

1. **CONTRIBUTION TO THE KNOWLEDGE OF *Cordyceps s. l.* IN ARGENTINA**

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Cordyceps s.l. constitutes an entomopathogenic group of Ascomycetes. It is known for its diversity of interactions with the classes Insecta and Arachnida and includes about 500 reported species. Molecular systematics has shown that *Cordyceps s.l.* includes 4 genera (*Cordyceps s.s.*, *Metacordyceps*, *Ophiocordyceps* and *Elaphocordyceps*) with a cosmopolitan distribution and greatest diversity in the tropics. Besides molecular differences, species can be separated by the shape and color of the stroma, the perithecia arrangement, the ascospore morphology, type of merisporous fragmentation and the host specificity level. In order to continue the study of biodiversity of species of *Cordyceps s.l.* present in Argentina, specimens collected in the Iguazú National Park (Misiones, Argentina), kept at BAFC, were morphologically examined. The following species were identified: *Metacordyceps martialis* on Coleoptera larvae, *Ophiocordyceps amazonica* on adult Acrididae, Orthoptera and *O. melolonthae* Melolonthidae larvae, Coleoptera. This constitutes the first record of these species for Argentina. *Nomuraea atypicola* (anamorph) on Nemesiidae spider, Araneae, is recorded for the first time for NW Argentina. This research is a significant contribution to the knowledge of the number of *Cordyceps s.l.* species known in Argentina.

2. **A KEY TO THE EGG PARASITIDS OF LEPIDOPTERA DEFOLIATORS IN SOYBEAN CROPS IN TUCUMAN PROVINCE, ARGENTINA**

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In northern Argentina, soybean crops are affected by several pest but *Anticarsia gemmatilis* (Hübner) (Catocalinae), *Rachiplusia nu* (Guenée) and *Pseudoplusia includens* (Walker) (Plutiniinae) (Lepidoptera: Noctuidae) are the most important defoliators. Their populations have a rich antagonistic complex, egg parasitoids being the most significant. Knowledge of biocontrol agents is essential for the planning of IPM programs. The aim of this contribution is to provide tools to identify these insects. Field collected eggs were enclosed under laboratory conditions to obtain adult parasitoids and then mounted to observe specific characters. For identification, specific keys of Platygastroidea and Chalcidoidea and particularly those of Scelionidae, Aphelinidae and Trichogrammatidae were used. The most important egg parasitoid species, in order of abundance and frequency, were *Trichogramma pretiosum* (Riley), *T. bruni* Nagaraja, *T. nr rojasi*, *Trichogramma* sp. (Trichogrammatidae), *Encarsia porteri* (Mercet) (Aphelinidae) and *Telenomus cyamophylax* Polaszek (Scelionidae). A pictorial key is provided for the identification of these species.

3. **COLEOPTERA ASSOCIATED WITH STRAWBERRY CROPS IN TUCUMAN, ARGENTINA**

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Because of its qualities for industrialization and export, strawberry (*Fragaria ananassa* Duch.) is a fruit of high regional economic value. Tucumán province is the leading exporter of Argentine strawberries. The knowledge of harmful and beneficial arthropods present in crops is essential to develop programs of integrated pest management, and to maintain production standards and quality. The aim of this study was to determine the species of beetles associated with strawberry crops. The study was conducted at INTA's EEA Famaillá, in Tucumán (Argentina). Sampling was conducted on plots of "Strawberry Festival", "Sabrosa" (Candonga), "Fortuna" (Radiance), "Camino Real" and "Camarosa" cultivars between September and November, 2011. As a result, we identified phytophagous beetles and predators. Phytophagous families found were Crysomelidae, Carabidae and Tenebrionidae. The predator family found was Coccinellidae. Nine species of Coleoptera are cited for the first time in strawberry crops in Argentina. The taxonomic information obtained is essential to understand pest-predator relationships, to characterize strawberry agroecosystem biodiversity, to propose biological control strategies and to implement integrated production protocols.

4. **CONSUMPTION RATES OF *Rhopalosiphum maidis* (HOMOPTERA: APHIDIDAE) BY *Doru lineare* AND *Doru luteipes* (DERMAPTERA: FORFICULIDAE)**

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Doru lineare and *D. luteipes* are frequent species inhabiting corn crops and their surrounding spontaneous vegetation, mostly composed of *Sorghum halepense*. Johnson grass is affected by *Rhopalosiphum maidis* and earwigs are important predators. The aim of this work was to evaluate the attack rates and the predatory capability of *D. lineare* and *D. luteipes* through consumption rates using *R. maidis* as prey. The study area was located at El Manantial (Tucumán). The rate of aphid affected plants was calculated (number of aphid affected plants/total checked plants x 100) from April to June 2012. Consumption rates were assessed in the laboratory: one adult earwig with a fasting period of 48h was placed in a glass tube containing 30 aphids for 15 minutes and then the number of preyed aphids was counted. Five trials, consisting of 10 replicates with 10 ♂ and 10 ♀, were made for each species. The data obtained were analyzed (*T* test). The aphid affected 69.75% of Johnson grass plants with a mean of 3.49 individuals/plant. Consumption rates for adults of *D. luteipes* was 21.7 aphids (♀=20.14 and ♂ = 23.26; P= 0.0007). The consumption rate of adult of *D. lineare* was 21.3 aphids (♀= 20.92 and ♂= 22.92; P= 0.026).