

ПЛОТ: Палеолимнологический Трансект

Региональная изменчивость климата на Севере Евразии в четвертичное время и подготовка глубокого бурения озер

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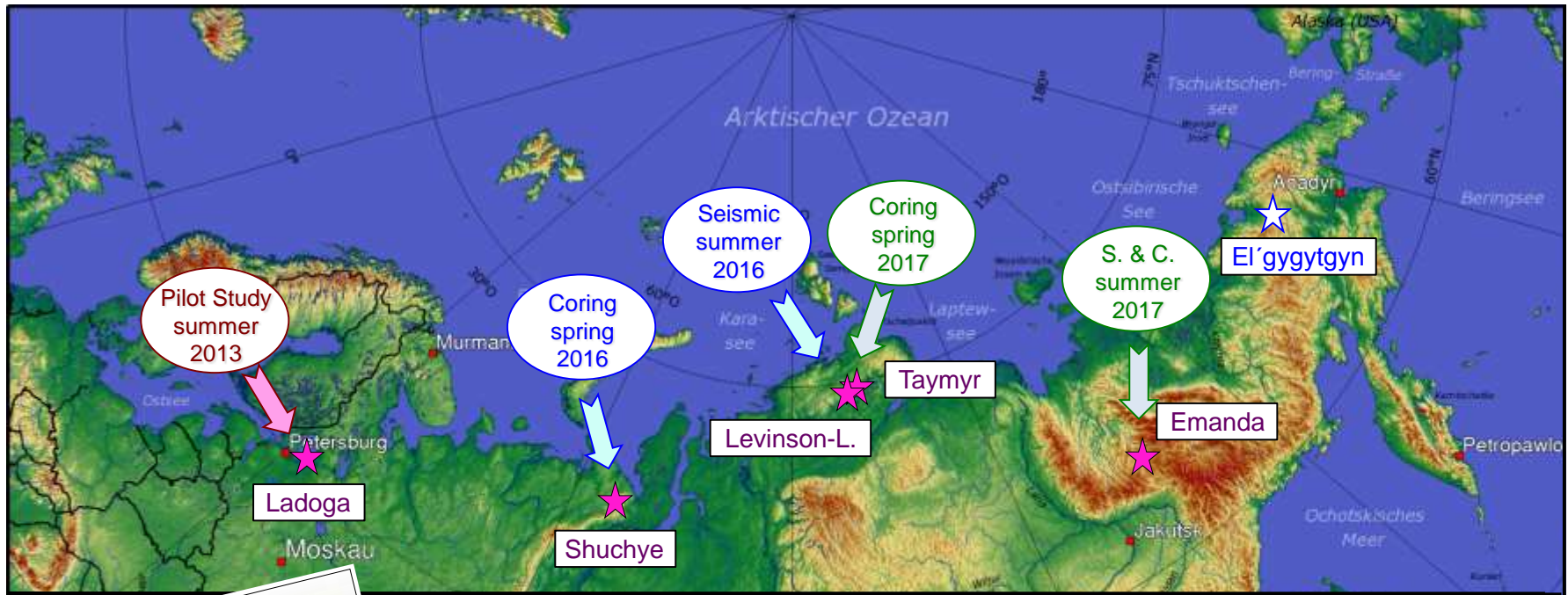


PLOT: Paläolimnologischer Transect

Quartäre Klimagradienten über das nördliche Eurasien und Potentiale für Tiefbohrungen

