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Título	Caracterização espectral de alvos em Corpos D'Água do Litoral Norte do Rio Grande do Sul
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The north coastal region of Rio Grande do Sul (NCRRS) has a system of sandy barriers with lakes and bodies of water, isolated or interconnected with the sea. This ecosystem is affected by growing and disordered human occupation, despite being part of the Area of Permanent Preservation (Law Nº 4.771/65). The application of reflectance spectroscopy techniques is an alternative to monitoring recurrent cyanobacterial blooms, allowing target characterization, identifying organic and inorganic constituents of water bodies in NCRRS. In this study, radiance data from MSI and OLI (orbital sensors from Copernicus and Landsat constellations, respectively) were converted to reflectance values in the bottom of the atmosphere (BOA). Colorful composite images of periods with and without bloom, were analyzed to collect spectral signatures and to characterize the targets: water, sediments and cyanobacteria. The interpretation of the results was based on the analysis of absorption features, in the visible and near infrared in the absorption spectrum of the water, generated by the fundamental molecular vibrations from the covalent bonds O-H in H2O (symmetrical and asymmetrical stretch and flexion) and its harmonics. Until now, a bibliographical survey was made about the spectral behavior of the studied targets, along with an acquisition of satellite images, and the collection of signatures. Pure water absorbs red and infrared wavelengths, and disperses photons mainly in the ultraviolet and blue spectral regions. The strong absorption by the organic matter dissolved has opposite contribution than water, and the dispersion of radiation is insignificant. The spectral behavior of phytoplankton and non-organic debris varies accordingly with its composition, a fundamental factor in the spectral changes in water bodies. The next step is to investigate sub-regions of the visible, where pigments of photosynthetic organisms occupy spectral positions with specific absorption features formed by the harmonics and subharmonics of H2O molecular vibrations.