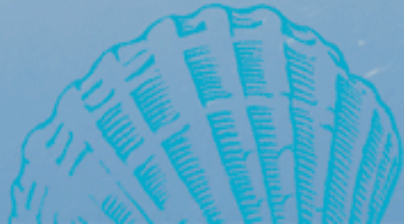
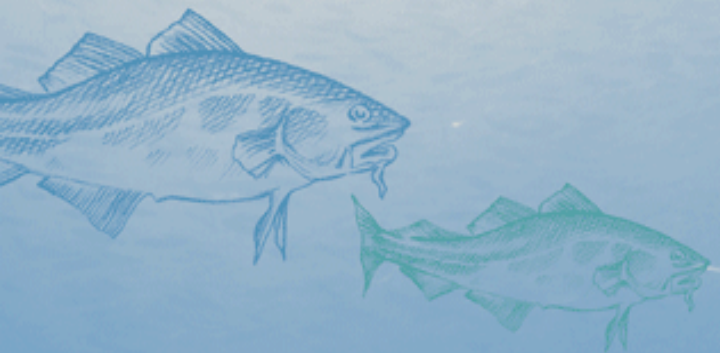





HAVFORSKNINGSINSTITUTTET
INSTITUTE OF MARINE RESEARCH





The capelin survey during the 2010 ecosystem investigations in the Barents Sea

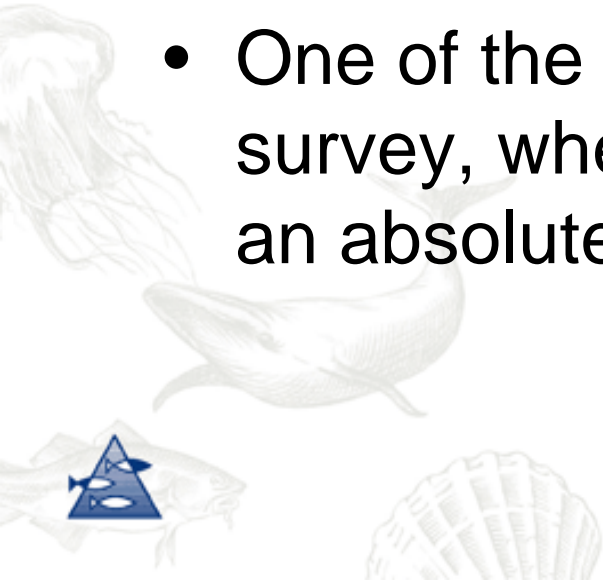
with a small taste from other parts of the investigations

Seminary on board G.O. Sars
6 October 2010

Harald Gjøsæter, IMR

The capelin survey - background

- Has long traditions, back to 1972
- Russia and Norway, 4-6 vessels
- Is, from 2003 part of the ecosystem survey
- The effort is reduced since the start of the series
- One of the few examples of an acoustic survey, where the results are used directly as an absolute estimate of stock size



The capelin survey - history

- A dramatic history!
- But a very interesting history!
- Because capelin is one of the “pivot” or “key” species in the Barents Sea ecosystem, its dynamics signals fundamental events in the Barents Sea