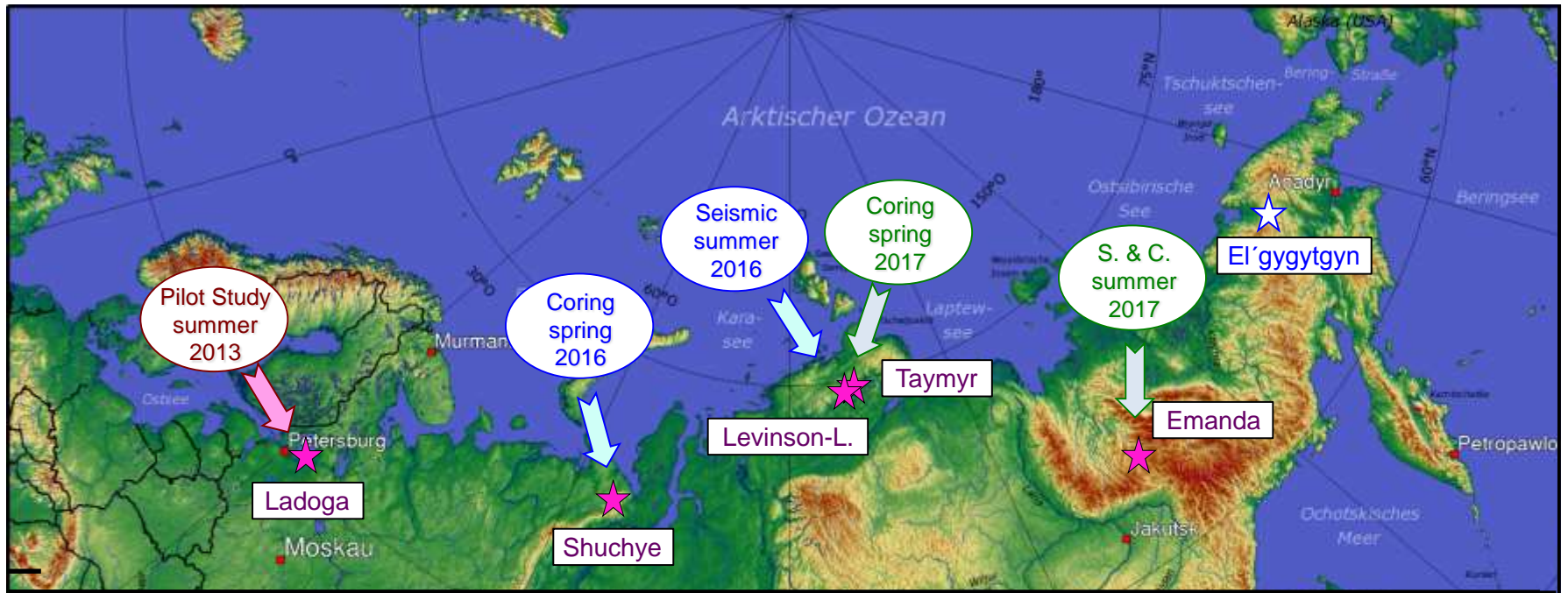
Martin Melles
University of Cologne





Special Issue: “Northern Eurasian Lakes – Late Quaternary glaciation and climate history”:

- Andreev et al. (2019) – Ladoga pollen
- Fedorov et al. (2019) – El’gygytyn lake level
- Gromig et al. (2019) – Ladoga paleoenvironment
- Hafliðason et al. (2019) – Bolshoye Shuchye seismic
- Kostrova et al. (2019) – Ladoga diatom isotopes
- Lebas et al. (2019) – Levinson-Lessing seismic
- Melles et al. (2019) – Special Issue introduction
- Savelieva et al. (2019) – Ladoga pollen
- Zhao et al. (2019) – El’gygytyn pollen



