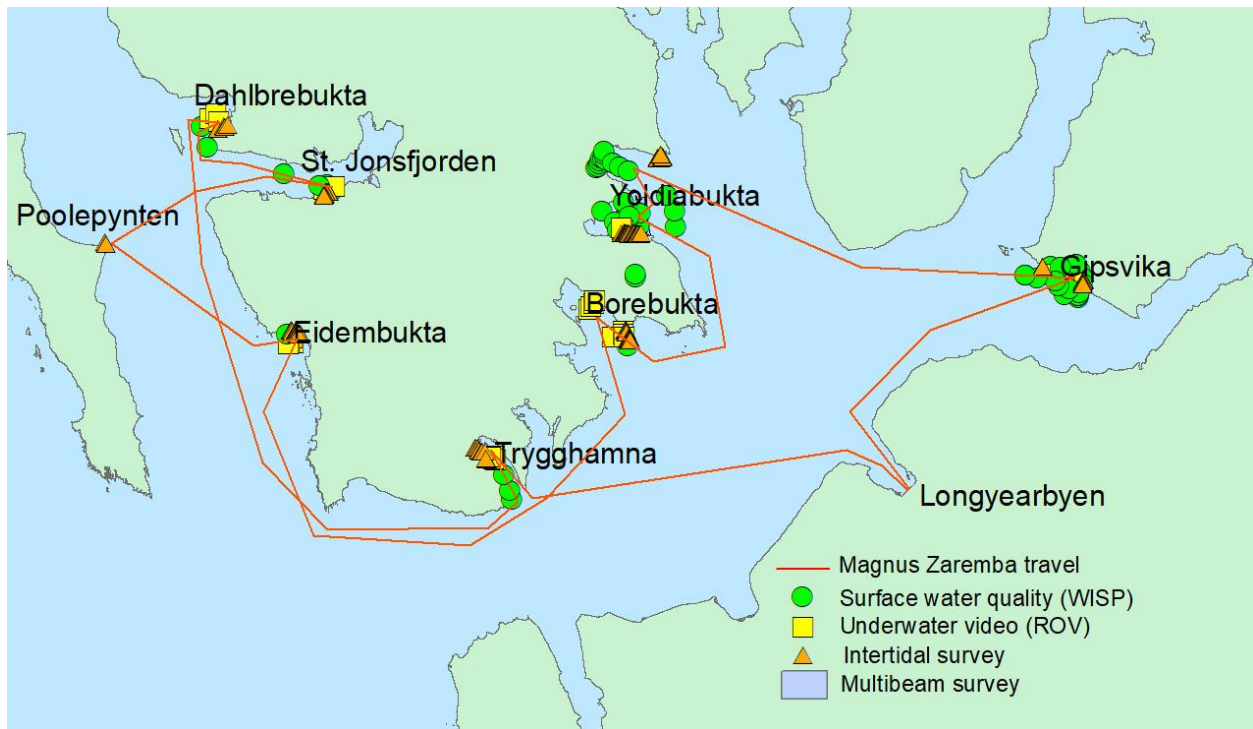


Field work diary 22<sup>nd</sup> July – 31<sup>st</sup> July 2019 – research yacht MAGNUS ZAREMBA, ADAMANT project



