



The 12th Colloquium on Baltic Sea Marine Geology

September 8 – 12, 2014

organized by

Leibniz Institute for Baltic Sea Research Warnemünde



Programme

| September 8th, Baltic 2014 | |
|--|--|
| 17:30 – 22:30 | Ice-breaker at the Leibniz-Institute for Baltic Sea Research |

| September 9th, Baltic 2014 | |
|---|--|
| Venue: Technology Center, Warnemünde | |
| 07:30 | Registration opens |
| 08:45 – 09:00 | Welcome Address |
| 09:00 – 09:45 | Opening lecture: Jansen, E. “IPCC AR5 - Assessment of natural climate changes, their causes and implications for future changes in Northern Europe.” |
| Session A – Baltic Sea paleoenvironments: Baltic IODP, | |
| Convenor: Jan Harff | |
| 09:45 – 10:30 | Keynote: Andrén, T., and IODP Exp. 347 Science Party “The Baltic Sea IODP Expedition 347 ‘Baltic Sea Paleoenvironment’ impressions from the cruise, first results and the how we got there” |
| 10:30 – 10:50 | Jensen, J.B., Moros, M., Passchier, S., Johnson, S., Kenzler, M., and IODP Exp. 347 Science Party “The pull-apart Bornholm Basin” |
| 10:50 – 11:10 | Kotilainen, A., Hyttinen, O., Andrén, T., Cotterill, C., Hale, W., and IODP Exp. 347 Science Party “Stratigraphic correlation for the IODP Exp. 347 – towards an integrated Baltic Sea Basin Stratigraphy” |
| Coffee Break | 11:10 – 11:40 |
| 11:40 – 12:00 | Snowball, I., Herrero-Bervera, E., IODP Exp. 347 Science Party “Paleomagnetic data obtained during IODP Exp. 347: the Late Pleistocene versus the Holocene in the Baltic Sea basin” |
| 12:00 – 12:20 | Andrén, E., Andrén, T., and IODP Exp. 347 Science Party “UPPBASER Understanding Past and Present Baltic Sea Ecosystem Response – background for a sustainable future” |
| Session A – Baltic Sea paleoenvironments: Pre-Littorina, | |
| Convenor: Jörn Bo Jensen | |
| 12:20 – 12:40 | Bitinas, A., Molodkov, A., Damušytė, A., Grigienė, A., Šeirienė, V. “South-eastern Baltic Sea region from late Saalian (MIS 6) to middle Weichselian (MIS 3)” |
| 12:40 – 13:00 | Wagner, B., Melles, M., Andreev, A., Krastel, S., Fedorov, G., Subetto, D.A., Savelyeva, L.A. “The periglacial sediment record of Lake Ladoga, Russia – first results from a seismic survey and sediment coring in 2013” |
| 13:00 – 13:20 | Obst, K., Nachtweide, C., Müller, U. “Distribution and age constraints of Pleistocene sediments in the south-eastern part of the Arkona Basin, German Baltic Sea” |
| 13:20 – 13:40 | Kenzler, M., Meng, S., Tsukamoto, S., Thiel, C., Frechen, M., Hüneke, H. “OSL dating of MIS 3 sediments from the German Baltic Sea coast” |
| Lunch | 13:40 – 14:40 |

| Session A - Baltic Sea paleoenvironments: Littorina Phase, Hypoxia Convenor: Arno Kotilainen | |
|---|---|
| 14:40 – 15:25 | Keynote: Slomp, C.P. “Phosphorus dynamics in Baltic Sea sediments: impact of eutrophication and hypoxia” |
| 15:25 – 15:45 | Neumann, T., Radtke, H., Friedland, R., Moros, M. “The role of climate forcing on the de-oxygenation of Baltic Sea deep water” |
| 15:45 – 16:05 | Sinninghe Damsté, J.S., Warden, L., Sollai, M., Mets, A., Moros, M. “Determining the predominant cause of anoxia in the Baltic Sea over the Holocene” |
| Coffee Break | 16:05 – 16:35 |
| Session B – Sea-level Change and Coastal Processes – Part I, Convenor: Daria Ryabchuk, Alar Rosentau | |
| 16:35 – 17:20 | Keynote: Rosentau, A. “Sea-level change and Stone Age coastal settlement” |
| 17:20 – 17:40 | Bennike, O., Jensen, J.B., Leth, J.O., Nørgaard-Pedersen, N., Lomholt, S. “First remains of submarine, non-marine, arctic plants from the Danish North Sea” |
| 17:40 – 18:00 | Bendixen, C., Jensen, J.B., Boldreel, L.O., Clausen, O.R., Hübscher, C., Nyberg, J. “The Great Belt connection to the southern Kattegat 11.0 – 8.0 cal. ka BP – the relation to the drainage of the Ancylus Lake” |
| 18:00 – 20:00 | Poster session – refreshments served |

