1.-Symposium Presentation
2.- Symposium Title " Predictive distribution modelling for conservation of biodiversity in Europe"
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5.- Title: "HISTORICAL DYNAMICS OF THE FLOODING REGIME OF THE DOÑANA MARSHES ANALYZED WITH PREDICTIVE MODELS"

The Doñana marshes are a seasonal wetland of international importance. They are protected by a National Park, and constitute a biosphere reserve and Ramsar site. The marshes get flooded with autumn and winter rains and dry-up in summer. This seasonal flooding process is very variable depending on the amount of rainfall, that varies annually between 200 -1000 mm. The amount of area flooded, the depth and characteristics of flooded areas, and the amount of vegetation growth vary along the season, but are also very variable among years. How the marshes get flooded determines the amount of habitat for animal species in general, and waterfowl in particular. We have used a series of 224 Landsat images from the period 1975-2005 reconstruct the flooding regime of the marshes. During 2003-2004 we obtained ground truth data of flood characteristics in three field visits simultaneous with a satellite pass. We fitted models to field data to predict from satellite reflectance data, flood level, water turbidity and aquatic vegetation growth. Different models were evaluated and tested with independent data. Final models were used to generate historical maps of flood level, water turbidity, and aquatic vegetation cover and analyse the changes in the last 30 years.