**22.07.2019**

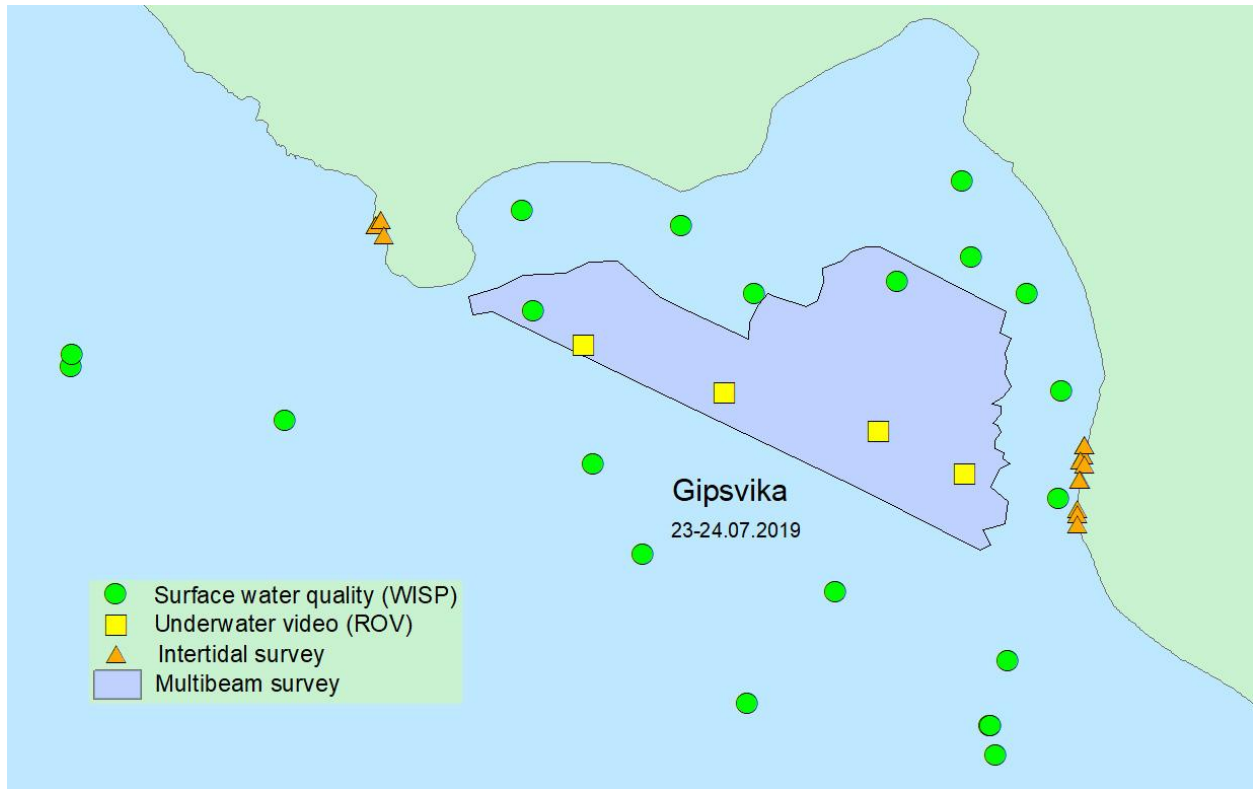
Arrival to LYR with SAS at 00:40. Transfer of equipment from OCEANIA to M. ZAREMBA, preparation of equipment (multibeam sonar, remote operated vehicle for underwater filming) for work. Heading to Gipsvika. Onboard marine research team from Klaipėda University: Martynas Bučas, Andrius Šiaulys, Aleksej Šaškov, Edvinas Tiškus (other members of the KU team, Sergej Olenin and Diana Vaičiūtė, stay onboard OCEANIA).

**23.07.2019**

Work in **Gipsvika**. Multibeam sonar survey. Macrophytobenthos checking at intertidal zone by drone. Measurements of chlorophyll-a, total suspended matter and transparency with a portable optical radiometer WISP (data to be used for validation of satellite images to estimate impact of melting ice on water turbidity and transparency). Landing on shore and working together with the IO PAN marine team (from OCEANIA) to calibrate methodology of the intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 515 m.

**24.07.2019**

Continuation of multibeam sonar survey in **Gipsvika** (total area scanned 3 km<sup>2</sup>), 4 sediment samples for calibration of acoustic data, seabed filming with ROV (5 filming transects, 60 minutes in total). Single beam sonar survey and macrophytobenthos sampling (2 transects). WISP measurements. Intertidal survey together with the IO PAN marine team (path length 160 m).

