Conservation of the Island Wetlands of the Mediterranean Basin
"Mediterranean Island Wetlands" project

The Wetlands of Cyprus

TECHNICAL REPORT

TERRA CYPRIA

WETLANDS of Cyprus

Limassol, Cyprus, March 2019

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Contents

Abstract

Even though many wetlands in Cyprus are known to the public and can be visited, information about their condition and their total number was, until recently, scattered or even non-existent. In order to tackle this lack of knowledge and decentralised information, Terra Cypria conducted a complete **Inventory of Cyprus Wetlands** using a Rapid Assessment methodology during a two-year period (2014-2015). This effort was funded by the MAVA Fondation pour la Nature. During the course of the project, all wetlands in Cyprus with an area >1.000 m^2 (0,1 ha) were visited and recorded – with the exception of those located within military zones, which were included in the inventory but not visited.

The project was completed successfully resulting in a total number of 373 areas meeting the qualification criteria set for wetlands following the RAMSAR Convention and MedWet's guidelines. 315 wetlands are artificial and 58 natural.

All wetlands were mapped and their condition was evaluated. For the first time a complete and comprehensive database on Cyprus Wetlands was created (www.cypruswetlands.org). Amongst others, and for each wetland, the database includes:

(a) Type and category of each wetland, including information such as salinity, depth, water runoff and percentage of free water surface.
(b) Data regarding (i) flora species, (ii) fauna species and (iii) vegetation and habitats derived from the field surveys and bibliographical sources.
(c) Water-bird data from the Game and Fauna Service (competent authority for the management of birds in Cyprus), BirdLife Cyprus, Management Plans prepared for protected wetlands, various water bird studies conducted in the past, Environmental Impact Assessment studies that were prepared in the past that had to do with wetlands and other available and reliable sources.
(d) Data related to hydrology, history, threats and other parameters for both artificial and natural wetlands. These data were collected from a number of studies and publications implemented in the past from government authorities and other entities.
(e) Data regarding the activities taking place within each wetland and an area within 1-2 km from the wetland with their impacts.
(f) Data related to the values of each wetland and their protection status.
(g) Maps of each wetland with clearly defined borders of their area (delineation) and pictures.
(h) Vector files in *kmz* and *shp* with all wetlands' delineations and attribution tables including main/general information for each wetland.

The information collected during the inventory (literature, geographic, photographic and field-based information) is available in the interactive online platform (www.cypruswetlands.org), offering a very important tool for governmental and non-governmental stakeholders, scientists, interested individuals and the general public.

During the course of the project it was became clear that many of the island's wetlands are in continuous degradation, facing various pressures. The main causes that have been identified leading to degradation were: i) development pressures from the housing and tourist industry (especially on coastal areas), ii) dam construction halting water supply at downstream wetlands, iii) lack of specific legislation targeting the protection of wetland biodiversity, iv) unsatisfactory implementation of existing legislation which offers direct or indirect protection at specific wetlands and v) lack of knowledge from some government departments and citizens regarding the presence, importance and value of wetlands.

Since 2017, the Cypriot wetlands project has been part of a larger project which focuses on the whole Mediterranean Basin, the Mediterranean Island Wetlands project (**MedIsWet**). The project was a joint effort in 9 Mediterranean countries with island wetlands. This project contributes to the full implementation of the Ramsar Resolution XII.14 "Conservation of Mediterranean Basin Island Wetlands" (Annex I) and the achievement of the broader Ramsar Convention's and MedWet's objectives. The Ramsar Resolution XII.14 is calling upon all contracting parties of the Ramsar Convention to take immediate steps for the conservation of Mediterranean Basin island wetlands.

During the course of the MedIsWet project, Terra Cypria initiated communication with all relevant competent authorities and conducted a dynamic communication and educational campaign indicating the importance of island wetlands. It also explored various possible legislative or executive measures within the Republic of Cyprus legal system that can be used to prevent further deterioration of the island's wetlands and ensure the conservation of their biodiversity. Furthermore, through the development of a screening methodology, based on a set of criteria, a list of wetlands of the highest ecological importance was developed.

