



Couplage IPSL-CM5A/LIM3

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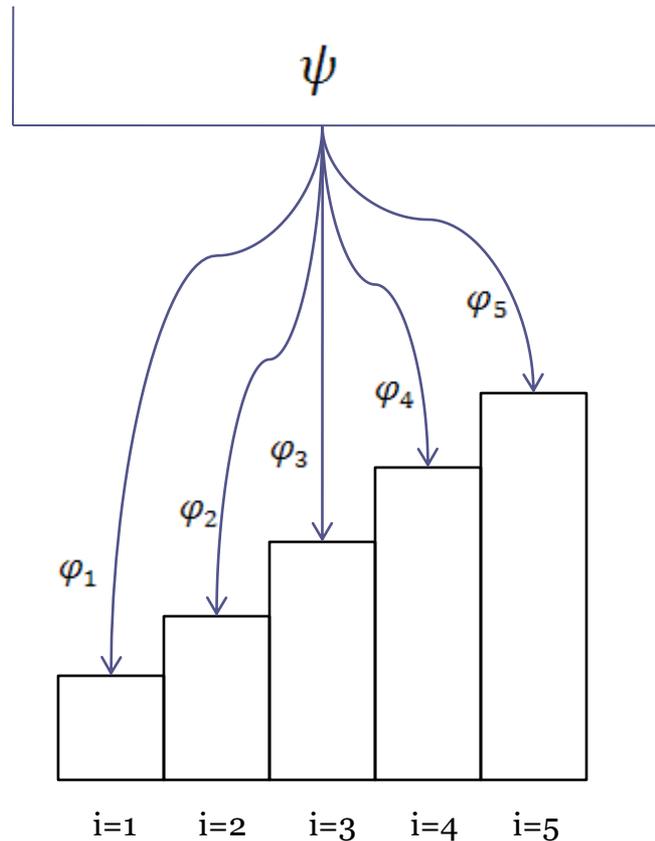
Gif-sur-Yvette, 20 novembre 2012

Principe du distributeur

Interface :

$$\varphi_i = ?$$

$$\theta = ?$$



Atmosphère :

$$\psi = f_a(\theta) \quad \text{et} \quad \frac{\partial \psi}{\partial \theta}$$

Glace/Océan :

$$T_i = f_g(\varphi_i)$$

Setup expérimental

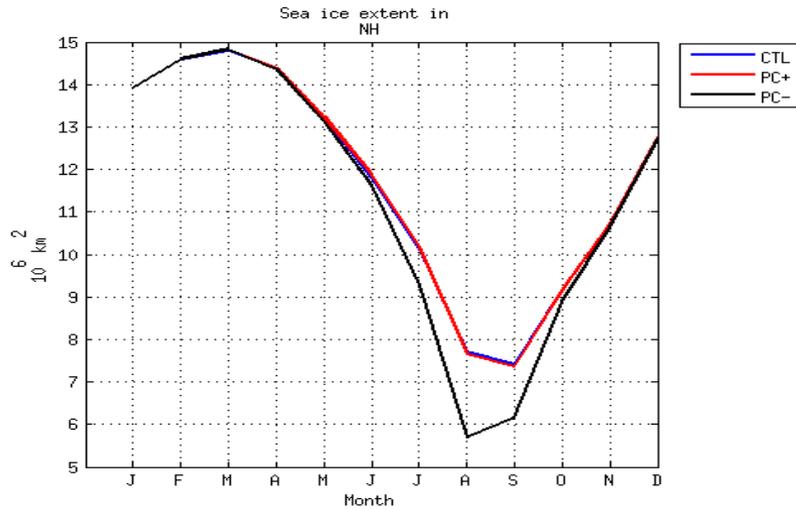
- **Run de contrôle :**
 - ➔ NEMO-LIM₃ (CTL)
- **Runs forcés :**
 - ➔ NEMO-LIM₃ avec atmosphère forcée et avec distributeur (PC+)
 - ➔ NEMO-LIM₃ avec atmosphère forcée et sans distributeur (PC-)
- **Runs couplés :**
 - ➔ IPSL-CM₅A couplé à LIM₃ (CPL-LIM₃)
 - ➔ IPSL-CM₅A couplé à LIM₂ (CPL-LIM₂)



Résultats des runs forcés

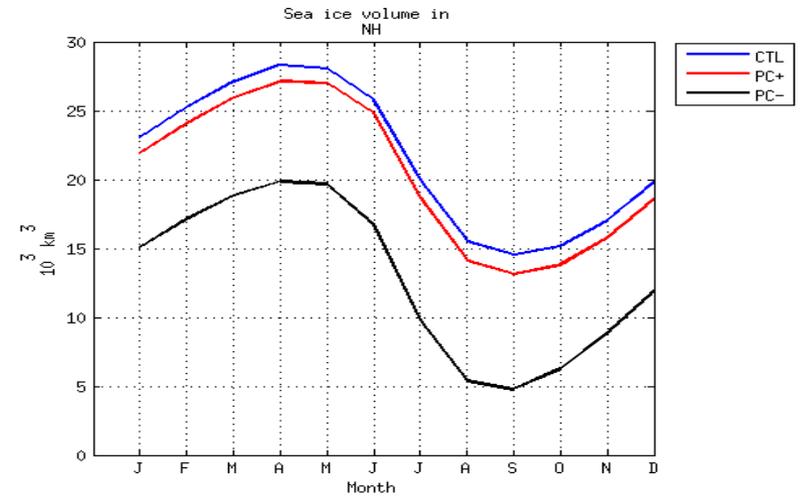
Cycles saisonniers moyens (CTL / PC+ / PC-)