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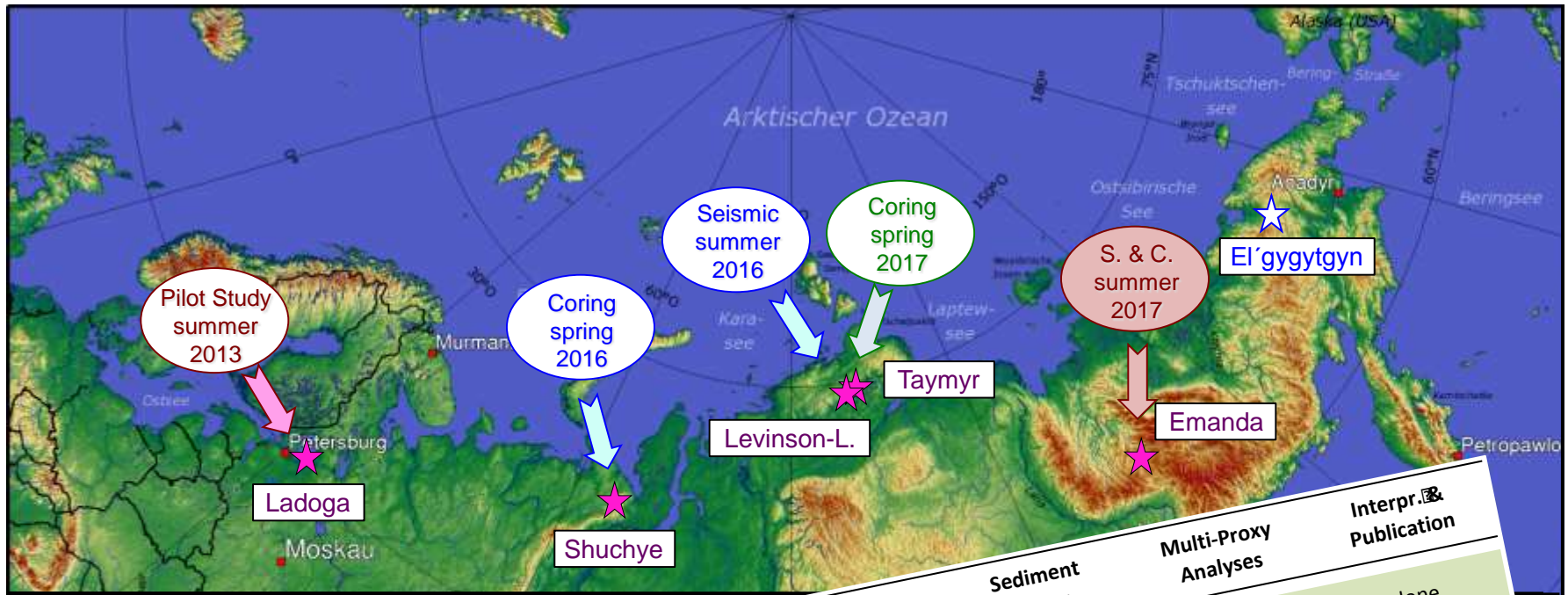
Fedorov et al.: “Climatic and environmental evolution of northern Eurasia ... in the frame of the Russian-German project PLOT” (subm. 06/2019)



Federal Ministry
of Education
and Research

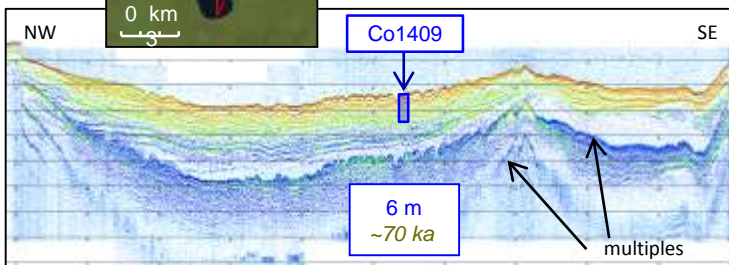
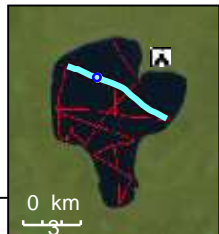
Melles et al.: “PLOT: Paleolimnological Transect - Synthesis” (subm. 06/2019)

