

SUPPLEMENT

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Thermohaline structure of the Lofoten vortex in the Norwegian Sea based on in-situ and model data

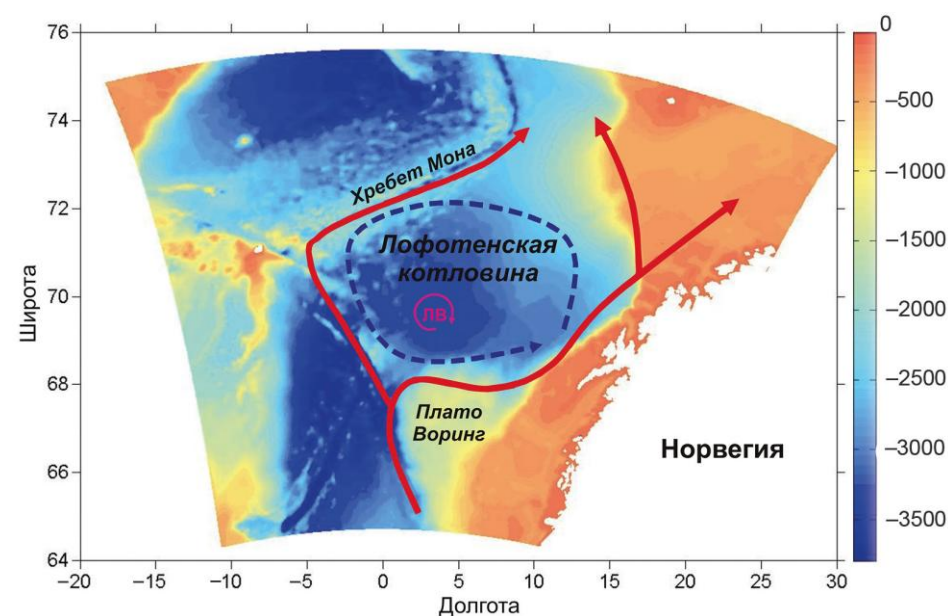


Fig. 1. Topographic map of the Lofoten basin; depth scale in m. The red arrows show the branches of the Norwegian current. In the center of the Lofoten basin, bounded by a dotted line, the anticyclonic Lofoten vortex is indicated;

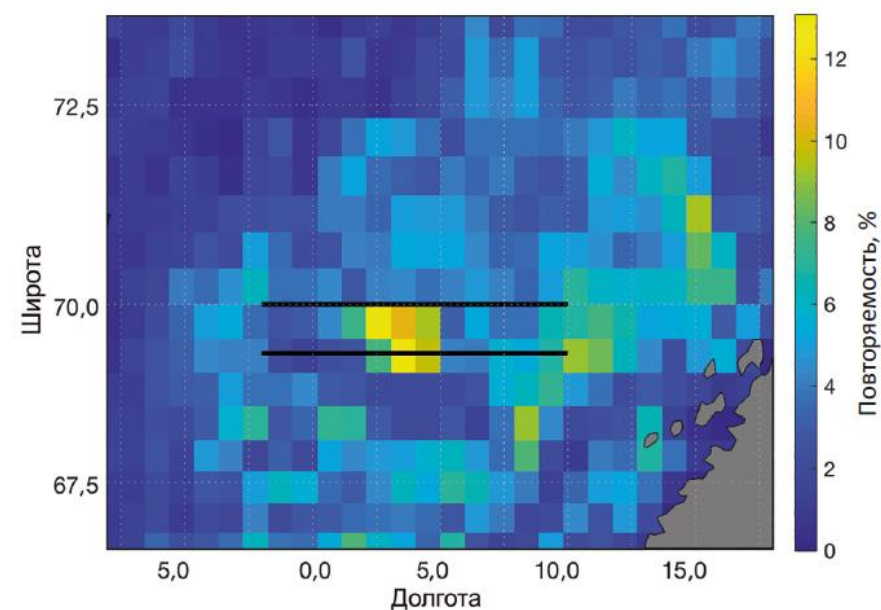


Fig. 2. the recurrence of anticyclonic vortices (%) according to Faghmous et al. (2015), the location of hydrological sections at 69°20' and 70°00' N shown by black segments.

