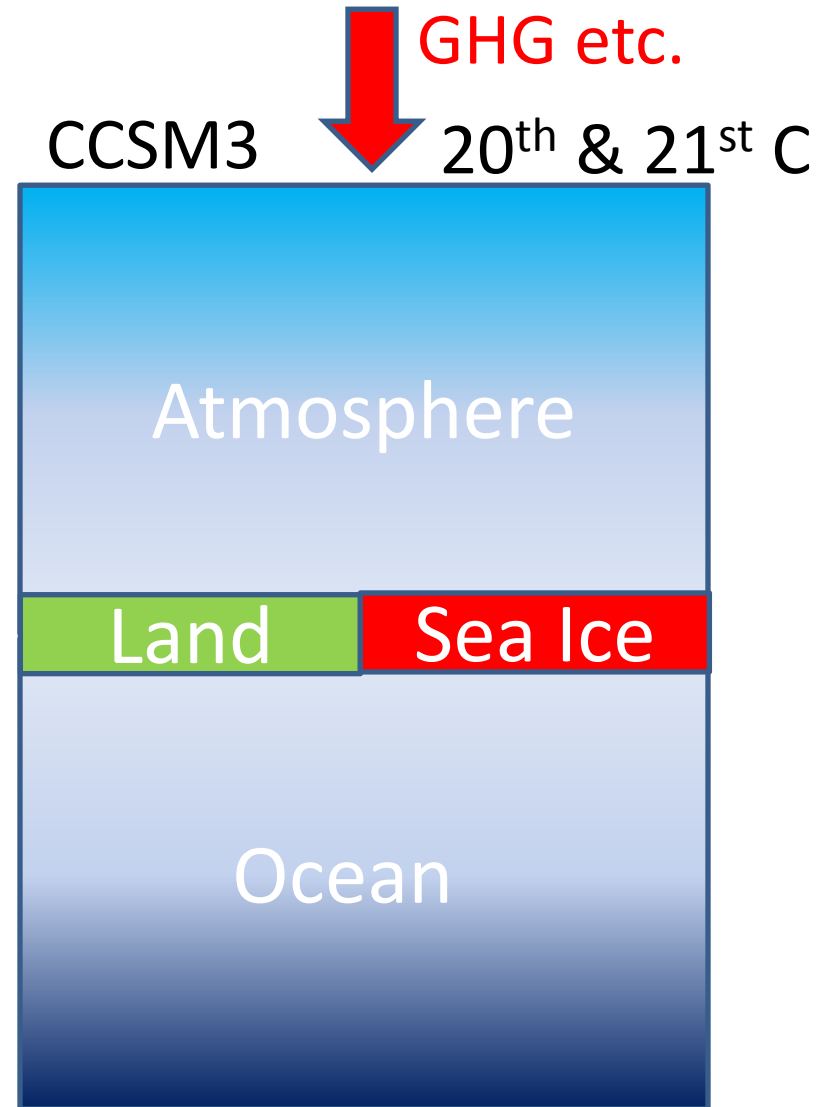


# Climate Response to Future Arctic Sea Ice Loss

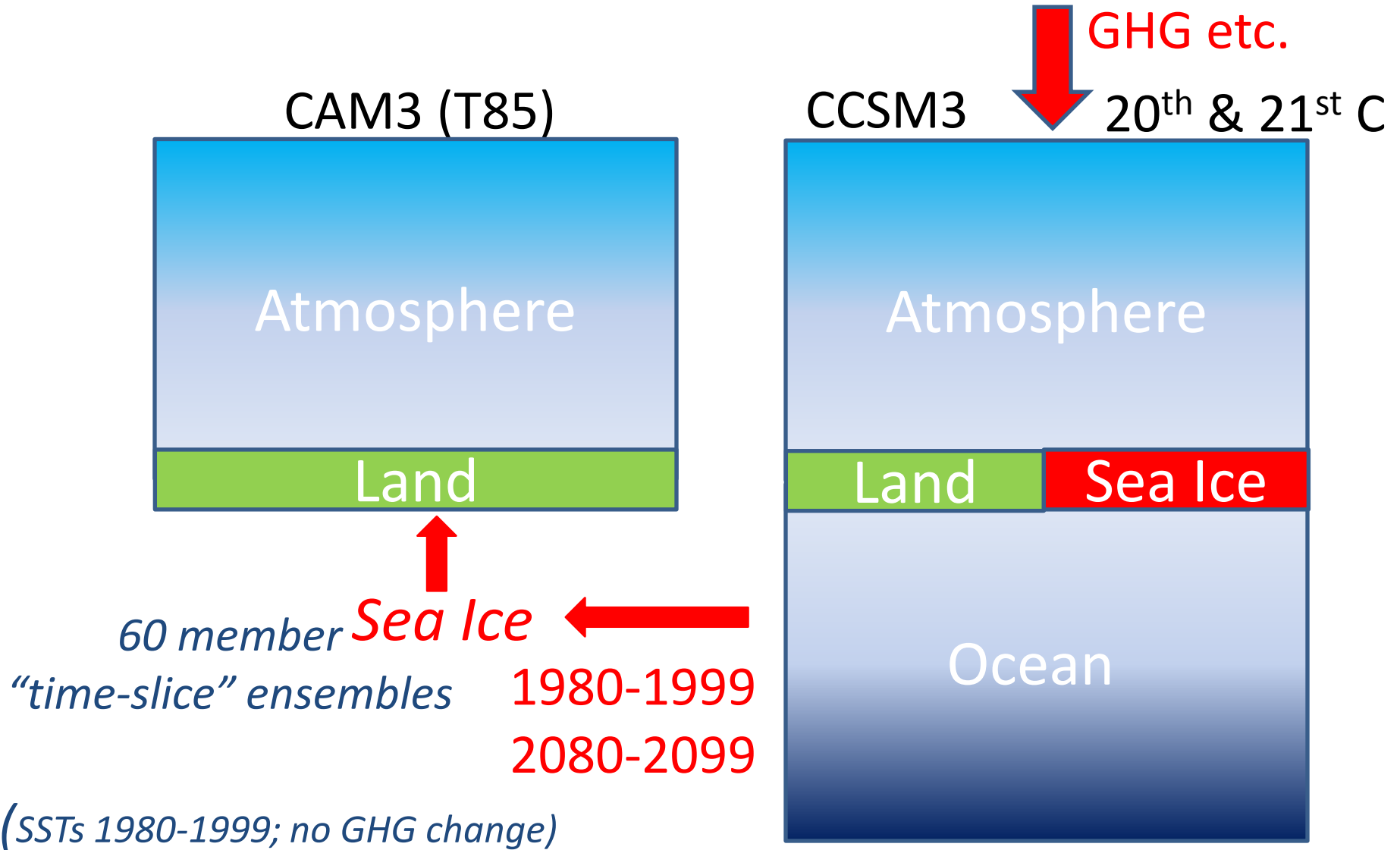
Clara Deser, Bob Tomas, Dave Lawrence, Mike Alexander (J. Climate, Jan 2010)