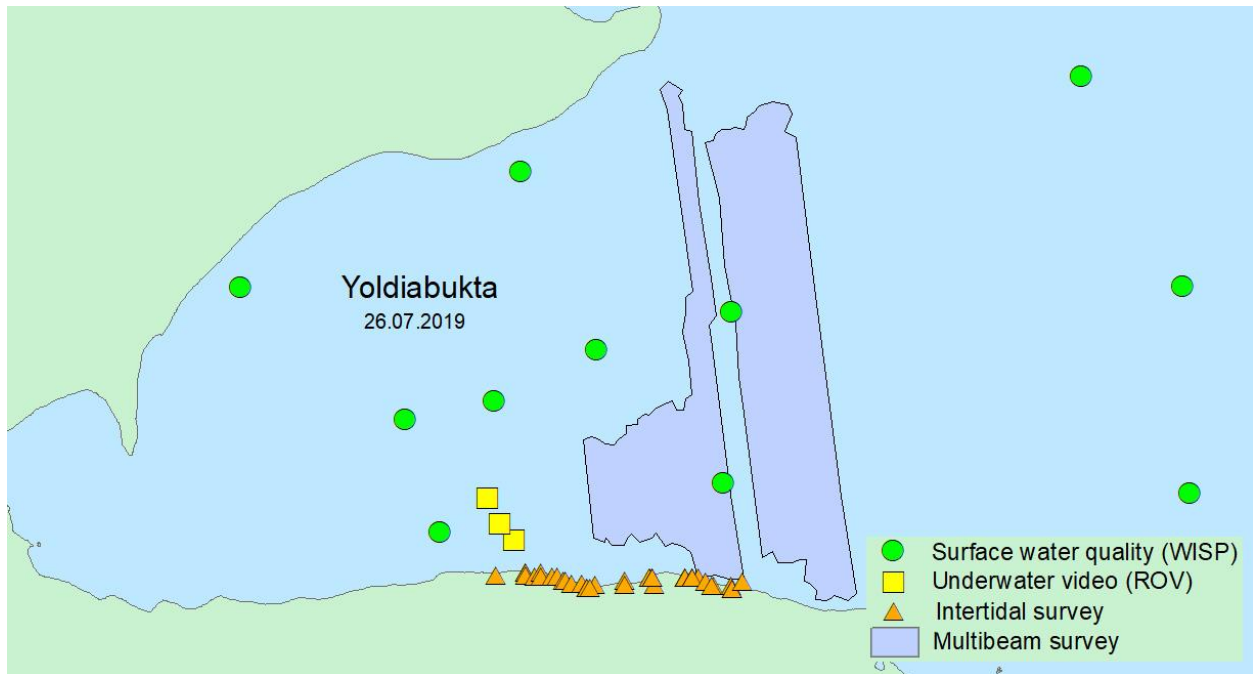


### 25.07.2019

MAGNUS ZAREMBA on the anchor in Nordfjorden near Samebreen, crew and equipment exchange with OCEANIA. Measurements with WISP in front of a glacier. Intertidal survey together with the IO PAN team (path length 1400 m). S. Olenin, and the Polish team members, Andrzej Kruszewicz and Jakub Witek join the yacht; E. Tiškus moves to OCEANIA. D. Vaičiūtė and E. Tiškus arrive to Longyearbyen with OCEANIA (leaving LYR to Palanga/Klaipėda next day). The yacht heading to Yoldiabukta. One ROV transect at anchoring site (10 minutes).

