The following supplement accompanies the article

Linking fisheries, trophic interactions and climate: threshold dynamics drive herring *Clupea harengus* growth in the central Baltic Sea

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Supplement

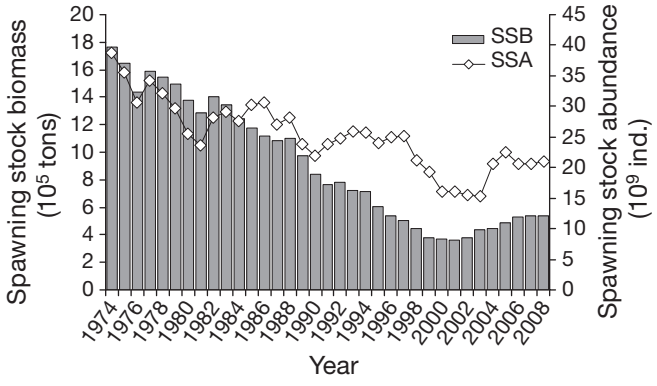

Fig. S1. Temporal trends in herring spawning stock biomass (SSB) and spawning stock abundance (SSA) in the central Baltic Sea (ICES 2009a)

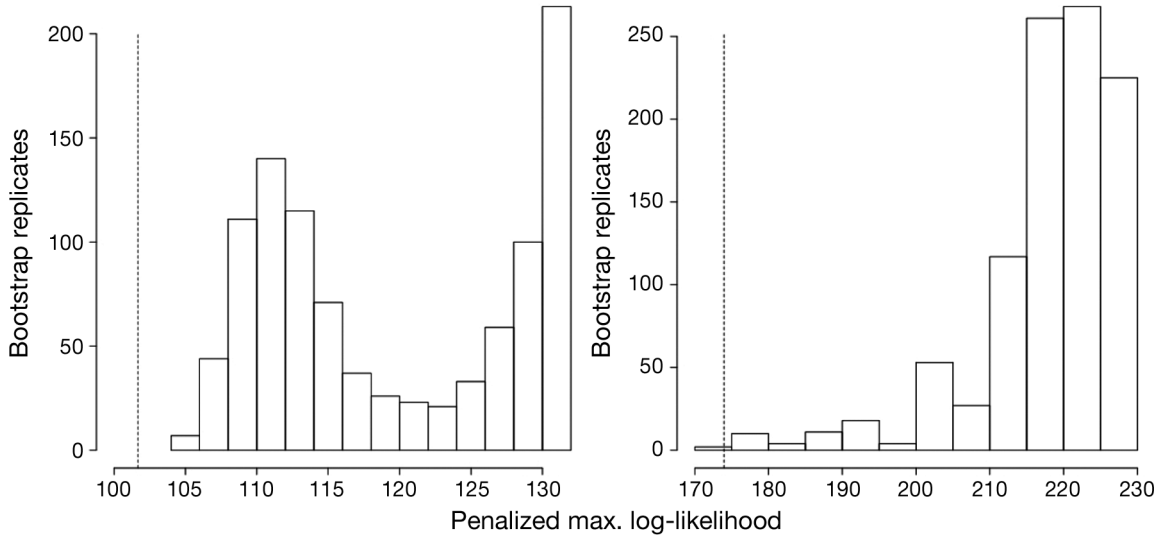

Fig. S2. Histogram of penalized maximum log-likelihood (PML) for null scenario of no threshold effect obtained by bootstrap for (a) herring condition and (b) herring weight-at-age (WAA). Vertical dotted line = PML of the model fitted on the original data