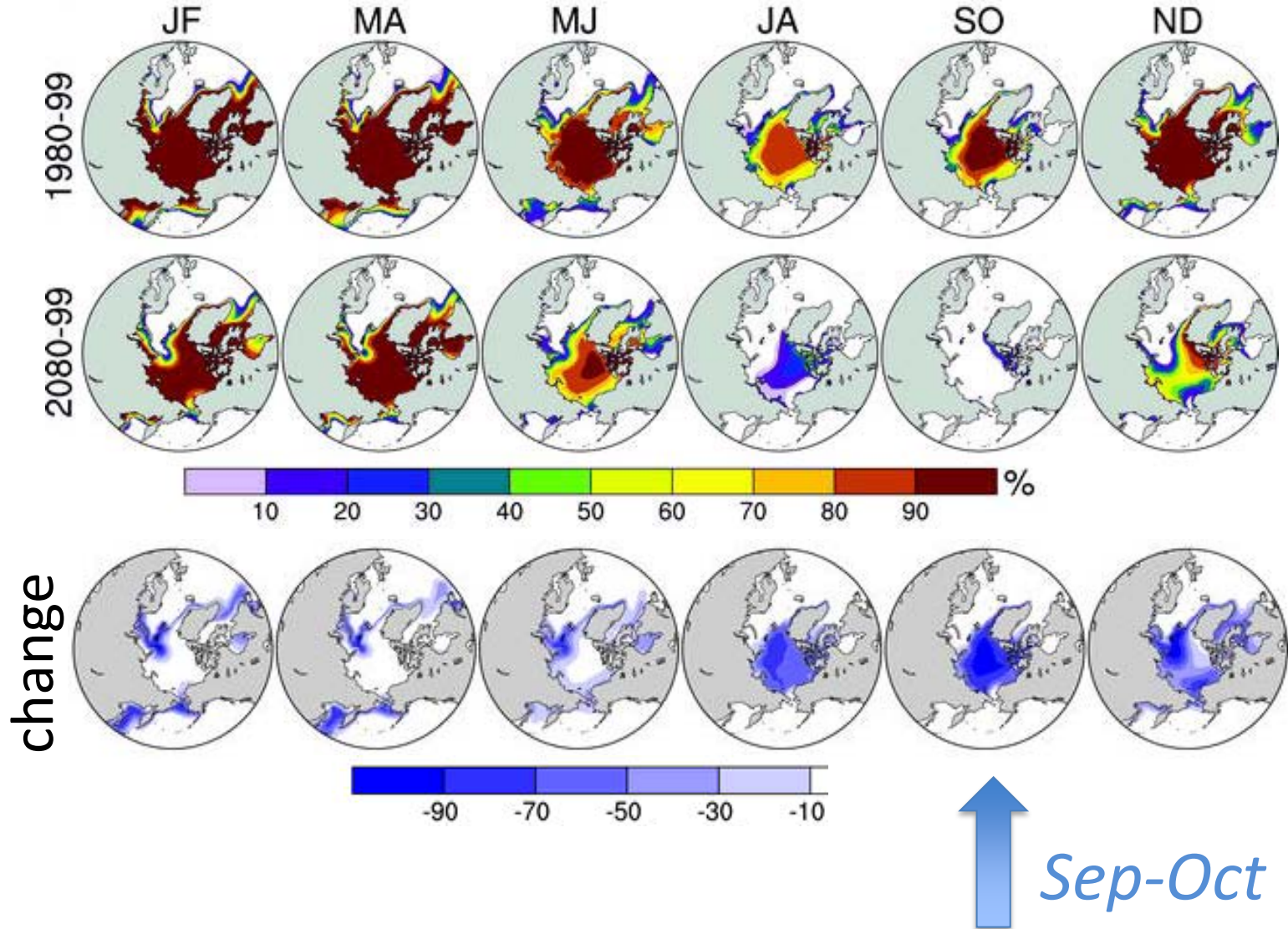
# Climate Response to Future Arctic Sea Ice Loss