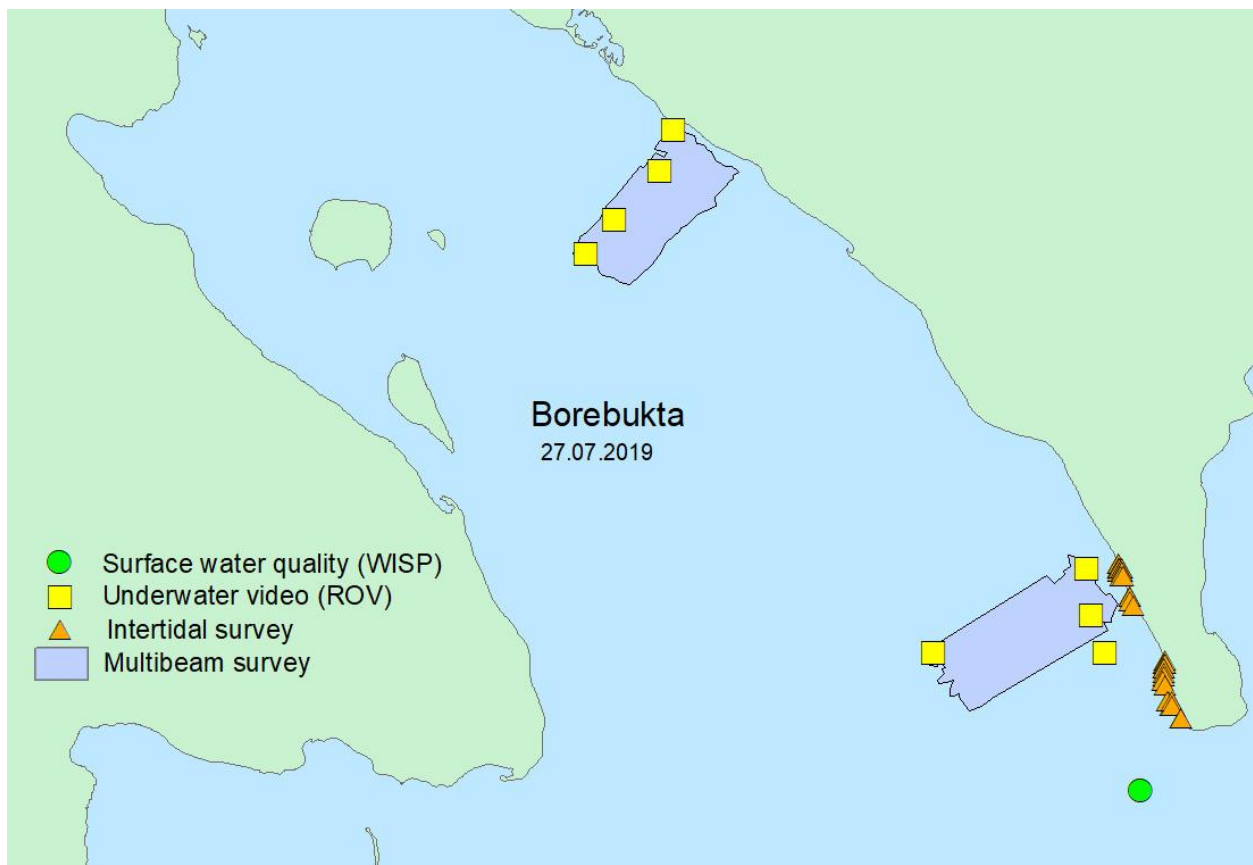
### 26.07.2019

The yacht on the anchor in **Yoldiabukta**. Gammarids collected from a small trap (depth 24 m) deployed overnight. Multibeam sonar survey (approx. 5 km<sup>2</sup>), seabed filming with ROV (2 transects, 20 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids) at the southern shore of Yoldiabukta (path length 2100 m).



