**CULTIVABLE HETEROTROPHIC BACTERIA** **ASSOCIATED WITH LICHENS OF CERRADO ENVIRONMENT, BRAZIL**

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The lichen thallus harbor various microorganisms, including bacteria, which are considered by some authors as the third symbiosis component. This work aimed to isolate cultivable heterotrophic bacteria from *Parmotrema mesotropum* (Müll. Arg.) Hale and *Trypethelium eluteriae* Sprengel to evaluate the diversity and the urease activity of the isolates. The lichens samples were collected in three urban forest parks of Campo Grande municipality (MS, Brazil). After an initial cleaning on the stereomicroscope, we performed a three-steps washing of whole thalli using peptone salt solution to remove the ectolichenic bacteria. The washed thalli were grounded to powder in sterile microtubes using a mixer mill. The macerated material was inoculated in Agar Nutrient and 17 isolates with different morphological characteristics were obtained, 11 from *P. mesotropum* thalli and 6 from *T. eluteriae* thalli. MALDI-TOF were used for the identification of the isolates. Mass profiles were acquired on an Autoflex III SmartBeam MALDI-TOF mass spectrometer and the raw spectra were processed using the MALDI Biotyper software (Bruker Daltonics). Six isolates of *P. mesotropum* were identified at species level (*Bacillus cereus* (2)*, Bacillus megaterium* (2), *Curtobacterium luteum*, *Microbacterium maritypicum*), three at genus level (*Pantoea*, *Stenotrophomonas* (2)) and two have not been identified. One isolate of *T. eluteriae* were identified at species level (*Bacillus cereus*), four at genus level (*Bacillus*, Pantoea, Stenotrophomonas (2)) and one have not been identified. Two of the isolates showed urease activity determined by using solid urea-based agar medium-Christensen (UAB), one from *P. mesotropum* (*Bacillus megaterium*, According to MALD TOF) and one from *T. eluteriae* (not reliable identification, According to MALD TOF). Samples of *Dirinaria confluens* (Fr.) D. D. Awasthi will be analyzed, posteriorly. This exploratory study can contribute to a better understanding of the bacterial diversity associated to lichens from Cerrado and reveal its biotechnological potential. Funding: CAPES.