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A30

A NEW ENTITY OF *Talinum* (PORTULACACEAE) FROM THE NORTHWEST OF ARGENTINA REVEALED BY ITS2 DNA BARCODING REGION

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The *Talinum* genus was placed in the family Portulacaceae but recent works included phylogenies based on the *matK* and *ndhF* chloroplast genes which allowed the authors to replace the genus in a new family named Talinaceae. *Talinum* anatomy backgrounds are scarce; two base chromosome numbers $x=6$ and $x=12$ and for *T. paniculatum* $2n=24$ chromosome were reported. . In the province of Tucumán (Argentina), these species have two morphotypes: one of them presents pink-purple colored flowers, opposite or sub-opposite leaves and red-yellow colored fruits; the other plant shows white-yellow colored flowers, alternate leaves and green colored fruits. Morphoanatomical and cytogenetic studies performed by our work group revealed differences between these two morphotypes. The aim of this work was to perform a phylogeny of *Talinum* using the ITS2 sequences to establish if this molecular marker shows significant differences between both morphotypes. For that purpose, total DNA of leaves from different populations of Tucumán was obtained by DNA extraction kit (Qiagen). The primers used were: Fw-ITS2 5'ATGCGATACTTGGTGTGAAT3'; Rv-ITS4 5'TCCTCCGCTTATTGATATGC3'. Polymerase chain reactions (PCRs) and visualization in agarose gel were performed with slightly modified standard protocols. This contribution confirmed that *Talinum* is a monophyletic group and the ITS2 sequences revealed that there are significant differences between these two morphotypes studied. This white-yellow colored flower morphotype could represent a different not yet described species or variety in the Argentine flora.

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DETERMINATION OF HOLOCINETIC CHROMOSOMES THROUGH THE CID SEQUENCE (CEDP) IN DERMAPTERA AND NEUROPTERA (INSECTA)

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During cell division, the centromere is an indispensable chromosomal region to ensure the segregation of genetics information. In most eukaryotes, the identity of the centromere is determined by the presence of the CENP protein (CID in Diptera). Some groups of animals have chromosomes that lack localized centromeres (holocentric); a clear example of this is Dermaptera, although the holocentricity of their chromosomes is questioned since structures similar to centromeres were observed in them. It is also believed that neuroptera carries chromosomes with localized centromeres (monocentric), but recent studies have questioned this assertion since *Chrysoperla* presents chromosomes lacking centromeres. The aim of this work was to determine the holocentricity of chromosomes of *Doru lineriae*, *D. luteipes* (Dermaptera) and *Chrysoperla externa* (Neuroptera) by amplifying the CENP gen. Using the Quiagen extraction kit, total DNA was obtained from *Drosophila melanogaster*, *Zaprionus indianus gupta* (Diptera) and *Astylus atromaculatus* (Coleoptera) species with monocentric chromosomes and the target species. The primers used were: Fw-5'GAGAACGGAGCTTGGGTT3'; Rv5'CGTCGGCGAACAACCTCAAG3'. PCR amplification was performed with conventional protocols. The final product was identified in 1% agarose gel. The PCR reaction was positive for Diptera and Coleoptera. The lack of amplicons of CENP gen in *Doru* and *Chrysoperla* is another fact that demonstrates the holocentricity of their chromosomes.

A32

FOLIAR ANATOMY OF *Tillandsia albertiana* (BROMELIACEAE-TILLANDSIOIDEAE)

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Tillandsia L. is the most frequent genus of the Tillandsioideae (Bromeliaceae) in Argentina, with species known as "clavel del aire". In the Catálogo de las Plantas Vasculares del Cono Sur (Argentina, southern Brasil, Chile, Paraguay and Uruguay) 50 species are cited for Argentina. *Tillandsia albertiana* Verv., endemic to the province of Salta, grows in a compact form rooted in the rock in the Yunga environment at 1100 masl. It is a lithophytic herb with distichous leaves up to 15 cm long, with a uniflora inflorescence of red flowers. Because epiphytes are able to absorb moisture from the environment by developing particular anatomical structures, the aim of this work is to describe the leaf