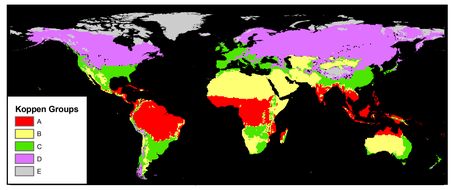

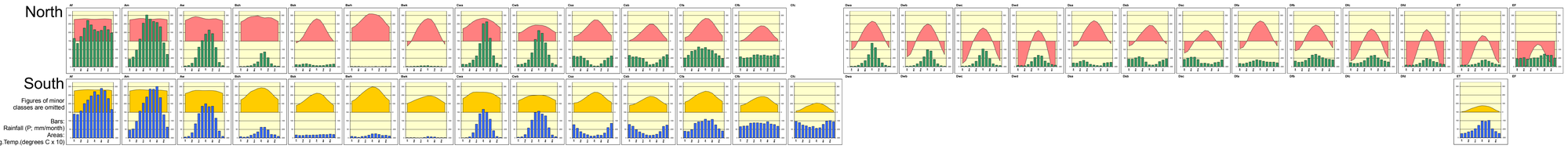

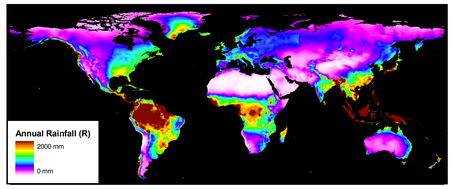

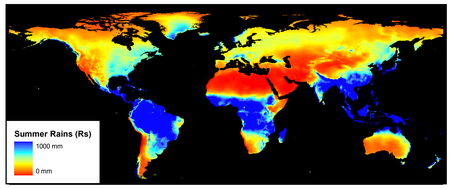

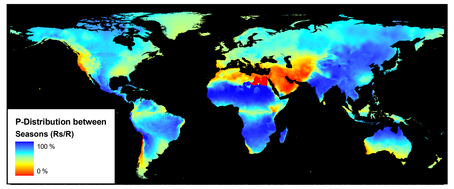

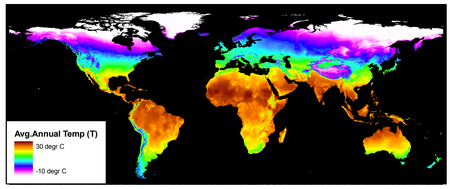

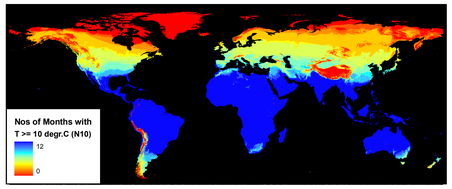

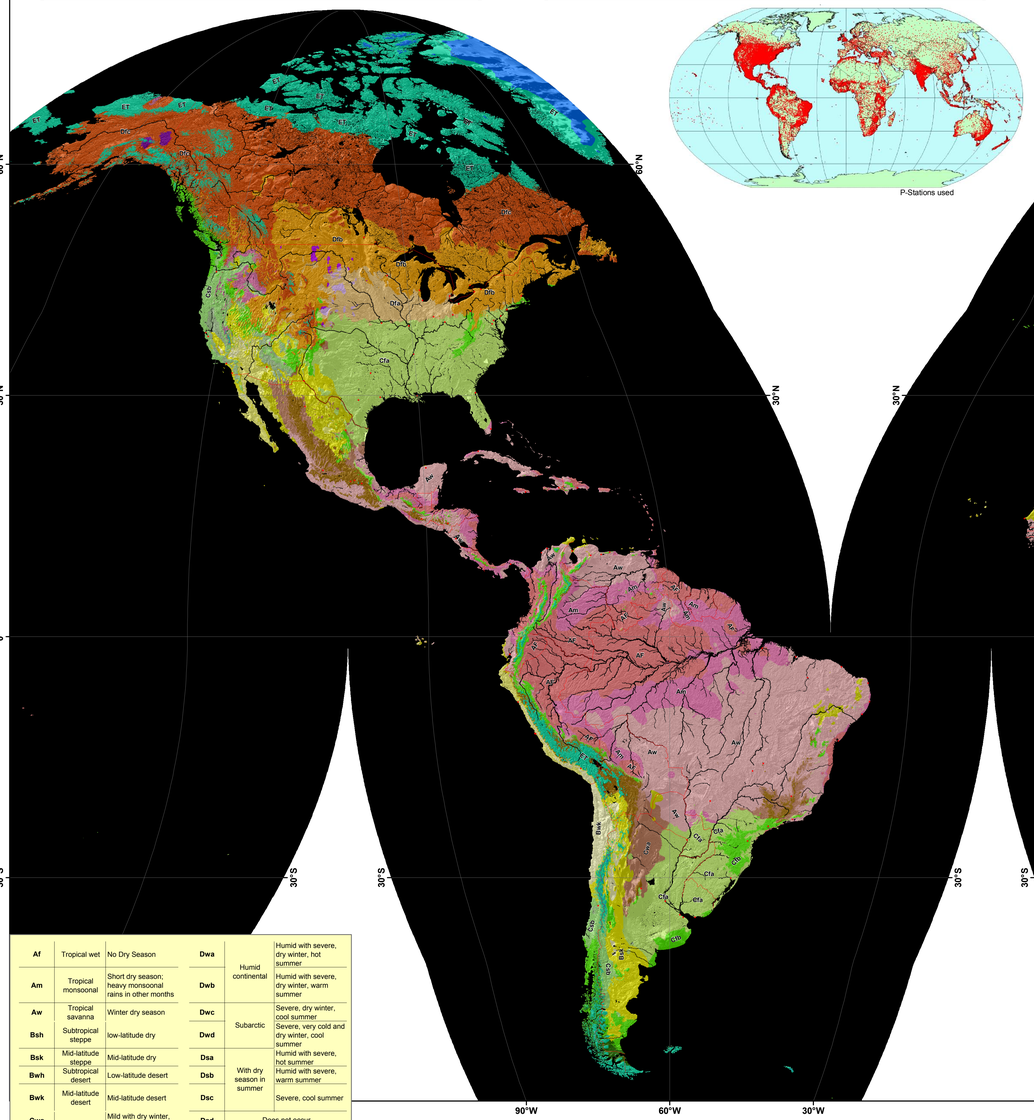

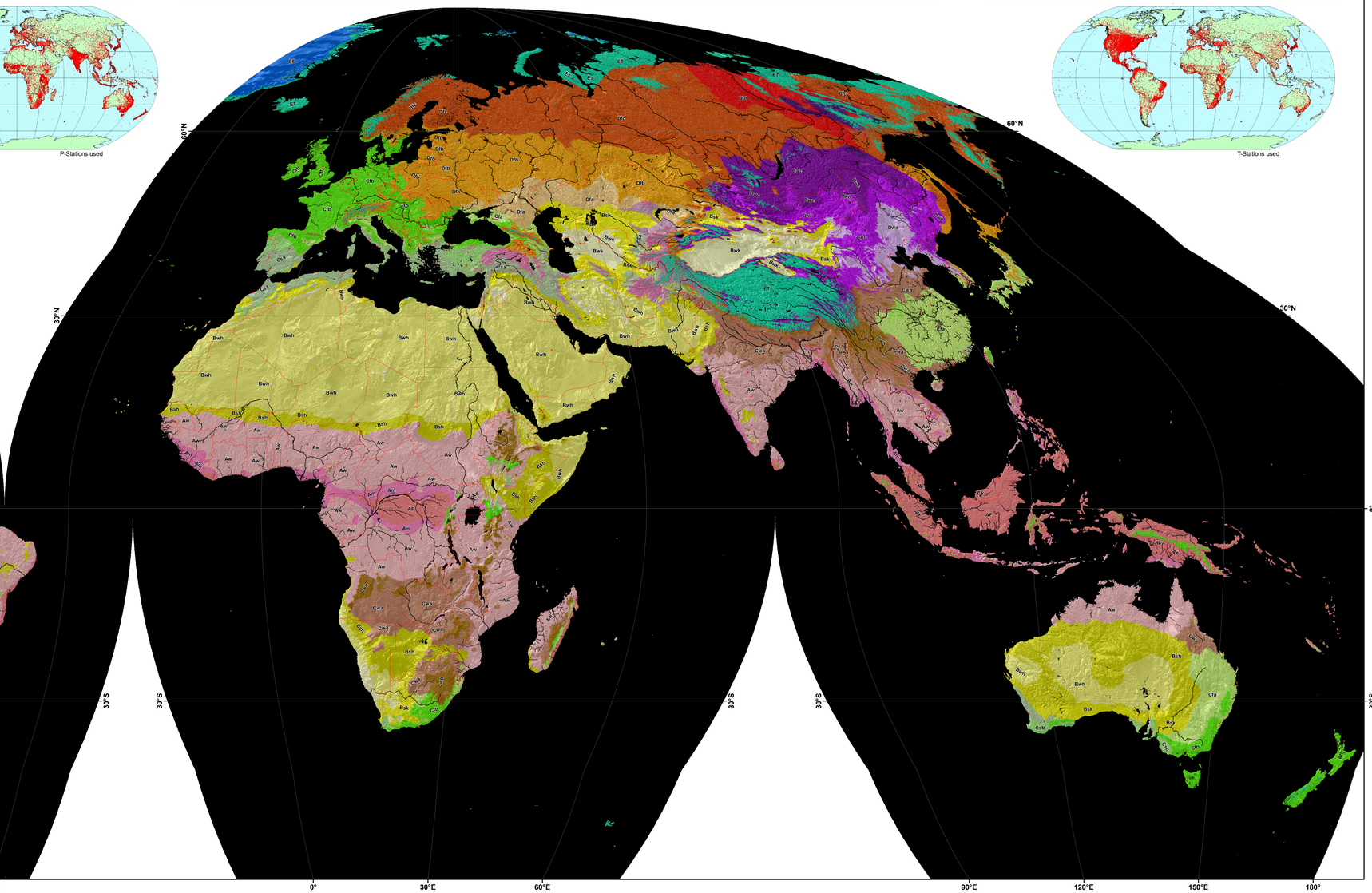

Af	Tropical wet	No Dry Season	Dwa	Humid continental	Humid with severe, dry winter, hot summer
Am	Tropical monsoonal	Short dry season; heavy monsoonal rains in other months	Dwb		Humid with severe, dry winter, warm summer
