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ANALYTIC SUMMARY

Ana Cristina TAVARES, Lígia SALGUEIRO, Jorge CANHOTO & Jorge PAIVA. *Iberian endemic* Apiaceae*: a reassessment for conservation purposes in Portugal*
BIBLID [0211-9714 (2010) 29, 13-37]

This work is part of a project on the *in vitro* and *ex situ* conservation of the Iberian endemic *Apiaceae* from Portugal and the biochemical characterization of their essential oils. Fourteen Iberian endemic *taxa* belonging to eleven genera are ascribed to Portugal. As a result of 152 field trips to 49 different locations (150 numbers collected) during six years (2005 to 2010), *Bunium macuca* subsp. *macuca* was not find yet. Thus, only 13 *taxa* could be studied from which *Angelica pachycarpa, Daucus carota* subsp. *halophilus, Distbicoselinum tenuifolium* and *Seseli montanum* subsp. *peixotoanum* were considered the priority taxa for conservation, as they are the four more vulnerable *taxa* in Portugal. The *ex situ* conservation of every Portuguese *taxa* in the COI Herbaria and in the Botanic Garden of Coimbra (seedbank-*Index seminum* and living collections) was acheived, being the more vulnerable also propagated and maintained through *in vitro* culture methods.

An updated geographical distribution of the 13 Iberian endemic *Apiaceae* in Portugal, as well as the more indicated taxomic features to distinguish them is presented. A characterization of the habitats is also provided. Specific indications are expresed for some *taxa*, namely *Angelica, Bunium, Conopodium, Daucus* and *Eryngium*. Two taxonomic keys were described for the identification of the four native subspecies of *Daucus carota* and the two subspecies of *Eryngium duriaei*. These outcomes have the main purpose to gather taxonomic, environmental and biotechnological data to help the conservation of these important *taxa* both from a biological and economic perspective.

Keywords: Aromatic plants, crop wild relative, endangered taxa, taxonomic keys.

Elena GIL PACHECO & Miguel LADERO ÁLVAREZ. *Search for alternative crops in the Alagón valley region (Cáceres, Spain)*
BIBLID [0211-9714 (2010) 29, 39-103]

In the present work we report the search for profitable alternative crops that will be competitive on the market from the zone of Torrejoncillo (province of Cáceres, W. Spain), because traditional agricultural practices are starting to die out. Owing to the increasing

demand on the domestic and international markets, we have decided that medicinal plants would offer a good alternative.

The following taxa were selected for study: *Calendula officinalis* L. (Pot marigold), *Hypericum perforatum* L. (St. John's wort), *Taraxacum officinale* Weber (Dandylion) and *Trifolium pratense* L. (Red clover), because these plants are able to adapt to the environmental and pedological conditions of the area and are in great demand on the Spanish market. We report the quantitative yield of the crops per hectare and the content in active principles of the plants and their profitability. The work is completed with a monographic study of each of the species selected.

Keywords: Medicinal plants, *Calendula officinalis* L., *Hypericum perforatum* L., *Taraxacum officinale* Weber, *Trifolium pratense* L., profitability.

Loredana MEREU, Lorenzo LASTRUCCI & Daniele VICIANI. *Contribution to the knowledge of the vegetation of Pesa river (Tuscany, Central Italy)*
BIBLID [0211-9714 (2010) 29, 105-143]

The hygrophilous vegetation of Pesa river in Tuscany (Central Italy) is described according to the phytosociological method. The survey shows the presence of 23 vegetation types belonging to the following classes: *Potametea, Bidentetea tripartitae, Isoeto-Nanojuncetea, Phragmito-Magnocaricetea, Artemisietea vulgaris, Galio-Urticetea, Molinio-Arrhenatheretea, Salici purpureae-Populetea nigrae.* In spite of the anthropic alteration observed along several stretches of the river, the study highlights the presence of high valuable vegetation types referable to 10 habitat of European Community importance.

Keywords: Phytosociology, hygrophilous vegetation, conservation, Pesa river, Tuscany.

David RODRÍGUEZ DE LA CRUZ, Estefanía SÁNCHEZ REYES & José SÁNCHEZ SÁNCHEZ. *Aerobiological behaviour of some riparian herbaceous taxa pollen in Salamanca (Middle-West of the Iberian Peninsula)*
BIBLID [0211-9714 (2010) 29, 145-155]

Atmospheric pollen levels of *Cyperaceae, Juncaceae* and *Typhaceae* were studied in 2000-2007 period by means of a Hirst Volumetric Spore Trap in the city of Salamanca (MW Spain). The intra-diurnal pattern and the influence of selected meteorological parameters in *Cyperaceae* airborne pollen concentrations were also analysed. Seasonal distribution was focused between May and August for *Cyperaceae* and *Juncaceae*, between late May and mid-October for *Typhaceae*. In addition, their airborne pollen levels did not overcome 10 grains/m^3. In the case of *Cyperaceae*, intra-diurnal distribution showed greater levels between 11 and 20 hours, and temperature, insolation and NE-N winds had a positive influence in atmospheric concentrations, whereas rainfall and relative humidity displayed negative correlation coefficients with *Cyperaceae* pollen concentrations.

Keywords: Aerobiology, *Cyperaceae*, *Juncaceae*, *Typhaceae*, pollen, Salamanca.

David RODRÍGUEZ DE LA CRUZ, Estefanía SÁNCHEZ REYES, Lara María JULIÁN CAMPANO, Alberto MARTÍN BAZ & José SÁNCHEZ SÁNCHEZ. *First aerobiological records in the Biosphere Reserve «Sierras de Francia y Béjar» (Middle-West of the Iberian Peninsula)*
BIBLID [0211-9714 (2010) 29, 157-166]

Atmospheric pollen and pteridophyte spores content was analysed during 325 days of year 2011 in the Biosphere Reserve «Sierras de Francia y Béjar» (MW Spain; Villanueva del Conde Municipal District) by means of Hirst Volumetric Spore Trap. Moreover, a portable Spore Trap was used due to an electric failure of fixed one mainly in May. During the studied days, 57 types of pollen and 1 type of pteridophyte spore, *Pteridium*, in the atmosphere of the analyzed area were identified. Airborne pollen levels of *Quercus*, *Castanea*, *Olea* and *Ericaceae*, together with low concentrations of pollen grains from ornamental species widely used in urban areas such as *Platanus*, reveal the environmental importance of this world-renowned wildlife Reserve.

Keywords: Aerobiology, Biosphere reserve, Villanueva del Conde, *Pteridium*, pollen, spores, Salamanca.

