INTRODUCTION: Sulfated polysaccharides (SP) represent a complex group of biopolymers with a wide range of important pharmacological activities and the anticoagulant activity is among the most widely studied properties of SP. However, nothing is know about the influence of annual variation on the composition of SP from green seaweed and their pharmacological activities. OBJECTIVE: The aim of the present study was investigated the possible annual variation in the composition and anticoagulant activity of SP from Caulerpa racemosa collected on Búzios beach (RN, Brazil) from January to November 2010. MATERIAL AND METHODS: The SP were extracted by proteolytic digestion, followed by methanol precipitation. The SP obtained were analyzed for agarose gel electrophoresis and chemical analysis. The activated partial thromboplastin time (APTT) test was applied using normal human plasma and standard Clexane® and results were expressed as aPTT ratio, obtained by dividing clotting time achieved with the SP by that obtained with the control. RESULTS AND DISCUSSION: There was a significant variation in composition and anticoagulant activity according to the month of harvest. The yield varied from 10.6 to 29.3 mg of SP/mg of dried seaweed. The sulfate/sugar ratio (%/%) varied from 0.13 to 0.77. The anticoagulant activity varied from 2 to 4 aPTT ratio. CONCLUSION: The data demonstrate that there were changes in the composition and anticoagulant activity from C. racemosa according to the months of harvest.

Word Keys: pharmacological activities, seasonal, green seaweed.

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