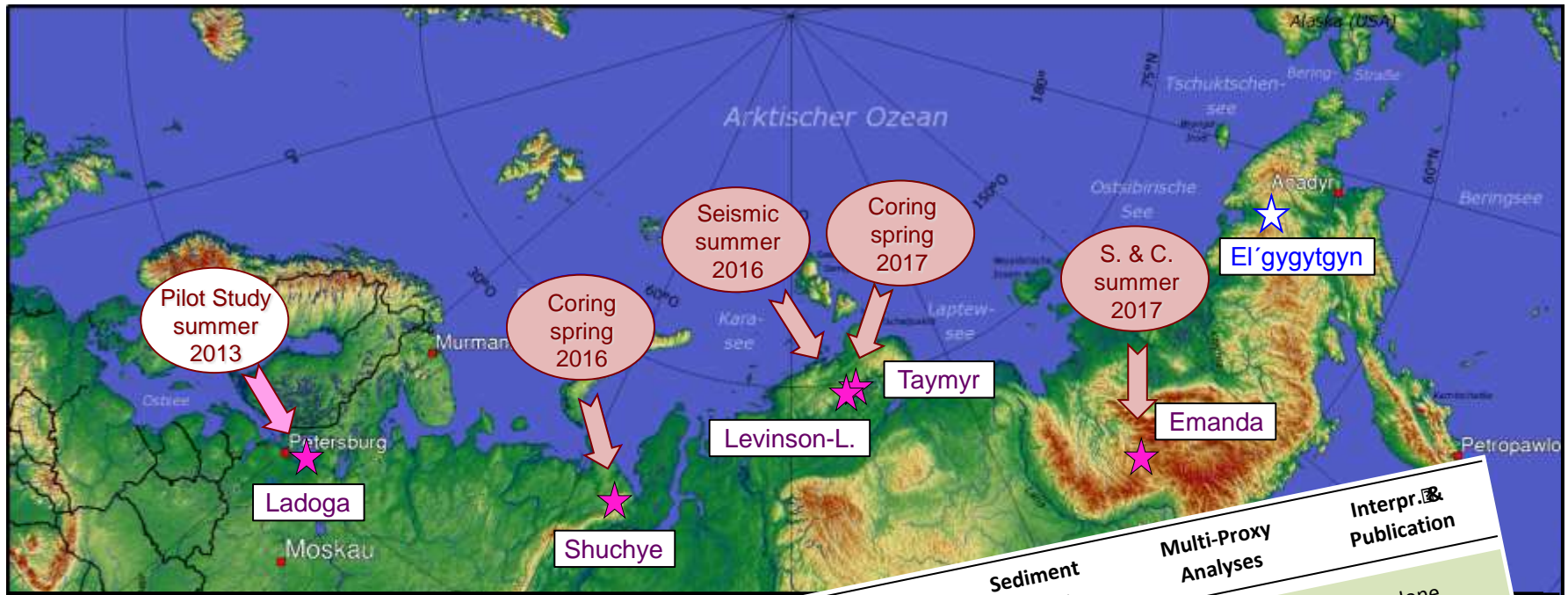




- complete coring of Emanda Lake

Lake	Seismic Profiling	Sediment Coring	Multi-Proxy Analyses	Interpr. & Publication
Ladoga	49 Profile 1500 km	23 Cores (Co1309) 18 Cores (Co1310)	done	done
Bolshoye Shuchye	by Russ.-Norw. CHASE project	54 Cores (Co1321)	partly done partly in work	partly done partly in prep.
Levinson-Lessing	29 Profile 70 km	46 Cores (Co1401)	partly done partly in work	partly done partly in prep.
Taymyr	6 Profile 85 km	11 Cores (Co1407) 16 Cores (Co1408)	partly done partly in work	in prep.
Emanda	10 Profile 37 km	6 Cores (Co1409) 6-12 Cores	done to be done	in prep.
Elgygytyn	by earlier joint projects	by earlier joint projects	done	done



