

## Preliminary Phytochemical Studies on *Gracilaria birdiae* from Rio do Fogo Beach, Rio Grande do Norte, Brazil

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**Introduction:** Algae (~25,000-30,000 species) normally found in complex habitats, frequently at extreme environmental conditions which leads to the development of defence strategies by producing many secondary metabolites. The identification of bioactive compounds macroalgae are still largely unexplored in many species. In Brazil, the coastal region between the state of Ceará and the northern state of Rio de Janeiro we can get a huge diverse algal flora. *Gracilaria birdiae* is one of the species exploited commercially by fishing communities, used as a food for humans and animals. **Objectives:** Characterize the qualitative biochemical profile of the aqueous extract of *Gracilaria birdiae*. **Material and Methods:** Sample of *G. birdiae* were collected in Rio do Fogo beach (Rio Grande do Norte, Brazil), separated of epiphytes, washed with distilled water, dried in forced air (60 °C, 8h) and powdered. The hydro extract was obtained (1:20, w/v) after constant agitation for 24 h. At the end of this period the material was filtered and centrifuged (8000 rpm, 5 min); supernatants (crude extracts) were submitted to methodologies of Matos (2009) and Barbosa (2001) for determining the presence of organic acids, sugars, anthraquinones, phenolic compounds, steroids, saponins and terpenes. **Results and Discussion:** Found: non-reducing sugars through Fehling test with hydrolyzed extract; anthraquinones, by extraction with toluene; catechins, using vanillin as developer; and saponins was tested by afrogenicity and confirmatory test (hydrolysis). Corroborating with studies that identified sugars and saponins in species of the genus. However, compounds such as steroids, terpenes, flavonoids and tannins reported in these studies were not identified in the aqueous extract of *G. birdiae*. The drying and extraction conditions may be responsible for interfering with the identification of these and other compounds. **Conclusion:** New extraction conditions should be tested to better characterize the biochemical profile of *G. birdiae*.

**Keywords:** Red seaweed, secondary metabolites, Aqueous Extract, Qualitative.

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