Clara Deser, Bob Tomas, Dave Lawrence, Mike Alexander

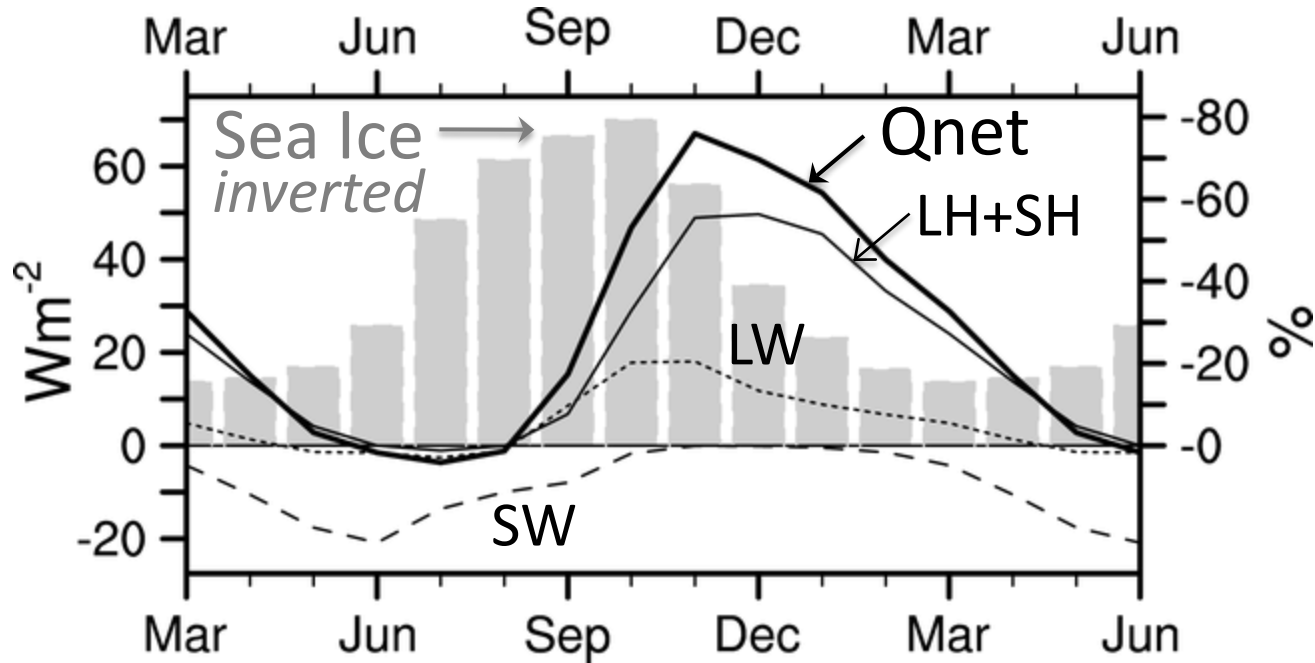
(*J. Climate*, Jan 2010)