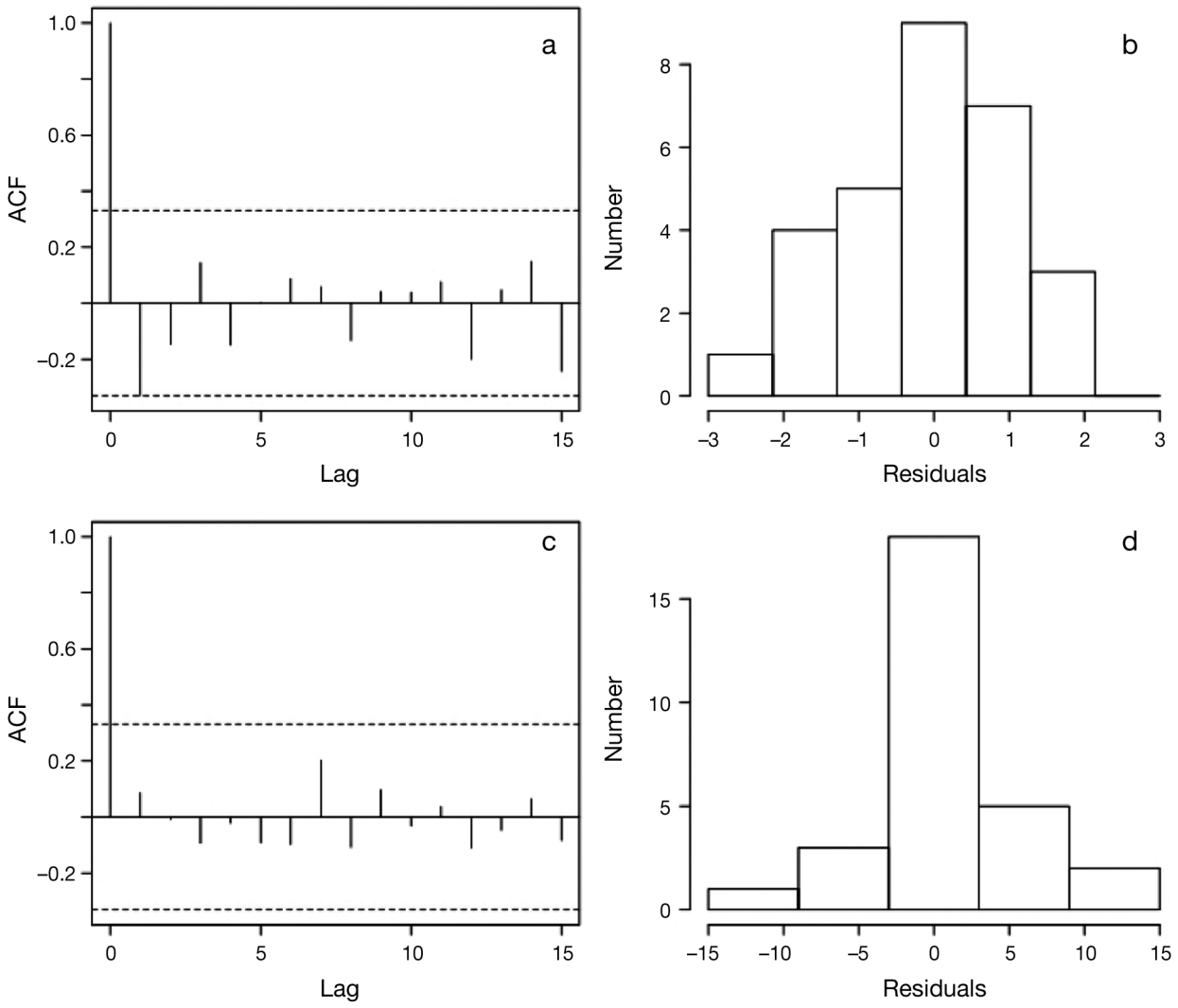

Fig. S3. Residual analysis of the Threshold Generalized Additive Model (TGAMs) for (a,b) herring condition and (c,d) herring WAA. (a,c) Autocorrelation function (ACF) of model residuals, (b,d) histogram of model residuals. Vertical lines = autocorrelations at each time-lag; dashed horizontal lines = SE under the assumption that the series is a white noise process (i.e. bars crossing the dashed line = presence of significant autocorrelation at that specific time-lag)

