O84.03 - Fauna functional groups used to evaluate the successional pathways in a semideciduous seasonal forest in restoration process

MARCELO DUCATTI; DANIEL HENRIQUE HOMEM; FERNANDO IGOR DE GODOY; HELLEN PATRICIA PECCHI LEITE; JOÃO CARLOS ZECCHINI GEBIN; RAISA REIS DE PAULA RODARTE; VAGNER DE ARAUJO GABRIEL; FLÁVIO BERTIN GANDARA
Casa da Floresta Ambiental SS, Piracicaba-SP/Universidade Estadual Paulista (Unesp), Faculdade de Ciências Agronômicas, Botucatu, Av. Joaninha Morganti, 289, Monte Alegre, 13415-030, Piracicaba, São Paulo, Brazil. marcelo.ducatti@casadafloresta.com.br

In restoration process the aim is to re-establish ecological interactions that had been lost whereas they are responsible for the successional pathways. This study evaluated the dynamic among vegetation, birds and medium and large-sized terrestrial mammals in a permanent preservation area under restoration process focusing on fauna functional groups. The study area belongs to Instituto de Pesquisas e Estudos Florestais - IPEF (Piracicaba, Brazil) where a high diversity saplings planting was held in 2006. The monitoring was carried out from March 2010 to February 2017. Fauna data were obtained monthly and the phytosociology every two years. The functional groups were defined according to body mass, diet, habitat, stratum and nest type. Our results showed an increase in basal area (11.2 to 22.5 $m^2.ha^1$) demonstrating evolution in forest structure. Yet, there was a decrease in tree species richness together with an increase in early successional species density, which can influence the ecosystem's ability of self-maintaining over time. A total of 127 birds and 16 mammal species were recorded, comprising 29 and 7 functional groups, respectively. In 2014, due to a severe drought, the understory plant density just as the amount of mammalian functional groups and bird species richness decreased. In the past two years, functional groups of higher ecological demands (frugivores, ground-dwelling insectivores and predators) have been registered, which might indicate that a more complex and well-structured fauna community is taking place in the area and the ecological succession in restoration process is moving forward.

O84.04 - Litter arthropod fauna as parameter to evaluate ecological restoration in the Brazilian Ombrophilous Dense Submontana Forest

MARCELO DINIZ VITORINO; TAISE CRISTINA PLATTAU ARENHARDT; EDUARDO ADENESKY FILHO; SANDRA CIRÍACO DE CRISTO; GUILHERME ALAN KLUNK
Universidade de Blumenau - FURB, Rua São Paulo, 3250, Itoupava Seca, 89030-000, Blumenau, Santa Catarina, Brazil. dinizvitorino@gmail.com

The use of entomofauna and other arthropods is not a common method to evaluate ecological restoration in Brazil. However, plant- insect interactions may be useful indicators for identifying different the sucessional phases during the restoration process. In this study, we surveyed the litter fauna from different degraded pasture areas under restoration with 5 different nucleation techniques and native seedling plantings in the Serra do Itajaí National Park located in the Santa Catarina state of southern Brazil. We compared the litter fauna from a surrounding preserved forest and natural regeneration area with our restoration site to identify arthropod diversity during this process. Several ecological indices, e.g., species richness, diversity, abundance, similarity and richness estimators were used to compare the areas. Arthropod fauna was sampled with pitfall and Berlese funnel traps bimonthly since 2014 and will continue for the duration of the project. All groups were identified to Class, Order and Family levels. Results from 2014 – 2016 show that the Class Collembola is the most abundant group in pasture areas and decreases in abundance when herbaceous plants and some shrubs appear. Beetles in the families Ptiliidae and Staphylinidae (Coleoptera), are potential indicators of advanced vegetational sucession. Bark beetles in the subfamily Scolytinae, a unique group that was identified to species level, are associated with woody species material deposited on the litter surface.

O84.05 - Juvenile fishes as functional describers of ecological rehabilitation in a gravel bed river

ALAIN DE VOCHT; DESCAMPS SARAH; PASMANS RAMON
PXL University College, Hasselt University, Agoralaan, Building H, 3590, Diepenbeek, Limburg, Belgium. alain.devocht@pxl.be

The river Meuse has been heavily impacted by channelization but in the middle reach a 48 km long free-flowing stretch is still present. This part of the river however has been impacted by gravel extraction and the construction of dykes as well. In order to restore the contact between the summer and winter bed of the river, nine new riffles have been constructed in the period 2006-2009. These riffles have been evaluated using point abundance sampling by electrofishing of young of the year fishes in six