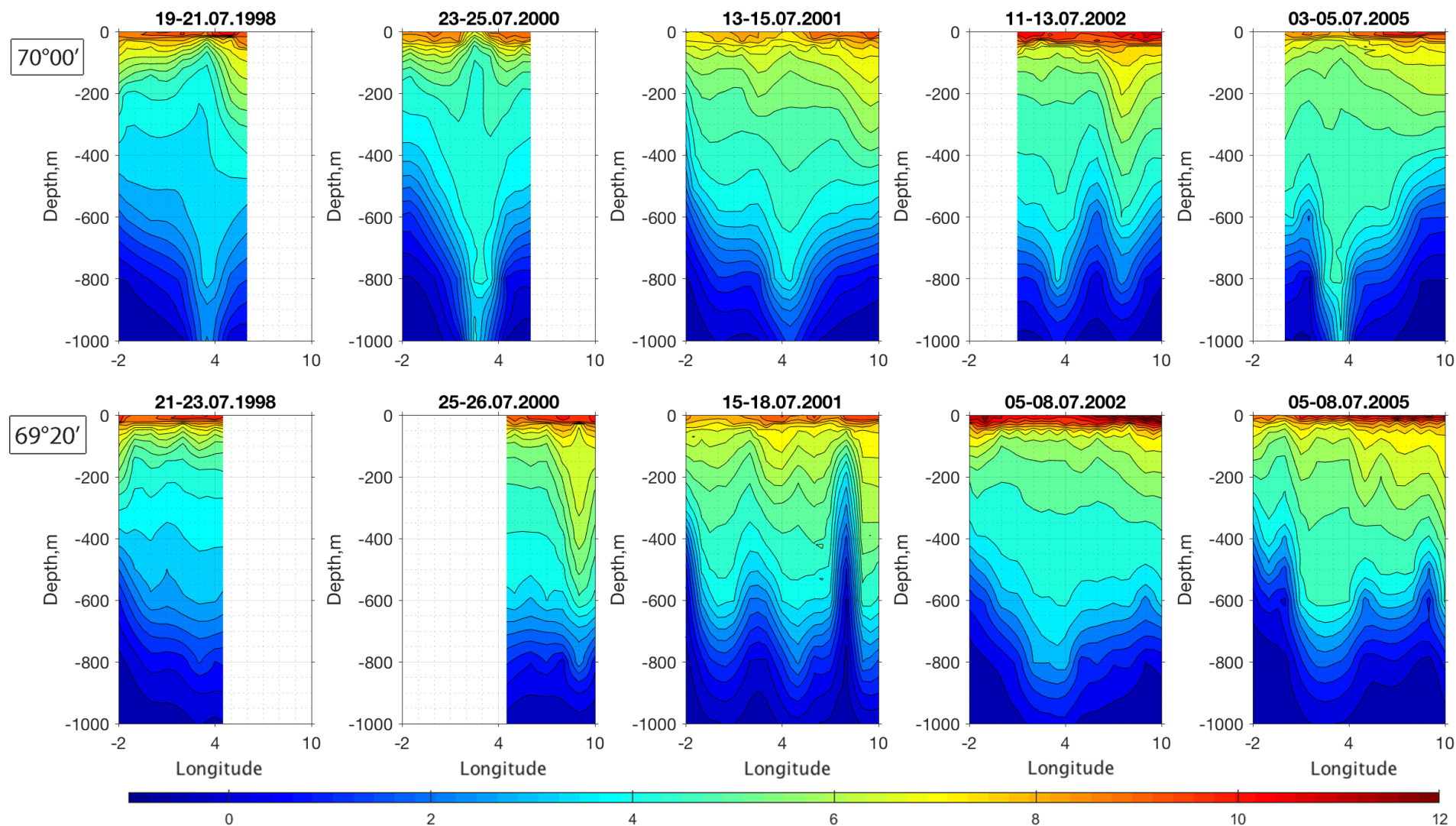


Fig. 3. Temperature (°C) from the research ship "Fridtjof Nansen" in the sections along 70° 00' 69° 20' N in July 1998, 2000, 2001, 2002 and 2005.

