BE-POLES WORKSHOP: Belgian research in Polar Regions (23-24 March 2006)

In March 2006, a three-day meeting devoted to Polar Regions will be organized at the Royal Institute of Natural sciences in the framework of the Belgian project BE-POLES. The first two days will be dedicated to scientific talks, in English. The goal is to gather scientists from different disciplines, to promote interdisciplinary research and to identify possible collaborations between the different teams. To do so, each group involved in polar research in Belgium will present his work in a way that is understandable by scientists coming from other disciplines. During the third day, some aspects of Polar Regions will be presented in French and Dutch to a general audience of scientists and non-scientists. Each talk will have a 30-minutes duration, questions included. For the scientific days, the program is organized in *four themes: biology, biogeochemistry, glaciology and climatology, and geology, geophysics and physics*. Each of those themes will be introduced by a 30-minutes lecture given by an invited scientist.

23 March 2006

Theme 1: Marine Biology, microbiology and biogeochemistry

Opening session: 9h45-10h00

- 10h00 - 10h30: invited scientist: **Hein De Baar**, Modern Iron Fertilization Experiments in the Southern Ocean: Key to Past and Future Atmospheric Carbon dioxide and Climate?

- 10h30 - 11h00: **Dehairs F**., BELCANTO: Carbon fluxes and processes in the Southern Ocean: Regional or Global importance.

Coffee break: 11h00 - 11h30

- 11h30 - 12h00: invited scientist: **Wolf Arntz/Julian Gutt**, Climate-induced biodiversity shifts in polar benthic communities

- 12h00 - 12h30: **Volckaert P**., Ecohydrodynamical modeling of the ichthyoplankton of the Southern Ocean.

Lunch buffet at KBIN: 12h30-14h00

- 14h00 - 14h30: **De Ridder C**., Biodiversity and Biogeography of Antarctic echinoids.

- 14h30 - 15h00: **Vanreusel A., Mesel, I.,Vanhove, S., Hoste, E., Ingels J. and Fonseca, G..** Benthic biodiversity in polar deep-seas: a bipolar comparison based on meiobenthos.

- 15h00 - 15h30: **De Broyer C. and Danis B**. The Census of Antarctic Marine Life and SCAR-MarBIN: the Antarctic marine biodiversity information network

Coffee break:15h30 - 16h00

- 16h00 – 16h30: **Wilmotte A., Taton A., Schmoker C., Fernandez R., Calusinska M., Lemaire C**., Diversity and distribution of cyanobacteria in Antarctic microbial mats.

- 16h30-17h00: **Beyens L**., Biogeography and diversity of protists in the Polar Regions.

- 17h00-17h30: **Feller G**., Molecular adaptations of psychrophilic enzymes to biocatalysis at low temperatures

Closing session

Reception: 17h30-19h00

24 March 2006

Opening session: 9h45 - 10h00

Theme 2: Glaciology and climatology

- 10h - 10h30: invited speaker: **Dominique Raynaud**, The paleoclimatic record of ice cores: a window on the future?

- 10h30 - 11h00: **Pattyn F**., Interaction of the Antarctic ice sheet with subglacial lake.

Coffee break:11h00 - 11h30

- 11h30 - 12h00: **Tison, JL**., SIBCLIM : Sea Ice Biogeochemistry in a Climate Change Perspective.

- 12h00 - 12h30: **Samyn D**., Basal ice processes, their importance for paleo-environmental reconstruction in Polar Regions.

Lunch buffet at KBIN: 12h30 - 14h00

- 14h00 - 14h30: **Goosse H**., Climate change and climate variability in Polar region.

- 14h30 - 15h00: **Vyverman W**., Coastal Antarctic lakes: archives of past fluctuations in the moisture balance and ultraviolet radiation.

Coffee break:15h00 - 15h30

Theme 3: Geology, geophysics and physics

15h30 - 16h00: invited speaker: **Dr. Carlota Escutia**, Cenozoic history of the Antarctic Ice Sheet and its links to global climate changes and sea level fluctuations – an IODP proposal for drilling the Wilkes Land continental margin.

16h00 - 16h30: **De Batist M**., Reconstructing extent and dynamics of ice sheets during former glacial periods by acoustic mapping of Antarctic shelves and slopes.

16h30 - 17h00: **Herquet P**., A new window on the universe: neutrino astrophysics at the South Pole station.

Closing session

25 March 2006

During this day, the talks will be in Dutch or French with information in the other language to help the non-bilinguals: shift in language in the middle of the talk as proposed by J.P Henriet, talk in one language slides in the other.

Theme 4: Découvrez les pôles - Ontdek de polen

Opening session: 10h15-10h30

- 10h30 - 11h00: invited speaker: **Grunewald B**., Een winter door in Antarctica / Un hiver en Antarctique

- 11h00 - 11h30: **Tison J.L and Goosse H**., Het verhaal van ijs en klimaat in de polaire gebieden / Une petite histoire de la glace de mer et du climat des régions polaires

Coffee break: 11h30-11h45

- 11h45-12h15: **Halzen, F**., Natuurkundigen openen het venster van de wereld / Les physiciens ouvrent une nouvelle fenêtre sur l'Univers.

- 12h15 - 12h45: **Berte J**., Het Belgisch Antarctisch onderzoeksstation / La station de recherche Belge en Antarctique.

Lunch (no catering): 12h45 - 14h00

- 14h00 - 14h30: **Volckaert P**., De ongewone evolutie van mariene organismen in de Zuidelijke Oceaan / L' évolution inhabituelle des organismes marins dans l'océan Austral.

- 14h30 - 15h00: **Henriet J.P.,** Class@Poles : een educatief platform voor 'bereikbaar' polair onderzoek / Class@Poles : une plate-forme éducative pour rendre accessible la recherche polaire

- 15h00 - 15h30: **Vyverman W**. De reconstructie van de hoeveelheid ultraviolette straling gedurende de laatste 120,000 jaar / Reconstruction du rayonnement ultra-violet durant les 120 000 dernières années

Coffee break: 15h30-15h45

- 15h45 - 16h15: **Beyens L**., Wetenschap en avontuur in het noordpoolgebied. Science et aventure dans l'Arctique

- 16h15 - 16h45: **Decleir H**., Het internationaal polair jaar (IPY 2007-2008). L'année polaire internationale (IPY 2007-2008).

- 16h45 - 17h15: **Pattyn F and Lorrain, R**., Diepe ijskernen in Antarctica: Het klimaat lezen in het ijs – is er leven onder de ijskap? / Les sondages profonds en Antarctique: lire le climat dans la glace, y-a-t-il de la vie sous la glace ?

Closing session