

Title: CHARACTERIZATION OF FUNGAL MICROBIOTA IN SEA SLUG *Aplysia dactylomela*

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Abstract: *Aplysia dactylomela* is a marine gastropod that has attracted the interest of many researchers because it is a natural source of bioactive compounds relevant to the biotechnology and pharmaceutical industry. Until now, the record of the fungi that compose the microbiota of *A. dactylomela* is restricted. Thus, this study aimed to know the fungal microbiota of this animal, as well as characterize the fungi present in the algae that are found in tide pools close to the animals. For this purpose, samples were collected in the Flexeiras Beach, Trairi - Ceará. We selected 10 specimens of *A. dactylomela*, collected using sterile swabs samples from the oral and the anus cavity, and kept in sterile saline until spread. In addition, were collected 10 samples of algae present in the tide pools. Overall, two collections were performed, with a total of 40 samples from animals and 20 from algae. All samples were conducted for the Laboratório de Biologia Ambiental e Microbiologia - LABIAM, of the Instituto Federal de Educação, Ciência e Tecnologia do Ceará - *Campus* Acaraú. For the isolation was utilized Sabouraud agar with chloramphenicol (0.5 g/L) and 2% yeast extract. It was added 10 mL of saline in tubes with algae, and each tube was homogenized by vortexing for one minute, with subsequent rest for five minutes. An aliquot of 100 μ L of the supernatant of each sample was spread in the culture medium. The samples were incubated at 28 ° C for up to 10 days. To identify the species micro and macromorphological and specific biochemical tests were performed. 65 filamentous fungi were isolated from samples of animals, with 34 referring to the oral cavity and 31 from the anus. Just three yeasts were isolated from the sea slug. From algae samples were isolated 30 filamentous fungi and eight yeast. Were isolated the genres *Aspergillus*, *Penicillium*, *Cladosporium*, *Curcularia*, *Alternaria* and *Candida*. From these findings, it is noted that the amount of filamentous fungi both in animals as algae samples that constitute its feed is higher than in yeast. And highlights the importance of extending this study to demonstrate the diversity of filamentous fungi isolated until the present moment, and if there are pathogenic fungi on the animal microbiota or even from seaweed.

Keywords: environmental microbiota. Filamentous fungi. Yeasts. Marine gastropod.