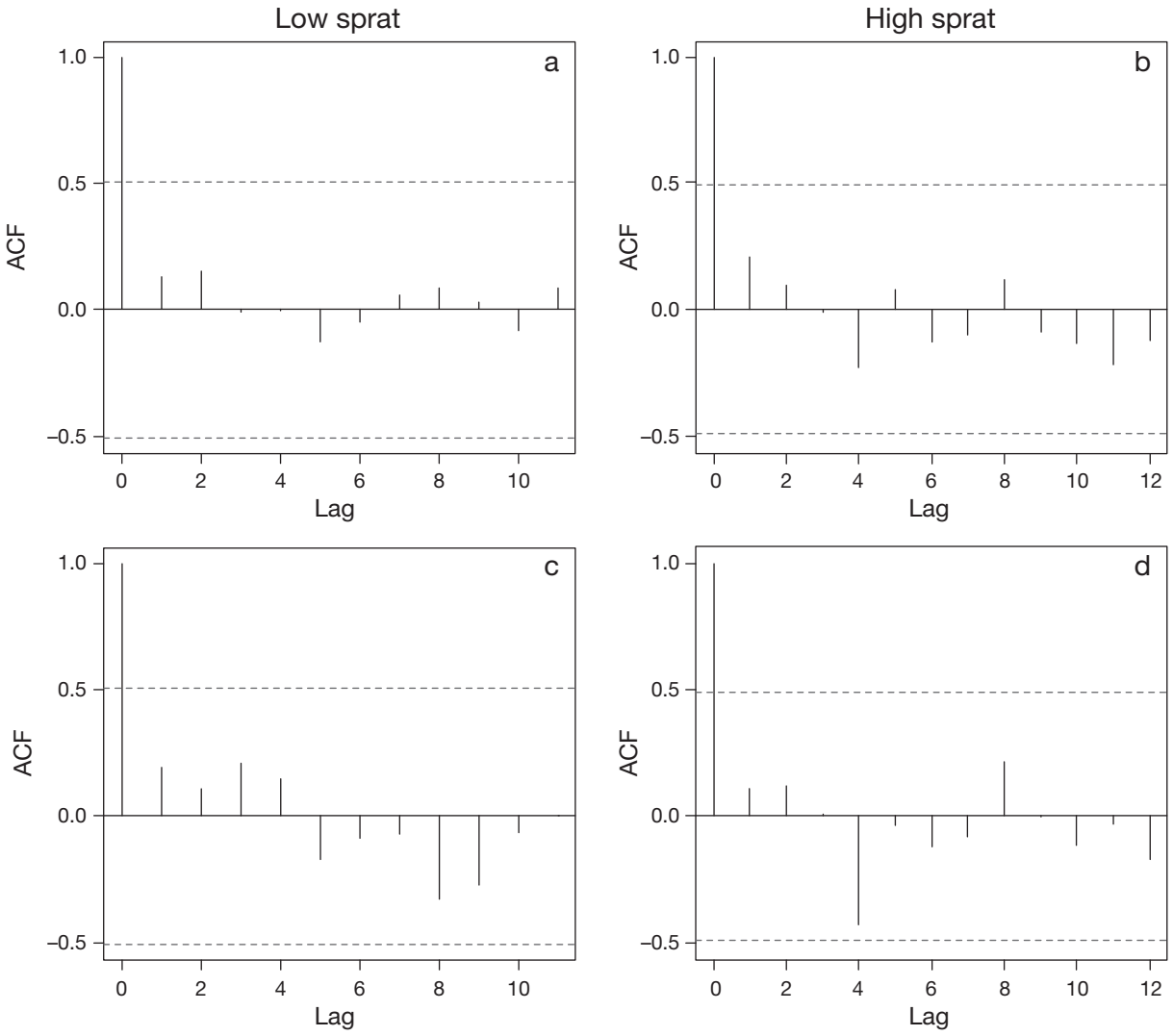

Fig. S4. ACF for (a,b) herring condition and (c,d) herring WAA time-series, in the 2 configurations identified by TGAM. Bars = autocorrelations at each time-lag; dashed lines = SE under the assumption that the series is a white noise process (i.e. bars crossing dashed line = presence of significant autocorrelation at that specific time-lag). Missing values were replaced by overall mean