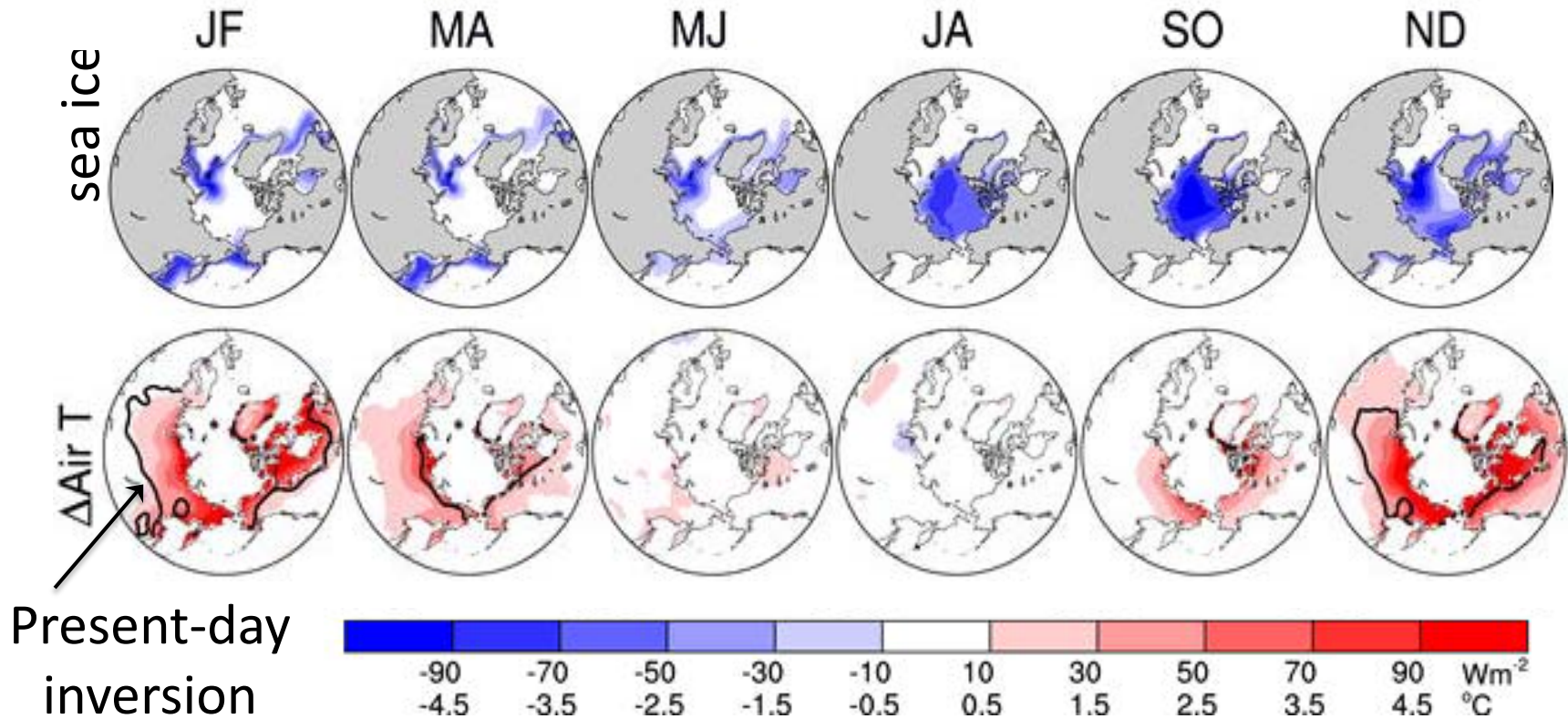
# CCSM3 Sea Ice Concentration



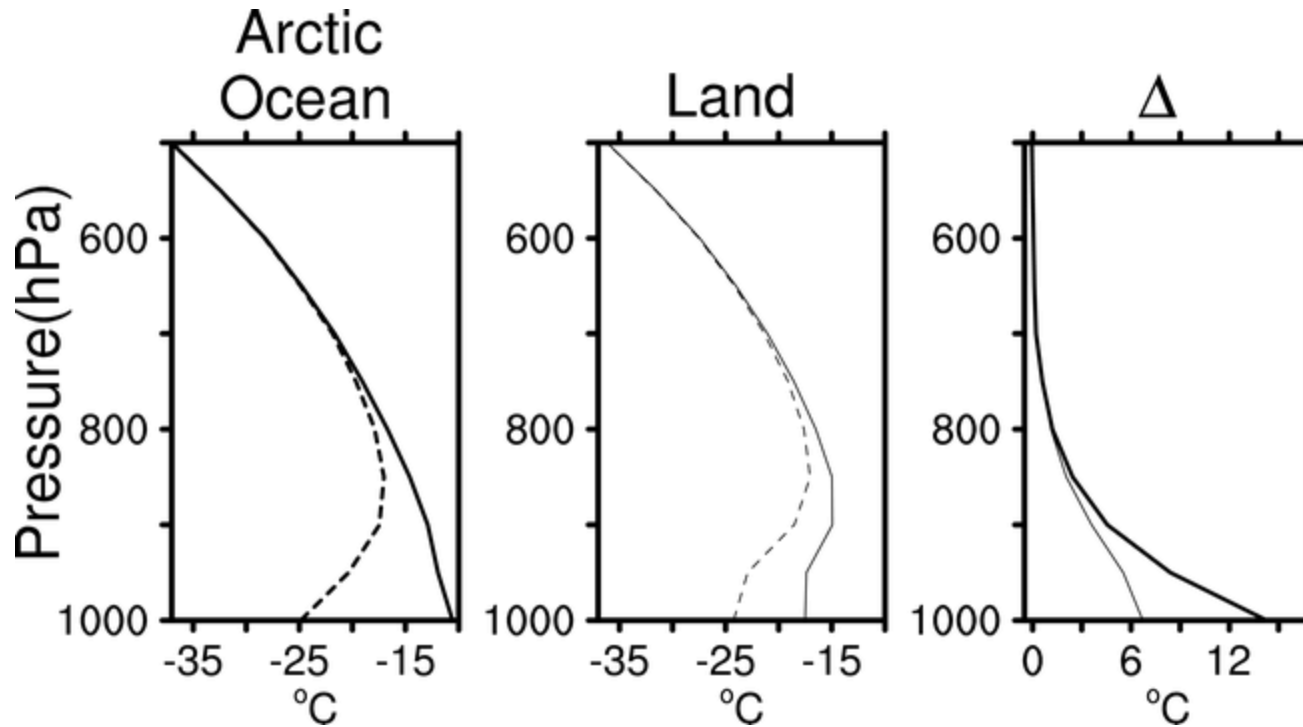
# Arctic Surface Energy Flux Response



# Terrestrial Air Temperature Response