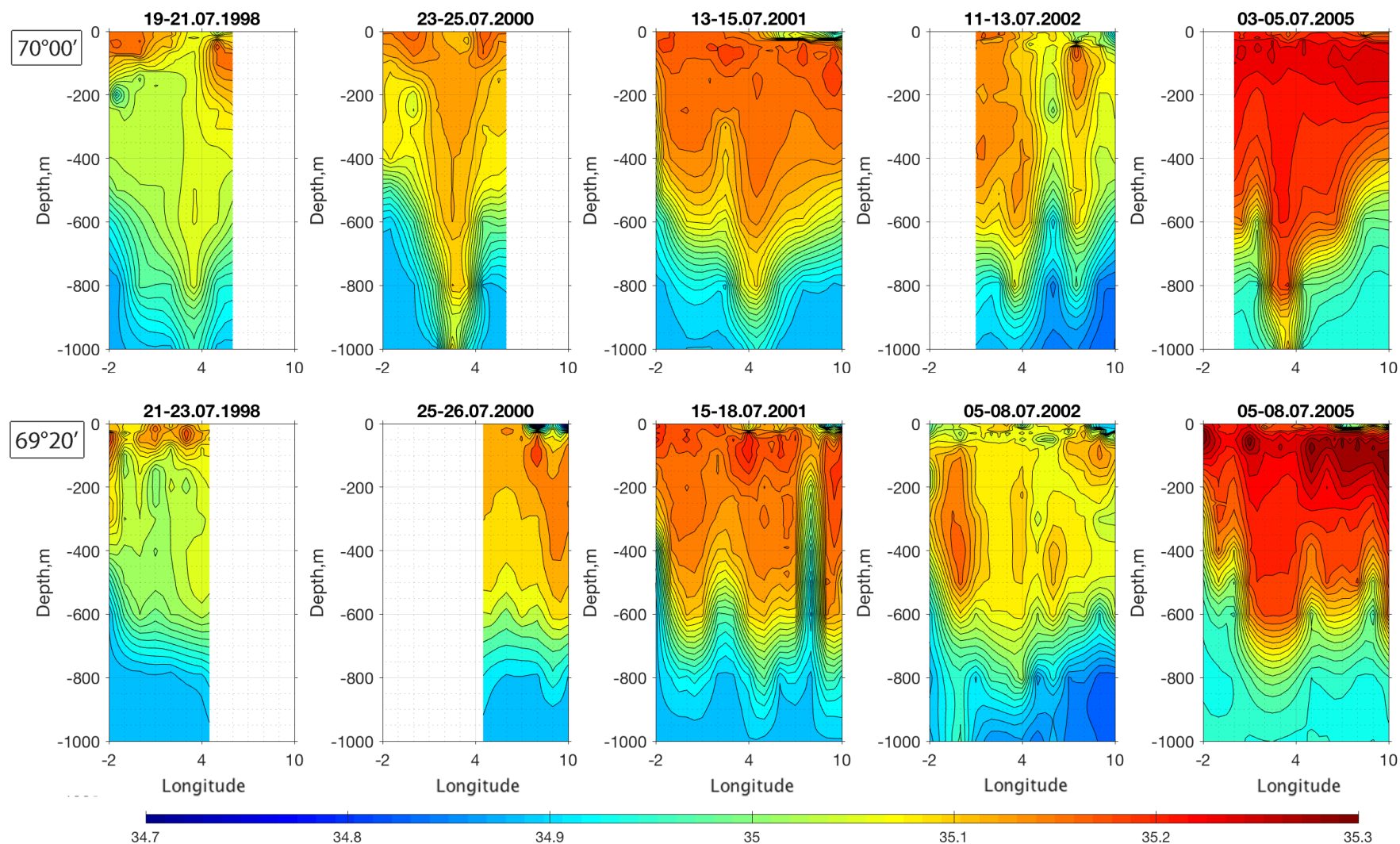


Fig. 4. Salinity from the research ship "Fridtjof Nansen" in the sections along $70^{\circ}00'$ $69^{\circ}20'$ N in July 1998, 2000, 2001, 2002 and 2005.

