Egg distribution, bottom topography and small-scale cod population structure in a coastal marine system

Halvor Knutsen[1,2,*], Esben Moland Olsen[1,2], Lorenzo Ciannelli[2,4], Sigurd Heiberg Espeland[2],
Jan Atle Knutsen[1], Jan Henrik Simonsen[1], Stig Skreslet[3], Nils Chr. Stenseth[1,2]

[1]Institute of Marine Research, Flødevigen, 4817 His, Norway
[2]Centre for Ecological and Evolutionary Synthesis (CEES), University of Oslo, PO Box 1066, Blindern, 0316 Oslo, Norway
[3]Bodø University College, Department of Fisheries and Natural Sciences, 8049 Bodø, Norway

[4]*Present address*: College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, Oregon 97331, USA

*Email: halvor.knutsen@imr.no

Appendix 1. Fjord system with individual sampling stations. See Fig. 1 (in main text) for location in Norway
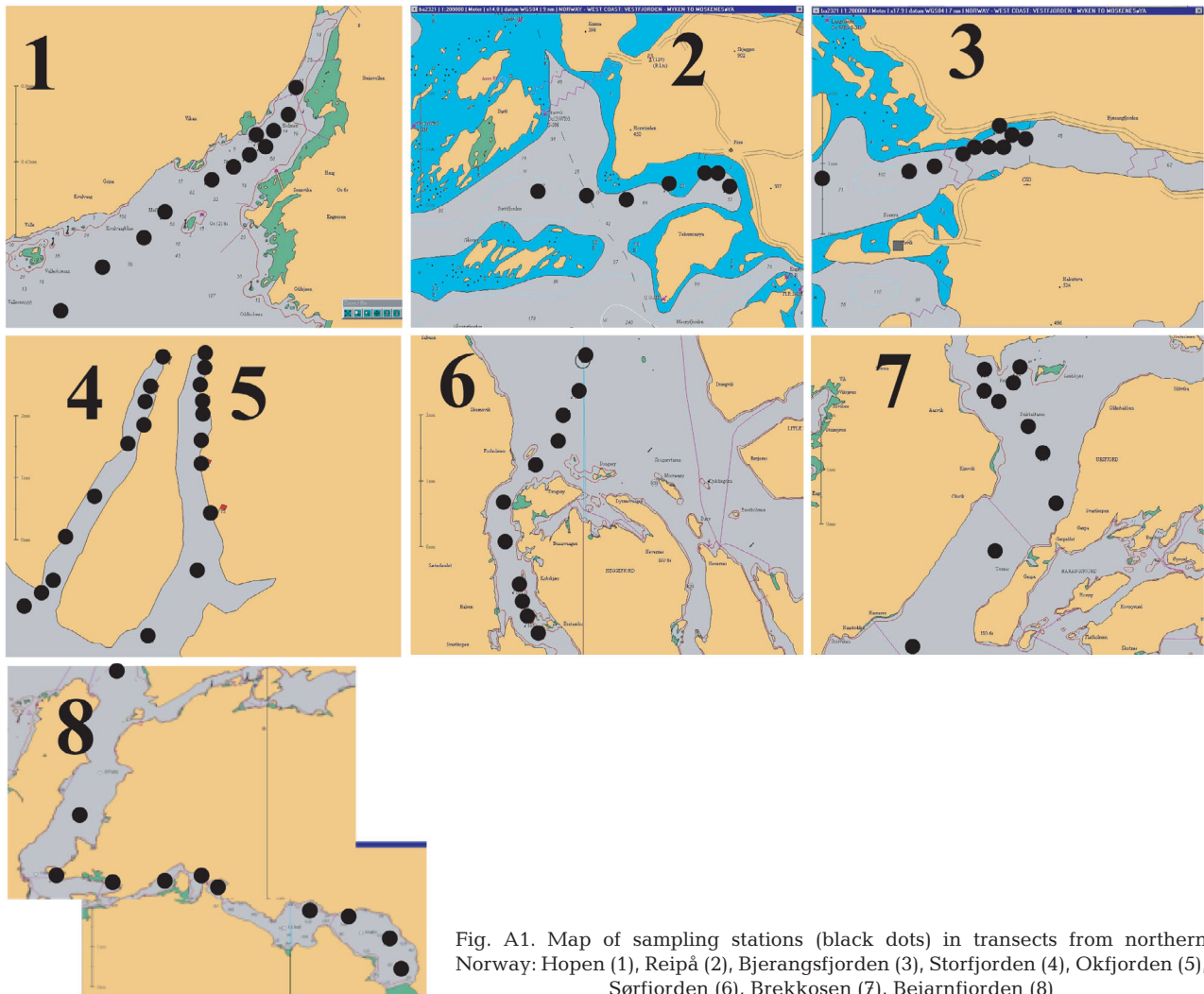