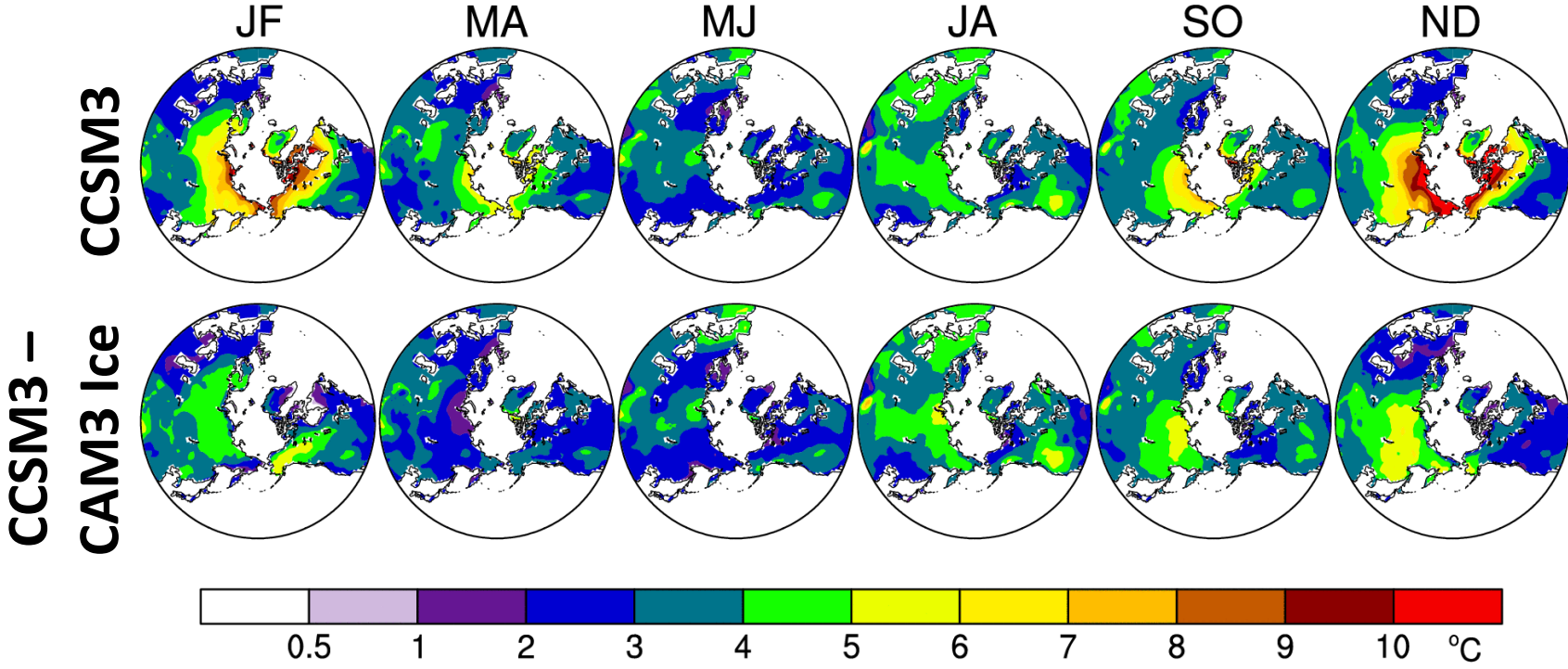


# Air Temperature Response: Vertical Structure

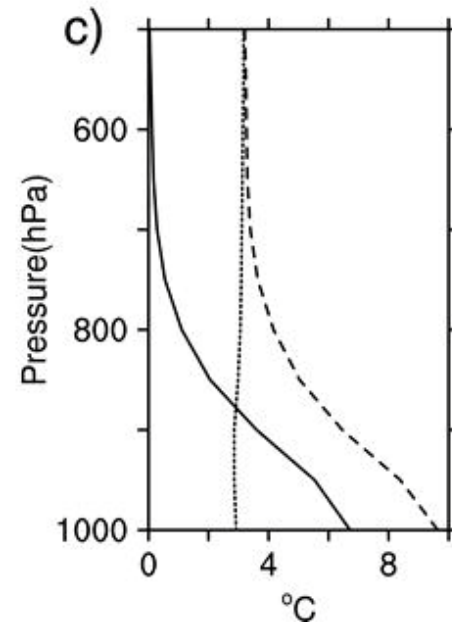
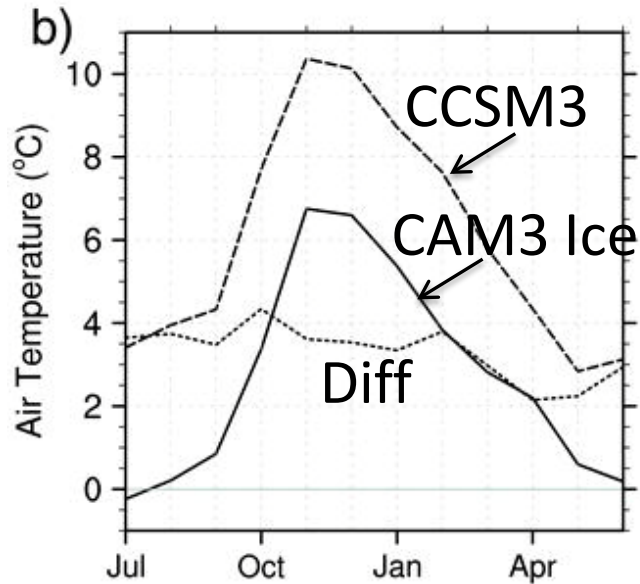
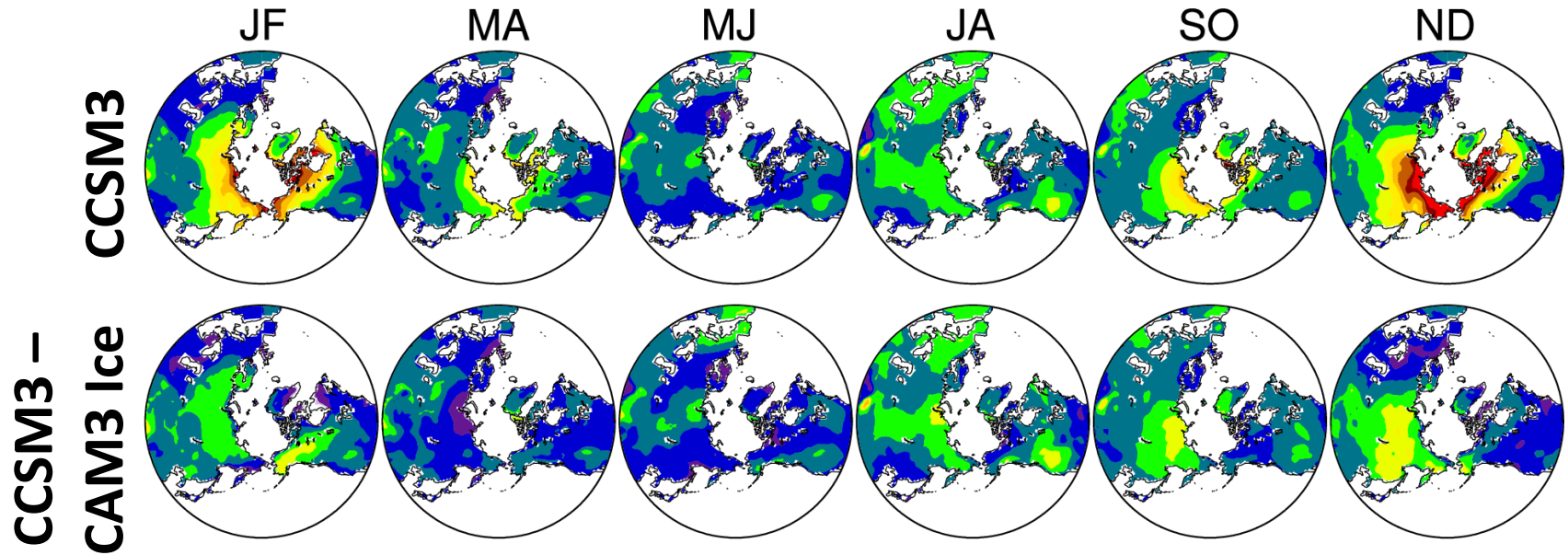


