Korta rapporter – *Short communications*

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Birds off Scoresby Sound, Eastern Greenland, in the spring of 2002

Fåglar utanför Scoresbysund, Östgrönland, våren 2002

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The Swedish expedition Arctic Ocean 2002 (AO-02) set out in April 2002 to investigate the chemical and physical oceanography of Fram Strait and the East Greenland Sea in early spring. The Arctic Class Icebreaker Oden was used as research platform as the sea in most of the research area is covered with heavy ice until late summer. Because of the difficulty of traveling in the early spring, few observations of the spring migration of birds over the ice-covered sea have been possible.

There was no formal ornithology programme onboard during AO-02, why no systematic bird observations were made. However, because of the scarcity of previous spring observations, observations done by interested amateur birders participating in other types of research programmes were summarised (Kylin 2004). One day in particular, 25 May, when more systematic observations were possible, is discussed in more detail here. Even though the observations were more systematic than otherwise during the expedition they had to be adjusted to other work that had to be done. Therefore, these observations are at best semi-quantitative, but still of interest because of the scarcity of information from the area.

The observations on 25 May were made possible because much of the scheduled work had come to a standstill because of an easterly storm the previous days. The storm was a result of a huge low-pressure over the Norwegian Sea. The cyclone covered almost the entire North Atlantic with heavy winds blowing for three days almost all the way across the Atlantic from Norway to Greenland. To avoid open water during the storm the ship took refuge in the ice and the engines were turned off, leaving us drifting with the ice for a couple of days. Observations were mostly from deck 4 (~20 m a.s.l.) or the bridge (~25 m a.s.l.), approximately 30 minutes out of every hour for most of the day, the ship operating on UTC (Universal Time Coordinated). The morning position was ~70° N, 22° W, drifting with approximately 2 knots southwards in the East Greenland Current off Scoresby Sound. As the storm abided it was replaced with a strong catabatic wind from the top of the ice sheet. A catabatic wind arises with cold air "falls" down a slope. At the ship, outside the territorial waters of Greenland, gusts up to 30 m/s were measured.

The area around Scoresby Sound is an important breading area for Little Auk *Alle alle*. Large numbers were seen on the water during the storm the previous days. As the storm abided in the morning hours the Little Auks took to their wings and flew out to sea, presumably to forage, with the reverse movement in the evening. Low tens of Brünnich's Guillemot *Uria lomvia* and Black Guillemot *Cepphys grylle* were seen both foraging and flying.

Among the gulls, there were always 15–20 Glaucous Gulls *Larus hyperboreus* around the ship the entire day. The Glaucous Gulls seemed to be more or less stationary, while Black-legged Kittiwakes *Rissa tridactyla* tended to visit the ship briefly and then move on. There was no uniform pattern of movement among the Glaucous Gulls or Kittiwakes as the directions from which they came and moved away from the ship were random, possibly because the originated from breeding colonies in the Scoresby Sound area (Gilg et al. 2005).

There was a prominent northward migration of Ivory Gulls *Pagophila eburnea* during the day. The total number was at least 700 individuals,

Table 1. Birds observed off Scoresby Sound 25 May 2002. Position at 00.00 h 69°59.08'N 21°28.76'W, and at 24.00 h 69°41.67'N 21°50.07'W.
Fåglar observerade utanför Scoresbysund 25 maj 2002. Position kl. 00.00 69°59.08'N 21°28.76'V och kl. 24.00 69°41.67'N 21°50.07'V.

Species *Art*	Comments
Common Eider *Somateria mollissima* *Ejder*	A total of ~200 in four flocks migrating northwards.
Grey Plover *Pluvialis sqatarola* *Kustpipare*	Two flocks, ~200–300 birds each, migrating in a northeasterly direction.
Dunlin *Calidris alpina* *Kärrsnäppa*	~70 migrating eastward in 10 small flocks during the morning to early afternoon. Four individuals migrating northwestward in the evening together with the second flock of Sanderlings.
Sanderling *Calidris alba* *Sandlöpare*	Two flocks with ~50 + ~70 individuals migrating northwestward.
Purple Sandpiper *Calidris maritima* *Skärsnäppa*	7 individuals migrating northwestward together the first flock of Sanderlings.
Red Knot *Calidris canutus* *Kustsnäppa*	5 000–10 000 probable Knots (or possibly other *Calidris*-waders) migrating northwards along the coast in the afternoon and evening.
Long-tailed Skua *Stercorarius longicaudus* *Fjällabb*	>10 migrating westward in the late evening.
Glaucous Gull *Larus hyperboreus* *Vittrut*	15–20 around the ship during the whole day foraging in the pool of open water around the ship.
Black-legged Kittiwake *Rissa tridactyla* *Tretåig* mås	>70 visited the ship briefly and moved on. Some would forage in the pool of open water around the ship before moving on.
Ivory Gull *Pagophila eburnea* *Ismås*	>700 migrating northwards, most with a temporary stop by the ship. Maximum numbers aggregated around the ship at any one time >400.
Brünnich's Guillemot *Uria lomvia* *Spetsbergsgrissla*	~40 foraging in leads in the ice or flying.
Black Guillemot *Cepphus grylle* *Tobisgrissla*	~15 foraging in leads in the ice or flying.
Little Auk Alle alle Alkekung	>100 000 in foraging movements out to sea in the morning and back towards land in the evening.
Lapland Bunting *Calcarius lapponicus* *Lappsparv*	5 migrating northwestward.

although the actual number was probably higher as counting could only be upheld intermittently. Migration was usually pairwise in single pairs, but occasionally four to eight birds would migrate together. Many of the Ivory Gulls aggregated around the pool of open water that was created around the ship because of wind action (the ship acts a large sail). Pairs would arrive to the aggregation from the south and when leaving flew north. Many pairs copulated in the aggregation. At one occasion at least 400 Ivory Gulls were perched on the ice around the ship at the same time. But as the birds aggregated around ice ridges the actual number must have been substantially higher, perhaps 500–600 in all.

