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### STRUCTURAL AND FUNCTIONAL ASPECTS OF EXTRAFLORAL NECTARIES IN *Nopalea cochenillifera* (L.) SALM-DICK (CACTACEAE)

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Tema/Meio de apresentação: Interações ecológicas/Oral

*Nopalea cochenillifera* (L.) Salm-Dick is a Cactaceae species bearing spines recognized as extrafloral nectaries that are constantly visited by ants. We studied the anatomical and histochemical features of the extrafloral nectaries present in the areoles of the cladodes of *N. cochenillifera* and observed their association to ants. Young cladodes (up to 8 cm) containing areoles with spines were collected from three individuals living in a cerrado fragment in Botucatu city, São Paulo State, Brazil. The samples were processed according to usual techniques in plant anatomy and histochemistry. Field observations were performed during three days in October/2016 to March/2017. Ants visited the regions of the areoles of young cladodes on sporadic days. In the morning (between 8 and 10 AM) about five to six ants were present in each areole, while one or two ants visited each areole in the afternoon (5:30 PM and 7 PM). The ants spent the most time (about 30 to 50 minutes) strolling the apex of the spines that exhibited crystallized hyaline drops. Only ants identified as belonging to *Crematogaster* genus were observed visiting the areoles and spines. Structurally, the spines present a dilated basal region with parenchyma cells vascularized by phloem and xylem; their medium and apical regions are constituted by lignified cells. Reducing sugars, proteins and mucilage were detected in the spine cells. However, the hyaline drops on the spine apex did not react to the presence of reducing sugars (Combur test). Our results suggest that *Crematogaster* ants could be attracted to the spine apex in *N. cochenillifera* by the presence of substances other than nectar, such as mucilage. Chemical analyses are being performed to confirm the chemical nature of this exudate.

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