December

# Terrestrial Air Temperature Response

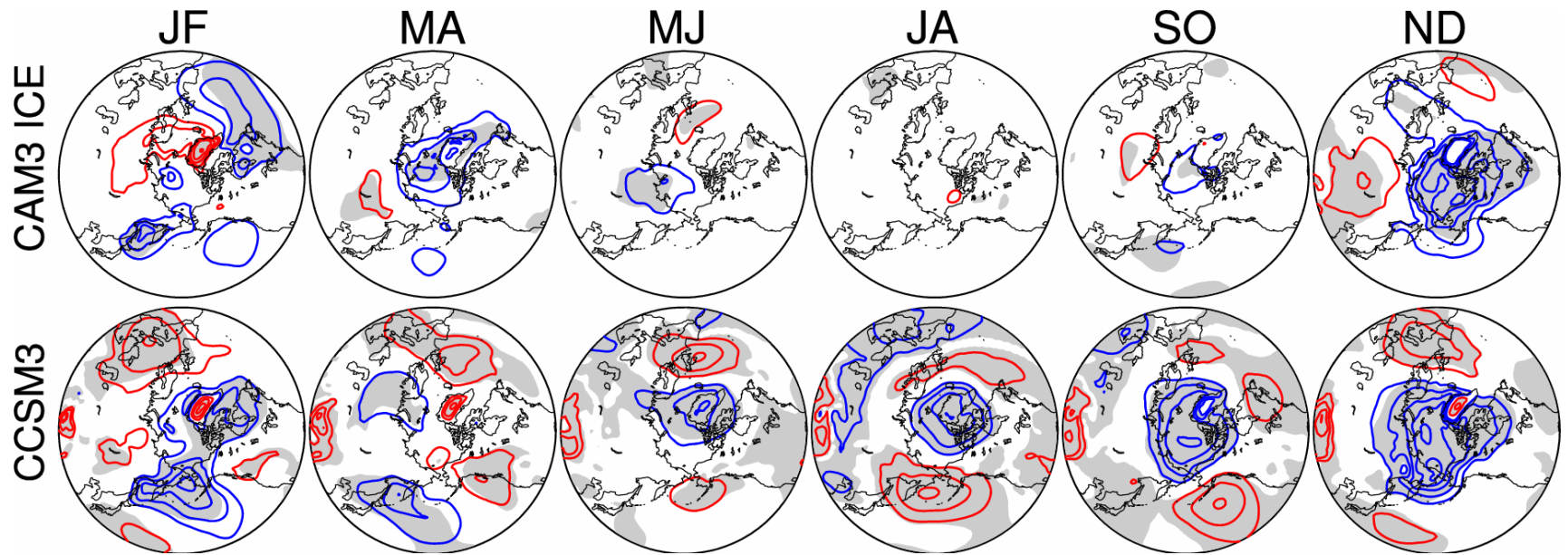


# Terrestrial Air Temperature Response





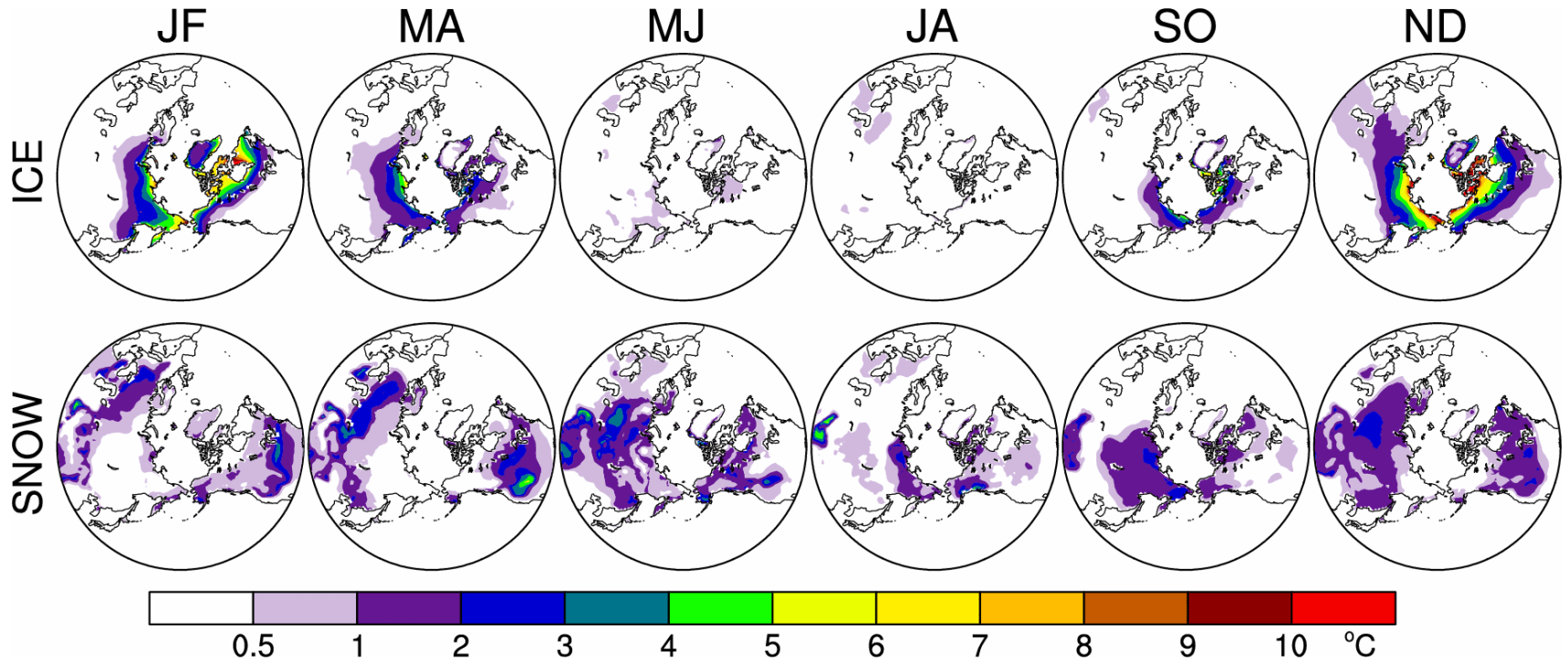
