA(10Y)



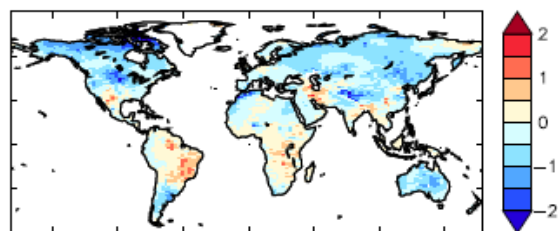
(l) INERTIA( $W/m^2/Ks^{0.5}$ ): NEW-OLD, JJA(10Y)



(o)  $T_s(K)$ : OLD, JJA(10Y)

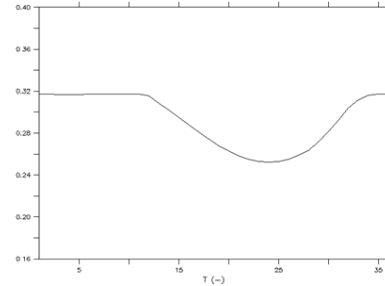
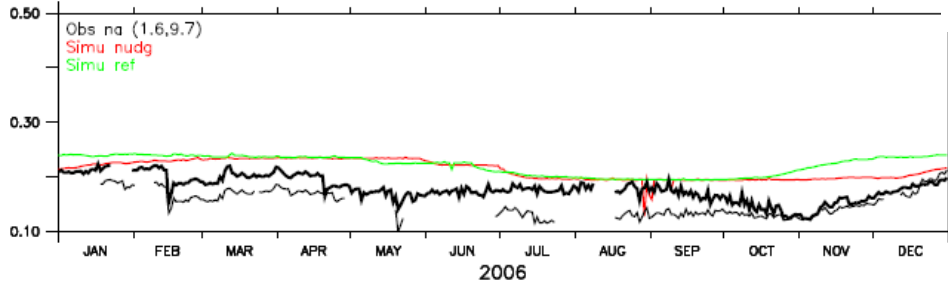
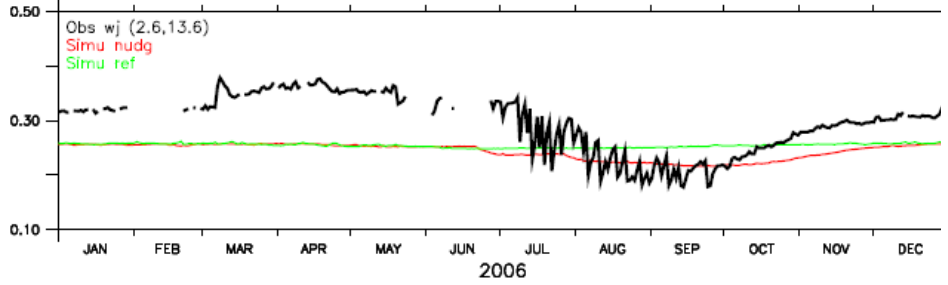
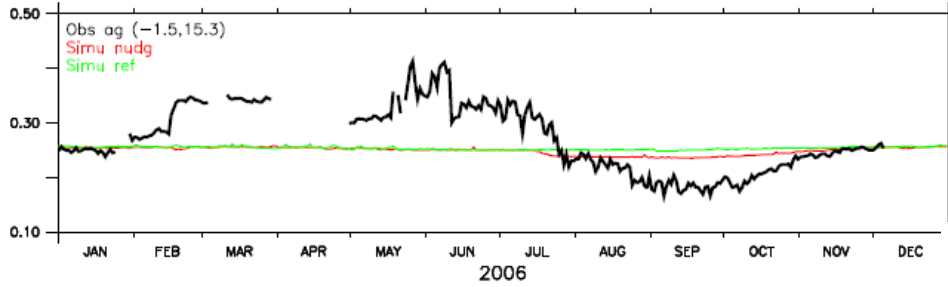
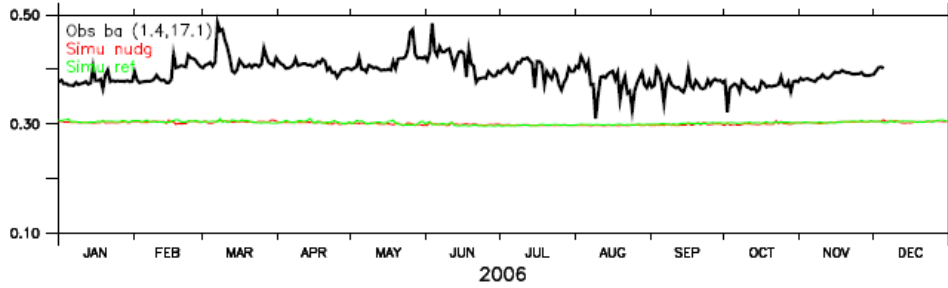