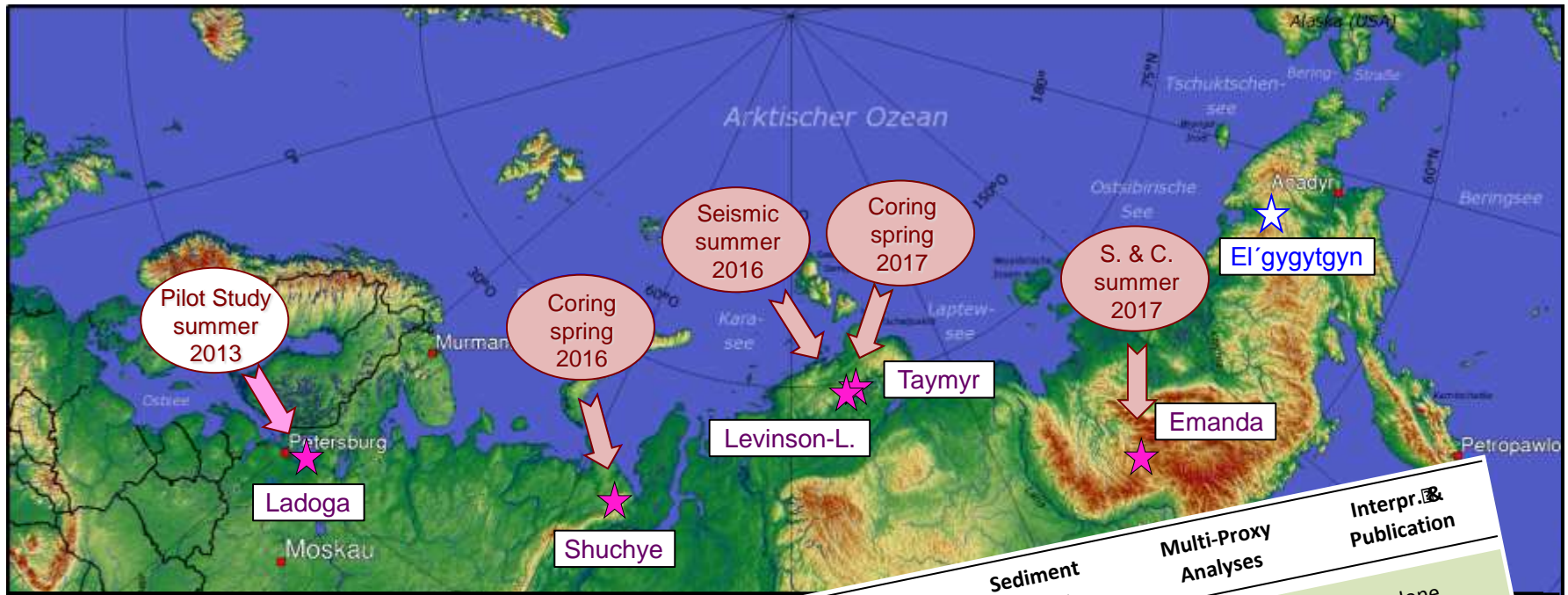


- complete coring of Emanda Lake
- complete multi-proxy analyses

Site	Seismic Profiling	Sediment Coring	Multi-Proxy Analyses	Interpr. & Publication
Lake		23 Profile 18 Core (Co1309) 18 Core (Co1310)	done	done
Ladoga	49 Profile 1500 km		partly done partly in work	partly done partly in prep.
Bolshoye Shuchye	by Russ.-Norw. CHASE project	54 Profile 54 Core (Co1321)	partly done partly in work	partly done partly in prep.
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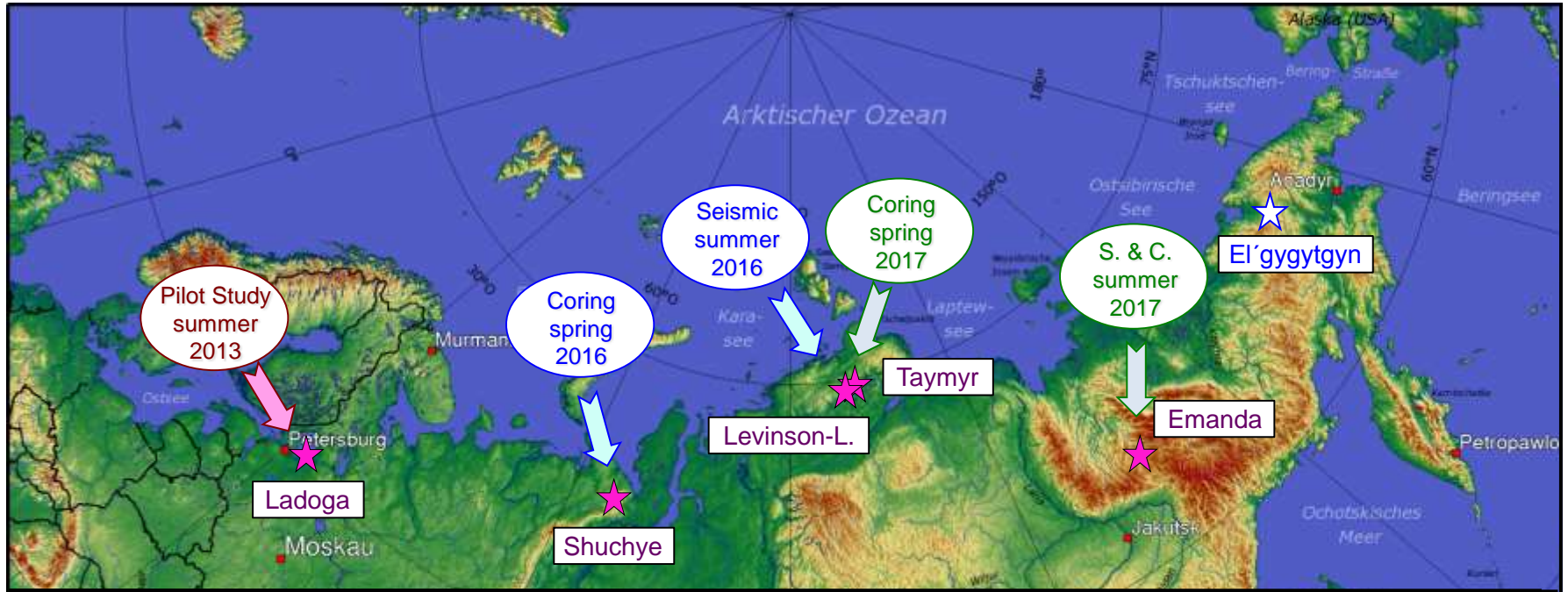


New: Palaeomagnetic (UoC)



- complete coring of Emanda Lake
- complete multi-proxy analyses
- complete interpretation and publication

