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## Morphology, biochemistry and growth of Raphidophyte strains from the Gulf of California

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Strains of raphidophytes from different regions of the Gulf of California were established for identification and biochemical description. Raphidophytes in our coasts have been traditionally identified based on microscopic observations, a biochemical analysis of strains present in our coast is needed for a more detailed characterization and species confirmation. Strains were identified by morphological observations and sequencing of the 5.8S and COI regions. Cells were cultivated in modified f/2 media at 20°C with a light-dark cycle (12 h:12 h) and 150  $\mu\text{mol m}^{-2} \text{s}^{-1}$  light intensity. Pigments were identified by HPLC, brevetoxins by LC-MS/MS, fatty acids by gas chromatography, superoxide radicals by spectrophotometry, and lipid peroxidation by the determination of thiobarbituric acid reactive substances. Strains were identified as *Chattonella subsalsa*, *C. marina*, and *Fibrocapsa japonica*. In all strains, the main pigment was chlorophyll a, followed by fucoxanthin, chlorophyll c1 and c2, violaxanthin, b-carotene, and diadinoxanthin. Strains were tested for PbTx-1, PbTx-2, PbTx-3, PbTx-6, PbTx-9, PbTx-carboxylic acid, brevenal, and brevisin; none were detected. All strains presented superoxide radical production and lipid peroxidation. The main fatty acids were 18:4 (n-3) and 20:5 (n-3). Strains had typical fatty acid composition for raphidophytes and produced brevetoxin-like compounds, had superoxide radical production, and lipid peroxidation. With this contribution, we confirm the presence of *C. subsalsa*,

Palabras clave: Morphology, *Chattonella*, DNA, Raphidophyte

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