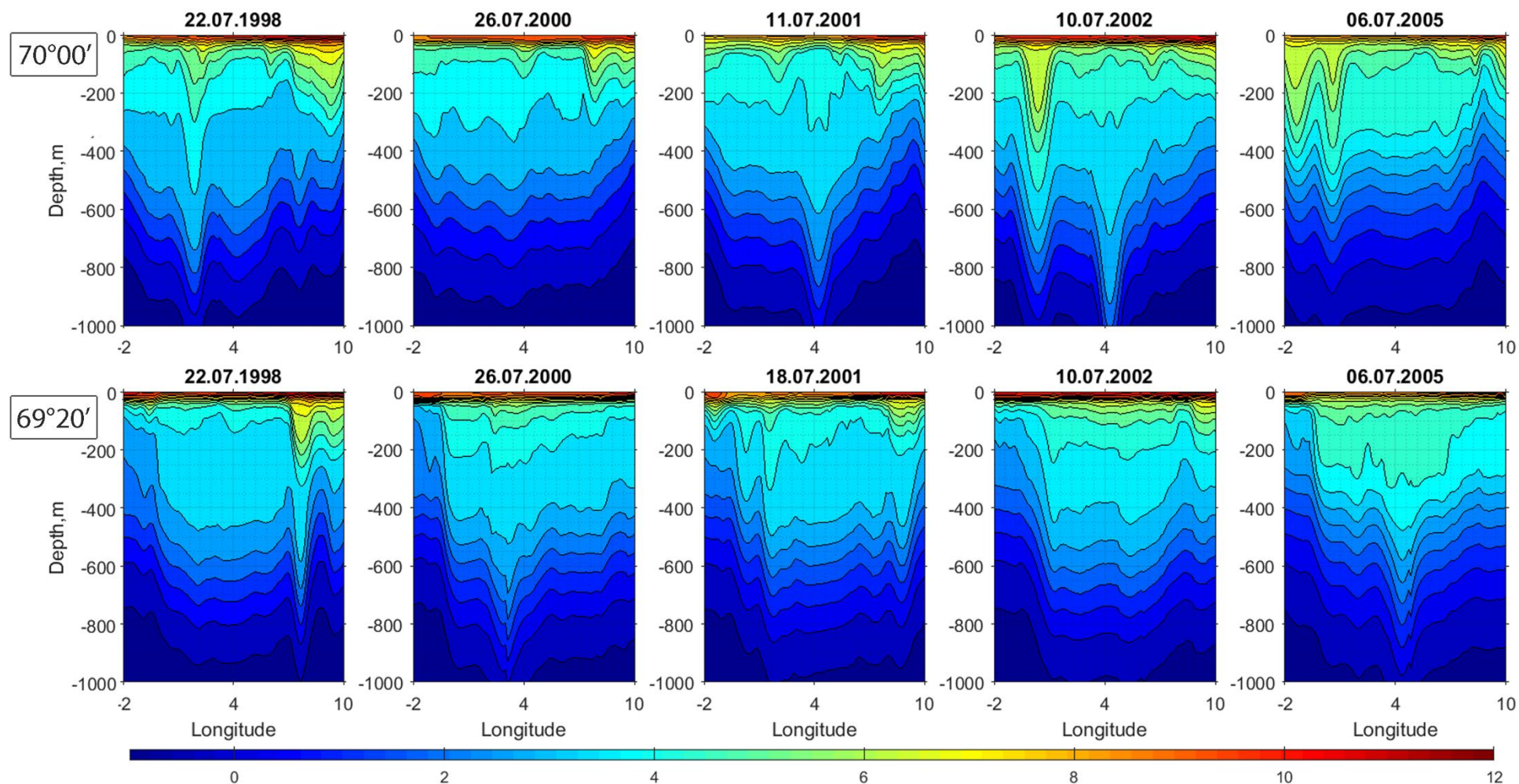


Fig. 5. Temperature (°C) along the 70° 00' and 69° 20' N sections built using the MITgcm simulations in July 1998, 2000, 2001, 2002 and 2005.

