

DOGGER BANK BLOG 2024



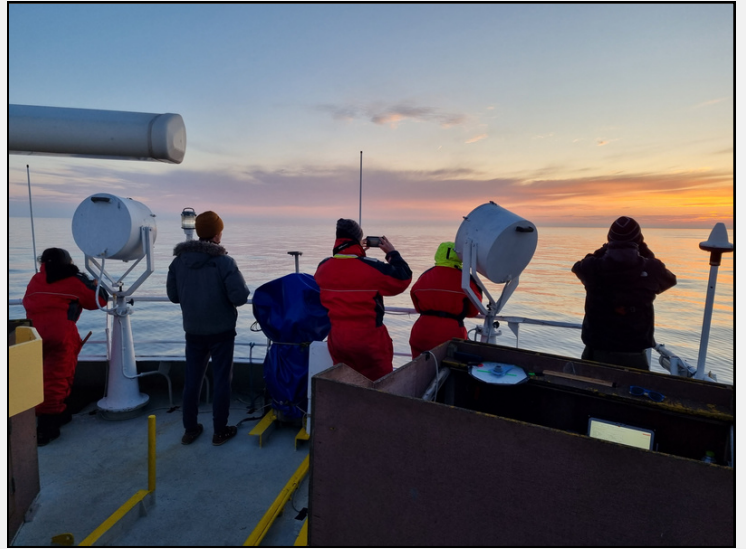
ITAW Dogger Bank ship survey
May 4th – May 12th, 2024

Leonie Mahlke, TiHo-ITAW



Day 1 – Saturday, May 4th

The vessel “Arctic Hunter” arrived in Büsum at around 10:00 am. After loading all of our equipment, we left the harbour at around 11:45 am and started heading northeast. The journey was going to take us roughly 18 hours to arrive in the vicinity of the Dogger Bank and the start of our transect line. We were planning on starting our first survey early Sunday morning. After a safety briefing given by the crew onboard and an energizing lunch, we started to unpack, organise, and set up our equipment on the primary platform for the next day. The weather forecast looked very promising for our first day of surveying.



Day 2 – Sunday, May 5th

After breakfast at 5:45 am, we started our survey early in the morning. Since the Arctic Hunter is not suited for the usage of a double observer platform (with primaries and trackers separated), we were only observing from the primary platform, the highest deck of the ship. In order to visually cover as much distance as possible, we are working in teams of three; one person each observing the starboard/port side and one person is recording the data. We rotate every hour, with five people being part of the marine mammal team.

As forecasted, we were fortunate to have excellent weather; calm seas and a mirror-like water surface created perfect sighting conditions for surveying for cetaceans. Soon we were able to record the first sighting - a minke whale! Our observation record from Sunday also lists several harbour seals, grey seals, harbour porpoises, white-beaked dolphins and (more) minke whales.

At one point in the afternoon, a group of white-beaked dolphins started bow-riding for quite some time, which left everyone in awe. Nobody of the team was expecting to see such a diversity and high number of animals in just one day. While following the transect line, we came across numerous oil platforms and operational vessels, forcing us to change course a few times. We also recorded marine litter and several buoys along the transect line. The sunset at around 9:30 pm marked the end of our survey for the day. In total, we completed three transects with the fourth one missing three nautical miles.



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Day 3 – Monday, May 6th

Since the weather was supposed to be very promising again today, we started our survey early in the morning. During the first hours of surveying, the sea state improved to 0 once again. There was not a single ripple on the water surface, which seemed so out of place compared to the usual conditions in the North Sea (and compared to last year!).

Over the course of the day, we recorded harbour seals, grey seals, harbour porpoises, white-beaked dolphins and minke whales. On one occasion, we observed a minke whale diving alongside the vessel, with its white patches on the pectoral fins clearly visible. On another occasion, several subgroups of white-beaked dolphins emerged from different directions at the same time, which kept the observers and data recorder busy tracking all of them. We generally recorded a high number of dolphin sightings today. The avifauna was plentiful as well. Apart from several other species, we spotted a few puffins. Apparently, it is not clear from which breeding colonies (countries) these puffins are coming from.

In the afternoon, just when we were about to complete transect 5, we found ourselves surrounded by fog. The visibility was compromised to approximately 100 meters to each side. We kept moving until we turned around shortly after, to start transect 6 and escape the fog. For the remaining time of the survey that day, we were chased by a dark wall of fog. In combination with the glassy surface of the water, we felt like we were starring in an end time movie. Today, all short-term acoustic devices (SoundTraps) were successfully deployed.



