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INTRODUCTION

The LIFE Integrated Project 'Pandoteira', entitled 'Managing the Natura 2000 network in Cyprus and shaping a sustainable future' aims to achieve and maintain a favourable conservation status for habitats and species of community importance, particularly of those included in the Habitats and Birds Directives, through actions in the Natura 2000 network of Cyprus. The project seeks to fill knowledge gaps for species and habitats, improve the governance of the Network, exploit ecosystem services, tackle the issue of Invasive Alien Species and elaborate and implement action and management plans for species and habitat types. It also aims to positively influence land users, owners, local population and other stakeholders in understanding the importance of the Natura 2000 network, so that it becomes known and well accepted among the citizens, in general, and the stakeholders, in particular.

The project is coordinated by the Department of Environment (Ministry of Agriculture, Rural Development and Environment) and implemented by another 13 partners (including universities, research organizations, governmental authorities and NGOs).

One of the main objectives of the project is the elaboration and implementation of Action Plans for selected species and habitat types. This poster describes the methodology adopted for both the selection of the targeted species / habitat types and the elaboration of their respective Action Plans. The Action Plan for *Ophrys kotschyi* is presented as a case study.



92C0 - *Platanus orientalis* and *Liquidambar orientalis* woods

METHODOLOGY

The development of selected Habitats and Species Action Plans listed in the Habitats Directive intend to be used as a tool for identifying priority measures for restoration across their range. Moreover, they aim at filling the knowledge gaps and provide for a more species-specific and habitat-specific management schemes that will be more focused and detailed on the 'needs' of the targeted taxa and habitats.

The following species/ habitats have been identified as important for prioritization:

2 snakes: *Hierophis cypriensis*, *Natrix natrix cypriaca*

2 insects: *Euplagia quadripunctaria*, *Propomacrus cypriacus*

1 mammal (bat): *Rousettus aegyptiacus*

3 turtles: *Mauremys rivulata*, *Caretta caretta*, *Chelonia mydas*

4 plants: *Astragalus macrocarpus* subsp. *lefkarensis**, *Phlomis brevibracteata*, *Crepis pusilla* and *Ophrys kotschyi**

10 freshwater and coastal habitat types: 92C0 - *Platanus orientalis* and *Liquidambar orientalis* woods, 92A0 - *Salix alba* and *Populus alba* galleries, 92D0 - Southern riparian galleries and thickets, 3170* - Mediterranean temporary ponds, 6420 - Mediterranean tall humid grasslands of the *Molinio Holoschoenion*, 1310 - *Salicornia* and other annuals colonizing mud and sand, 1210 - Annual vegetation of drift lines, 2110 - Embryonic shifting dunes, 2230 - *Malcolmietalia* dune grasslands and 2240 - *Brachypodietalia* dune grasslands with annuals.

The targeted habitat types were selected due to their vulnerability and their water dependence. Climate change, desertification effects and/or high human pressure (especially for the coastal habitats) can significantly impact their status. The Action Plans are expected to enhance the conservation of these habitats, since presently the conservation actions are based on site specific Management Plans and empirical knowledge of the respective site.

The targeted species were selected because they have either insufficient/moderate coverage within the Natura 2000 network in Cyprus or have knowledge gaps or their distribution and/or the population size needs to be updated. Action Plans are expected to apply species specific conservation measures to improve or maintain a favourable conservation status and (in some cases) to increase the coverage within the Natura 2000 Network.