Fig. A1. Map of sampling stations (black dots) in transects from northern Norway: Hopen (1), Reipå (2), Bjerangsfjorden (3), Storfjorden (4), Okfjorden (5), Sørfjorden (6), Brekkosen (7), Beiarnfjorden (8)
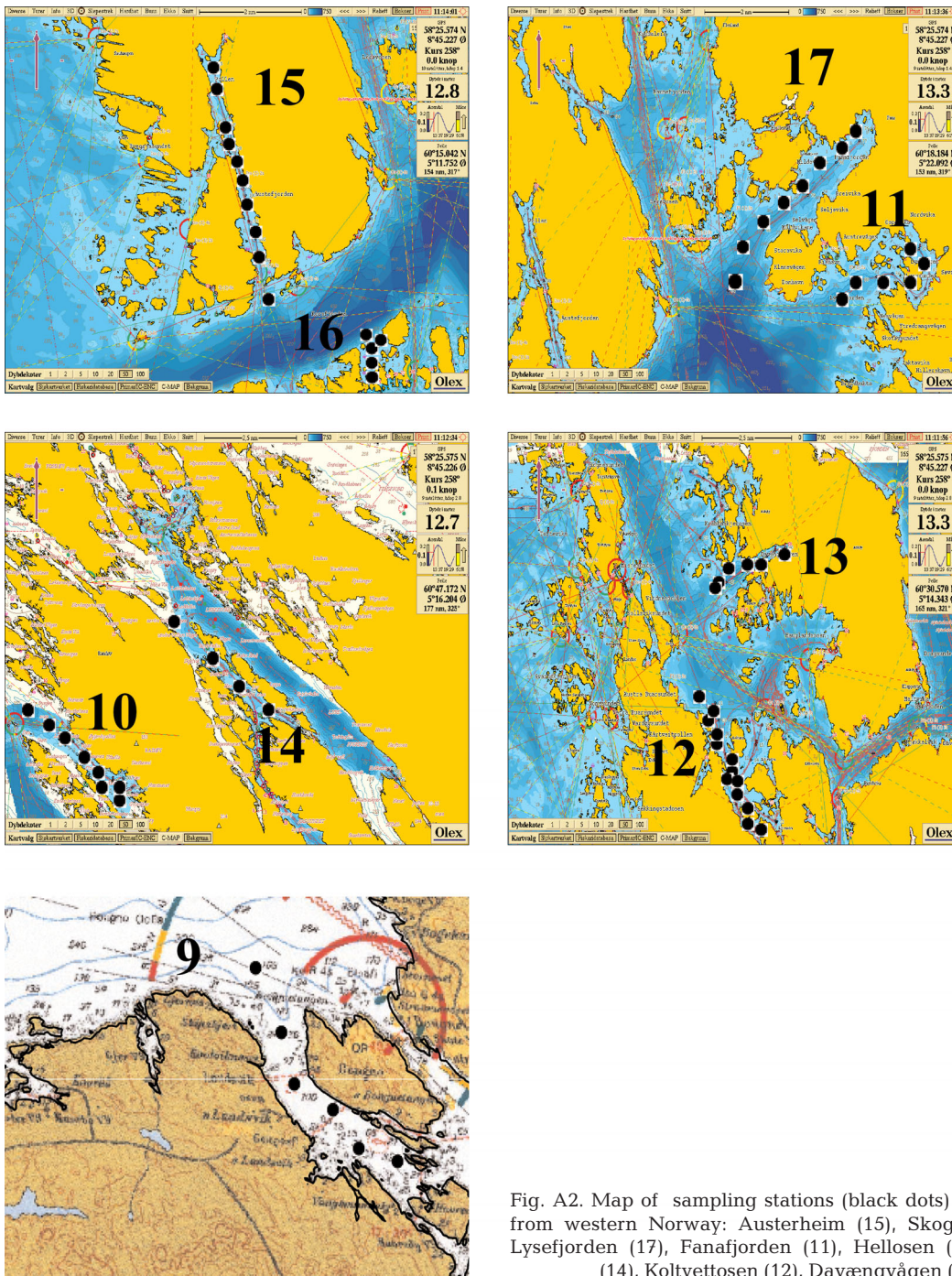
Fig. A2. Map of sampling stations (black dots) in transects from western Norway: Austerheim (15), Skogsvågen (16), Lysefjorden (17), Fanafjorden (11), Hellosen (10), Lurosen (14), Koltvettosen (12), Davængvågen (13)
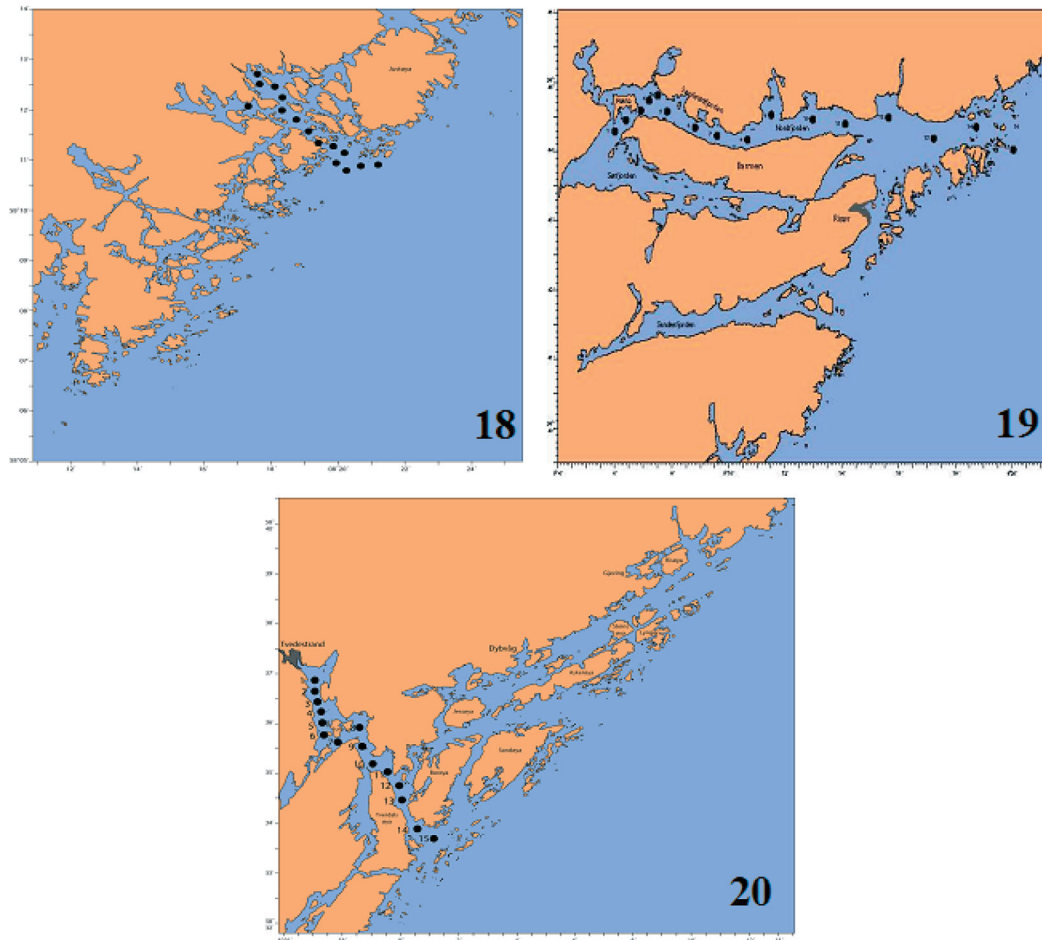
Fig. A3. Map of sampling stations (black dots) in transects from southern Norway: Lillesand (18), Risør (19) and Tvedestrand (20) (all 2005)

