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SPACE AND TEMPORAL DISTRIBUTION OF BARNACLE LARVAE IN THE STATE OF RIO DE JANEIRO.

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Larval pool are the main source of new individuals for rock shore barnacle communities, and thus the conditions of the pelagic environment are decisive for their dispersion and growth. The larval pool is considered to be the set of larvae that reach a community, and directly affect the number of individuals that will settle. The present study was conducted in a region with influence of upwelling and coastal subsidence events. The main objective of the study was to evaluate the temporal and spatial variation of two stages (nauplii and cypris) of larval supply, in a quantitative way. To establish this connection is especially important for the understanding of mechanisms and scales of variability that model invertebrate species settlement patterns in underwater environments and intertidal. The plankton samples were collected in four rocky shores on the same day, during the Spring period of 2018. It was carried out at points A - Arraial do Cabo, B - Saquarema, C - Jaconé and D - Niterói, with weekly samplings beginning July and finishing at the end of September. The barnacle larvae were collected using a plastic bucket of 10 L volume, filtering in a mesh of 100 μm , in the water that directly bathed the shore. Each plankton sample was constituted by 15 successive collections, totaling 150 liters per sample. It was taken 3 sample replicates (3 x 150 L), which were immediately fixed in a 4% saline formaldehyde solution, until laboratory analysis. The nauplii concentration ranged between points over the periods. Site A was significantly different from the others ($p=0,006$), in the cypris stage, the results show that the B and C sites are significantly different from the other ($p<0,001$). The wind in general, had a direct influence on availability for the two larval groups. Events with winds in the north quadrant, were negatively correlated for both groups of larvae. The wind has a strong influence on the circulation and transport of larvae, and directly influences the circulation in environments close to the coast, as shown in the results of the present study.