Flocks of Common Eider *Somateria mollisima* started migrating north while the catabatic wind was still very strong. Although the catabatic wind came from the side, it was clearly difficult for the first flocks stay on track and fly straight. The last flock passed the ship after the catabatic wind had subsided and did not have the same difficulties.

While the catabatic wind was still blowing two flocks (200–300 birds each) of Grey Plovers *Pluvialis squatorala* migrated in a northeasterly direction. The two flocks were quite close together and may have been a larger flock split in two. After the catabatic wind had subsided around midday, small flocks (5–10 birds) of Dunlins *Calidris alpina* migrated eastward. At least 10 flocks with a total of 70 birds had migrated in the same direction by 1600. Around 1900 a couple of flocks with 50–80 Sanderlings *Calidris alba*, intermixed with a few Purple Sandpipers *Calidris maritima* and Dunlins, migrated from the sea towards the northwest. In the evening when the Little Auks were returning from the sea large flocks of *Calidris*-waders migrated northwards along the coast. Based on their size compared to the Little Auks most of these were presumably Red Knots *Calidris canutus*, although species identification is not absolutely certain in this case.

In the early afternoon a small flock of Lapland Buntings *Calcarius lapponicus* flew towards the northwest. And the late evening saw a westward movement of Long-tailed Skuas *Stercorarius longicaudus*.

Of particular interest are the observations of migrating waders and Ivory Gulls. As far as I have been able to find, this is the first report of a concentrated spring migration of Ivory Gulls along the East Greenland Current. However, as a concentrated autumn migration southwards has been observed previously (Hjort 1976), it is not surprising that there is a northward migration in the same waters in spring. Even so, Lyngs (2003) suggested that the Ivory Gulls nesting in NE Greenland circumnavigate the island so that the spring migration should take place north of Greenland. This seems not to be the case. The spring migration observed in 2002 may have gone unobserved because of the logistic constraints involved in working at sea in the early spring ice. Ivory Gulls nesting in Northern Greenland arrive at their nesting grounds in early June (Salomonsen 1967). This fits well with a northward migration past Scoresby Sound in late May. An in depth discussion of observations on Ivory Gulls during the entire expedition will be published separately.

The Grey Plovers were a great surprise as these should not be present on Greenland at all. The most likely explanation for this observation is that a group of plovers had been driven by the easterly storm from their normal migration pathways east of the Atlantic and that these were now hurrying back towards their nesting grounds when the storm had subsided. According to the expedition meteorologist, the cyclone covered an exceptionally large geographic area, much larger than the average storm (Bertil Larsson, personal communication). Even though Grey Plovers migrating northwards over Western Europe would not normally have any problems with a storm on the North Atlantic, conditions may have been different with this exceptionally large cyclone.

It is interesting to note, though, that the Grey Plovers were observed in a location and flying in a direction that is part of a great circle from wintering areas in Southern USA and nesting areas along the Russian Arctic Coast. However, radar studies made at Angmassalik in southwestern Greenland of birds migrating across the Greenland Ice Sheet indicated no such flyway (Alerstam et al. 1986), and as Grey Plovers are rarely seen on Greenland it is unlikely that there is any regular migration flyway across the island for this species. Even so, further observations may be warranted to solve this enigma.

Although eastward and westward migration of waders was observed on the same day, it is noteworthy that the eastward migration was earlier in the day than the westward migration. The species also differed. Apart from the Grey Plovers, the eastward migration was in small groups of a handful birds only and took place at an earlier time of day than the westward migration, which was in larger flocks. Although the sun is up 24 hour a day, it is my experience that there is a diurnal

variation in bird activities, so that more birds are active during what should have been the morning and evening hours. It may be that the Dunlins that migrated east and the other waders that migrated west started out at about the same time and that the difference in when they were observed at the ship simply reflects that the eastward migrants had a shorter distance to fly to the ship than the westward migrants.

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Sammanfattning

Under den svenska expeditionen "Arctic Ocean 2002" tillbringades några dagar drivande i isen utanför Scoresbysund, Östgrönland, i skydd undan en storm på Nordatlanten. När stormen avtog 25 maj kom flyttningsrörelser igång bland flera olika fågelarter. Mest intressant är mer än 700 ismåsar som flyttade mot norr. Flera samlades också runt fartyget där olika parbildningsbeteenden och parning iaktogs. Ett par flockar kustpipare flög mot nordost; en mycket märklig observation eftersom kustpipare normalt inte skall finnas på Grönland. Kärrsnäpor sågs flytta både i östlig och västlig riktning, d.v.s. både in mot och bort ifrån Grönland, medan sandlöpare och skärsnäppor endast flyttade mot väster mot Grönland. Under kvällen iaktogs ett omfattande sträck norrut längs med kusten av småvadare, förmodligen mest kustsnäppor. Flyttning iaktogs också bland ejder, fjällabb och lappsparv, medan vittrut, tretåig mås, spetsbergsgrissla, tobisgrissla och alkekung sågs under födosök.

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