Etendue

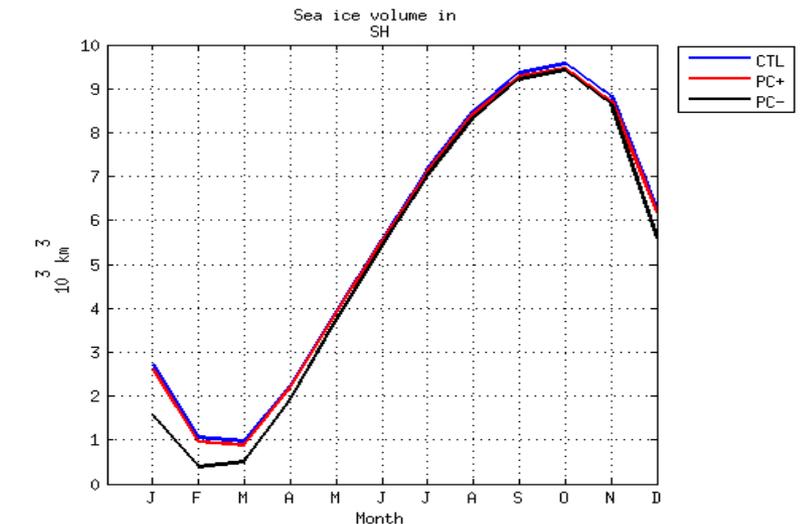
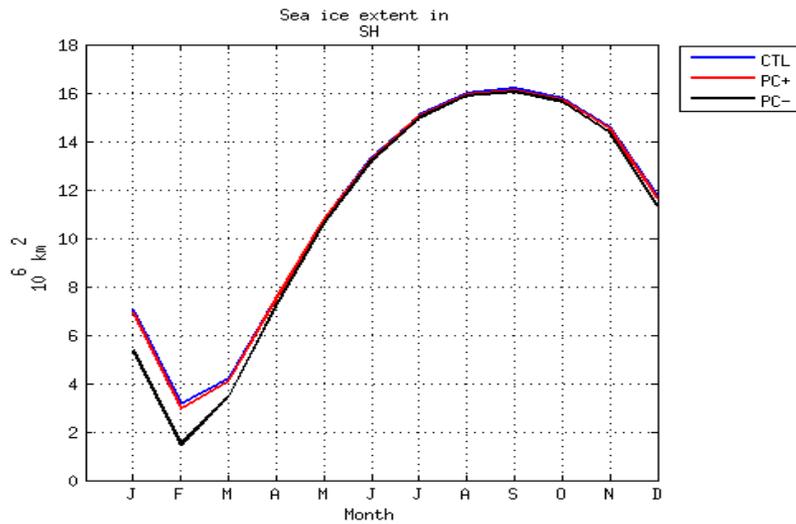


HN

Volume

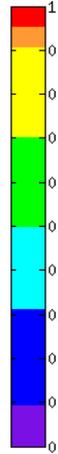
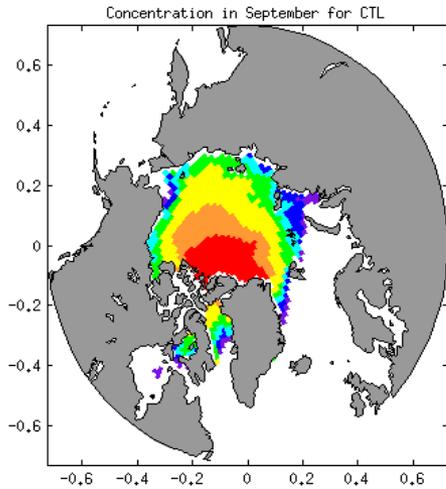


HS

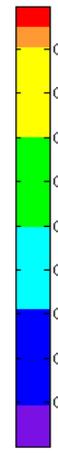
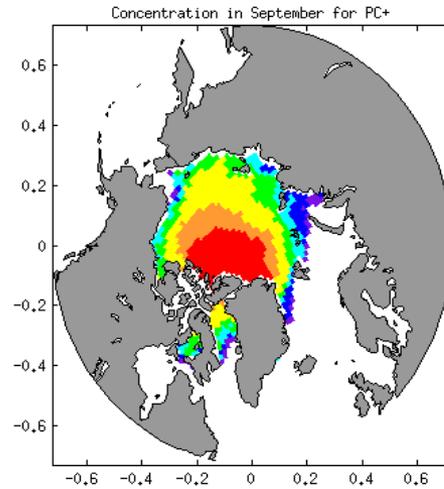