Aw	Tropical savanna	Winter dry season	Dwc	Subarctic	Severe, dry winter, cool summer
Bsh	Subtropical steppe	low-latitude dry	Dwd		Severe, very cold and dry winter, cool summer
Bsk	Mid-latitude steppe	Mid-latitude dry	Dsa	With dry season in summer	Humid with severe, hot summer
Bwh	Subtropical desert	Low-latitude desert	Dsb		Humid with severe, warm summer
Bwk	Mid-latitude desert	Mid-latitude desert	Dsc		Severe, cool summer
Cwa	Humid subtropical	Mild with dry winter, hot summer	Dsd		Does not occur
Cwb		Mild with dry, warm summer	Dfa	Humid continental	Humid with severe winter, no dry season, hot summer
Cwc		Mild with no dry season, cool summer	Dfb		Humid with severe winter, no dry season, warm summer
Csa	Mediterranean	Mild with dry, hot summer	Dfc	Subarctic	Severe winter, no dry season, cool summer
Csb		Mild with dry, warm summer	Dfd		Severe, very cold winter, no dry season, cool summer
Csc		Mild with no dry season, cool summer	ET	Tundra	Polar tundra, no true summer
Cfa	Humid subtropical	Mild with no dry season, hot summer	EF	Ice cap	Perennial ice
Cfb	Marine west coast	Mild with no dry season, warm summer	H - high-lands	Covered in the above classes	
Cfc		Mild with no dry season, cool summer			