TiHo-ITAW
Isabel Avila

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Day 4 – Tuesday, May 7th

Since the weather was supposed to decline today, we started surveying early in the morning to check if the sea conditions allowed for an efficient survey. The plan was to also track and find a lost long-term acoustic device (the AMAR) deployed in February that had been cut off its main buoy, potentially by another vessel. After three hours on the survey transect line, we were close to the position of the lost buoy. We stopped surveying, as the Arctic Hunter changed course to look for the acoustic device. Since the weather and sea conditions were declining with strong winds, high swell and breaking waves, we decided to concentrate our effort on the acoustic devices. In the meantime, the AMAR was tracked down pretty quickly. Using the A-frame and crane of the Arctic Hunter, the device was safely retrieved with many sea birds around the ship as witnesses. Afterwards, we traveled to check on the second long-term acoustic device, which turned out to be working just fine and will stay in the water recording until the end of June. We spent the afternoon resighting and validating the data we had collected on the two previous days.

Day 5 – Wednesday, May 8th

After the wind had settled down a bit, the team got ready for another day of surveying in the morning. The plan was to finish the last two remaining transects in the western part of the Dogger Bank area, to travel for an hour and start the Replicate 2 Transect, which would eventually lead us back to the start of the survey. Over the course of the morning, the sea state continued to improve, and we recorded the first sightings. Nobody could imagine what was about to happen: at the horizon line, we spotted big splashing of water. Using our binoculars, we could soon observe a large whale tail slapping. It turned out to be a humpback whale! It was very active at the surface, which made it easier for us to follow it visually. We decided to get a closer look of the whale to be able to collect some photo-ID, as this a very rare and unique sighting of this species in our area. Isabel managed to take a picture of the fluke and we continued the transect.

Now we will be able to compare the fluke to catalogued humpback whales and hopefully find out where this whale has been seen before. The day unfolded with many sightings of minke whales. In fact, we saw more minke whales today than harbour porpoises. One minke whale swam by close to the boat and we all caught a good glimpse of its body. He left us with the gift of smelly whale breath. In the late afternoon, weather conditions declined, which made spotting marine mammals much harder. We finished our survey at sunset.



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Day 6 – Thursday, May 9th

Today winds were very high, thus creating too many breaking waves for good sighting conditions (Beaufort 3-4). Especially harbour porpoises and minke whales are much harder to spot when the sea is choppy, due to the porpoises' size and quick surfacing intervals. The minke whale usually surfaces 1-3 times in a row, while not showing much of its back and its rather small dorsal fin.

In the morning, we checked our data from the previous day and rested for a couple of hours, while the wind was slowly calming down. Our survey started in the afternoon at around 3:00 pm. The weather constantly improved, so we were able to survey until sunset. The recorded sightings included minke whales and white-beaked dolphins. We also started noticing more and more dead birds floating in the water, which turned out to be mainly guillemots.



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Day 7 – Friday, May 10th

With the weather forecast being in our favour, we started our last full day of surveying early in the morning. In the first few hours, mainly sightings of white-beaked dolphins and harbour porpoises were recorded. Layers of fog kept rolling in and out from starboard and port sides, making the visual detection of animals more difficult from time to time. The water surface was once again glassy, enabling us to record numerous sightings of harbour porpoises today. In fact, it was the day with the highest number of porpoise sightings during the entire expedition.



