

# Baseline for the Northeast Atlantic (58 – 70° N) intertidal *Mytilus* species complex ( *Mytilus* spp .)

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## Abstract

**Aim:** During the last decades mussels have shown a poleward shift in the distribution along the Atlantic coast conceivably driven by elevated sea-surface temperatures. We aimed to determine the baseline for the Northeast Atlantic (58 – 70° N) *Mytilus* species complex, and to compare the present distribution to surveys conducted 60 years ago. **Location:** Northeast Atlantic **Methodology:** Baseline was obtained by investigating a total of 509 stations in the intertidal zone, in four regions comprising the environmental gradient from head of fjord to coast, and distributed over the latitudinal gradient from 58 – 70° N. **Results:** The baseline shows a range in continuous abundance of mussels from 12 to 36 %, patchy abundance from 26 to 57 % and no or very limited mussel abundance from 26 to 46 % between the four regions. The presence of mussels in the southeast and west region was compared to previous surveys conducted 60 years ago. The data points to similar past and present presence of mussels in both regions, yet past major mussel fields in the inner section of region Southeast was not detected in this study. **Main conclusions:** The baseline of *Mytilus* spp. in the Northeast Atlantic (58 – 70° N) is now available for future reference. The baseline, compared to surveys conducted 60 years ago, points to awareness of the population situated in the southeast section of the investigated region. Continued monitoring and modelling are needed to clarify drivers of temporal and spatial variation in the mussel populations along the Northeastern Atlantic coast.

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