Concentration de glace

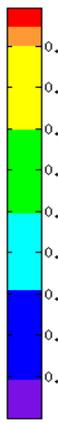
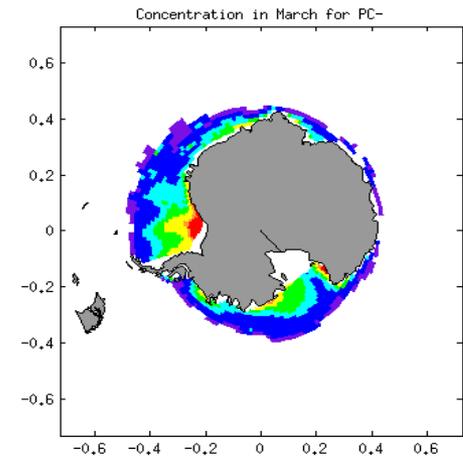
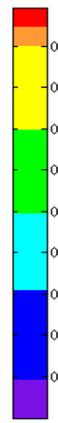
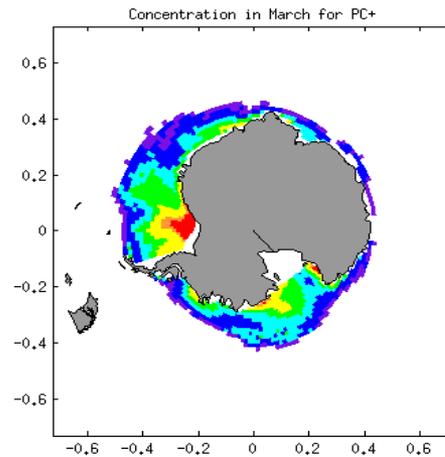
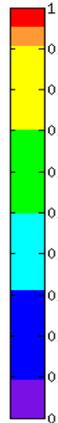
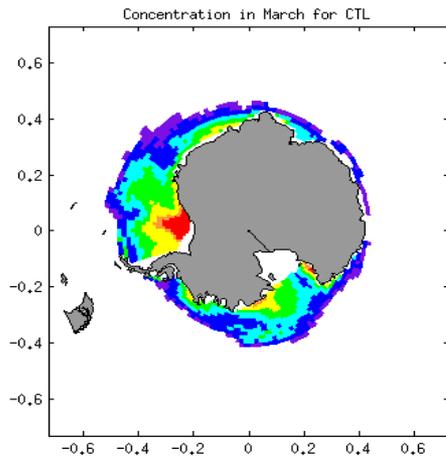
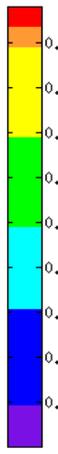
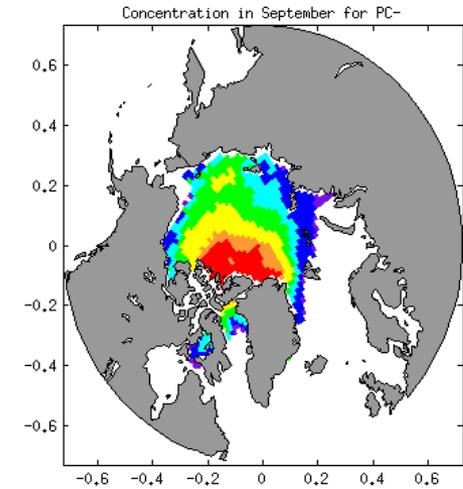
CTL