Following this screening approach 85 wetlands were selected. Based on the selected criteria, these are the wetlands of the highest ecological importance that should be effectively protected and managed within the areas that the Republic of Cyprus controls. Of those wetlands 67 are artificial and 18 natural.

Through these two projects and the collected scientific evidence and their analysis as well as the development of a publicly available database, a better understanding of the values of the wetlands of Cyprus was achieved.

The conclusions of this report emphasise that:

(a) The biological importance of artificial wetlands is mostly neglected.

(b) The biodiversity value of artificial wetlands is disregarded or neglected during their construction or restoration stage. Indeed, they tend to be treated only as artificial plans and not as artificial ecosystems.

(c) Cyprus wetlands (both natural and artificial) have a cumulative positive impact on biodiversity.

In its closing chapter the report presents the next steps needed for the full implementation of the Ramsar resolution XII.14 on the Conservation of Mediterranean Basin islands' wetlands (Annex I).

This Technical Report summarises all the knowledge acquired through the two projects and can be considered as an important tool, not only for the relevant government authorities working with water management and nature conservation, but also for land use decision makers and the broader public.

1. Introduction

The Project "Inventory of Cyprus Wetlands"

The ecological, social and economic importance of wetlands cannot be overlooked, since both natural and artificial wetlands are areas of high biodiversity importance, migration stops for hundreds of birds, wintering shelters, important indicators of water adequacy and condition and a unique resource for various economic human activities.

The project 'Inventory of Cyprus Wetlands', undertaken by Terra Cypria, the Cyprus Conservation Foundation, was implemented with the financial support of MAVA the Fondation pour la Nature. The inventory began in 2014 and lasted 18 months. On completion a total of 373 wetlands had been recorded. The aim of the project was to develop a complete and comprehensive inventory of all wetlands of the island using a Rapid Assessment methodology. As part of this effort the ecological, social and political importance of wetlands were also taken into consideration.

The WWF Greece's project "Conservation of the Island Wetlands of Greece" (2004-2013), inspired and motivated the collection of the equivalent census information for the wetlands of Cyprus. This was done by applying the same methodology that was successfully used for the Greek island wetland census.

Historically the first known Cyprus wetland census was conducted by Dimitropoulos A. and Dimitropoulos S. in 2008 under the Medwet CODDE Project. Their work resulted in the listing of 160 wetlands.

In Terra Cypria's inventory 'wetland' was defined as any natural or artificial area, consisting of marshes, fens, peatlands or simply water. These areas might have been permanently or temporarily flooded with water that is either stagnant or flowing, sweet, brackish or salty or areas that are covered with seawater whose depth did not exceed 6 meters during low tide - as stated in Article 1 of the Ramsar Convention. The minimum surface area taken into consideration when determining a wetland was 1000 m^2. Linear systems (i.e. streams, cheeks, rivers) were not documented unless they were themselves part of the wetland or contained non-linear sections (e.g. containment dams, flood marshes, etc.).

Even though many wetlands in Cyprus are known to the public and can be visited, information about their condition and the total number was, until today, scattered or even non-existent. During the project, all wetlands in Cyprus were visited and recorded – except for those located within military zones, which were included in the inventory but not visited.

Prior the fieldwork studies, all Terra Cypria personnel involved in the project were trained by WWF Greece officers (*Picture 1* and 2) on the WWF methodology which, amongst others, included the identification of wetlands types, the collection of information, the completion of the field protocol and the methodology of delineating the wetlands' boundaries.

Picture 1 and 2: Training of Terra Cypria's personnel by WWF Greece officers on the island wetlands rapid assessment inventory methodology.