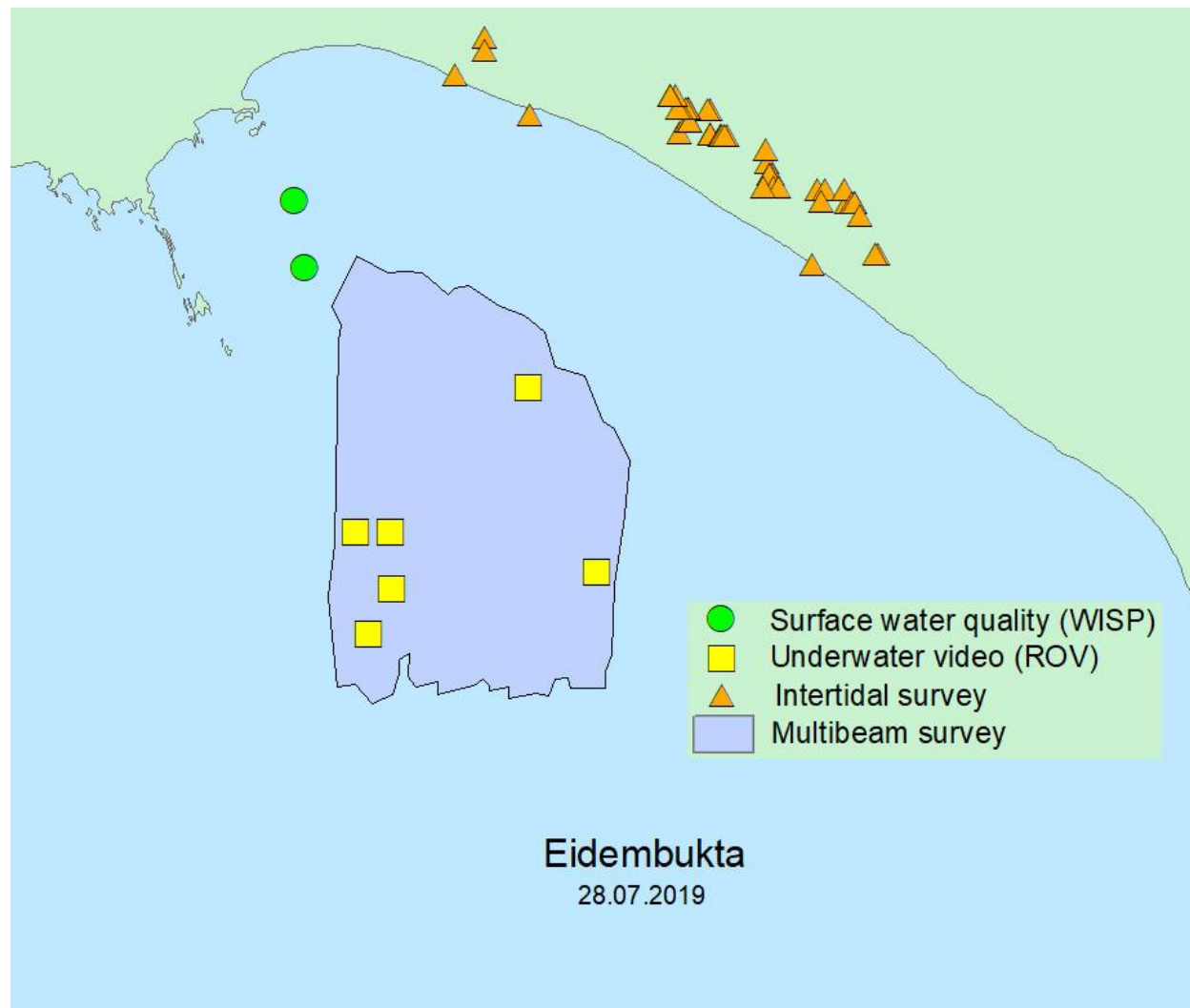
**27.07.2019**

**Borebukta.** Multibeam sonar survey (approx. 1.3 km<sup>2</sup>), seabed filming with ROV (7 transects, 68 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 1275 m. WISP measurements.