PC+



PC-

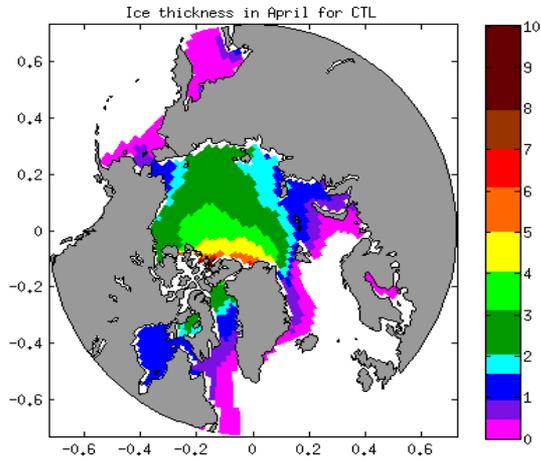


Run de contrôle

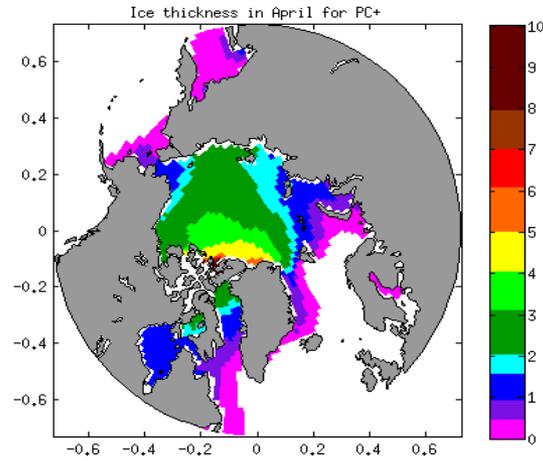
Runs forcés

Epaisseur de glace

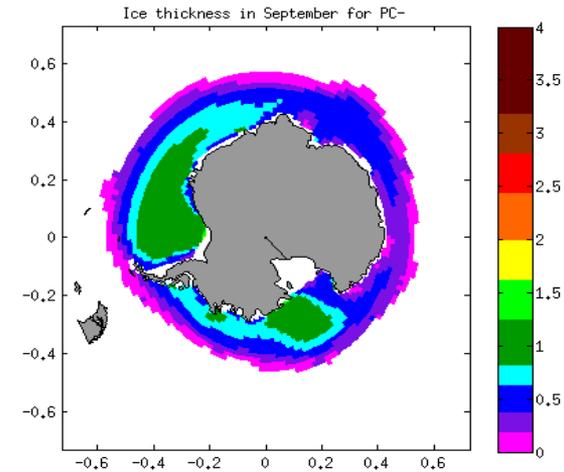
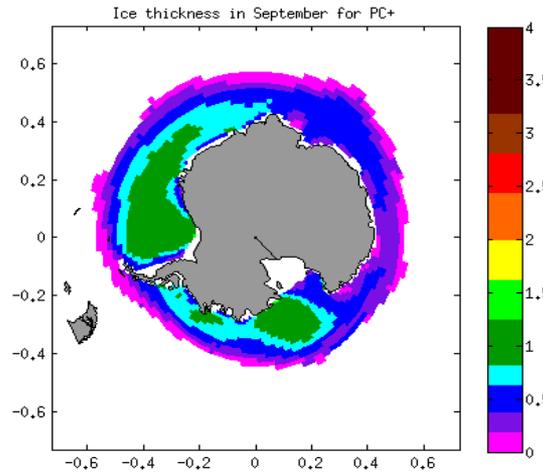
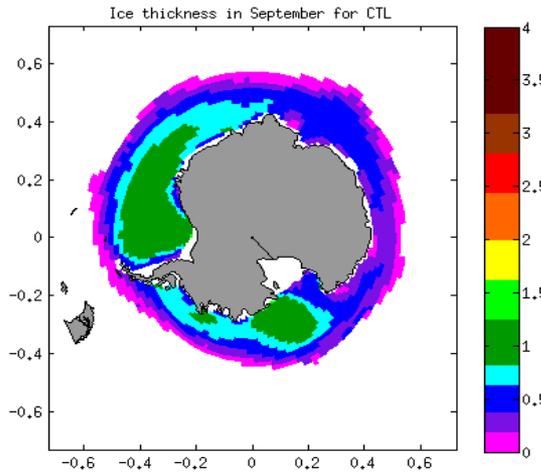
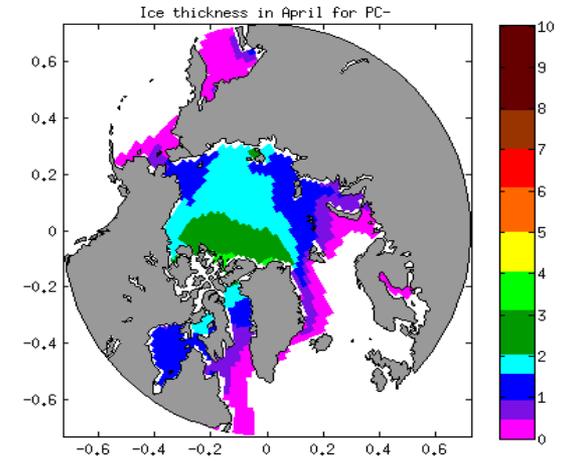
CTL



PC+



PC-



Run de contrôle

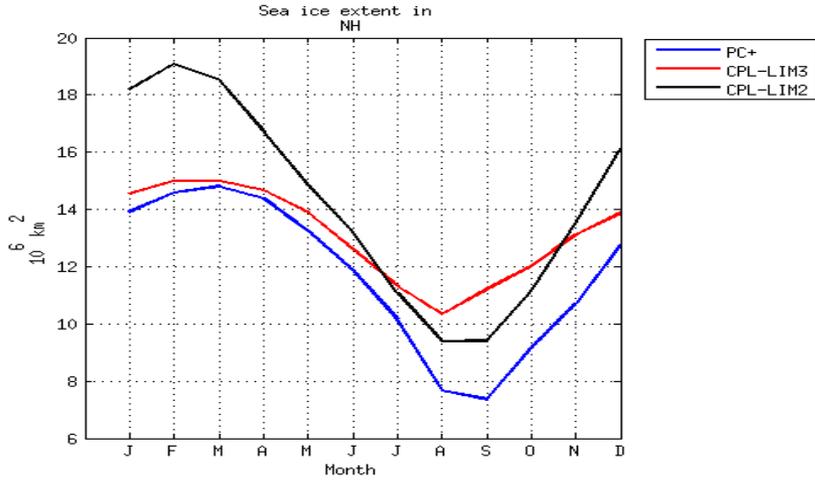
Runs forcés



Résultats des runs couplés

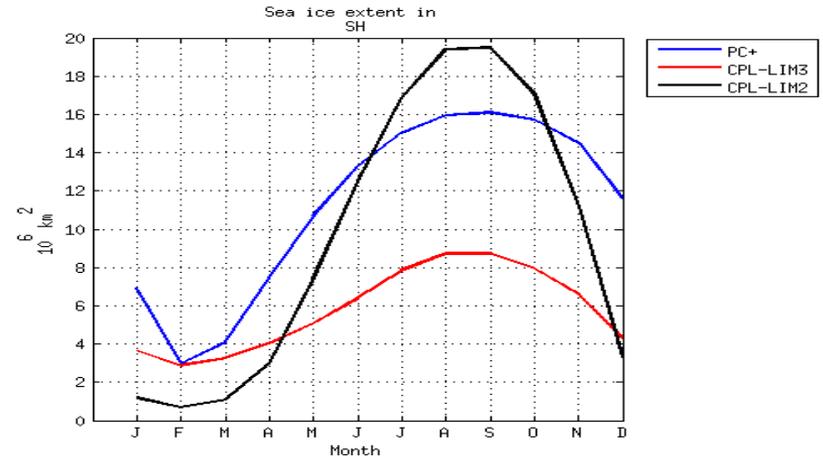
Cycles saisonniers moyens (PC+ / CPL-LIM3 / CPL-LIM2)

