



**LoCrA**  
**Newsletter**

**July 2016**

**LOWER CRETACEOUS BASINS IN THE ARCTIC**

## Introduction

The University of Stavanger (UiS) and the University Centre in Svalbard (UNIS) lead the collaboration of the *Lower Cretaceous basin studies in the Arctic* (LoCrA). The University of Texas at Austin (UT) in the United States, the University of Oslo (UiO), the University of Tromsø (UiT), and the University of Bergen (UiB) in Norway, the University of Copenhagen (KU) in Denmark, Lomonosov Moscow State University (MSU) in Russia and the geological survey of Denmark and Greenland are collaborators in the research project. Each collaborator is lending expertise from leading scientists as well as current research supported by the efforts of BSc, MSc, and PhD students and post-doctoral researchers.

Learn more at <http://locra.ux.uis.no>.

## Contact Information

### Email

You can email us with your questions to: [locra@ux.uis.no](mailto:locra@ux.uis.no)

### Company Representatives

If your company representative should change at any time, please email so that we can update our records. It is especially important given the current environment where there are many internal changes within and mergers of companies.

### Mailing Lists

We use MailChimp to send our updates and communications. This allows you flexibility to choose text or HTML formats.

## Save the date!

### Sponsor meeting November 1

On Tuesday, November 1, LoCrA will hold its fourth meeting to present results to the sponsoring companies. The meeting will be held at the Norwegian Petroleum Directorate in Stavanger, Norway. Detailed information to follow to sponsor company representatives.

## JuLoCrA: A continuation of LoCrA?

UiS and UNIS plan to propose a "downward" continuation of the LoCrA consortium with the addition of the Jurassic interval in order to gain a better understanding of the geologic setting.

Research activities include investigating changes in drainage (source to sink) patterns, basin development, and paleogeographic facies, and obtaining improved constraints of the key sequence stratigraphic surfaces. The proposal will be online after summer holiday.

## Graduating Students

Four MSc students graduated from UiS in June 2016 working under the supervision of Professor Alejandro Escalona. Camilla Hinna proposed a seismic stratigraphic framework of the Fingerdjupet Basin during the Lower Cretaceous. Biswarup Acharyya had a companion study of the structural framework of the Fingerdjupet Basin and its relation to the adjacent Bjørnøya Basin. Both Camilla and Biswarup worked in collaboration with Centrica

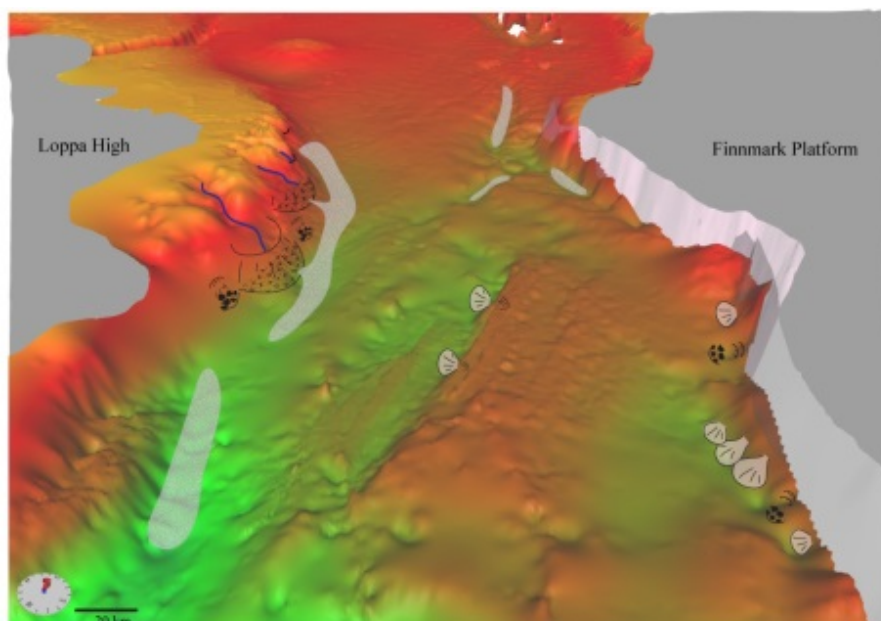


Figure 1. Base Cretaceous unconformity with So wedges. From D. Marin.

Energy. Javed Iqbal's thesis focused on seismic characterization of clastic wedges along the northern margin of the Hammerfest Basin and Hans Østebø worked on flexural interpretation of regional transects in the Barents Sea. Available online soon!