# Sea Level Pressure Response



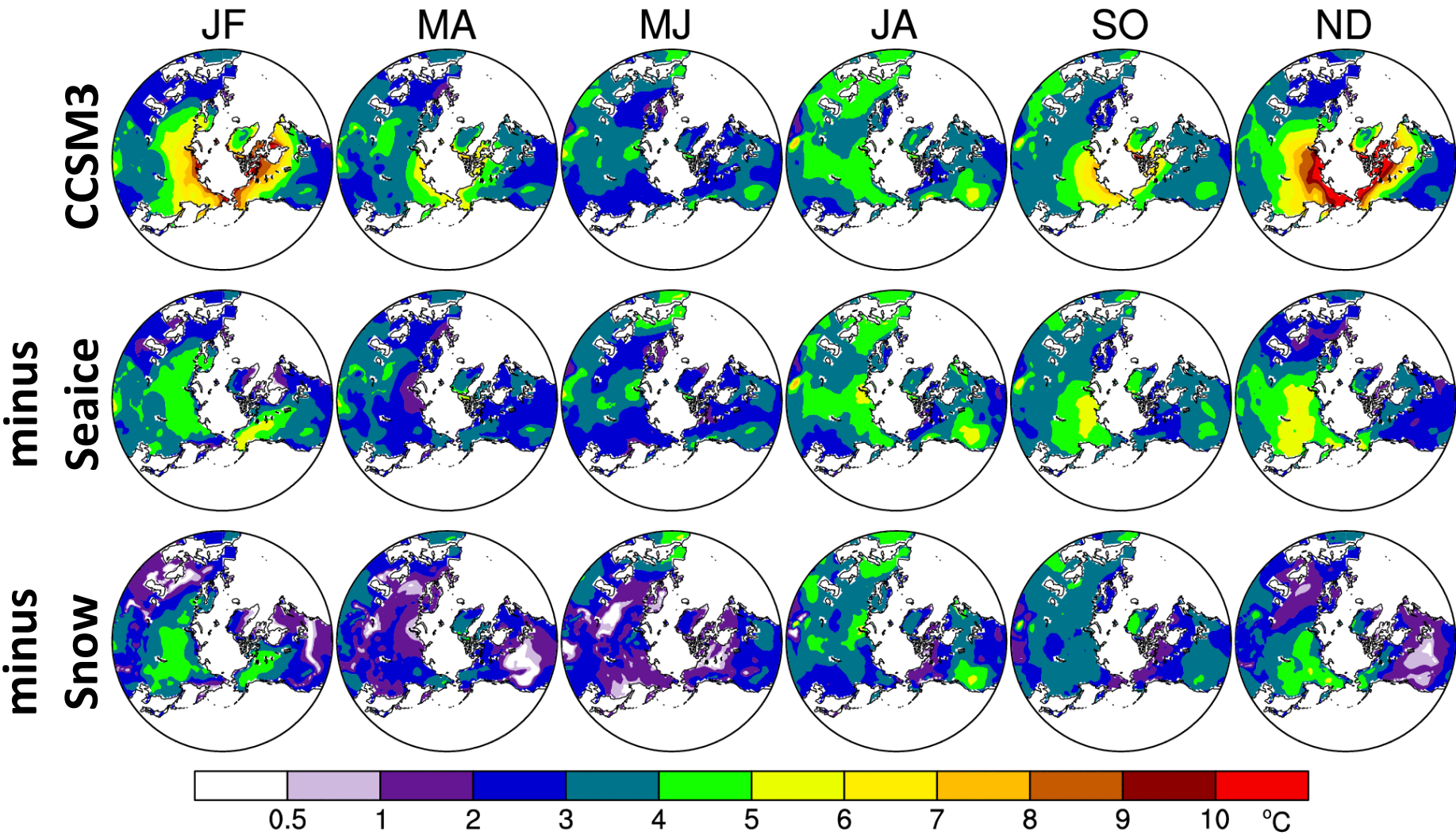
Contour interval = 1 hPa (blue <math>< 0</math>; red > 0)