Etendue

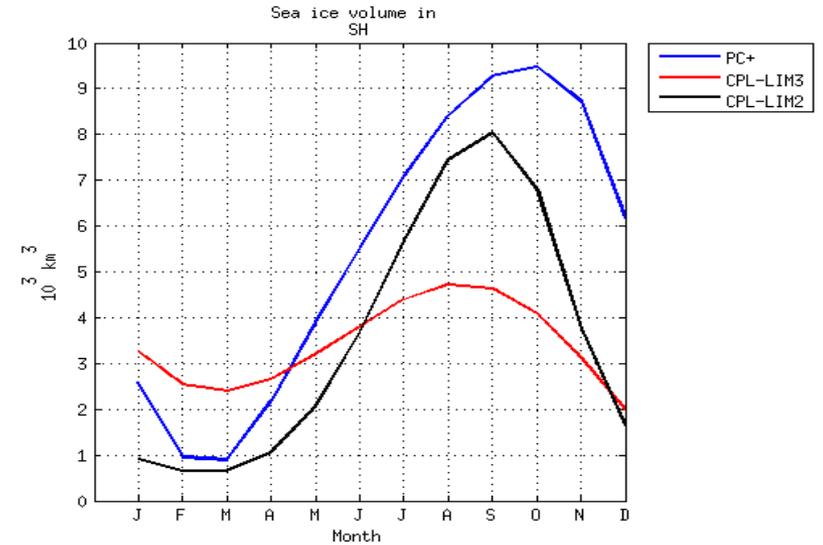
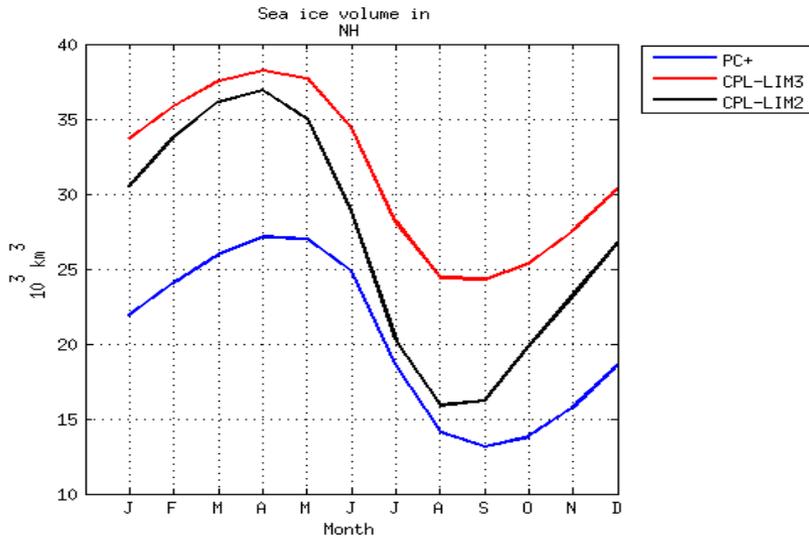


HN

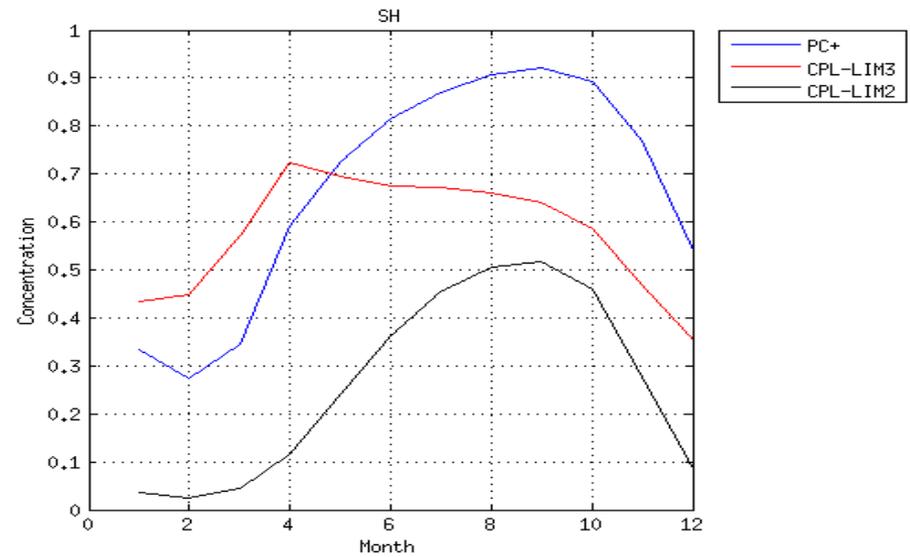
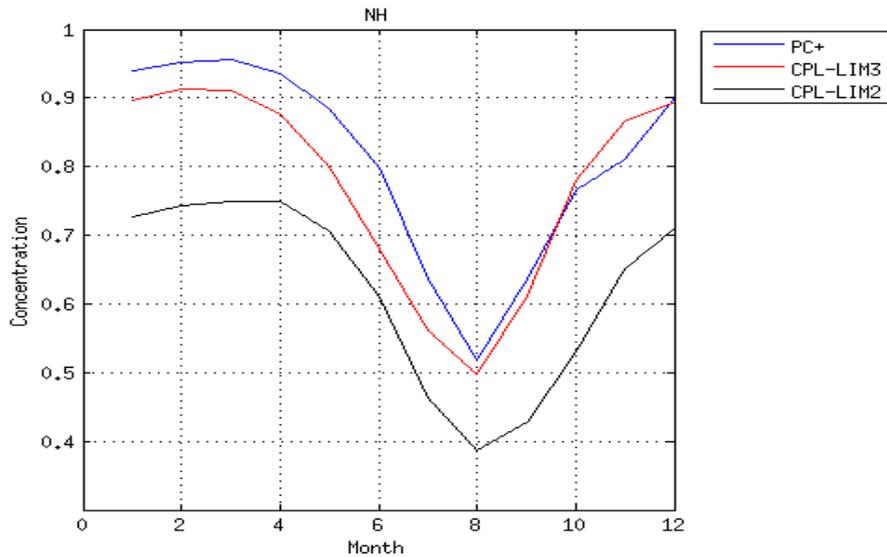
Volume



