



CICLO

**CONFERÊNCIAS 17|18**

ISPA - INSTITUTO UNIVERSITÁRIO

# CONTRASTING MECHANISMS OF POPULATION DIVERGENCE AND HISTORICAL DEMOGRAPHY ACROSS NE ATLANTIC PELAGIC SEABIRDS REVEALED BY STATISTICAL PHYLOGEOGRAPHY



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Mechanisms of speciation – the diversification of species through the evolution of barriers to reproduction between populations – in the marine environment are not well understood. The apparent continuous nature of the marine environment limits opportunities for divergence to occur, particularly in highly mobile species, because gene flow is never entirely disrupted. Pelagic seabirds, in particular, present a paradox regarding the mechanisms of population divergence and speciation because of the apparent contradiction between their great dispersal ability and their tendency to return to their natal colonies to breed.

Using multi-locus datasets and a statistical phylogeographical approach based on the properties of the coalescent, we reconstruct the population evolutionary history of three different pelagic seabirds that have a widespread breeding distribution but share breeding grounds in the NE Atlantic, to identify the nature of barriers driving isolation between groups. We conclude that although physical barriers can act as drivers of divergence, species-specific intrinsic barriers also play an important role promoting evolutionary divergence through drift and local adaptation. This likely explains why some wide-ranging species show significant population structure at small geographic scales.

**22 JANEIRO 2018**

12H30 | SALA DE ATOS

HOST  
**PAULO  
CATRY**

**ENTRADA LIVRE**



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