General Introduction

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Numerous vegetation and habitat mapping studies have been developed since the twentieth century (Rey 2009; Pedrotti 2013). Vegetation mapping of France, carried out in 1945 by Gaussen et al., by Paul Ozenda in the Alps (Ozenda 1963, 1985, 1986 Ozenda and Wagner 1975) and plant mapping in Montpellier under the direction of Louis Emberger (1961; Emberger and Gounot 1963), demonstrate amply the interest in mapping work for vegetation monitoring and conservation, land-use planning and nature protection.

In order to complete the response to national conservation policies, Habitat European directive obligations (assessment of the state of conservation of habitats of Community interest) and spatial planning needs (green and blue corridors, protected areas creation strategies...), the French Ministry of Ecology launched a national vegetation mapping program (CarHAB) in 2011. The aim of this program is to produce a map of the natural and semi-natural vegetation of France at the scale 1:25,000 by 2025. The methodology adopted follows the dynamico-catenal approach and allows apprehension, on the one hand, of vegetation dynamics for typological purposes of the vegetation series, and on the other hand, of the diversity and phytocoenotic originality of the plant landscape (Géhu 1986, 1988; Rivas-Martínez 2005b).

Corsica has been chosen as a pilot region due to the peculiarities of its mediterranean and mountain vegetation. For this region, a research project planned over 4 years is directed by the EA 2219 of the University of Western Brittany (UBO) and the National Botanical Conservatory of Corsica (CBNC). The main objective of this

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project is to set up a methodology to inventory and map vegetation series and geoseries of Corsica. More precisely, the aim is to develop and validate a methodology for the map of vegetation and to produce a catalog of the series and geoseries of Corsica. This program is also positioned within the knowledge-based framework for land-use planning and management, as well as medium and long-term vegetation monitoring and assessment of natural and semi-natural habitats within the framework of Natura 2000.

Since 2012, several symphytosociological projects have been carried out in the valleys of Asco (Delbosc 2015; Delbosc et al. 2015a, b), Niolu (Lefort 2013), Haut-Vénacais (Tanné 2014) and Balagne (CBNC 2015).

The aim of this paper is to characterize the vegetation series and geoseries (ecology, structure, dynamic trajectories, role of anthropogenic factors on vegetation dynamics, catenal positioning in landscape) of two sectors: Cap Corse and the pond Biguglia. These two study sites were selected according to two methods:

- for Cap Corse, typology and mapping are based on an inductive approach, the principle of which is to understand the dynamics of vegetation through the mature, substitutional, pioneering and anthropogenic associations likely to exist within a tessellar envelope. These various dynamic stages characterize "the vegetation series" (sigmetum or synassociation), the fundamental unit of symphytosociology (Géhu 2006; Biondi 2011). The aim of symphytosociology is, therefore, to define the vegetation series; in other words, it aims to identify the repetitive combinations of syntaxa under homogeneous ecological conditions.
- for the Biguglia pond, the typology and mapping are based on a deductive approach, the principle of which consists of crossing (under SIG) the ecological descriptor maps with the vegetation mapping to reveal the *tesselas* and the natural potential vegetation that underlies them. This approach, which has become widespread since the 2000s with the improvement of GIS techniques, is particularly interesting for characterizing plant landscapes from vegetation to vegetation geoseries, for the purpose of conservation management of natural and semi-natural environments.