Appendix 2. Threshold selection for the regression models used in the *Gadus morhua* egg distribution analysis
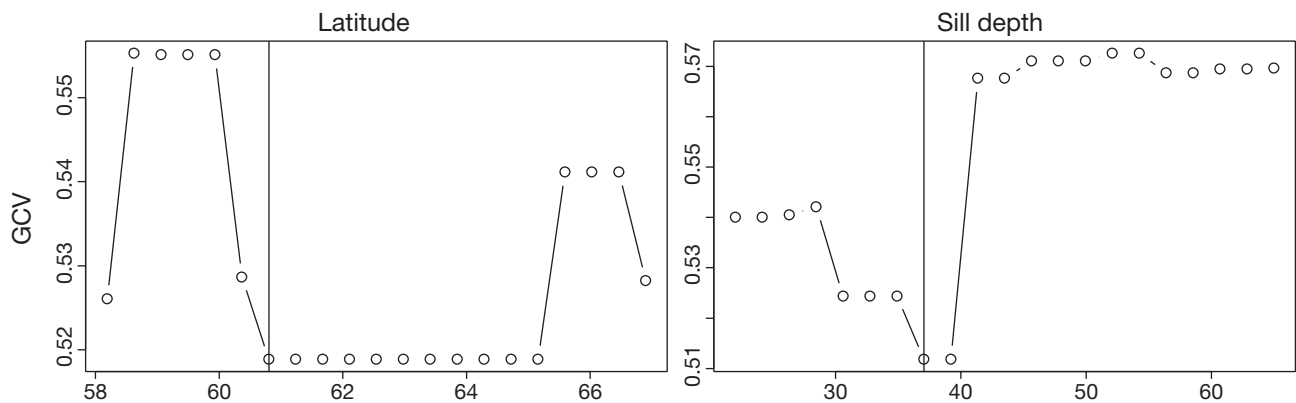

Fig. A4. Generalized Cross Validation (GCV) profile for the selection of the threshold values in Models 2 and 3 from Table 1 (in main text). (a) Latitude threshold; (b) sill depth threshold