| September 10th, Baltic 2014 Venue: Technology Center Warnemünde | |
|--|--|
| Session A - Baltic Sea paleoenvironments: Littorina Phase, part II: proxies and models, Convenor: Helge Arz | |
| 08:45 – 09:30 | Keynote: Meier, M. H. E. “Reconstruction of Baltic Sea climate variations during the last millenium using numerical modelling” |
| 09:30 – 09:50 | Kaiser, J., Moros, M., Baas, M., Sinninghe Damsté, J., Pollehne, F., Arz, H. “Application of the TEX86 temperature proxy in the Baltic Sea: insights from surface and trap sediments” |
| 09:50 – 10:10 | Risebrobakken, B., Moros, M., Jansen, E. “Mid-to-late Holocene conditions in the Nordic Seas and Skagerrak and potential implications for the Baltic Sea” |
| 10:10 – 10:30 | Ning, W., Ghosh, A., Khan, M., Kylander, M., Nyberg, J., Filipsson, H. “A 6000-year reconstruction of a Fjord environment of the Swedish east coast, Baltic Sea based on a multi-proxy approach” |
| 10:30 – 10:50 | Häusler, K., Dellwig, O., Moros, M., Kaiser, J., Wacker, L., Arz, H. W. “Paleoenvironmental reconstruction of the Northern and Central Baltic Sea during the Littorina Sea Stage” |

| | |
|--|--|
| 10:50 – 11:10 | Kostecki, R., Janczak-Kostecka, B. “The age and evolution of the Littorina transgression based on geochemical, diatomological studies and radiocarbon dating of the cores from SW Baltic Sea“ |
| Coffee Break | 11:10 – 11:40 |
| 11:40 – 12:00 | Virtasalo, J., Ryabchuk, D., Kotilainen, A., Zhamoida, V., Grigoriev, A., Sivkov, V., Dorokhova, E. “Storm influence on brackish-water mud deposition in the easternmost Gulf of Finland, and the birth of the Neva River” |
| 12:00 – 12:20 | Moros, M., Zillén, L., Wacker, L., Kotilainen, A., Jensen, J. B., Snowball, I., Loughed, B. C., Perner, K., Häusler, K., Arz, H., Leipe, T., Neumann, T., Schneider, R. R., Rohde-Krossa, V., Schulz-Bull, D., Hand, I. “Towards a master chronology for central Baltic Sea’s Littorina Sea stage sediments” |
| Session B – Sea-level change and coastal processes – Part II, Convenor: Daria Ryabchuk, Alar Rosentau | |
| 12:20 – 12:40 | Harff, J., Deng, J., Dudzinska-Nowak, J., Groh, A., Hünicke, B., Rosentau, A. “What determines the change of coastlines in the Baltic Sea?“ |
| 12:40 – 13:00 | Ryabchuk, D., Sergeev, A., Gusentsova, T., Gerasimov, D., Zhamoida, V., Amantov, A., Kulkova, M., Sorokin, P. “Holocene development of the eastern Gulf of Finland coastal zone” |
| 13:00 – 13:20 | Deng, J., Harff, J., Zhang, W., Dudzinska-Nowak, J.”Comparisons of coastal morphogenesis at Swina Gate, Łeba coast and Hel Peninsula, Southern Baltic” |
| Lunch | 13:20 – 14:35 |
| 14:35 – 14:55 | Uścinowicz, G., Kramarska, R., Jurys, L., Frydel, J., Przewdziecki, P. “Transformation of the coast in the Jastrzebia Gora region” |
| 14:55 – 15:15 | Tõnisson, H., Kont, A., Suursaar, Ü., Orviku, K., Eelsalu, M., Pindsoo, K., Suuroja, S. “Painted sediment experiments in studies of coastal processes” |
| 15:15 – 15:35 | Grudzinska, I., Vassiljev, J. “Preliminary results of the Baltic Sea history in the surrounding of Riga, Latvia: a case study of Lake Lilaste” |
| 15:35 – 15:55 | Muru, M., Rosentau, A., Preusser, F., Aunap, R. “Propagation of Holocene foredune plain on Ruhnu Island“ |
| Coffee Break | 15:55 – 16:25 |
| 16:25 – 16:45 | Raig, H., Rosentau, A., Muru, M., Risberg, J. “Onset and course of Littorina Sea transgression in a coastal palaeolagoon, Narva-Luga Klint” |
| 16:45 – 17:05 | Vilumaa, K., Tõnisson, H., Kont, A., Ratas, U., Suuroja, S. “Geo-morphology and development of beach ridge systems in Estonia” |
| 17:05 – 17:25 | Vassiljev, J., Saarse, L., Grudzinska, I., and Heinsalu, A. “Shoreline changes in northern Estonia during the Holocene“ |
| 17:25 – 18:15 | Poster session |
| 19:00 | Conference dinner, boat tour to Rostock harbor |