## Past Meetings

### EGU Annual Conference

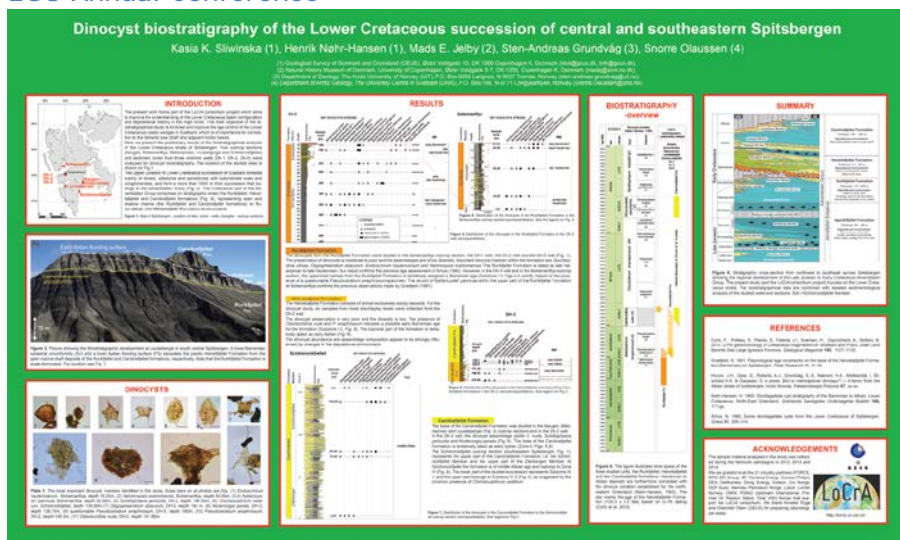


Figure 2. Sliwinska et al. poster at EGU.

Kasia Sliwinska presented "Dinocyst biostratigraphy of the Lower Cretaceous succession of central and southeastern Spitsbergen" and Ivar Midtkandal presented the "Aptian oceanic anoxic event (OAE1a) in Svalbard and the age of the Barremian-Aptian boundary" at the 2016 EGU Annual Conference in Vienna in April. The presentations are available on the website.

### EAGE Annual Conference

In June, Javed Iqbal, Camilla Hinna, Biswarup Acharyya, Hans Østebø, and Dora Marin presented at the EAGE Annual Conference in Vienna. Presentations made by LoCrA researchers at the meeting are available on the website.

### NPF Arctic conference

The NPF Arctic meeting was held in Tromsø in June. Sten-Andreas Grundvåg, Dora Marin, Bereke Kairanov, Naomi Matthews, Kasia Sliwinska, Alina Mordosova, Anna Suslova, Hans Østebø, Luis Rojo Moldanado, Javed Iqbal, and Snorre Olausen all participated and presented presentations. They are available on the website.

## New and Upcoming Publications

Several papers are in preparation or in the submitted phase for publication. Published papers can be found in the sponsor portion of the website.

stratigraphic architecture within a coarse-grained rift-margin turbidite system: The Wollaston Forland Group, east Greenland. *Marine and Petroleum Geology* 76, 187-209.

Peer-reviewed and accepted for publication (under revision):

Grundvåg, S-A. & Olausen, S. accepted pending revisions: Sedimentology of the Lower Cretaceous at Kikutodden and Keilhaufjellet, southern Spitsbergen: implications for the onshore-offshore link. *Polar Research*.

Marin, D., Escalona, A., Nøhr-Hansen, H., Śliwińska, K.K., and Mordasova, A. accepted pending revisions: Sequence stratigraphy and lateral variability of Lower Cretaceous clinoforms in the SW Barents Sea. *AAPG Bulletin*.

## Upcoming Data Release and Activity

Over the summer, graduate students Ivan Gutierrez and Isaias Castillo are working at UiS and helping to prepare data for release and for preparation of the final report for LoCrA. All collaborators of LoCrA are working to finalize results so far collected.

In the autumn, Angelica Arlebrand at UiS will begin initial research in her MSc thesis, which will compare the paleogeographic settings and reservoir qualities between the Salina, Juksa, and Skalle wells, all three with discoveries in Lower Cretaceous wedges in the northern margin of the Hammerfest basin.

Peer-reviewed papers published since the last newsletter:

Hurum, J.H., Roberts, A.J., Dyke, G.J., Grundvåg, S.-A., Nakrem, H.A., Midtkandal, I., Śliwińska, K.K., and Olausen, S. 2016. Bird or maniraptoran dinosaur? A femur from the Albian strata of Spitsbergen. *Palaeontologia Polonica* 67, 137–147.

Henstra, G.A., Grundvåg, S.A., Johannessen, E.P., Kristensen, T.B., Midtkandal, I., Nystuen, J.P., Rotevatn, A., Surlyk, F., Sæther, T., Windelstad, J. 2016: Depositional processes and

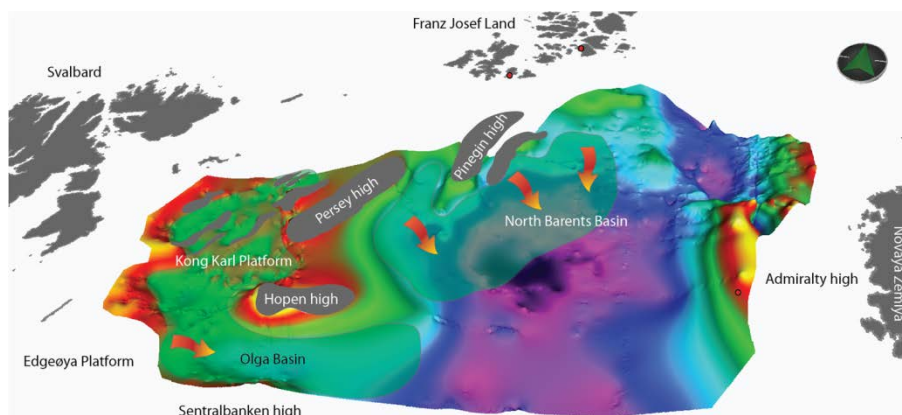


Figure 3. S1 surface showing syntectonic deposition where highs act as local sediment sources and no major progradation is observed. From B. Kairanov.