

# High frequency Lena River water sampling – based at the Research Station Samoylov Island

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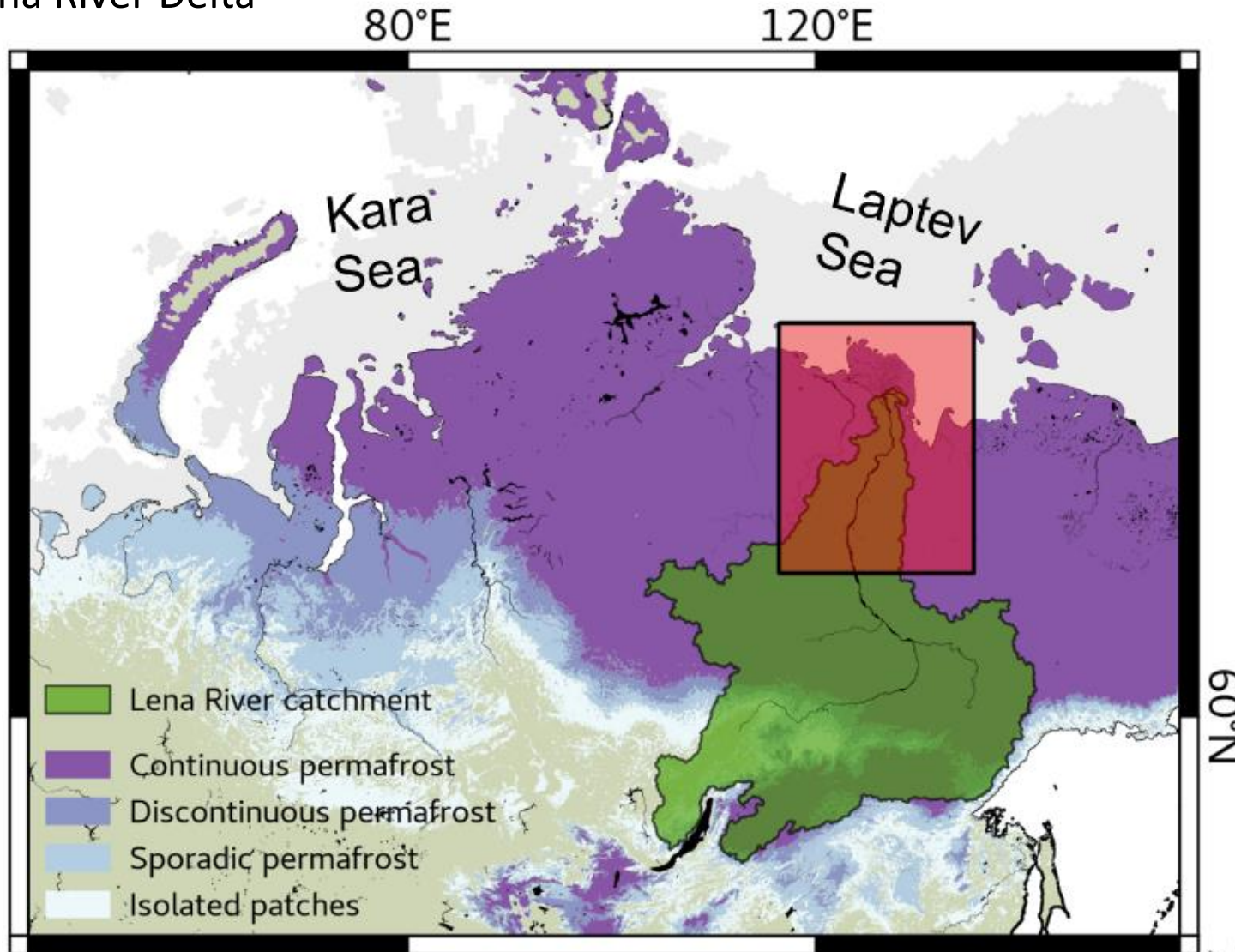
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# Lena river monitoring

Lena River Delta



- **largest watershed** of Arctic Rivers
- **~ 20 %** of **fresh water** input to Arctic Ocean
- catchment **~ 90 % permafrost**
- **mobilization of DOM** by **permafrost thaw** is expected

# Lena river monitoring

Samoylov Research Station - operating all year round



# Lena river monitoring



Measurements and sampling protocol - station staff is not scientifically trained!

Фамилия:	<b>Name</b> <i>Астахов А.И.</i>		Отметьте место отбора воды
			<b>Sample location</b>
Дата:	Дата	Время (местное)	
	<b>Date</b> <i>13.09.18</i>	<b>Time</b> <i>15:00</i>	
Номер образца:	<b>Sample Number</b> <i>13</i>		
Температура воды (°C):	<b>Temperature</b> <i>8.5</i>		
Электропроводность воды:	<b>Conductivity</b> <i>90</i>		
Состояние реки при отборе:			
<input type="radio"/> вода в реке особенно мутная (весна, половодье)			
<input type="radio"/> особенно ветрено, волны, в воде много осадка (лето)			
<input checked="" type="radio"/> обычный поток (лето)			
<input type="radio"/> другое (отметить):			
Другие примечания: <b>comments</b> <i>Проба с берега нет лодки.</i>			







**Keep it simple!**

**Weather / River conditions**

# Lena river monitoring

Measurements and sampling protocol - station staff is not scientifically trained!