(p)  $T_s(K)$ : NEW-OLD, JJA(10Y)

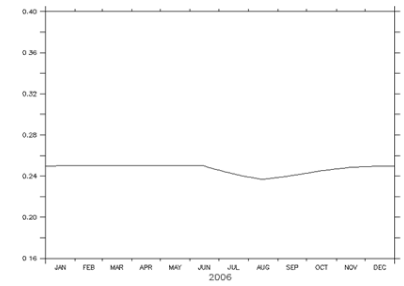


# Albedo

albedo



Donnée ECOCLIMAP



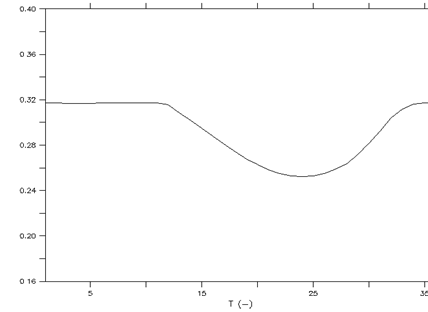
Simu ALMIP2

*Albédo sol nu*

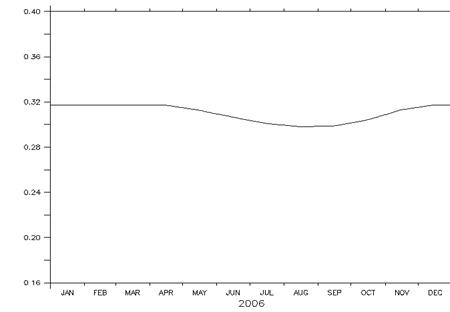
1	2	3	4	5	6	7	8	9
0.27	0.25	0.25	0.24	0.21	0.1775	0.145	0.1125	0.35

Light -----> dark deserts

Agoufou (2003) : 1,5 W , 15,3 N (2006)



Donnée ECOCLIMAP

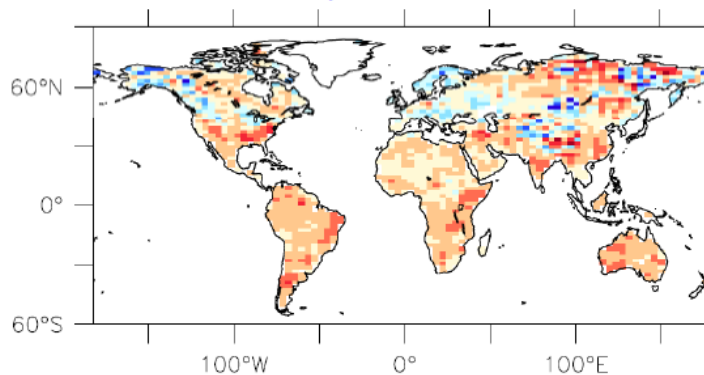


Simu ALMIP2

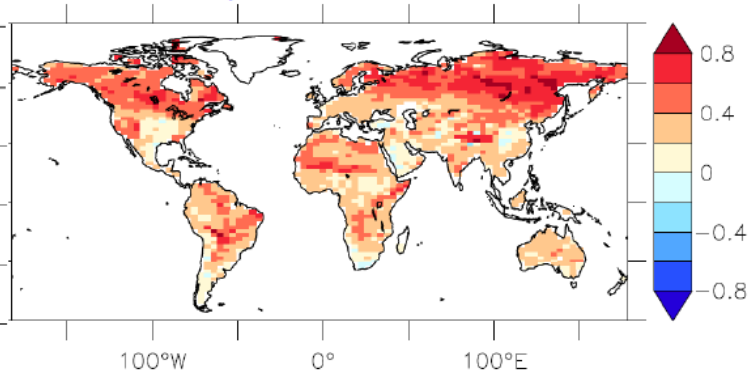
# Simple $z_0$ Tests ( $z_{0h} = z_{0m}/10$ ) in LMDZOR

CTL:  $z_{0h} = z_{0m}$ ; EXP:  $z_{0h} = z_{0m}/10$ ; ORC (CWRR); LMDZ (NPv3.2);  $96 \times 95 \times 39$ ; 1Y (nudged)