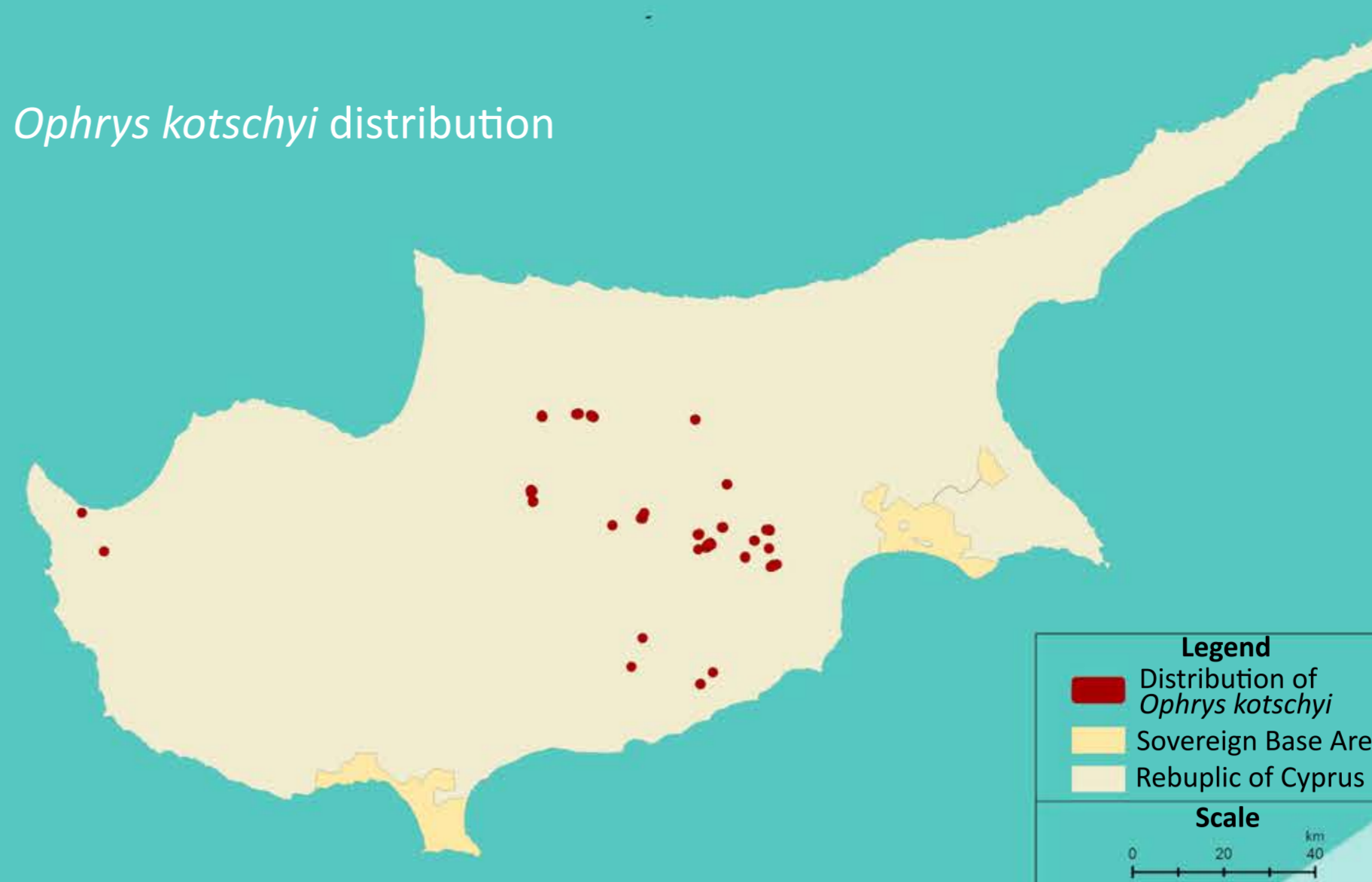
RESULTS

The elaboration of Action Plans for the targeted plant taxa provide background information on their ecology and biology, as well as relevant conservation actions already undertaken in Cyprus. Moreover, it includes detailed and up to date information on the species exact locations and population size and an assessment of their conservation status based on relevant IUCN criteria and taking into consideration the new data recorded through this LIFE project.

For each plant taxon, the desired Favourable Conservation Values (FRVs) were set. Based on the threats and pressures identified for each taxon and considering their specific needs, key objectives were set for securing their conservation. In order to achieve the FRVs set and meet the key conservation objectives, concrete conservation measures are proposed. For each conservation measure included in the Action Plans, guidelines are indicated relating to the timeframe, methodology and the exact locations in which they will be implemented. Many of these measures will be applied within the framework of the LIFE Integrated Project.

Ophrys kotschyi case study

Ophrys kotschyi distribution



Ophrys kotschyi*

SPECIES INFORMATION

Lorem Ipsum

- Tuberos, erect, glabrous perennial herb, 10-30 cm high. Leaves 3-6, narrowly elliptic. Sepals 3, green or pinkish; labelum dark brown to blackish-purple, velutinous, 12-15 mm long
- Endemic to Cyprus
- Included in Annex II of the Habitats Directive, as a priority species and in the Red Data Book of the Flora of Cyprus
- Population size = **2650 mature individuals**, of which 1960 (74%) are found within five Natura 2000 sites
- Found in eight locations, corresponding to eight subpopulations (more than 35 localities)
- Area of occupancy (1x1 Km grid) = 44 Km²
- Extent of occurrence = 796 Km²
- Main threats and pressures: low sexual reproduction success, land use change, agriculture activities, climate crisis, etc.
- Classified as a **Vulnerable** species, based on IUCN's criterion C1, which refers to an observed 10% decline on population size in 10 years period.
- Based on the experience of the authors and the involvement/monitoring of the specific species for several years and taking into account its threats/peculiarities, the Favourable Reference Values are defined as **2000-3500 individuals as a Favourable Reference Population** and the **35 km² as Favourable Reference Range**.

