

ARTICLE

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Rapid biotic homogenization of marine fish assemblages

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The role human activities play in reshaping biodiversity is increasingly apparent in terrestrial ecosystems. However, the responses of entire marine assemblages are not well-understood, in part, because few monitoring programs incorporate both spatial and temporal replication. Here, we analyse an exceptionally comprehensive 29-year time series of North Atlantic groundfish assemblages monitored over 5° latitude to the west of Scotland. These fish assemblages show no systematic change in species richness through time, but steady change in species composition, leading to an increase in spatial homogenization: the species identity

T

1,2
3
4
3
 α
 β
5,6
7
6
 β
(β - α),
et al.⁶
 β
(β - α)
8

Re 1,

α and β diversity.

131
21.5 (30
)
29
(2), $r^2 = 0.005$, $P = 0.15$, $n = 252$,
30'
(α
1).

A musical score consisting of three staves. The first staff contains a sequence of notes and rests, with the number '200' written below it. The second staff continues the musical notation. The third staff includes a measure with a circled Greek letter α and a measure with a circled number '6'. The notation includes various note values, stems, and rests.

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