HS

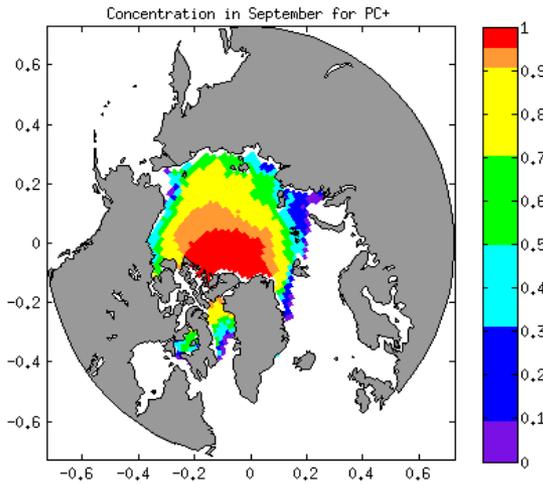


Concentration de glace (PC+ / CPL-LIM3 / CPL-LIM2)

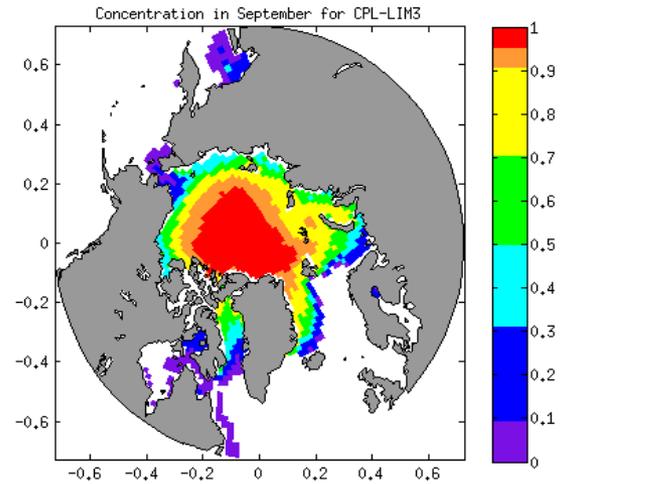


Concentration de glace

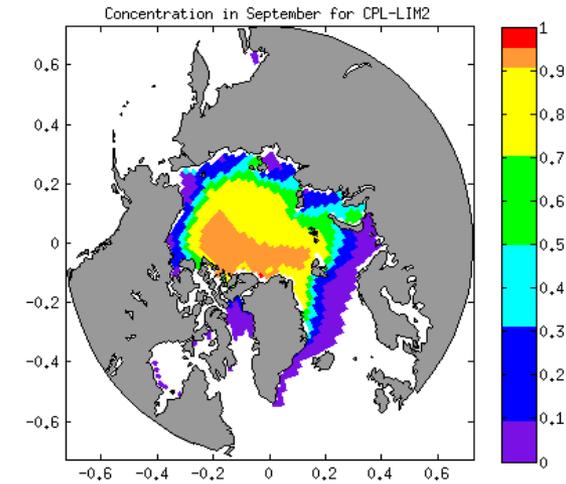
PC+



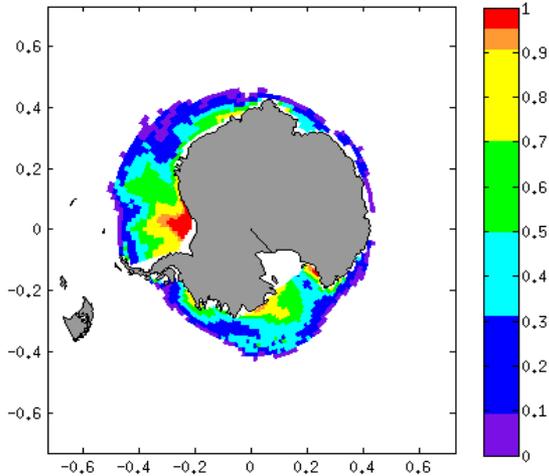
CPL-LIM3