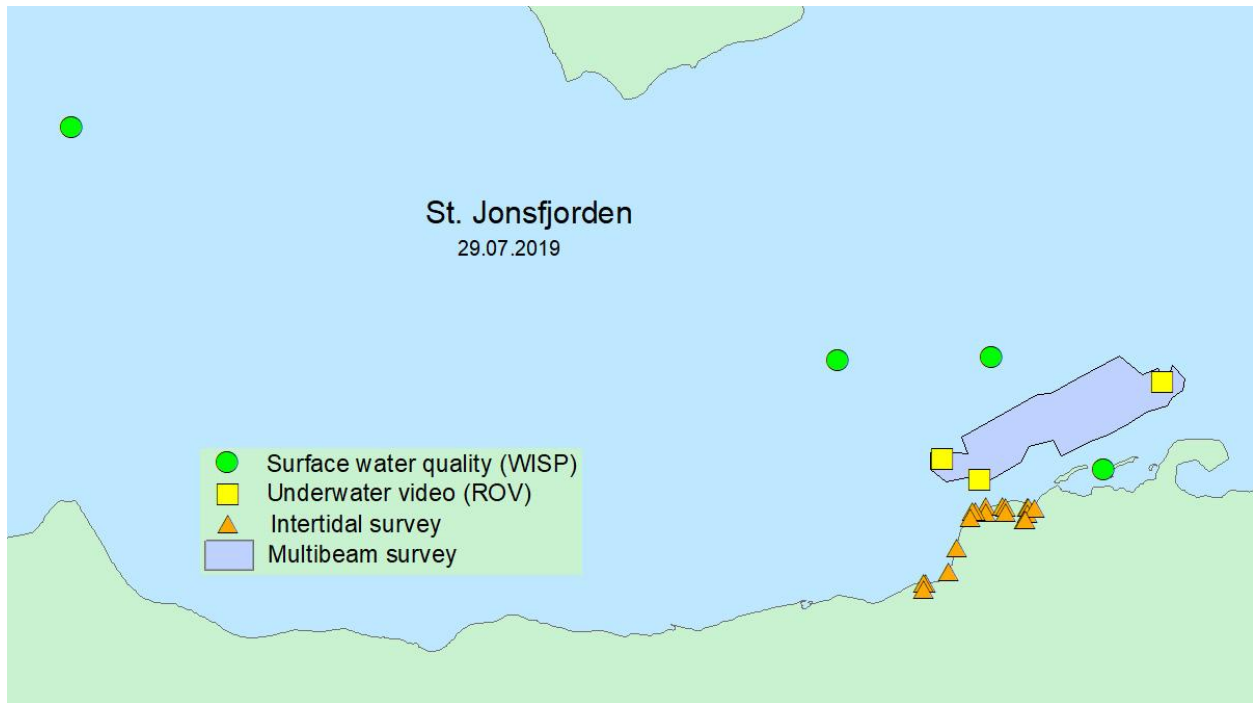
**28.07.2019**

**Eidembukta.** Multibeam sonar survey (approx. 0.6 km<sup>2</sup>), 3 bottom sediment samples with a grab for calibration of acoustic data, seabed filming with ROV (5 transects, 28 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 1275 m). Inspection of the intertidal rocks – for *Mytilus*: no living mollusks found, only empty shells found on shore. Macrophytobenthos mapping and sampling. WISP measurements. Moving to Poolepynten (21:00). Visiting walrus colony. Inspection of old wood ashore (traces of *Teredo* holes found).

