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LARVICIDAL ACITIVITY OF EXTRACTS FROM SEAWEEDS OF NORTHEAST OF BRAZIL

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Dengue fever is an important disease transmitted by female mosquitoes of *Aedes aegypti*, sometimes leading to a potentially deadly complication called dengue hemorrhagic fever. The incidence of dengue has increased dramatically around the world in recent decades [1]. In 2015, there have been 745,957 cases of dengue, 200% more compared to the same period last year [2]. The search for the development of new larvicidal compounds has called attention to natural products as alternative sources of potential larval control agents [3]. Due to its diverse environment, macroalgae have the potential to biosynthesize a variety of bioactive molecules [4]. Taking this into consideration, the aim of this study was to investigate the biological activities of extracts from 25 species of macroalgae of Pernambuco state coast, including species of green, brown and red. The macroalgae were collected, identified, dried and extracted with dichloro methane/methanol 2: 1, with yields ranging from 0.2 to 16.8%. The extracts were then submitted to bioassay larvicidal against 4th instar larvae of *A. aegypti*. The larvicidal activity, based on the percentage of larval mortality, was evaluated after 48h exposure to the treatments. The extracts shown to have larvicidal activity, and the species of red seaweeds, *Laurencia dendroidea*, *Hypnea musciformis*, *Hydropuntia caudate* and *Bryothamnion triquetum* showed the best activity, with 100% mortality above 100, 200 and 400 ppm, respectively. The extracts were partitioned and the non-polar fraction, the hexane partitions, of the extracts showed better larvicidal activity, being even greater than the crudes extracts that originated them. Our results suggest that larvicidal compounds can be found in species of seaweeds.

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