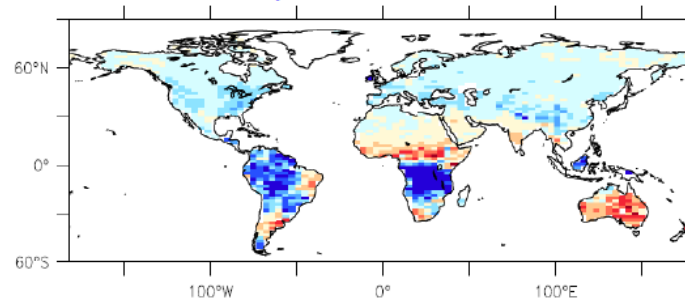
T2m, EXP - CTL: DJF



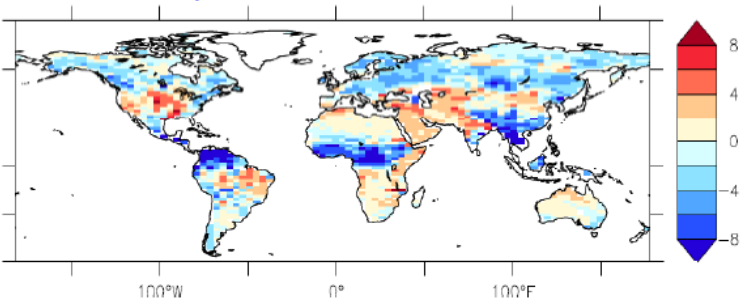
T2m, EXP - CTL: JJA



LE, EXP - CTL: DJF

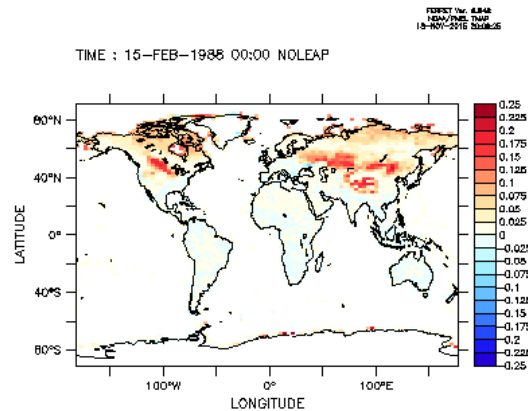


LE, EXP - CTL: JJA

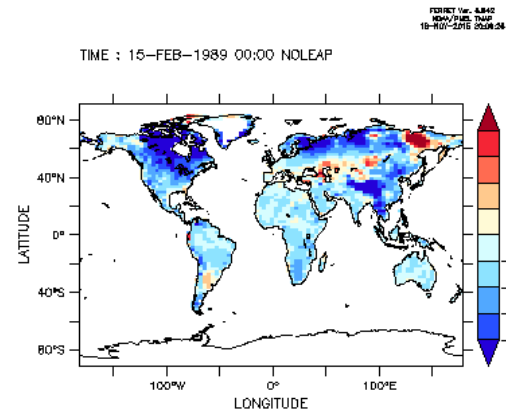


T2m increases (LE decreases) with  $z_{0h}$  decrease → Does it improve the simulation or not ??