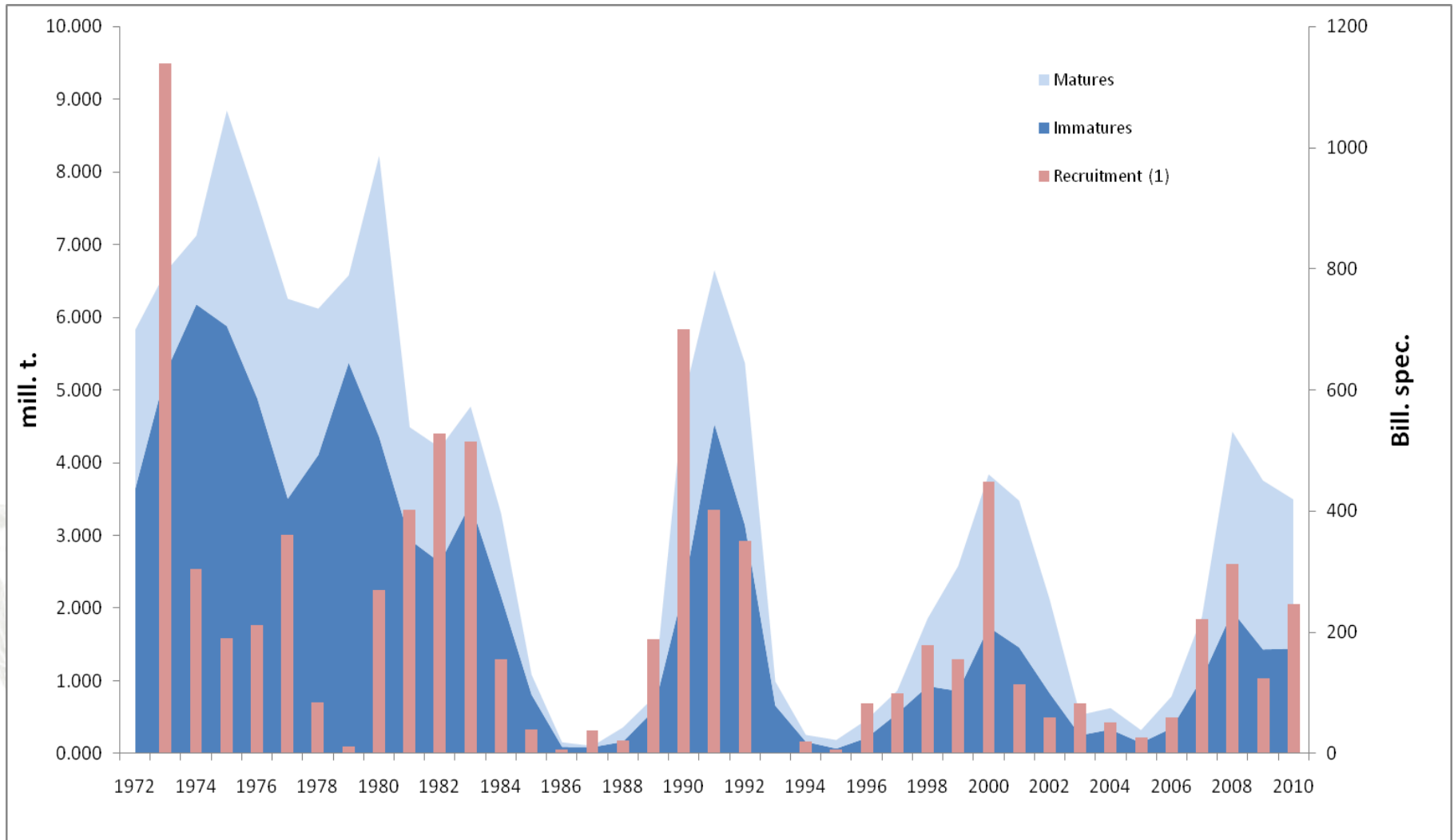


The capelin survey - results 2010

- “Impressions”
- Distribution
- Stock size
- Stock structure