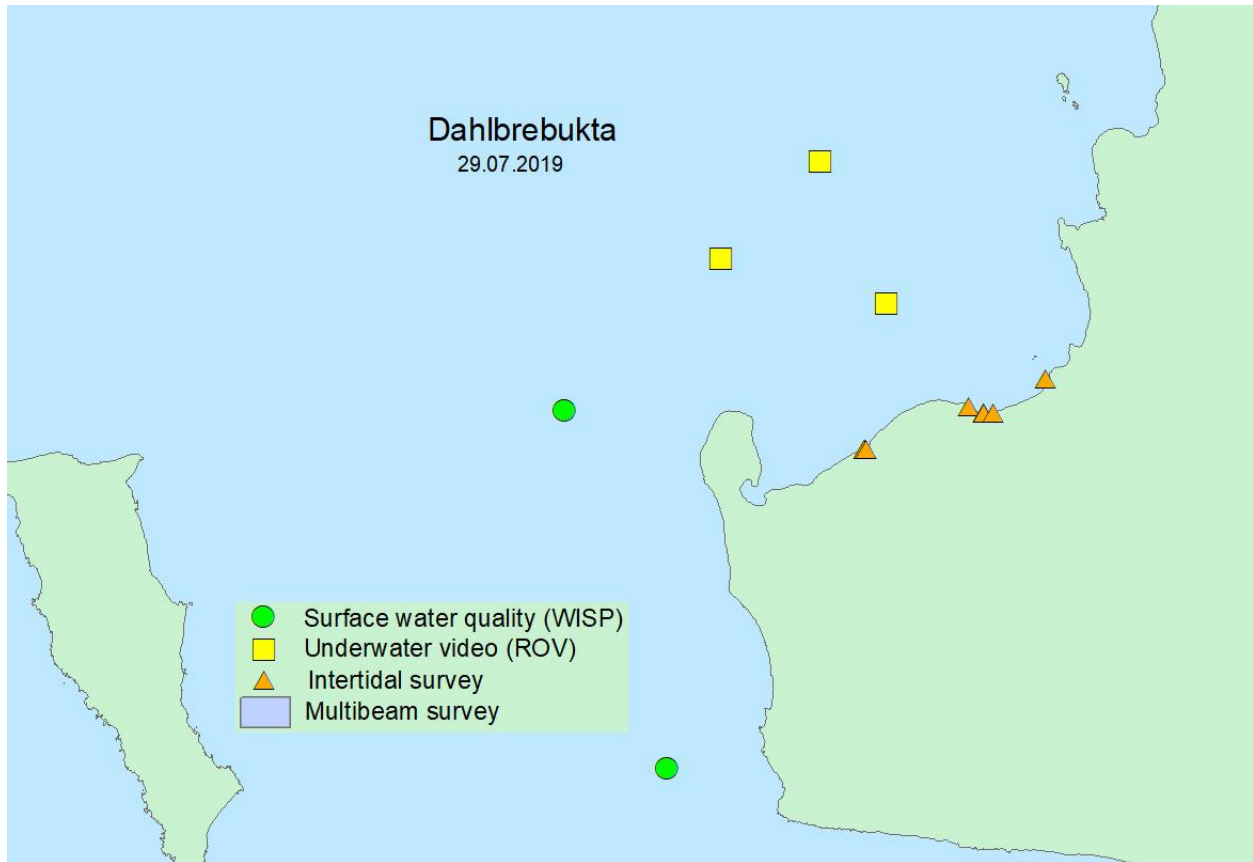


**29.07.2019**

10:00. **St. Johnsfiorden.** Multibeam sonar survey (approx. 0.3 km<sup>2</sup>), seabed filming with ROV (1 transect, 17 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 870 m. WISP measurements.