Lake	Work	Seismic Profiling	Sediment Coring	Multi-Proxy Analyses	Interp. & Publication
Ladoga	49 Profile 1500 km	23 km (Co1309) 18 km (Co1310)	done	done	done
Bolshoye Shuchye	by Russ.-Norw. CHASE project	54 km (Co1321)	partly done	partly in work	partly done partly in prep.
Levinson-Lessing	29 Profile 70 km	46 km (Co1401)	partly done	partly in work	partly done partly in prep.
Taymyr	6 Profile 85 km	11 km (Co1407) 16 km (Co1408)	partly done	partly in work	in prep.
Emanda	10 Profile 37 km	6 km (Co1409) 6-12 km	done	to be done	in prep.
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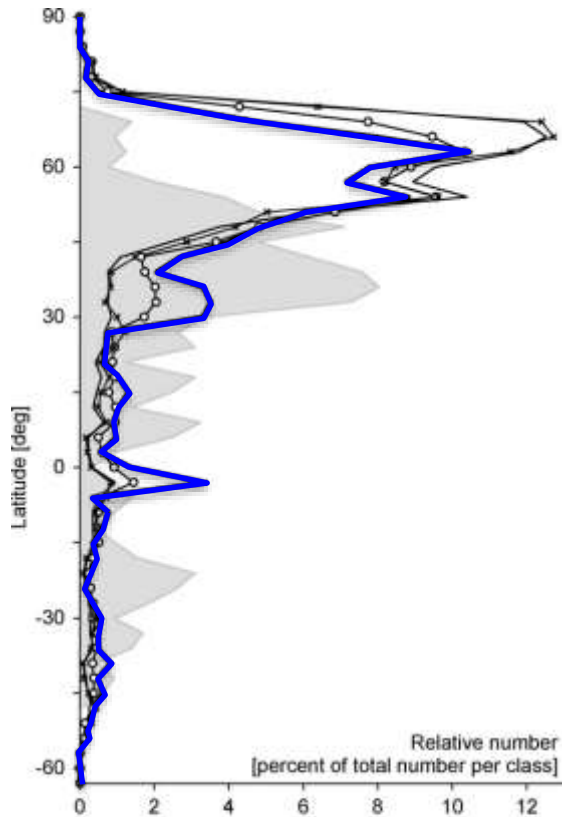
28th International Polar Conference of the German Society of Polar Research