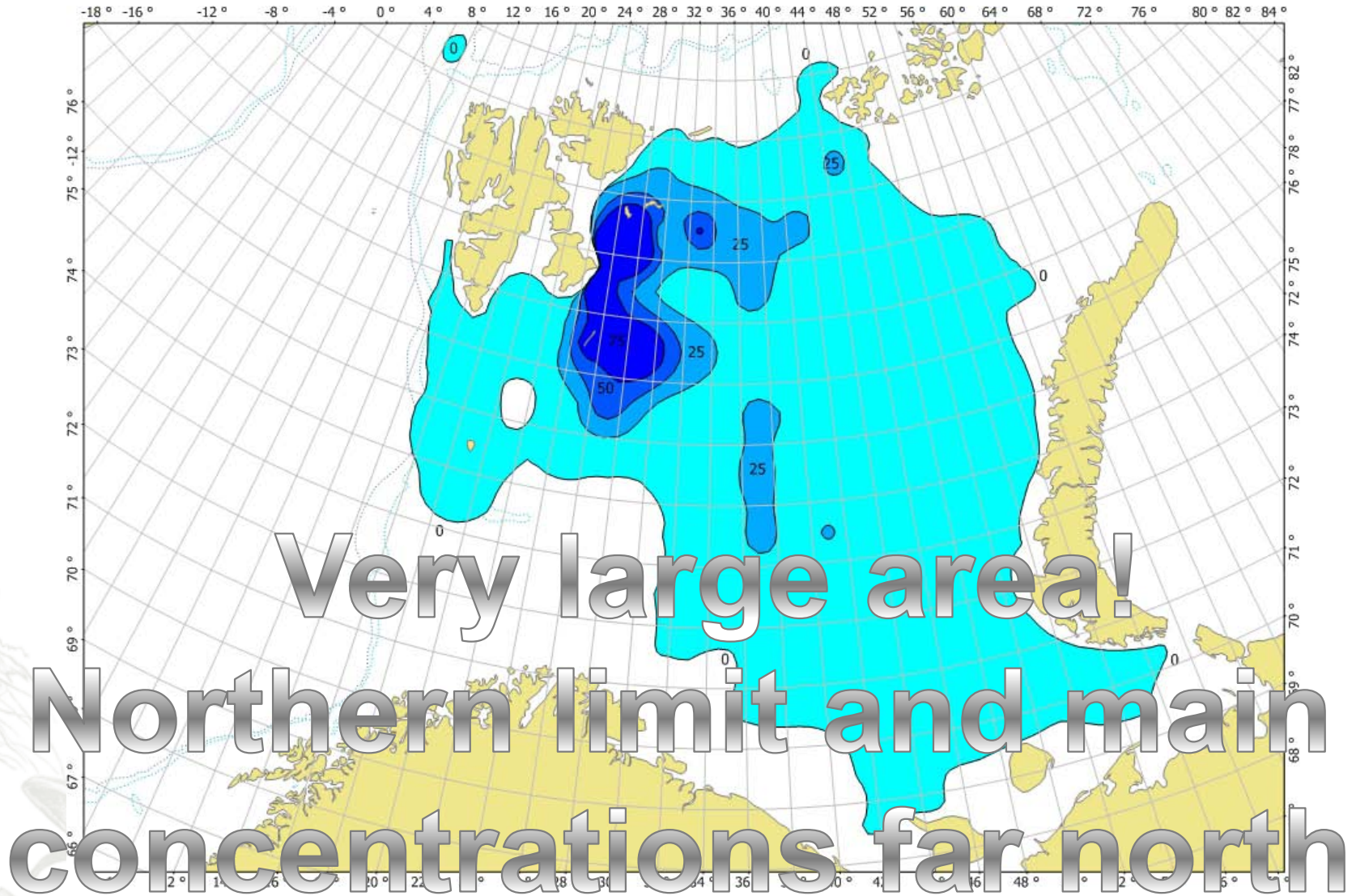


A dramatic but interesting story

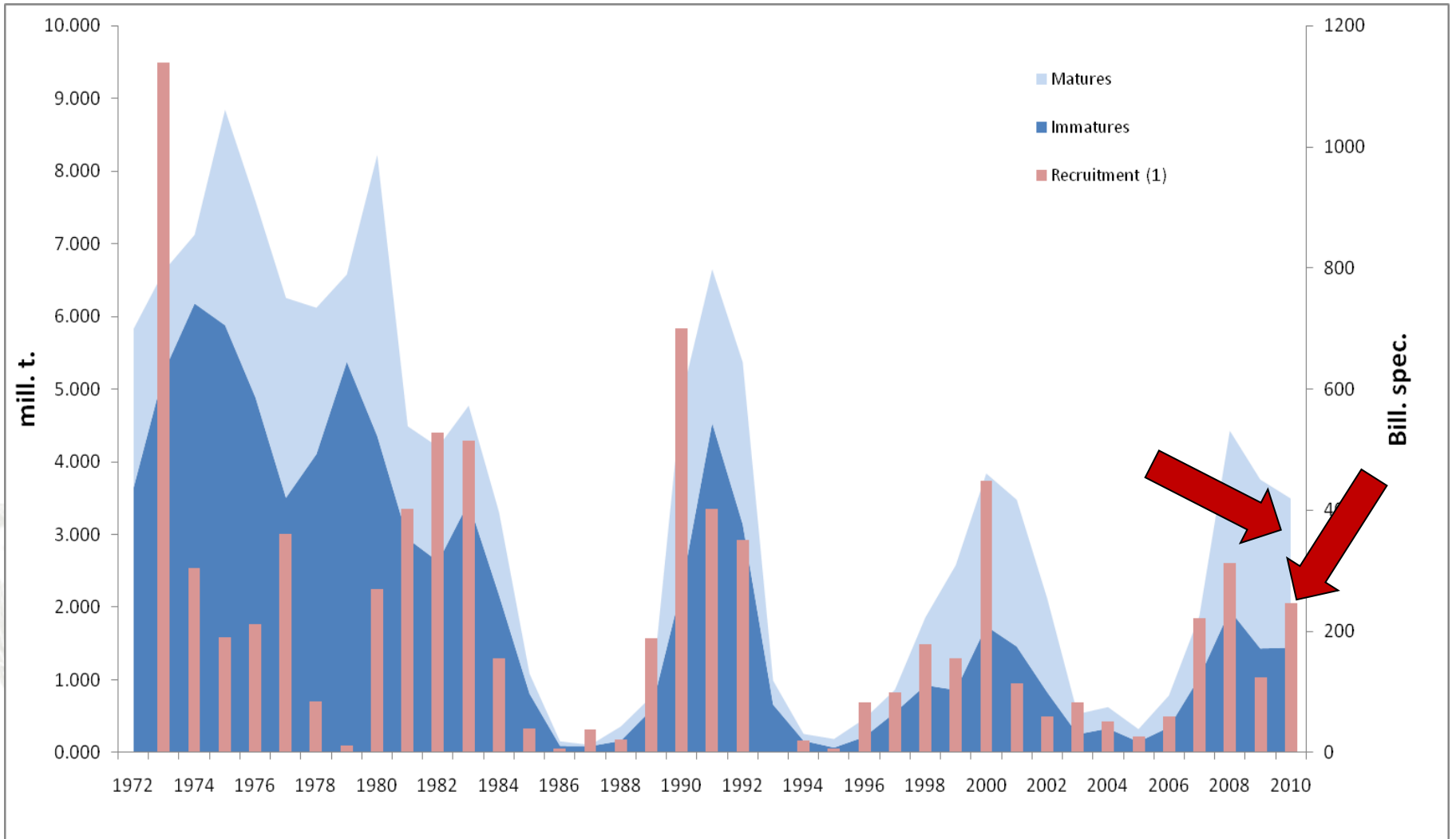




Capelin distribution



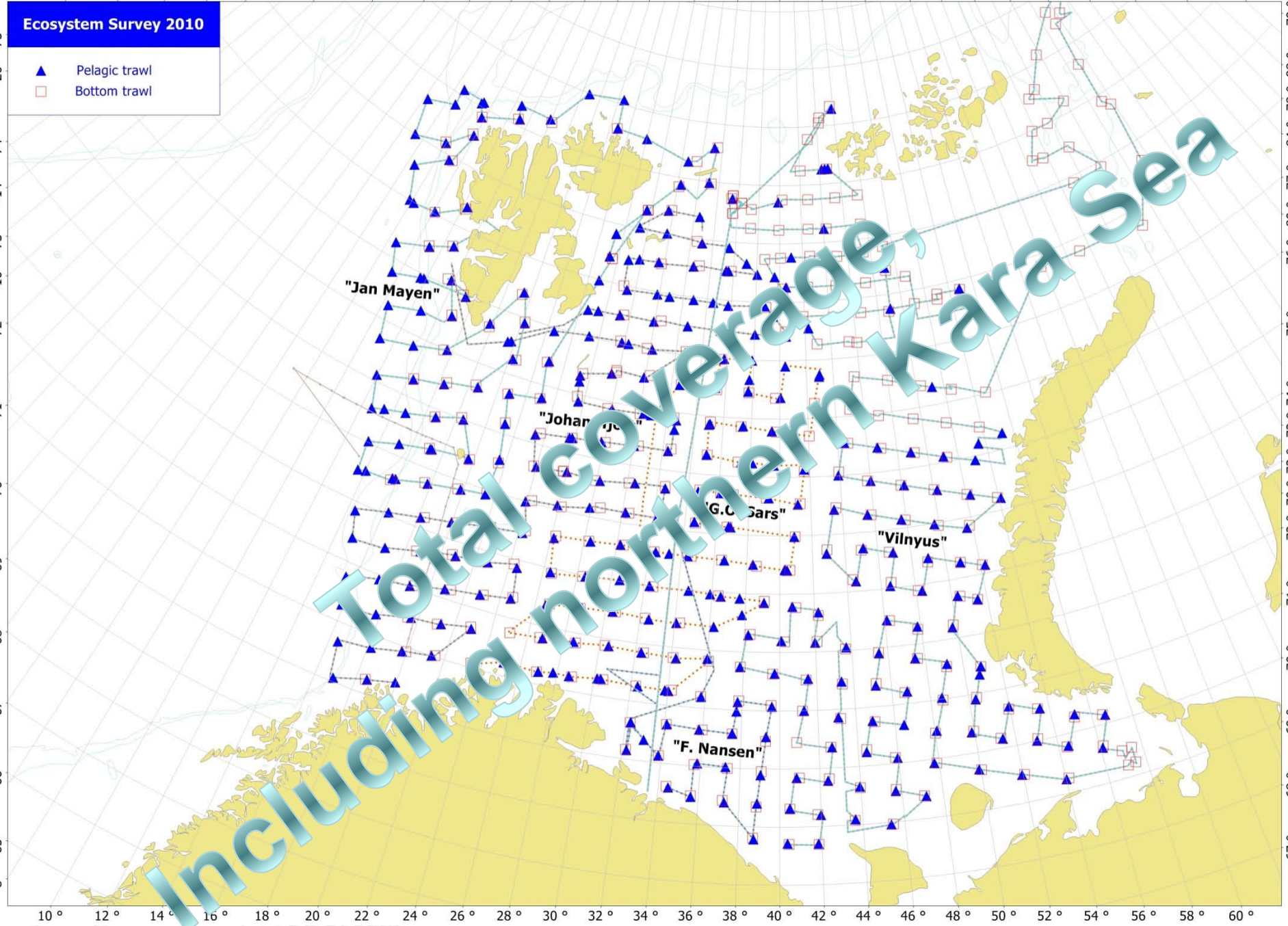
Stock size and structure



-22° -20° -18° -16° -14° -10° -6° -2° 2° 6° 10° 14° 18° 22° 28° 34° 40° 46° 52° 58° 62° 66° 70° 74° 78° 82° 86° 90°