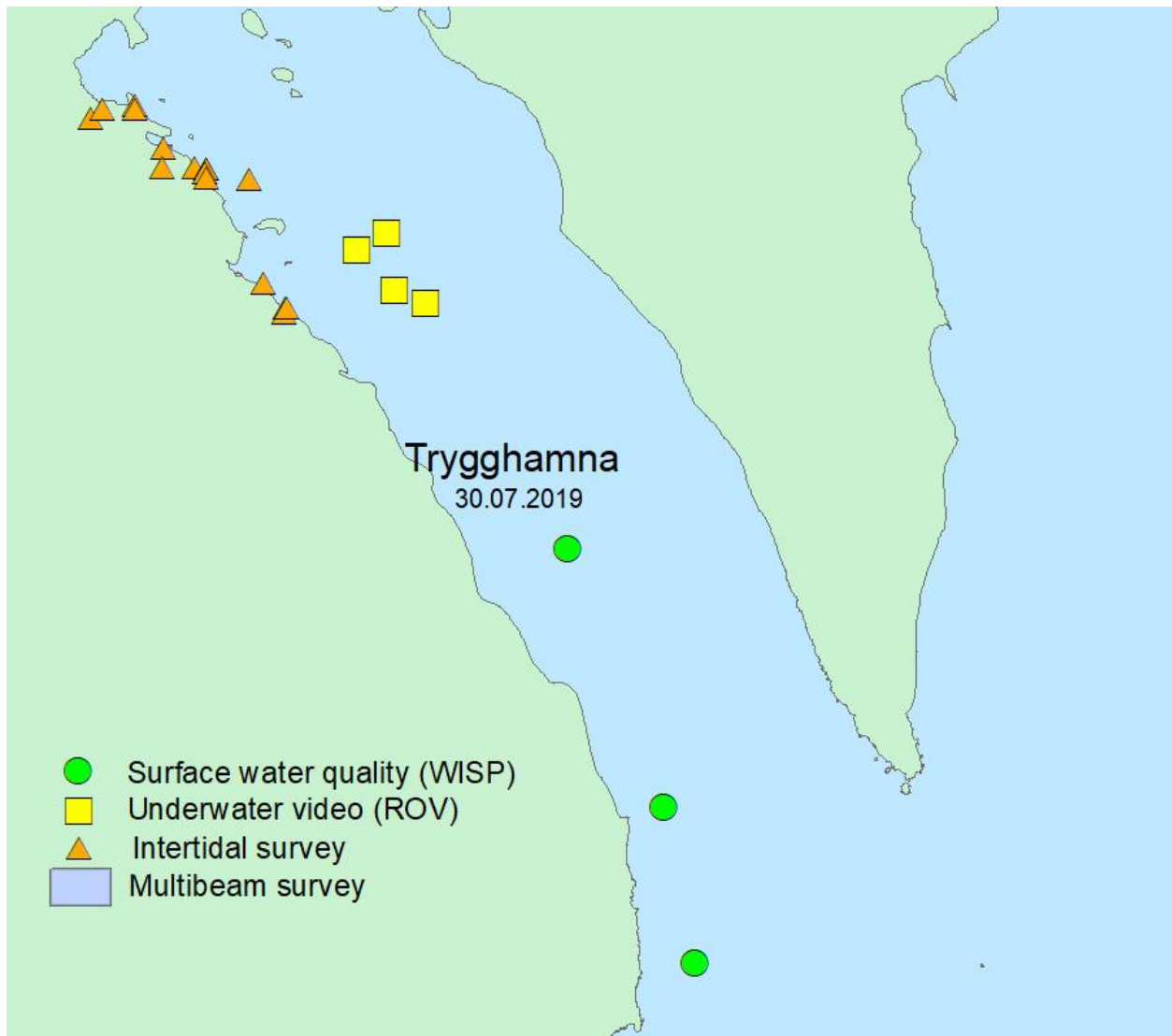


18:00. **Dahlbrebukta.** Crushed multibeam sonar bracket into floating ice. Inspection of the device, dismantled it. Seabed filming with ROV (2 transects, 37 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 1270 m). Dried *Mytilus* is found attached to desiccated seaweed (supposedly *Fucus*) entangled in a fishing net and rope on the shore.



**30.07.2019**

**Trygghamna.** Seabed filming with ROV (3 transects, 31 minutes in total). Intertidal survey (macroplastic recording and inspection for biofouling, sampling of gammarids), path length 1945 m. Alive *Mytilus* found in the intertidal zone; solitary mussels attached by byssus threads to small pebbles (5-10 mm) and anchored in sand; some solitary mollusks attached to stones between *Fucus*. WISP measurements.



**31.07.2019**

Moving to LYR. Meeting with the boat team, packing equipment at Pole Position store place. Travel to Longyearbyen airport. The end.