Through the project all wetlands on the island larger than 0,1 ha, were visited and mapped, and a national inventory was created including (a) detailed maps with proper delineation of the wetlands, (b) numerous pictures and videos from site visits, (c) information on the importance and value of island wetlands along with (d) detailed information on the protection status and the main threats to each wetland and its proximity in the drainage basin (maximum 2 km from each wetland) and, finally, (e) a complete list of references including scientific publications, books and grey literature on the biological 1importance of each wetland. For the first time a publicly available database with essential information on the wetlands of Cyprus has been created. The database can be found at www.cypruswetlands.org.

During the course of the project the degradation of many of the island's wetlands was noted, mainly caused by land reclamation, earthworks, construction works, road openings, and the restriction or deprivation of water supply. The lack of adequate knowledge of some competent departments and citizens about the presence, meaning and value of the island's wetlands is also a serious factor in their continuous degradation as well as the lack of a umbrella wetland legislation. Since Cyprus is an island suffering diachronically from water scarcity, continuous efforts were and are made to store as much water as possible. For that reason, many dams and other water reservoirs were built across the island to store water both for drinking and irrigation purposes (Picture 3). This practice, together the above pressures, were recorded in the inventory which notes that most of the Cyprus wetlands are artificial and the natural ones are often seriously degraded. It is worth mentioning that out of the 373 wetlands, only 15% are natural while the majority of them are degraded estuaries. At the same time a large number of artificial wetlands have been gradually transformed into areas of rich biodiversity and extremely high ecological importance.

Picture 3: Extent of the network of water reservoirs (red delineations) around Eptagonia village, a mountainous area of Limassol district.

As mentioned above, it became obvious that artificial wetlands should be considered also as artificial ecosystems rather than only artificial plans (Picture 4 and 5).

Better management and conservation of wetlands is essential to maintain and help the water-dependent biodiversity of our island. There is also a need for better enforcement of existing legislation. Finally, the design of wetland-specific legislative measures within the Republic of Cyprus can prevent further deterioration of the most important wetlands and ensure the conservation and protection of their biodiversity.

Pictures 4 and 5: Achna Reservoir (above) and Bishop's pool (below) can be considered good examples of artificial wetlands that have evolved into artificial ecosystems of high biological significance.

The Project MedIsWet

Mediterranean Island Wetlands project

Two years after the Cypriot project, in 2017, a joint Mediterranean project called Mediterranean Island Wetlands Project (MedIsWet) was launched and is still ongoing. This project is a joint effort of 9 Mediterranean countries with island wetlands, aiming to replicate the initial Greek island wetland project on all the islands of the Mediterranean Basin. Through a network of NGOs, institutes, universities and public authorities, an action plan aims at the full implementation of Ramsar Resolution XII.14 "Conservation of Mediterranean Basin Island Wetlands" (Annex I) and at the achievement of the broader Ramsar Convention's and MedWet's[1] objectives.

- The Ramsar Resolution XII.14 "Conservation of Mediterranean Basin Island Wetlands" was signed and adopted during the 12th meeting of the Conference of the Parties to the Ramsar Convention on Wetlands that took place on June 2015 in Uruguay. As seen in Annex I, the resolution stresses the importance of conserving island wetlands of the Mediterranean Basin and urges the contracting parties to follow a number of steps to achieve this aim. Some of the main actions the Resolution requests the Mediterranean Contracting Parties to do are summarized below: Develop of effective and decisive legislative or executive measures that would prevent the destruction of island wetlands.

- Grant clear and effective legal protection to Mediterranean island wetlands, so as to ensure the conservation of their biodiversity, and the maintenance of their hydrological, cultural and social values.

- Produce or update as a matter of high priority a complete, science-based inventory of their island wetlands.

- Ensure effective and long-term conservation and, whenever applicable, the restoration of their island wetlands.

- Consider designating key small island wetlands for inclusion in the List of Wetlands of International Importance.

- Provide the Ramsar Secretariat with regular updates on all Mediterranean island wetlands, whether or not they have been designated as Ramsar Sites, through the triennial National Reports, including information on their number, extent, biodiversity, current conditions and protection status, and where possible on the ecosystem services which they perform.