6.-11. Sept. 2020
University of Cologne,
Germany

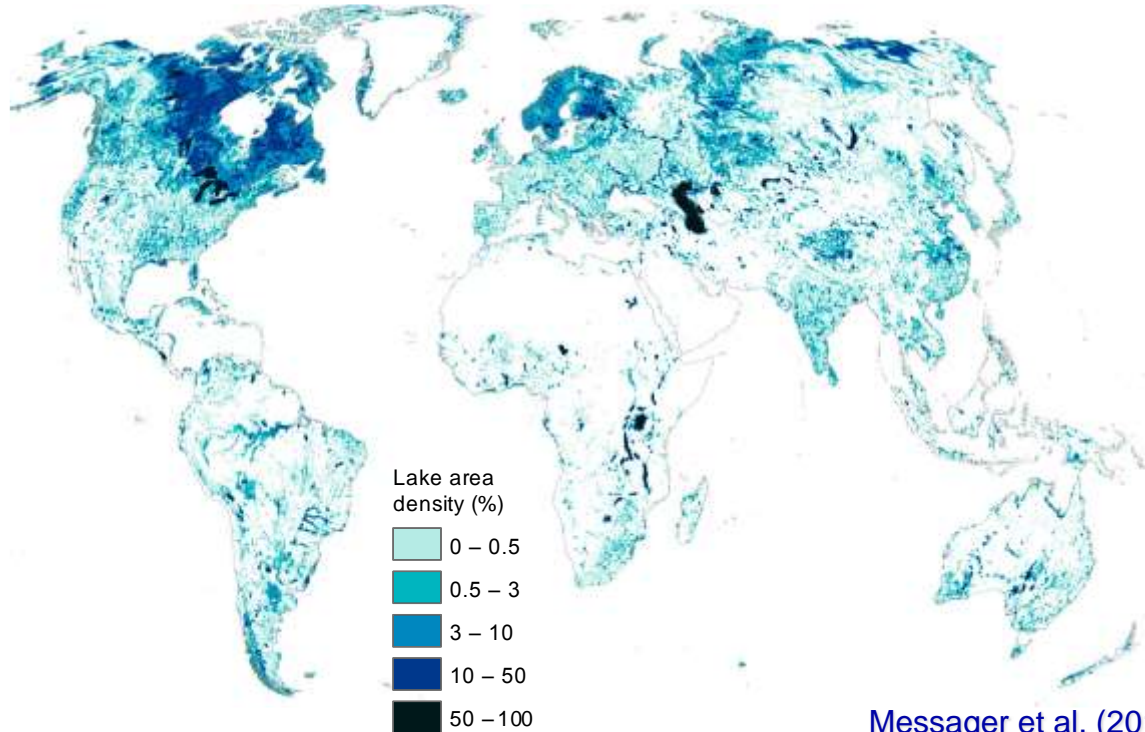


‘Special Session’
on Russian-German
collaboration
Polar & Marine?

Need for further research: Lake-system response to - past, present and future - climate change in the Russian Arctic



Type and size class	Total number [1000]	Total area [1000 km²]
Reservoirs > 0.5 km²	0.7	248
Lakes > 100 km²	1.5	1573
Lakes 10-100 km²	16	393
Lakes 1-10 km²	155	413
Lakes 0.1-1 km²	74	49



Messenger et al. (2016)

Lehner & Doll (2004)