Ecosystem Survey 2010

- ▲ Pelagic trawl
- Bottom trawl

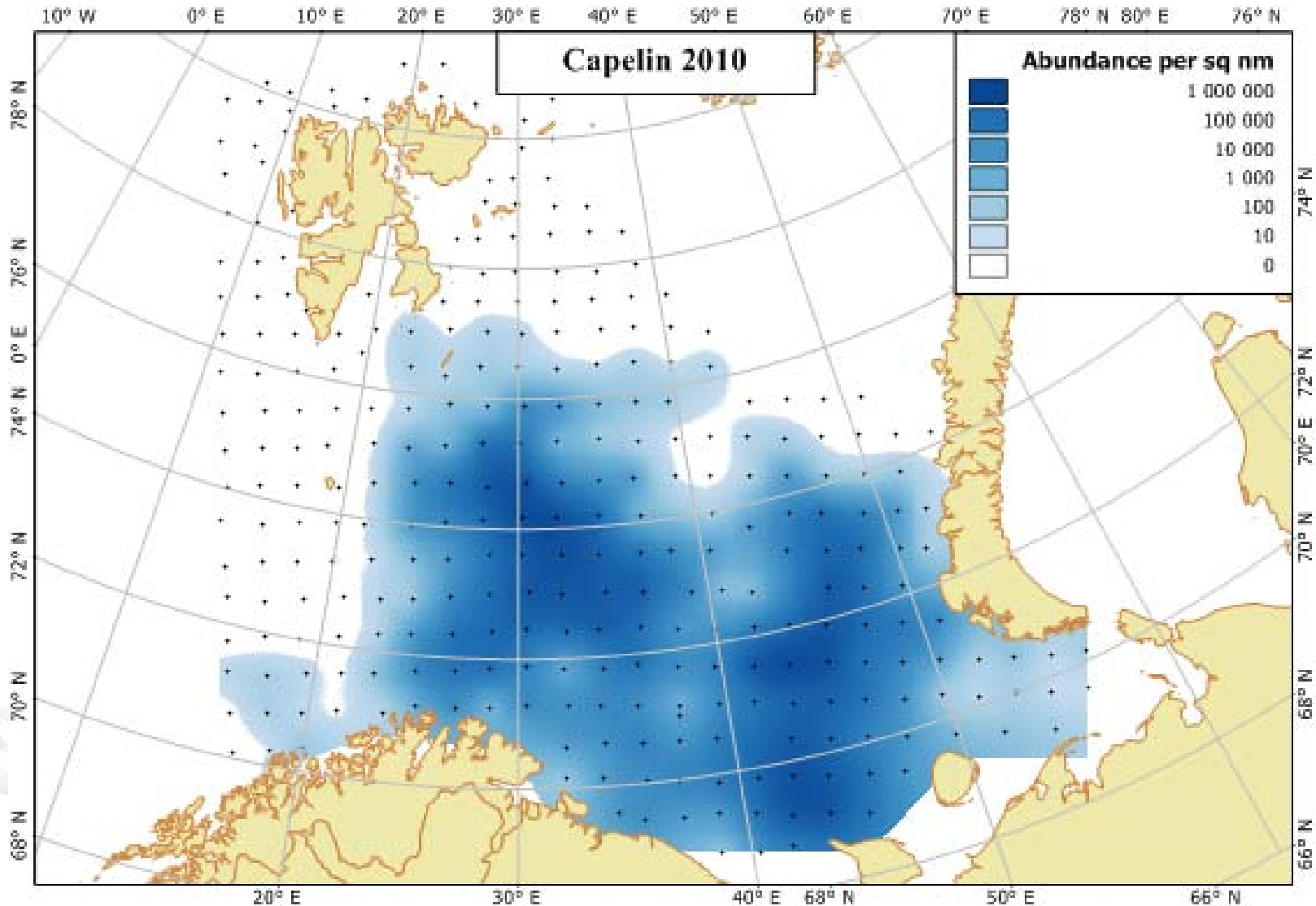


10° 12° 14° 16° 18° 20° 22° 24° 26° 28° 30° 32° 34° 36° 38° 40° 42° 44° 46° 48° 50° 52° 54° 56° 58° 60°