[1] *Mediterranean Wetlands Initiative (MedWet) is an official Ramsar Regional Initiative, established in 1991. It brings together 27 Mediterranean and peri-Mediterranean countries that are Parties to the Convention on Wetlands (Ramsar, Iran, 1971). Palestine and a number of organizations and wetland centres are also part of the MedWet Initiative. The MedWet mission is to ensure and support the effective conservation of the functions and values of Mediterranean wetlands and the sustainable use of their resources and services.*

In the context of the MedIsWet project Terra Cypria:

(a) Initiated communication with the National Focal Point of the Ramsar Convention (Department of Environment) and discussed what further action the Republic of Cyprus could take towards the full implementation of the Ramsar Resolution XII.14 for the Conservation of Mediterranean Basin island wetlands.

(b) Conducted a dynamic communication and educational campaign on the importance of island wetlands both for the environment but also for the society and the economy of the island (Picture 6).

(c) Screened all the 373 wetlands mapped through the 2014-2015 inventory, to identify those with the highest ecological importance that should be effectively protected and managed within the areas controlled by the Republic of Cyprus. This exercise identified 85 sites, 18 out of which are natural (mainly estuaries) and 67 artificial (mainly reservoirs and river recharge barriers).

(d) Explored ways, using external assistance from an environmental lawyer, within the Republic of Cyprus legal system, to create new legislation and/or executive measures, to prevent further deterioration of wetlands, protect their biodiversity, and preserve their hydrological, cultural and social values.

Picture 6: Dissemination of project results through field educational activities for primary students at the Kalavassos reservoir, reaching 156 students and 10 teachers.

Both projects (Inventory of Cyprus Wetlands and MedIsWet), have created a better understanding of the value of wetlands. The results of the two projects are very helpful, not only for the authorities working with water management and nature conservation, but also for all land use decision makers. At the same time, the two projects have provided the knowledge and experience for further research and study on specific wetlands with high ecological importance (Picture 7), as well as specific wetland parameters and values like their ecosystem services.

The Report

The current report provides brief but concentrated information on the work implemented within the two projects described above, and their results. It is separated into four chapters:

1. Methodology – The methodology applied throughout the two projects explains how the work was done and how to replicate it, if needed, in the future.

2. Results – Summarises the results of the project. The results are presented in groups according to wetland types, size and biological characteristics (type of vegetation, habitats, flora and fauna). Detailed descriptions of the wetlands significance, value and condition along with the main threats from human activities are also presented.

3. Conclusions – Based on the findings of the two projects, the importance of wetlands both for humans and biodiversity is discussed, highlighting the need for their sufficient protection through targeted new legislative and/or executive measures.

4. Implementation of the Ramsar Resolution - The final chapter presents the proposed next steps to achieve full implementation of the Ramsar resolution XII.14 on the "Conservation of Mediterranean Basin Islands' Wetlands" (Annex I).

Picture 7: Paralimni lake. One of the few natural lakes of Cyprus. A unique ecosystem providing shelter to numerous protected fauna species and a number of ecosystem services to the nearby communities.

2. Methodology

In this chapter, the methodologies applied in both the Inventory of Cyprus Wetlands project, and the MedIsWet project are presented in detail. The methodologies were designed in a standardised and easily applicable way by trained personnel. They require minimum low- cost equipment, and are easily replicated, either in Cyprus or other parts of the Mediterranean basin. The methodological approach and the results are considered to be a very useful tool for future planning and the implementation of conservation measures and activities.

2.1 Inventory of Cyprus Wetlands

The project was launched in 2014 and lasted 18 months. To achieve its goals, three major objectives were drafted with numerous related activities. The project was conducted with the continuing support of WWF Greece's personnel which initially developed a Rapid Assessment methodology for the inventory of island wetlands and successfully implemented it during the project "*Conservation of the Island Wetlands of Greece*":

Objective A: Identify all wetlands of importance >0,1 ha throughout Cyprus and document their characteristics, ecological status and vulnerability, so that, ultimately, they can receive adequate protection.

