

INITIAL EFFORTS IN THE STUDY OF THE RICE PADDY'S COMMUNITIES OF LOW SADO (SOUTH PORTUGAL)

Marízia Pereira^{1,2}, Mónica Martins³, Isabel Saraiva⁴

¹ Universidade de Évora, Depto. de Paisagem, Ambiente e Ordenamento Biofísico e Paisagístico, Évora, Portugal; ² Instituto de Ciências Agrárias e Ambientais Mediterrânicas, Universidade de Évora, Portugal; ³ Centro de Estudos Geográficos, Instituto de Geografia e Ordenamento do Território da Universidade de Lisboa, Lisboa, Portugal; ⁴ Estação Agronómica Nacional, Oeiras, Portugal (mariziacmdp3@gmail.com)

ABSTRACT

Rice cultivation has been introduced in Portugal in the late twelfth century, playing in the present, an important role in the maintenance of particular wetland habitats of adventitious communities. Conversely, it is important to study related alien species, with invasive potential, since they may become major threats to natural habitats. Thus, this work constitutes an initial effort to systematize the knowledge on structure and composition of the paddy fields' vegetation in the Lower Sado, including several species and plant communities which are still poorly studied or understood. It was focused on the lower River Sado (South Portugal), an area traditionally devoted to rice cultivation, with Mediterranean pluviseasonal oceanic macrobioclimate, Upper thermomediterranean thermotype, and Upper dry ombrotype. Biogeographically it is inserted in the Coastal Lusitan-Andalusian Province, Sadensean-Dividing Portuguese Subprovince, and Ribatagan-Sadensean Sector. Herborizations, and 110 phytosociological relevés following the classic sigmatist method of Braun-Blanquet, were made in bunds not submitted to the application of herbicides, during the months of June and July of 2010, in 7 localities: Alcácer do Sal, Comporta, Rio de Moinhos, Santa Catarina, São Romão, Torrão and Tróia. The Raunkjaer system was used to identify physiognomic types. Belonging to 26 families, 69 taxa of adventitious flora were identified. Physiognomic types included 28 therophytes, 24 hemicryptophytes, 13 cryptophytes, 2 phanerophytes and 2 chamaephytes. Biogeographically, holarctic species predominate (84%), followed by neotropical (9%) and paleotropical (6%). Also, were recognized 10 alien species and 1 of undetermined origin. Three phytosociological associations were identified: a. *Thypho angustifoliae-Phragmitetum australis*, b. *Oryzo sativae-Echinochloetum cruris-galli*, c. *Paspaletum dilatato-distichi*, and three communities accepted: d.a community of *Digitaria sanguinalis*, a community of *Leersia oryzoides* and *Echinochloa crus-galli*, and a community of *Paspalum paspalodes* and *Lolium perenne*. These associations and communities are inserted in four phytosociological classes: a. *Phragmites-Magnocaricetea*, b. *Oryzetea sativae*, c. *Stellarietea media*, and d. *Molinio-Arrhenateretea*, respectively.

Key words: Flora, vegetation, paddy fields, Lower Sado, Portugal.