



Supplementary Figure 1

Data from trawl surveys conducted during 2001–2013 in the northwest Atlantic Ocean were grouped geographically. For each grouping, habitat suitability for Atlantic halibut (*Hippoglossus hippoglossus*) was modeled by using maximum entropy, and the 3 outputs were then combined, creating a composite probability distribution layer. Model evaluations: high values of area under the omission curve (AUC) reflect the strength of each model in differentiating between sites with presence and absence of Atlantic halibut in its region: (A) Nova Scotia and U.S. waters (NS/U.S.), (B) Newfoundland and Labrador (NF), and (C) the northern and southern Gulf of St. Lawrence (GSL). The color scale represents probability distribution values on a scale of 0–1, with 1 being the most suitable, 0 the least, and 0.5 representing environments where conditions are typical for presence. Covariate contribution plots showing the varying levels (percentage) at which each variable contributed to each regional model: (D) NS/U.S., (E) NF, and (F) GSL. When prediction values were assigned to test data, presence locations were more prevalently associated with high probability distribution values and absence locations with low ones in all 3 regions: (G) NS/U.S., (H) NF, and (I) GSL. BT=bottom temperature.