# Terrestrial Air Temperature Response: CAM3 Sea Ice vs. Snow Experiments

# Terrestrial Air Temperature Response: CAM3 Sea Ice vs. Snow Experiments



# Terrestrial Air Temperature Response



Thank You

# Precipitation and Snow Depth Responses

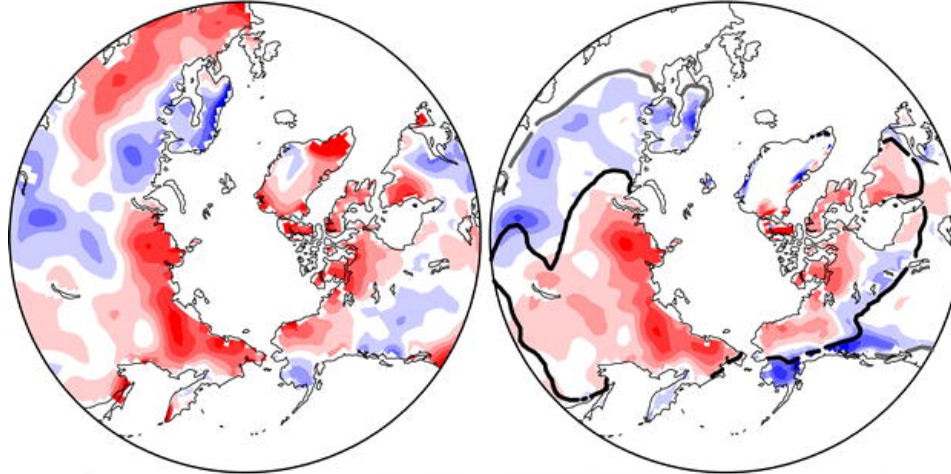
October through March

March

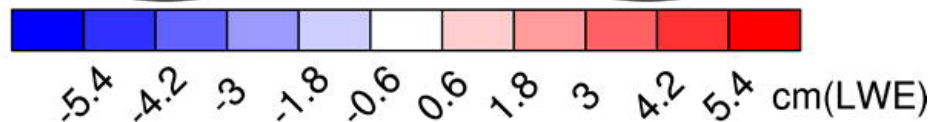
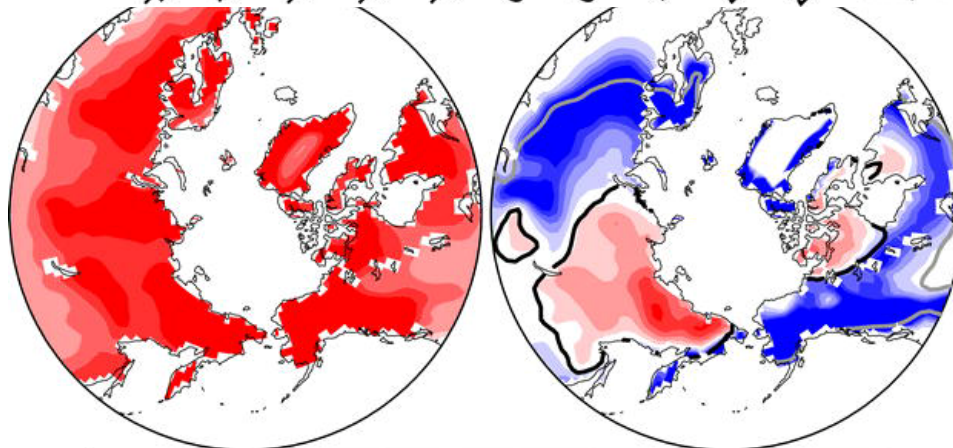
$\Delta$ Precip

$\Delta$ Snow

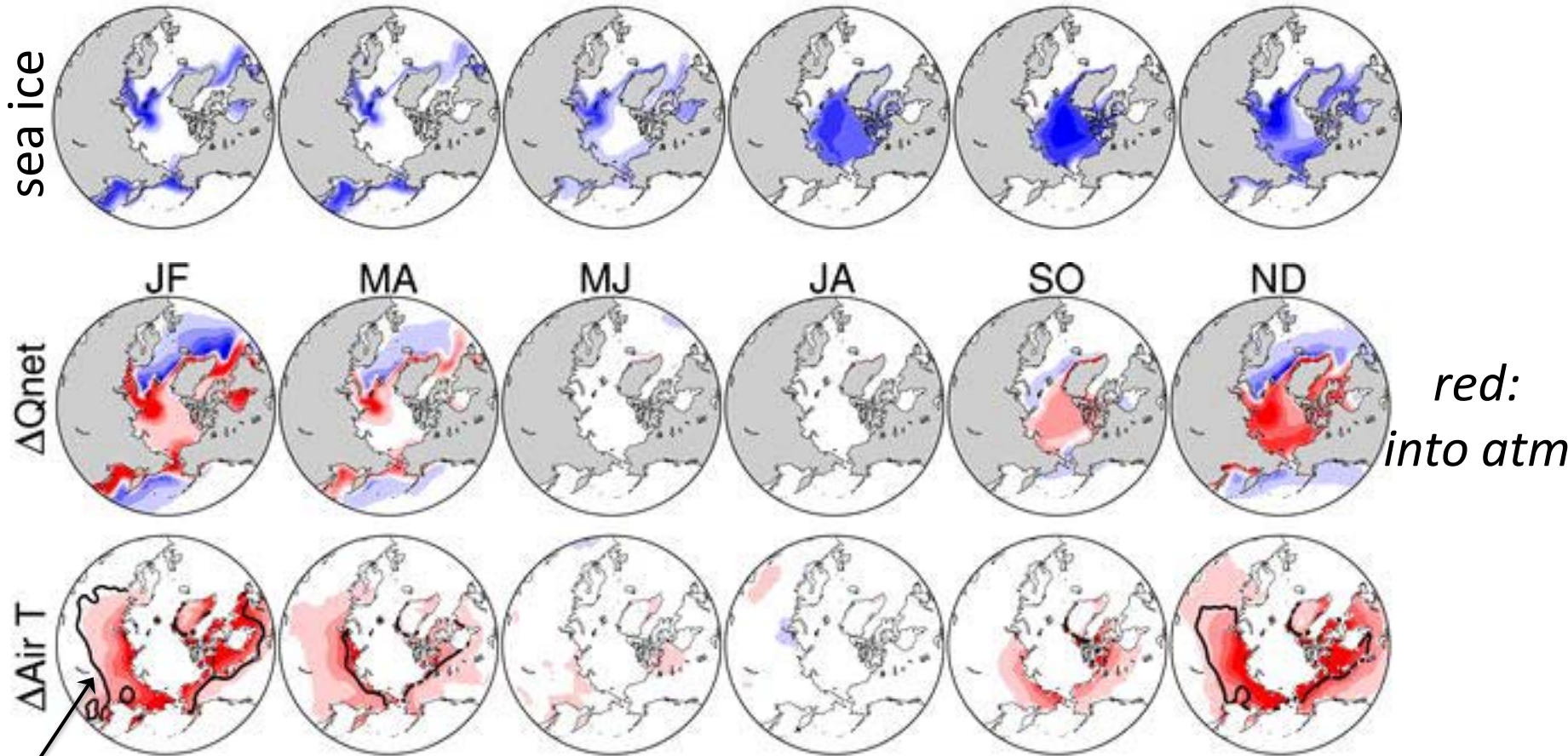
CAM3  
Sea Ice



CCSM3



# Terrestrial Air Temperature Response



*red:  
into atm*

Present-day inversion