| September 11 th , Baltic 2014 Venue: Technology Center, Warnemünde | |
|---|---|
| Session C – Sediment and habitat mapping of the sea floor, Convenor: Lovisa Zillén | |
| 09:30 – 10:15 | Keynote: Vallius, H. “Sediment and Habitat mapping of the Baltic Sea” |
| 10:15 – 10:35 | Hämäläinen, J., Kaskela, A. “Recent developments in sea floor mapping techniques and methods in Finland“ |
| 10:35 – 10:55 | Kaskela, A., Kotilainen, A., Orlova, M., Ronkainen, M., Rousi, H., Ryabchuk, D. “Identifying benthic marine landscapes of the Eastern Gulf of Finland” |
| 10:55 – 11:15 | Propp, C, Pesch, R., Schiele, K., Darr, A., Zettler, M., Beisiegel, K., Zeiler, M. “Mapping and registration of marine biotopes in Germany’s Exclusive Economic Zones“ |
| Coffee Break | 11:15 – 11:45 |
| 11:45 – 12:05 | Sivkov, V., Burnashov, E., Chechko, V., Dorokhova, E., Dorokhov, D., Krek, A., Ryabchuk, D., Sergeev, A., Zhamoida, V. “The bottom surface sediments mapping in the Russian part of the South-Eastern Baltic Sea” |
| 12:05 – 12:25 | Nyberg, J., Norrlin, J., Bergman, B., Slagbrand, P., Hallberg, O., Lind, A.-L., Dahlgren, A. “Shallow seabed mapping along the coastline of Skåne, southern Sweden” |
| 12:25 – 12:45 | Nestler, S., Stigge, G., Weidauer, A., Schmidt, A. “Possible climate-induced habitat changes of benthic soft bottom communities in the Western Baltic Sea – Predictions by abiotic modeling and habitat mapping” |
| 12:45 – 13:05 | Endler, M., Endler, R., Bobertz, B., Leipe, T., Jensen, J.B., Moros, M., Arz, H. “Geo-acoustic modeling and its application to high resolution sediment acoustic profiling of marine deposits: case studies from SW-Baltic” |
| 13:05 – 13:25 | Naumann, M., Schwarz, C., Fritz, J. “Deduction of grain size distributions based on petrographic borehole descriptions to estimate raw mineral deposits and ground properties“ |
| Lunch | 13:25 – 14:55 |
| Session D – Anthropogenic impact / hazardous substances, Convenor: Henry Vallius | |
| 14:55 – 15:40 | Keynote: Zillén, L., Apler, A., Snowball, I. “The Baltic Sea during the Anthropocene” |
| 15:40 – 16:00 | Emelyanov, E., Vallius, H., Kravtsov, V. A. “Toxic elements in the surficial sediments of the Finnish exclusive Economic Zone” |
| Coffee Break | 16:00 – 16:30 |
| 16:30 – 16:50 | Zhamoida, V., Ryabchuk, D., Grigoriev, A., Kropachev, Y., Malysheva, N., Neevin, I., Sergeev A. “Environmental geological monitoring in the Russian areas of the Baltic Sea: natural processes and human impact” |

| | |
|---------------|--|
| 16:50 – 17:10 | Apler, A., Snowball, I., Zillén, L. “Contaminated sediments (fibre banks) along the uplifting northern Baltic coast” |
| 17:10 – 17:30 | Leipe, T., Moros, M., Tauber, F., Kotilainen, A., Vallius, H., Bunke, D., Endler, M., Kowalski, N., Naumann, M. “Mercury in the Baltic Sea environment, natural background, pollution history and indications for ongoing processes” |
| 17:30 | Awarding the Best Poster “Baltic 2014” |
| 17:50 | Announcing date and venue of the 13 th Colloquium on Baltic Sea Marine Geology |
| 18:00 | Conference closure |

| | |
|---|---------------------------|
| September 12th, Baltic 2014 | |
| 08:00 - | Excursion to Rügen Island |