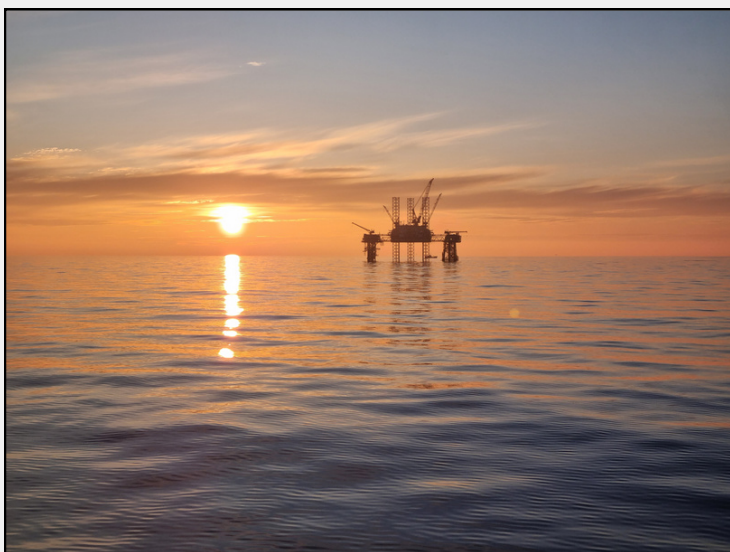
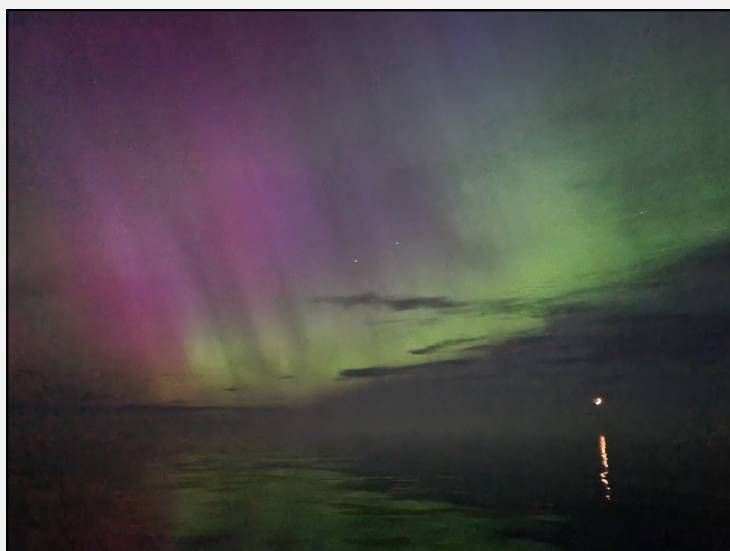
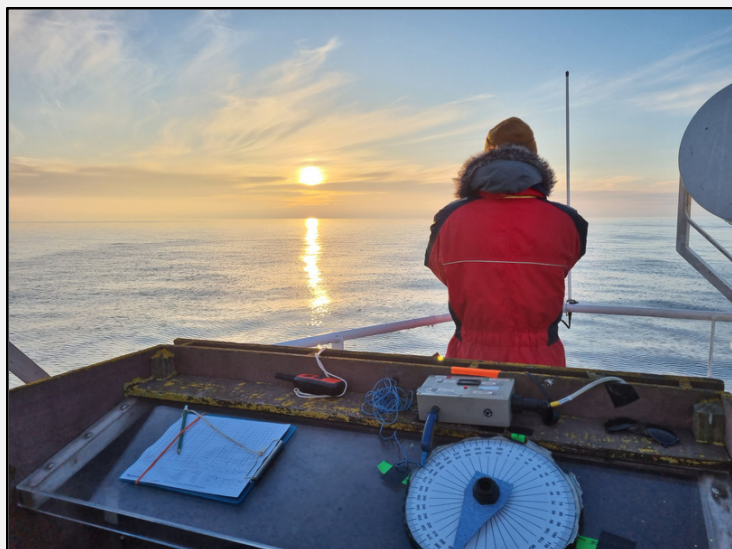
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In the afternoon, sighting conditions were perfect, and the fog was not blocking our view of the horizon line anymore. At some point, the wind was completely gone. While surveying in Danish waters on our Replicate 2 transect, we came across a large oil platform with a service vessel and zodiacs around. In its vicinity, we kept seeing high numbers of birds on the water, who were potentially feeding on the waste waters of the platform. Soon after passing the platform, our first minke whale sightings of the day were recorded. More harbour porpoises were spotted as well. Today's sightings report also listed grey seals and white-beaked dolphins. In addition, we noticed a great amount of plastic in the water and came across further dead birds. A potential reason for this could be bird flu, which is not confirmed.

To add to this eventful and spectacular day, we were fortunate to watch the northern lights' green and purple colours dancing across the night sky from atop the Arctic Hunter.



Day 8 – Saturday, May 11th

During the night, the Arctic Hunter travelled west to retrieve the four temporary/short-term acoustic devices that were deployed earlier on this trip. At 6:30 am in the morning we started retrieving the first buoy. Upon waking up, we found the ship surrounded by fog. The wind was low and the surface glassy, so we were hoping that the fog would clear eventually. By lunch time, we were travelling back to where we had stopped the transect yesterday, to see if the fog would clear. We took shifts checking on the fog status at the captain's cabin, but the fog was persistent. We were only a couple of hours from finishing the whole Replicate 2, but we had to leave it behind as it was time to start navigating back to the coast.

Day 9 – Sunday, May 12th

On our way back to Büsum, the Arctic Hunter arrived in the coastal waters of Sylt with the intention to retrieve an acoustic device from the LKN project near Westerland. The crew helped us once again to retrieve the buoy safely and successfully. The system was replaced and deployed again. Afterwards we checked the collected sighting data from the previous days, packed all of our equipment and got everything secured for being unloaded. We continued our journey back to Büsum and arrived with the high tide at 4:00 pm in the harbour.