79°
78°
77°
76°
75°
74°
73°
72°
71°
70°
69°
68°
67°

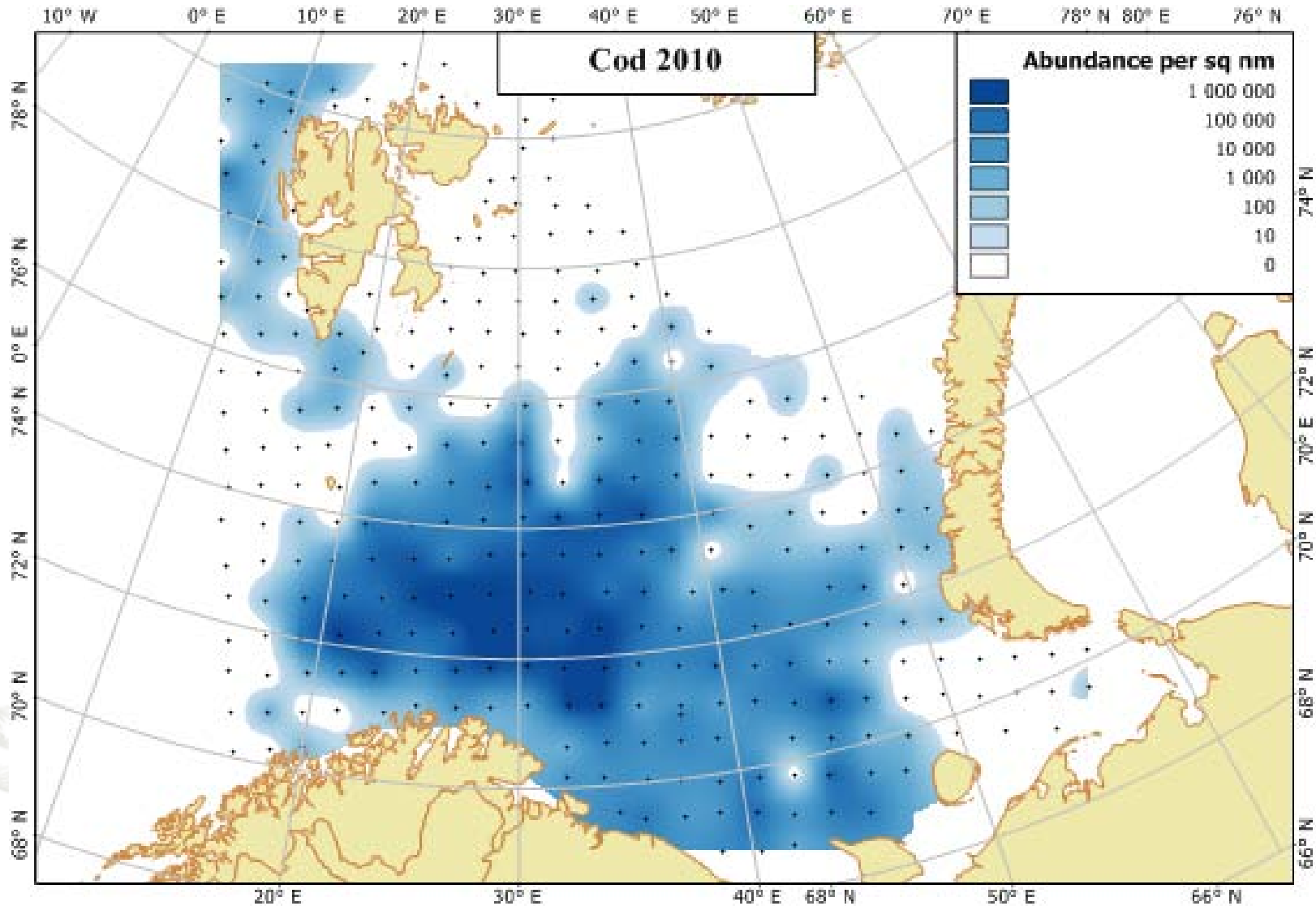
Recruitment

- Capelin 0-group – a little bit above average



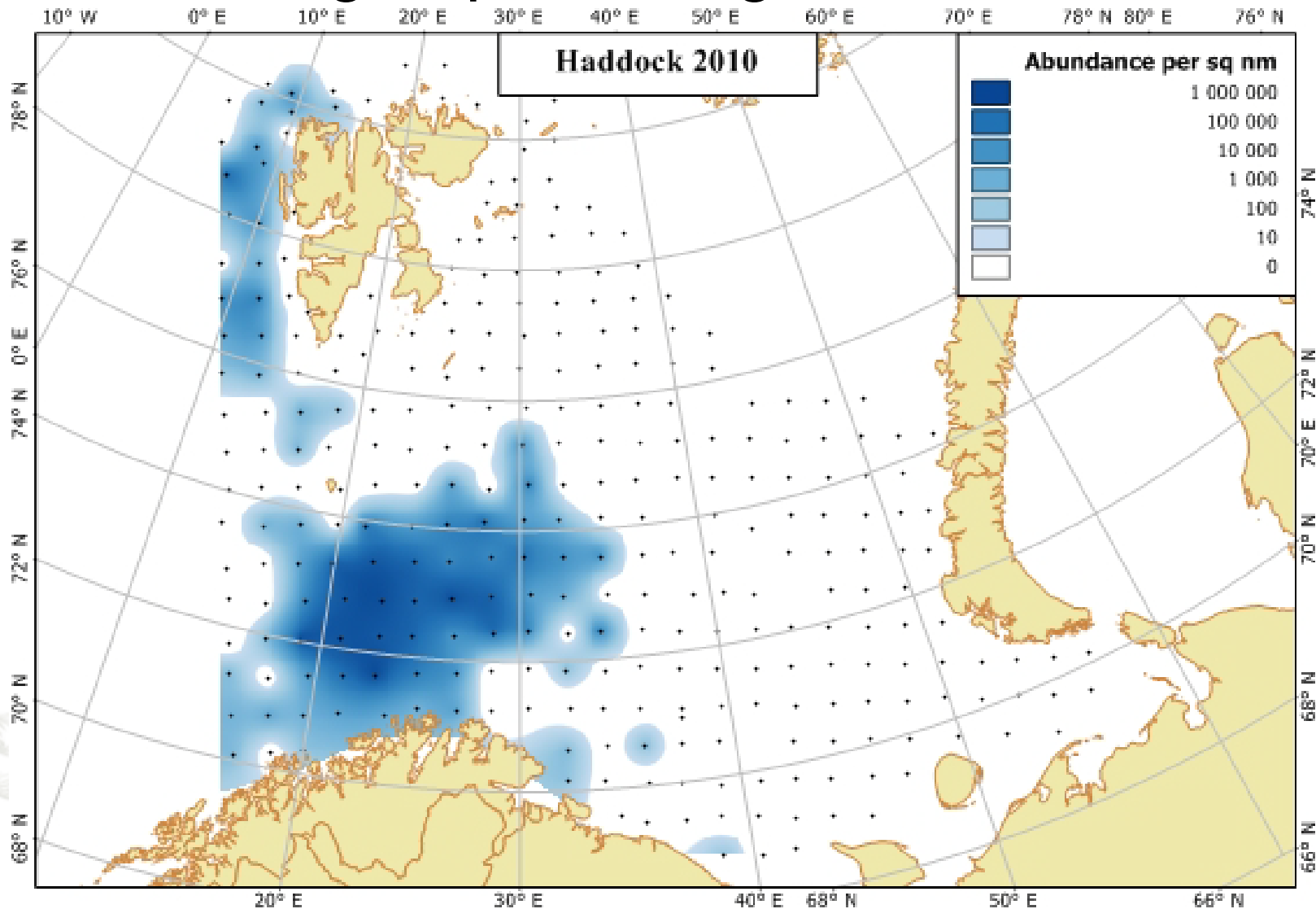
Recruitment

- Cod 0-group – strong

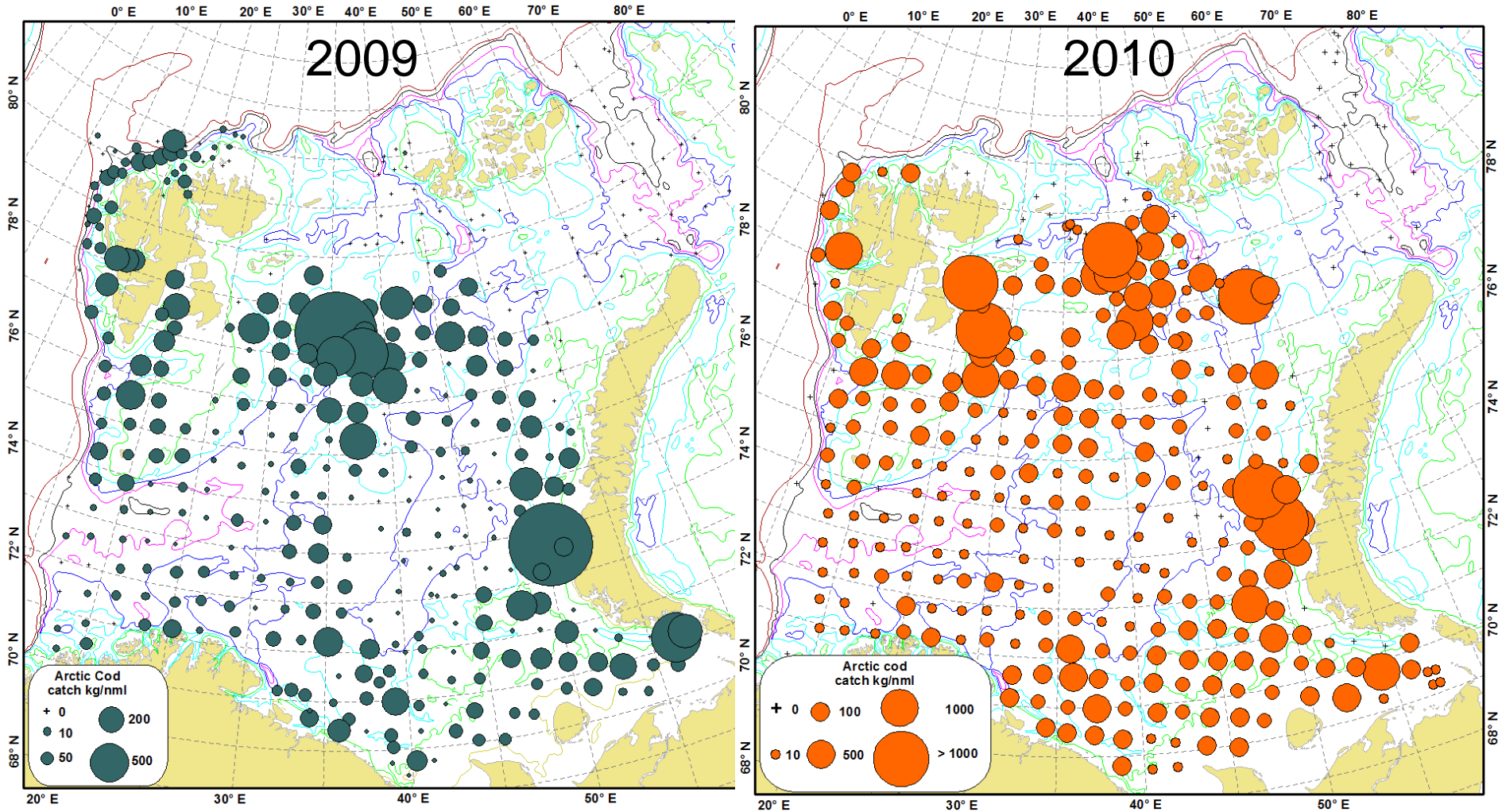


