## CICLO CONFERÊNCIAS 17 18 ISPA - INSTITUTO UNIVERSITÁRIO

# CLIMATE-DRIVEN SHIFTING GENETIC BASELINES IN MARINE FORESTS



**ESTER SERRÃO** CCMAR, UNIVERSIDADE DO ALGARVE

Climate-driven range shifts shape the geographical distribution of genetic diversity of algal forests. We inferred the effects of range contractions and expansions on the spatial distribution of the gene pool of species. We also show that range shifts can provide opportunities for introgressive recombination at contact zones and surfing, when introgression occurs during expansion. We show evidence of effects of polar ice caps on shaping such phylogeographic patterns. In contrast with higher latitudes, we found high and unique genetic diversity at estimated long-term persistence zones, presently located at the low latitude range edges, and likely to undergo further contraction. We also show records and predictions of southern local extinctions that threaten such unique genetic lineages. Although distributional ranges may increase for each species globally, due to ongoing northward expansion, we show here that unique gene pools are left behind in shrinking climatic refugia, which impoverish global genetic diversity.

### **19 FEVEREIRO 2018** 12H30 | SALA DE ATOS

#### HOST Emanuel Gonçalves

#### ENTRADA LIVRE



RUA JARDIM DO TABACO, 34 1149 - 041 LISBOA T. 218 811 700 | F. 218 860 954 CII@ISPA.PT | WWW.ISPA.PT FACEBOOK/ISPA.IU