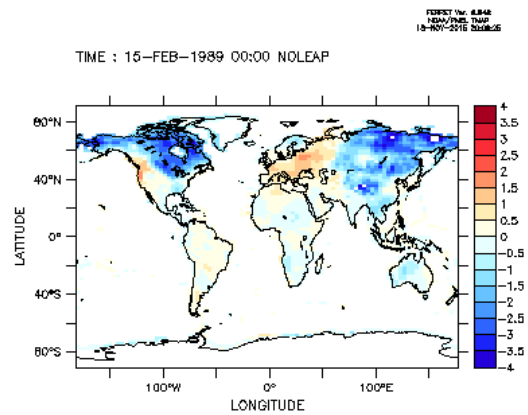
# New snow and soil freezing



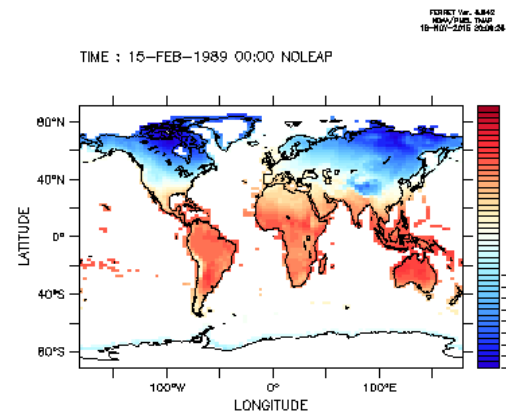
CL2 3013.snow-3013



CL2 3013.snow-3013 -CRU



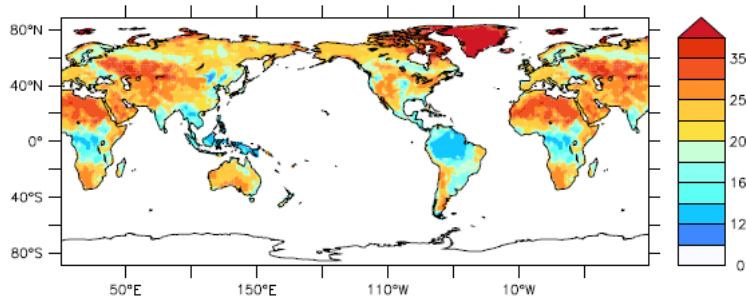
CL2 3013.snow-3013



CL2 3013.snow

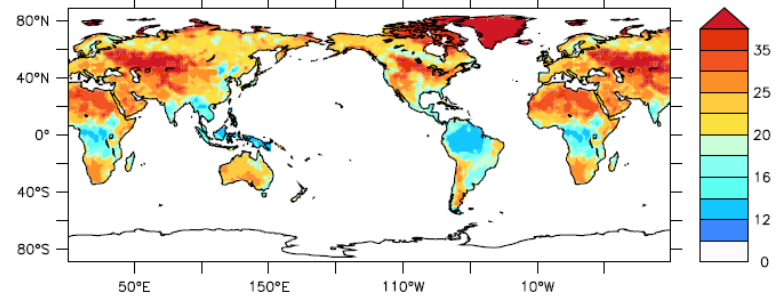
# Albedo

FG2low.CWRR.3013\_SE\_1991\_2000\_1M\_sechiba\_history.nc: (alb\_vis[l=1]+alb\_nir[l=1])\*



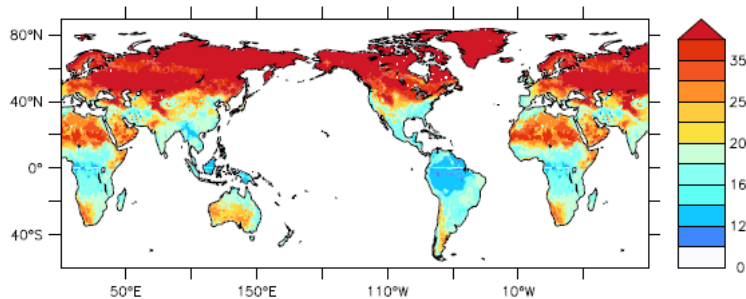
Unweighted Avg: 24.184 Std: 9.476 Min: 11.25 Max: 73.692

FG2low.CWRR.3013.snow\_SE\_1991\_2000\_1M\_sechiba\_history.nc: (alb\_vis[l=1]+alb\_nir[l=1])\*5C



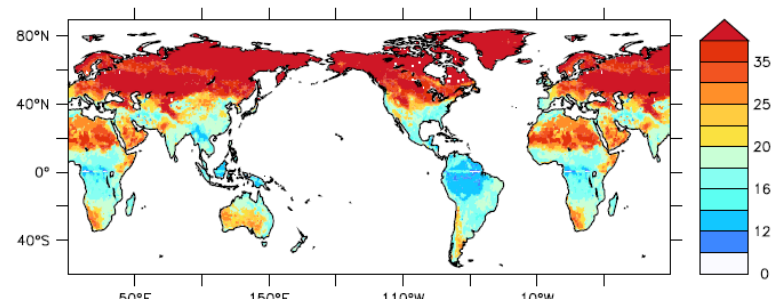
Unweighted Avg: 26.083 Std: 11.724 Min: 11.25 Max: 75.598

ISLSCP\_sechiba\_hist.nc: (alb\_vis[l=1]+alb\_nir[l=1])\*50



Unweighted Avg: 38.058 Std: 22.956 Min: 7.75 Max: 84.779

ISLSCP\_sechiba\_hist.nc: (alb\_vis[l=1]+alb\_nir[l=1])\*50



Unweighted Avg: 38.058 Std: 22.956 Min: 7.75 Max: 84.779