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BOOK OF ABSTRACTS

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we simulate (1) the costs of protecting conservation areas from illegal logging and (2) how a timber concession program will affect the location of logging.

798. MICROSATELLITES AS INDICATORS OF DIVERSITY FOR GENETIC CONSERVATION OF *Araucaria angustifolia* (BERT.) O. KUNTZE. SCHMIDT, ANDRÉA B.; Ciampi, Ana Y.; Guerra, Miguel P.; Nodari, Rubens O. Programa de Pós-graduação em Recursos Genéticos Vegetais, PRGV, UFSC, Florianópolis, SC, Brazil (ABS, MPG, RON). Laboratório de Genética Vegetal Embrapa Recursos Genéticos e Biotecnologia, Brasília DF, Brazil (AYC).

Araucaria angustifolia is a diocious tree species that occurs in the southern part of Brazil. Because of the intense exploitation of the species, due to its valuable wood, only 2% of the original population still remains. Molecular markers based on microsatellite are an ideal tool for genetic studies of natural populations because of their high degree of polymorphism, co-dominant and multiallelism. The objectives of this study were to (1) develop microsatellite markers for *A. angustifolia*, and (2) evaluate levels of genetic diversity in natural populations of this species. Microsatellite-enriched libraries were constructed by initially digesting genomic DNA with an endonuclease (*Mse* I). Fragments ranging in size from 200 to 800 were isolated, ligated to adaptors and hybridized to biotinylated $(AG)_{13}$ and $(TC)_{13}$primers. Microsatellite primer pairs were designed for 29 loci and 9 of them were used to characterize diversity in 48 individuals from two distinct populations. Preliminary analysis reveals low levels of differentiation between the two populations (F_{st}=0,064), although one of them has been exploited. We plan to expand our analysis to other populations and use these data to assist germplasm collection, definition of areas for *in situ* conservation and management programs of this endangered and highly valuable species.

799. ETHNOBOTANY OF *Syngonanthus nitens* (ERIOCAULACEAE): A NON-TIMBER FOREST PRODUCT (NTFP) FROM THE BRAZILIAN CERRADO, AT JALAPÃO REGION, TOCANTINS. SCHMIDT, ISABEL B.; Figueiredo, Isabel B.; Scariot, Aldicir. Diretoria de Florestas, Ibama, Brasília, DF, 70.818-900, Brazil & PEQUI - Pesquisa e Conservação do Cerrado, Brasília, DF, 70763-520, Brazil, isabelbs@pequi.org.br (IBS). Programa de Pós-graduação em Ecologia, Universidade de Brasília, Brasília, DF, 70.919-900, Brazil (IBF). Embrapa/ Cenargen, Brasília, DF, 70770-900, Brazil & Programa das Nações para o Desenvolvimento, PNUD Brasil, Brasília, DF, 70712-901, Brazil (AS), scariot@cenargen.embrapa.br.

The handcrafts made from coils of "capim dourado" (golden grass) scapes that are sewn tightly together with buriti palm (*Mauritia flexuosa*) strips represent important source of income in Jalapão. Recently, the traditional handcrafts made by women from the Mumbuca Community started being commercialized in large Brazilian cities and European countries, increasing extraction rates. This study is aimed at characterizing the plant scapes extraction methods and the management techniques of humid grasslands areas, where the species occur. Harvest and handcraft activities occupy women, men and children from almost all rural communities in Jalapão. Scapes are collected from July to October. Harvesters believe that the humid grasslands should be burned every other year to stimulate production. The ideal period to harvest is variable among harvesters; knowledgeable harvesters tend to collect scapes later in the year. This practice allows seed maturation (early September) before the harvest, decreases plant mortality by uprooting plants with immature scapes and increases the brightness of the handcrafts. These information has been applied in experiments which were designed and fulfilled with harvester participation, to assess the effects of capim dourado's harvest in the region. The intention is to propose harvesting rules based on both scientific and traditional knowledge.

800. COMPARISON OF DIFFERENT METHODOLOGIES FOR DNA EXTRACTION FROM SCATS OF *Leopardus wieddi*. Schneider, Alexsandra; RORATTO, PAULA A.; Bitencourt, João V.T.; Bartholomei-Santos, Marlise L.; Santos, Sandro. Programa de Pós-Graduação em Biodiversidade Animal, Universidade Federal de Santa Maria, Santa Maria, RS, 97105-900, Brazil, p.angelica@mail.ufsm.br.

Leopardus wieddi is a felid species vulnerable to extinction. Due to the difficulties in collecting blood or tissue samples for conservation genetics purposes, DNA extraction from scats is a very useful method since it does not require the animal capture and it is non-invasive. The aim of this study was to compare different methodologies for DNA extraction from scats, in relation to DNA yield, molecular weight and suitability to downstream applications. Four protocols were tested: A) QIAmp DNA Mini Kit; two modified phenol-clorophorm techniques: B) lysis in buffer containing b-mercaptoethanol and proteinase-K for 2 hours and C) lysis in buffer containing b-mercaptoethanol for 16 hours; D) Sample homogenization in iced buffer and precipitation with potassium acetate and isopropanol. An aliquot of each sample was incubated with TaqI to observe the restriction pattern. All protocols produced DNA suitable to digestion. The protocol that produced DNA with high molecular weight and higher yield was the protocol D, which has been regularly used in our lab.

801. SUSTAINABLE FOREST MANAGEMENT IN CENTRAL AMAZONIAN WHITE-WATER FLOODPLAINS BASED ON TREE RING-DATA. SCHOENGART, JOCHEN. Max-Planck Institute for Limnology, INPA/Max-Planck Project, Av. André Araújo 2936, P.O. Box 478, 69011-970 Manaus/AM, Brazil, jschoen@gwdg.de.

The nutrient rich white-water floodplain forests along the Amazon River are endangered due to conversion into areas for agriculture and an expanding timber industry. In a reserve at the middle Solimões River the Institute Mamirauá develops in co-operation with the local inhabitants management plans for sustainable use of the natural resources and concepts for the protection of rare animal and plant species. One important part is the plan for sustainable forest management. This includes the investigation of growth behaviour of timber species by means of tree ring analysis. The modelled growth patterns show a high variation in diameter and volume increment. The model indicates an optimal period for logging between the peaks of current and mean volume increment. The cutting cycle in the reserve is presently limited to 25 years for all species. Our results shows that the cycles must be adapted specifically to avoid overexploitation of the slow growing and to allow economical use of faster growing tree species. The investigation can be used as a model for the estimation of sustainable wood growth in other tropical forest ecosystems.

802. EXPERT SCORING TO ASSESS CHANGE - THE BIODIVERSITY INTACTNESS INDEX. SCHOLES, ROBERT J.; Biggs, Reinette. CSIR Environmentek, PO Box 395, Pretoria