-  Dissolved nutrients
  -  TSS
  -  DOC
  -  Stable water isotopes
  -  Additional (EC, major ions)
  -  DO<sup>14</sup>C
- Keep it simple!**

# Lena river monitoring



- **high sampling frequency** (~ every 4 days or more often)
- **sampling all year round**

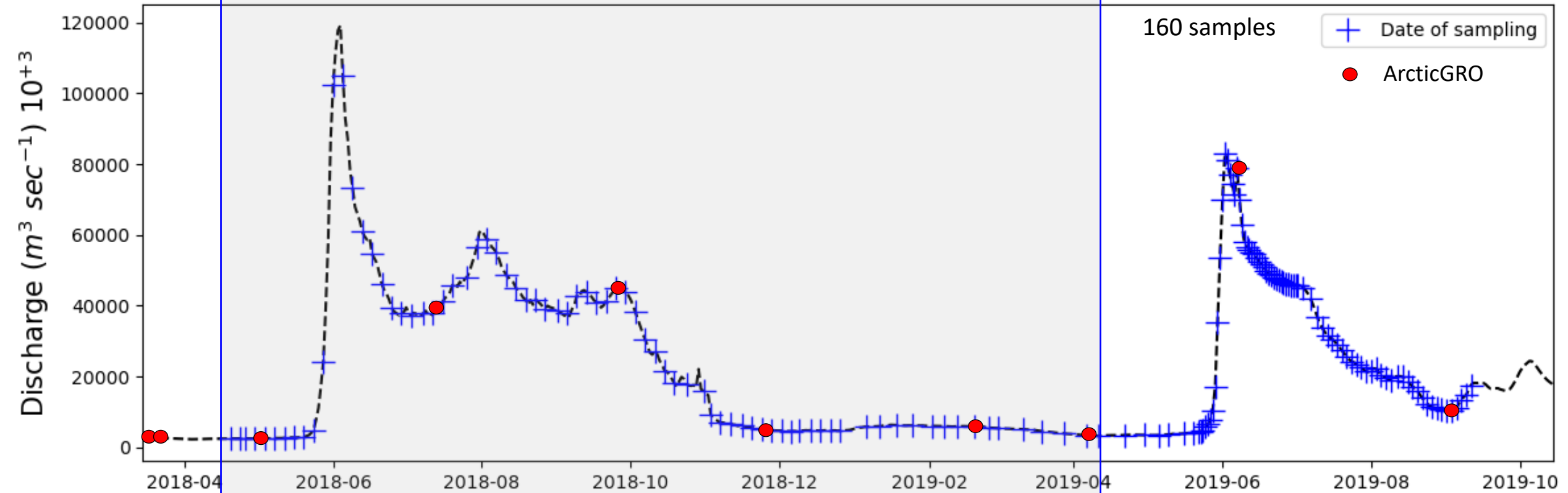
# Lena river monitoring



April 2018 – April 2019:

87 samples

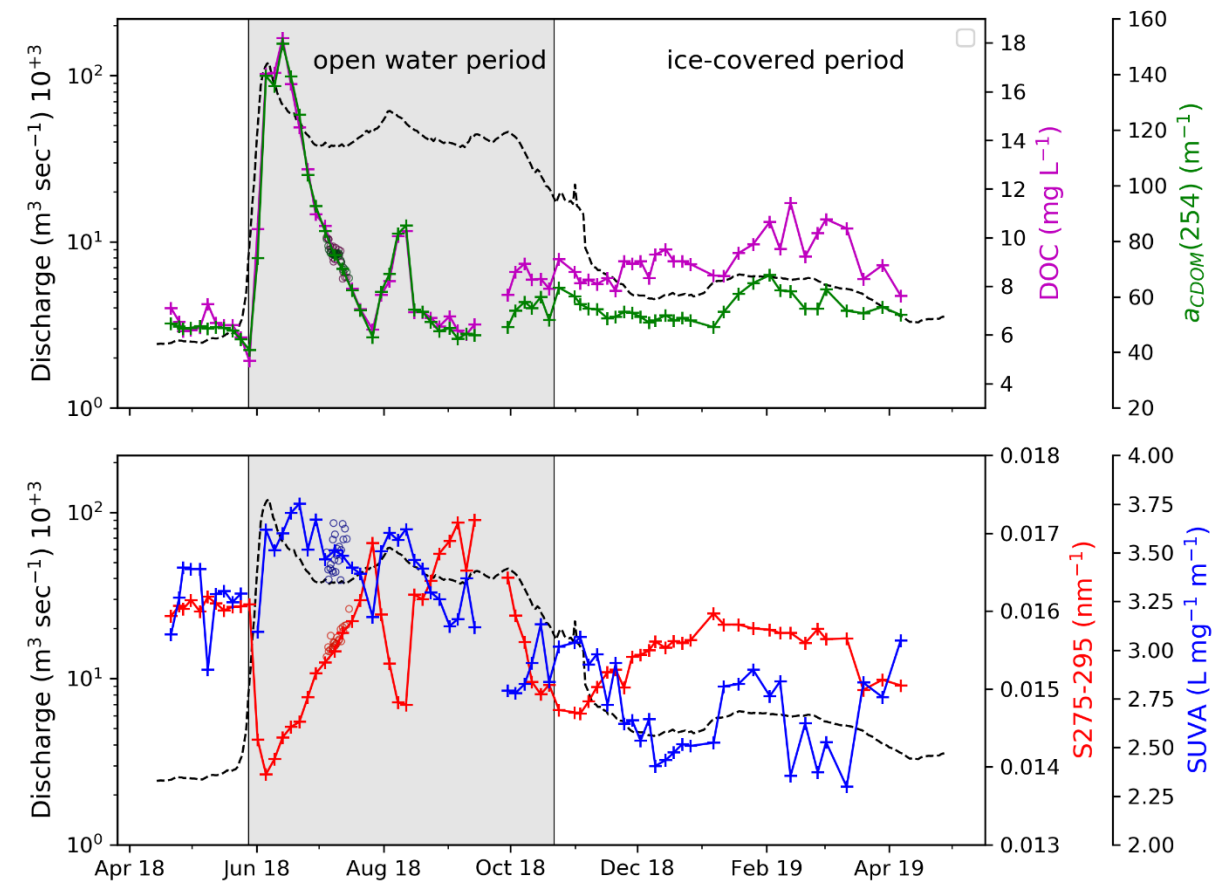
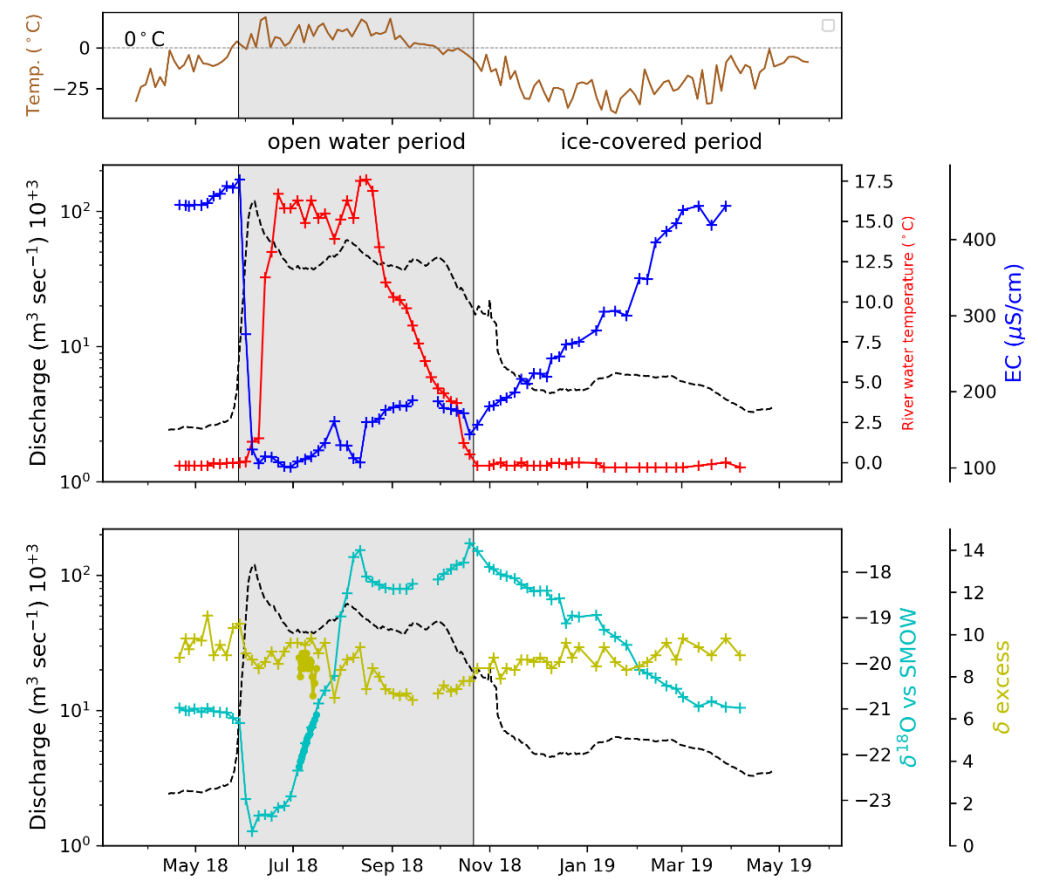
6 samples



# Lena river monitoring



results already submitted to Frontiers of Environmental Science (Juhls et al.)





# Lena river monitoring



## Long-term increase of Lena river discharge