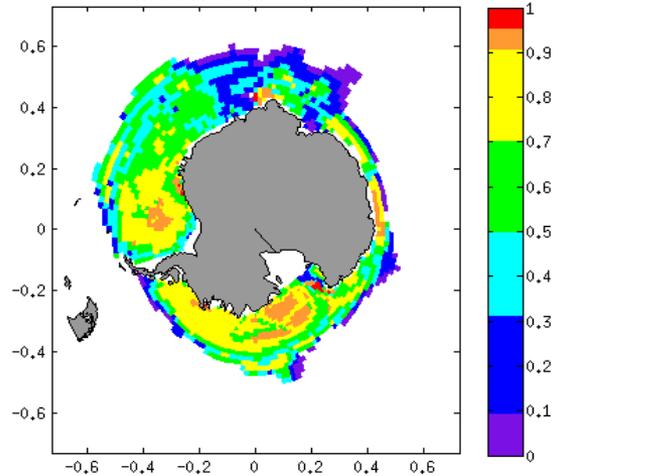
CPL-LIM2



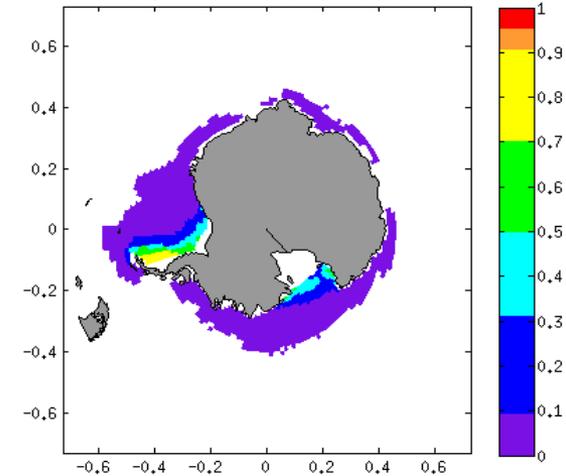
Concentration in March for PC+



Concentration in March for CPL-LIM3



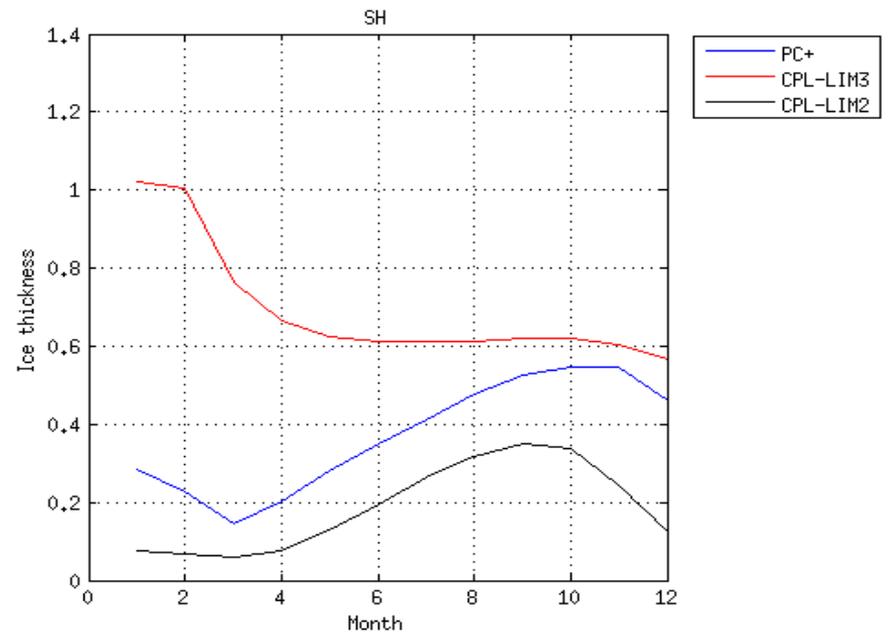
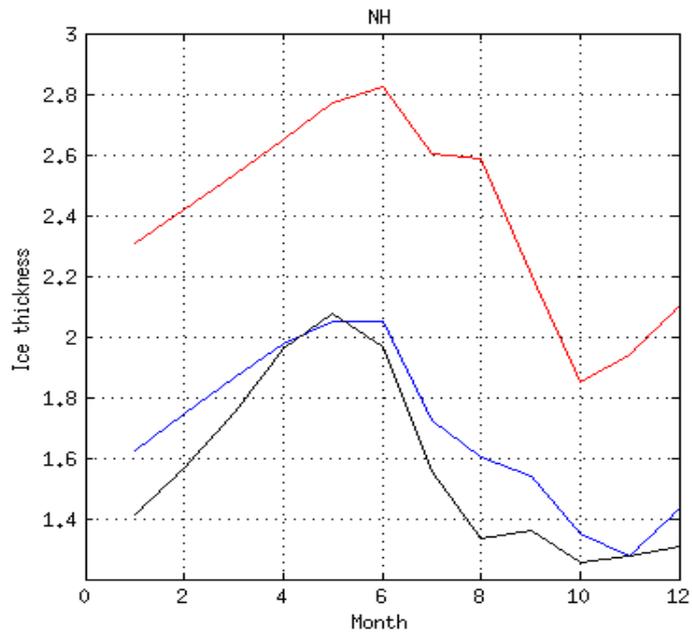
Concentration in March for CPL-LIM2