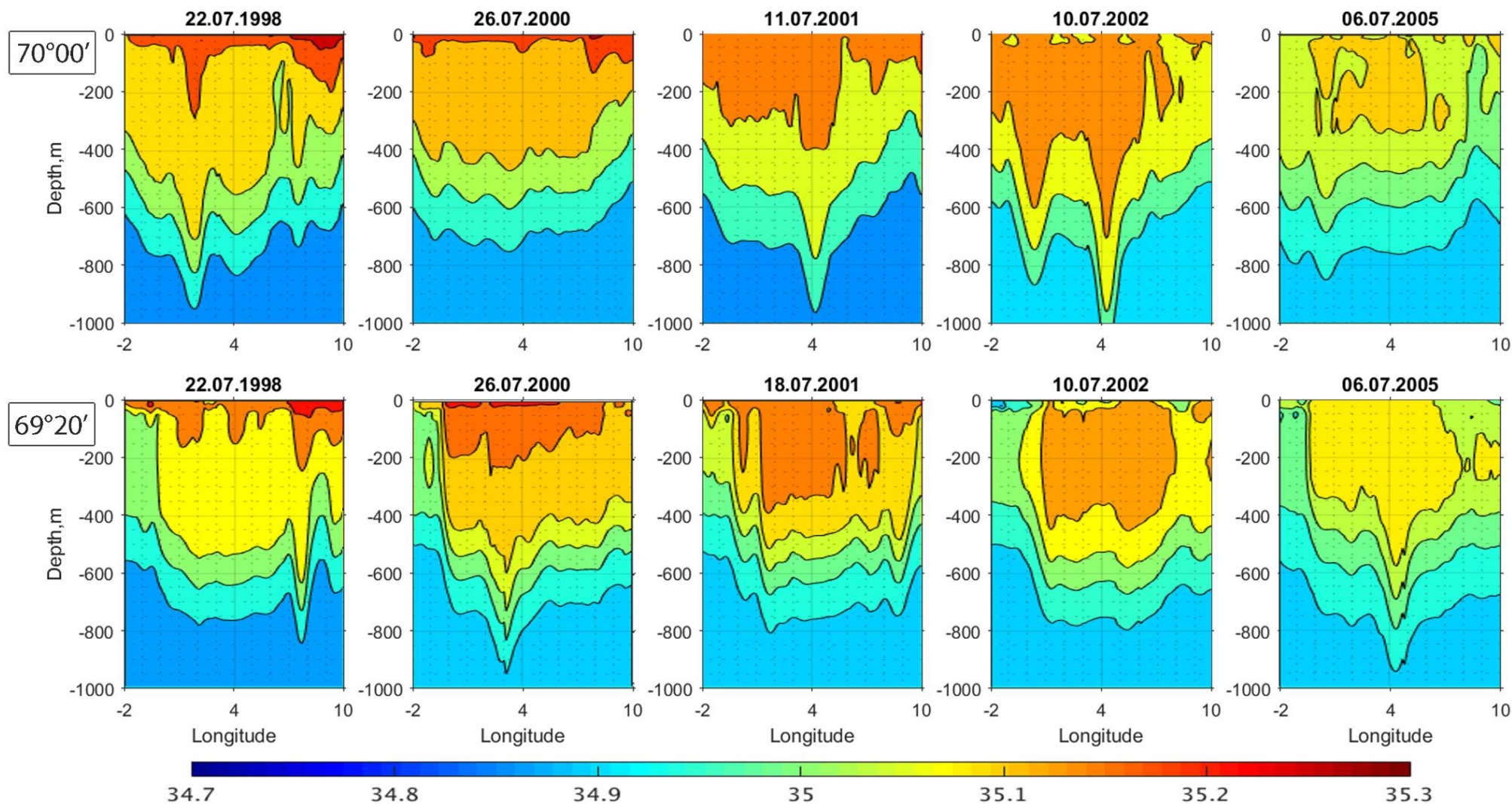


Fig. 6. Salinity along the 70° 00' and 69° 20' N sections built using the MITgcm simulations in July 1998, 2000, 2001, 2002 and 2005.