Recruitment

- Haddock 0-group – strong



Other interesting things

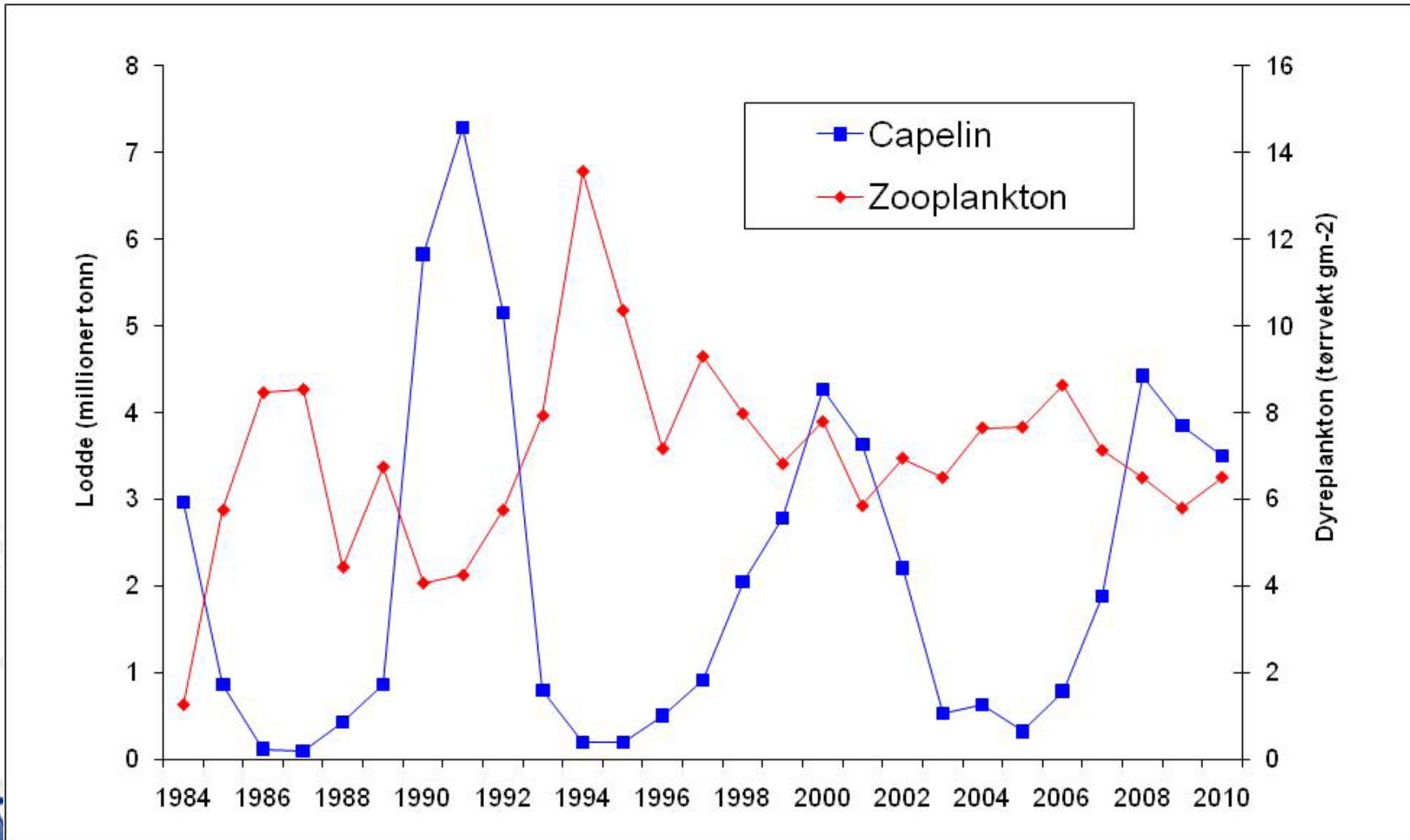


Cod distribution in 2009 and 2010



Plankton production

Zooplankton biomass at a stable and relatively high level



Conclusions

- Its too early to draw any final conclusions from this survey, but the impression so far is that:

The Barents Sea is in a healthy state, with high plankton production, large fish stocks, and good recruitment to these fish stocks



Спасибо за Ваше
внимание

Takk for merksemda