Run forcé

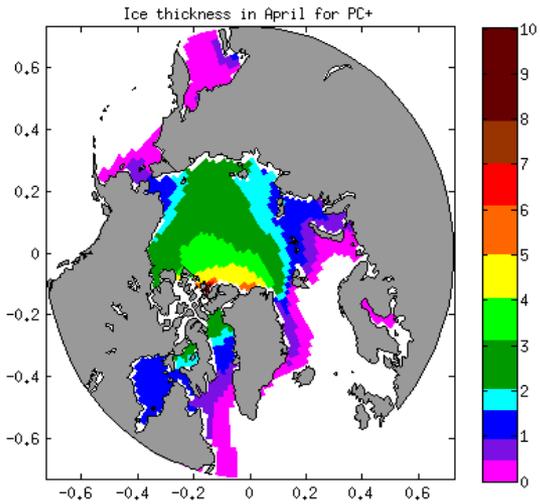
Runs couplés

Epaisseur de glace (PC+ / CPL-LIM3 / CPL-LIM2)

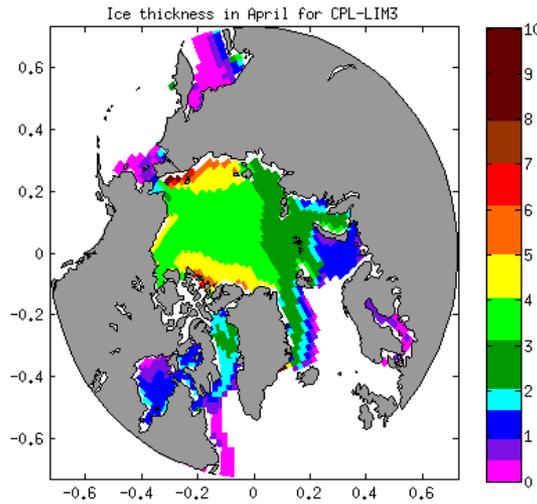


Epaisseur de glace

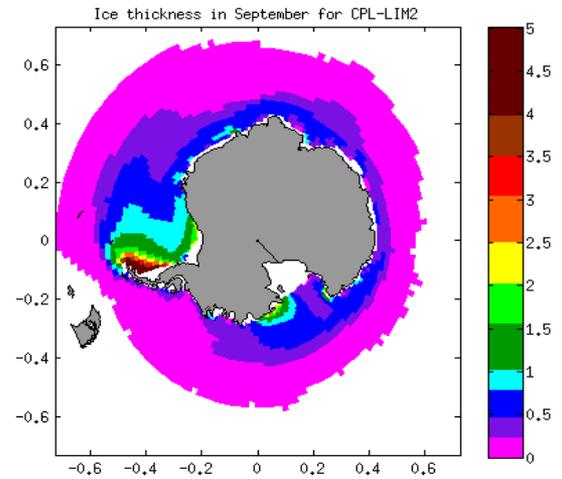
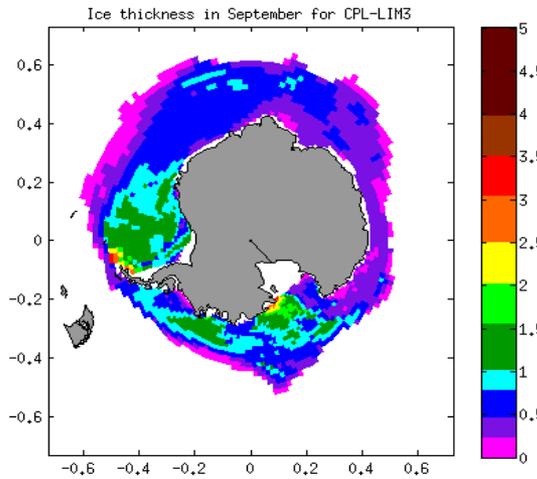
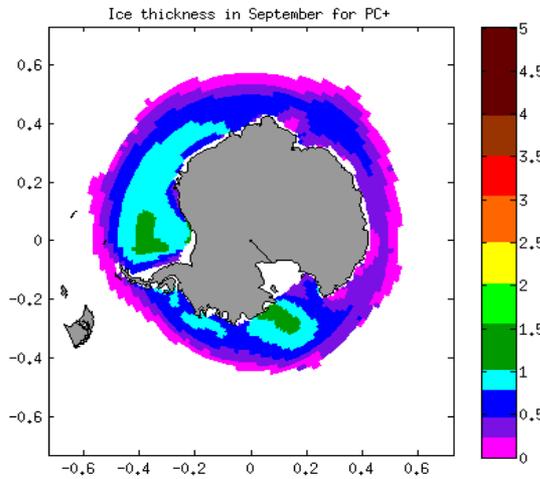
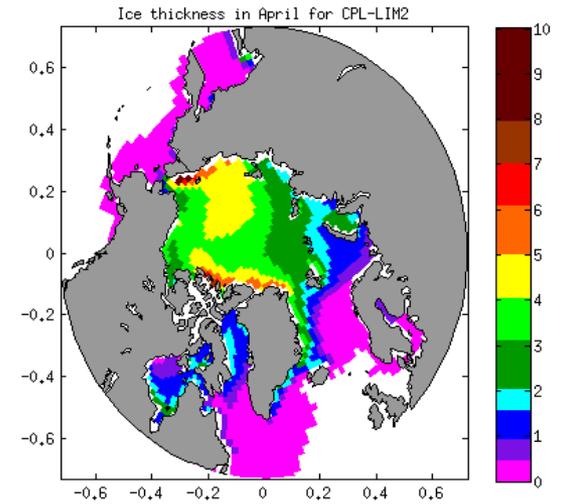
PC+



CPL-LIM3



CPL-LIM2



Run forcé

Runs couplés