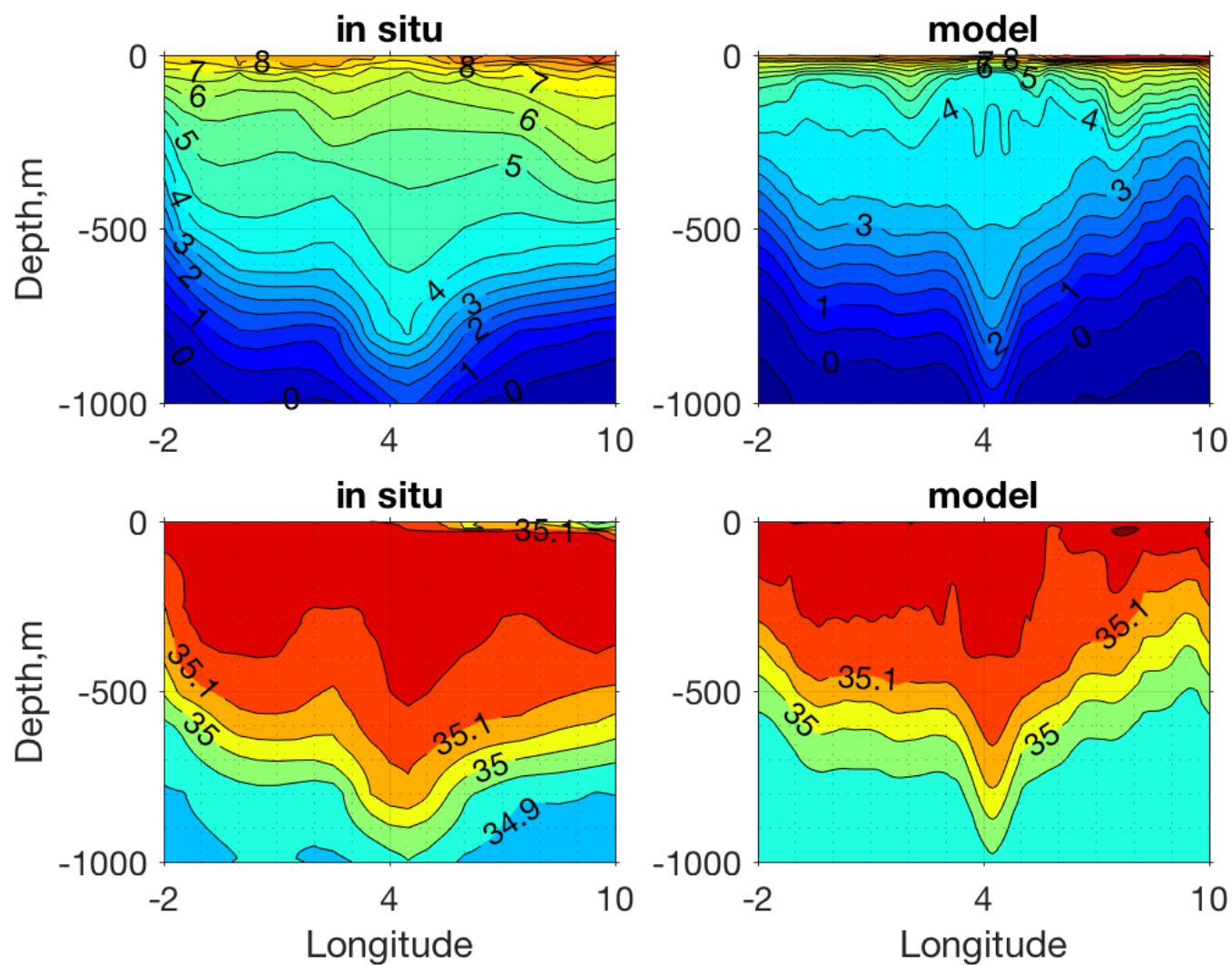


Fig. 7. Temperature (° C) (upper row) and salinity (lower row) along the 70° 00' N section for in situ in July 13-15, 2001 and model data in July 11, 2001.