Subpopulation	Location	Area (m ²)	No of Individuals (2007-2012)	No of Individuals (2013-2018)	No of Individuals (2019-2023)	Natura 2000 Network	% of Individuals within a Natura 2000 site
Neo Chorio	1	12	1	3	3	Outside	-
Droushia	2	12	-	1	1	Outside	-
Pentakomo	3	0	1	0	-	Outside	-
Mitsero	4	24095	1	1433	1433	CY200003 1433 individuals	100%
Nicosia	5	95203	3	1993	1173	CY200001 165 individuals	100%
						CY200002 32 individuals	100%
						CY600003 41 individuals	100%
						CY600001 287 individuals	100%
						Outside	-
Lefkara - Skarinou	6	19	11	-	0	Outside	-
Agios Theodoros Larnakas - Alaminos	7	372	2	42	37	Outside	-
Tersephanou - Klavdia	8	0	2	-	0	Outside	-
Total	8	119713	21	3472	2647	1958	74%

SPECIFIC OBJECTIVES OF OPHRYS KOTSCHYI ACTION PLAN

- Maintaining and/or increasing the population to ensure the survival of the species.
- Achieving sufficient extent and suitability of habitat for the species in its range/zone of distribution.
- Identification of critical zones and ensuring connectivity between localities of the species.

The achievement of the above objectives is expected to take place by adopting appropriate measures, e.g. to propose a new Natura 2000 site to increase *Ophrys kotschyi* representation in the Natura 2000 Network, to improve its habitat, either through protection actions, or through actions to attract pollinators, to apply hand pollination actions in selected *Ophrys* individuals to increase seed output, etc.

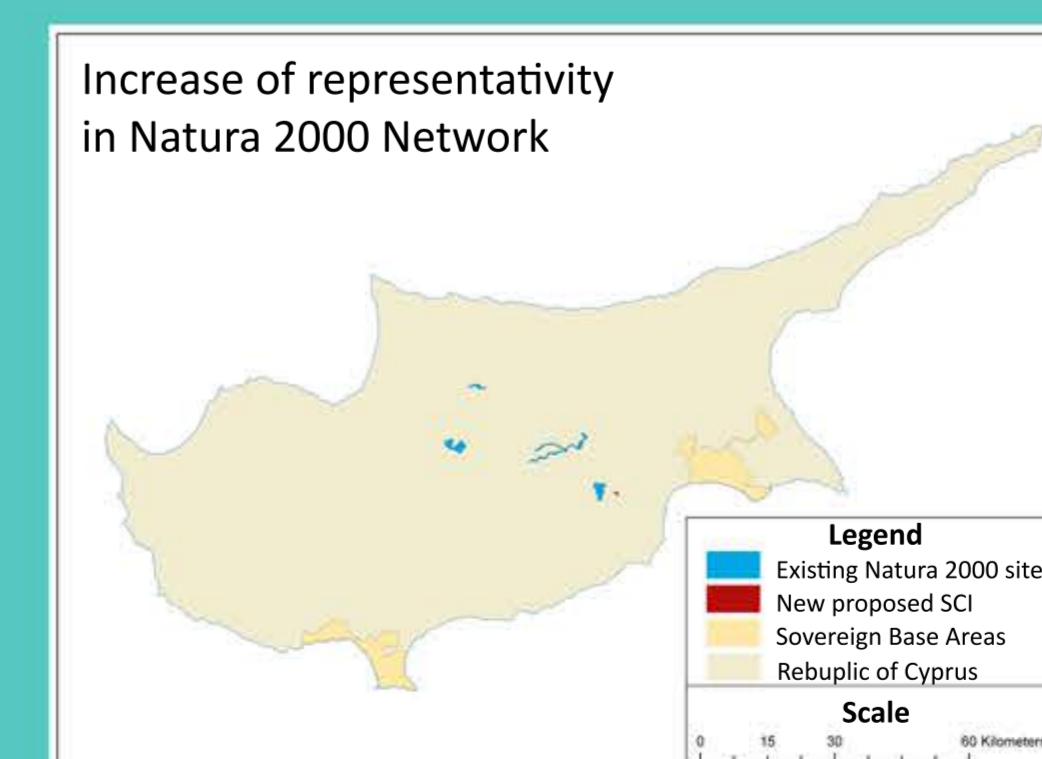
Each conservation measure is followed by a detailed description of the activities or studies proposed to be implemented, reference to the application area, the implementing agencies, the schedule and the estimated cost of implementation, as well as the immediacy of implementation (degree of priority) of the measures (for example: 1 = immediate application). Finally, for each measure, the specific objectives it serves are mentioned, as well as the appropriate monitoring indicators.



Melecta tuberculata auf/on Ophrys kotschyi, Agios Georgios (Mont), 4.3.1986



Hand pollination



Increase of representativity in Natura 2000 Network



Monitoring life cycle



Plant propagation

CONCLUSIONS

The elaboration of Action Plans, both for species and habitat types, is needed in order to develop and implement species/habitat specific conservation measures, based on their requirements. The implementation of the conservation measures will start during the course of 'Pandoteira' project. Based on information collected through these activities, the knowledge gaps on the population, ecology and behaviour of species will be filled. Similarly, the same will be conducted for habitat types and the respective information in the Standard Data Forms shall be updated.