Koppen-Geiger System of Climate Classification

World-Goode Homolosine (land)
WGS-1984
1:30,000,000
C.A.J.M. de Bie, 2007
ITC

Based on 1 km monthly avg P and T data (1950-2000). BioClim (www.worldclim.org)
See: Hijmans et.al.
Very High Resolution Interpolated Climate Surfaces for Global Land Areas
Int. J. Climatol. 25: 1965–1978 (2005)

Classes

Af	Bwk	Csc	Dwc	Dfb	
Am	Cwa	Cfa	Dwd	Dfc	
Aw	Cwb	Cfb	Dsa	Dfd	
Bsh	Cwc	Cfc	Dsb	ET	
Bsk	Csa	Dwa	Dsc	EF	
Bwh	Csb	Dwb	Dfa		

R	Total annual rain (cm)
Rhi	Rain wettest month (cm)
Rlo	Rain dryest month (cm)
Rs	Rain in 6 summer months (N: may-oct; S: nov-apr; cm)
Rs-hi	Rain wettest month summer (cm)
Rs-lo	Rain dryest month summer (cm)
Rw-hi	Rain wettest month winter (cm)
Rw-lo	Rain dryest month winter (cm)
T	Average annual temerature (degr.C)
Thi	Temperature warmest month (degr.C)
Tlo	Temperature coldest month (degr.C)
N10	Number of months with T >= 10 degrees Centigrade
Perc	Rs / R (distribution of rain between seasons)
X	if Perc =< 0.3 then 2.T if Perc >= 0.7 then 2.(T+14) else 2.(T+7)

(Summer North = May-Oct; South = Nov-Apr)

Major Class		R and X	Tlo	Thi	Rlo	T	Rs-hi	Rw-hi	Thi	Tlo	N10	
A	Tropical Humid	R>X	>= 18.3		>= 6.0							Af
					< 6.0 and >= (10-R/25)							Am
					< (10-R/25)							Aw
B	Dry	R < X and R >= X/2				>= 18.3						Bsh
						< 18.3						Bsk
		R< X/2				>= 18.3						Bwh
						< 18.3						Bwk
C	Warm - Temperate, Mild Mid-Latitude	R>X	>= -3.0 and < 18.3	>= 10.0	< 3.0		>= (10.Rw-lo)		>= 22.2			Cwa
									< 22.2		>= 4	Cwb
							< (10.Rw-lo)	>= (3.Rs-lo)			< 4	Cwc
									>= 22.2			Csa
									< 22.2		>= 4	Csb
											< 4	Csc
					other		other		>= 22.2			Cfa
									< 22.2		>= 4	Cfb
											< 4	Cfc

Major Class		R and X	Tlo	Thi	Rlo	T	Rs-hi	Rw-hi	Thi	Tlo	N10	
D	Snow, Severe Mid-Latitude	R>X	< -3.0	>= 10.0	< 3.0		>= (10.Rw-lo)		>= 22.2			Dwa
									< 22.2		>= 4	Dwb
										>= -38.0	< 4	Dwc
										< -38.0	>= 1 and < 4	Dwd
							< (10.Rw-lo)	>= (3.Rs-lo)	>= 22.2			Dsa
									< 22.2	>= -38.0	>= 4	Dsb
											>= 1 and < 4	Dsc
										< -38.0	>= 1 and < 4	Dsd
					other		other		>= 22.2			Dfa
									< 22.2	>= -38.0	>= 4	Dfb
											>= 1 and < 4	Dfc
										< -38.0	>= 1 and < 4	Dfd
E	Ice, Polar	R>X		< 10.0 and >= 0								ET
				< 0								EF
F	Highland	Covered in the above classes										H - high-lands