The activities designed to achieve this objective were:

- Literature research and communication with various Government departments, NGOs and other relevant stakeholders to obtain as much information as possible, regarding the potential existence of wetlands all over the island. WWF Greece agreed to the use of their initial Cyprus remote-sensing findings.

- Training by WWF experts on the theory behind the Rapid Assessment inventory methodology and the applied methodology during field and desk work.

- Remote sensing work for the identification of potential wetlands: Preliminary identification of potential wetland sites was done using satellite, aerial images and high-resolution photos, provided by Google Earth and Bing Maps. Two main criteria were applied:

  (a) No linear systems were included and

  (b) The minimum wetland area was 0,1 hectares.

  Using this method, a total of 465 potential wetlands were identified.

- **Field work**

  (a) Verify the existence of the wetlands identified above and

  (b) Assess their conservation status, their vulnerability to various threats and their long- term survival. Site visits in each wetland was a core part of this work.

During the site visits the following information was recorded (1) Type and category of each wetland, (2) Biological information such as salinity, depth, water runoff, percentage of free water area, (3) Flora and fauna, (4) Vegetation and Habitats, (5) Activities and their impact on each wetland and its drainage basin and (6) Value/ecosystem services of the wetland. A copy of the field protocol used for recording the above information can be found in Annex II.

Also, an extensive audio-visual record was created during the site visits for future reference and confirmation of species hard to identify on site. In total 465 potential sites were visited and 373 wetlands satisfied the pre-set criteria. The identified wetlands were grouped in 6 natural and 12 artificial wetland types as presented in (

Table 1). This categorisation was based on the Ramsar typologies and the wetland types used by WWF Greece. Some adjustments to the grouping categories were made by the Terra Cypria team to better align the characteristics to the Cyprus conditions. Indicative pictures for each type of wetland can be seen in Annex III.

Natural	Artificial
Lagoon	Artificial pond
Lake	Concrete pond
Marsh / Swamp	Earth pond
Salt Lake	Excavations/gravel/brick/clay pit pool
Wetland system	Membrane covered pond
Estuary	Mine pool
	Off-stream pond
	Quarry pond
	Reservoir
	River recharge barrier
	Tertiary treated water tank
	Wastewater treatment area

Table 1: Wetland categories used in the context of the Inventory of Cyprus Wetlands project.

- **Data analysis and development of an openly accessible database**: Following the site visits all data obtained from each wetland, including the main threats, the current environmental protection status and all literature information, was assessed and digitalized into specific databases. Corrections were made where appropriate, including spatial adjustments and finalisation of each wetland delineation and position. The wetland's boundaries were delineated by assessing the potential maximum water levels along with related wetland vegetation. All information was included in a main database and 18 secondary databases (Site visits data log, Invertebrates, Fishes, Amphibians, Reptiles, Mammals, Birds, Flora, Vegetation, Habitats, Wetlands Values, Activities in the Wetland, Activities in the wetland basin, Human impact, Ramsar Type, Bibliography, Protection status and Pictures).

- **Literature review**: At the same time an in-depth literature review was conducted to locate available information on the wetlands of Cyprus. The review focused amongst other things on

  identifying the wetland areas, the species of flora and fauna recorded in the past, reported activities within and around them, previous conservation measures, complaints about inadequate protection, threats and pressures reported in the past, the protection regime each wetland enjoyed etc. A lot of this information derived not only from published papers and books but also from grey literature through interviewing locals and key scientists working in the field. The archives of competent authorities such as the Water Development Department, the Department of Forests, the Department of Environment, the Game and Fauna Services and the Department of Fisheries and Marine Research were also an important source of information.

- **Development of an openly accessible and user-friendly web platform**. This database incorporates all the information collected, into a user-friendly web platform openly accessible to all. The database can be reached at http://www.cypruswetlands.org. Through the platform, the user can download the complete geographic database with the 373 wetland boundaries and accompanying information, as well as electronic reports, containing information for each wetland. *Figure 1* uses a wetland example to show how information for each wetland is presented within the database.

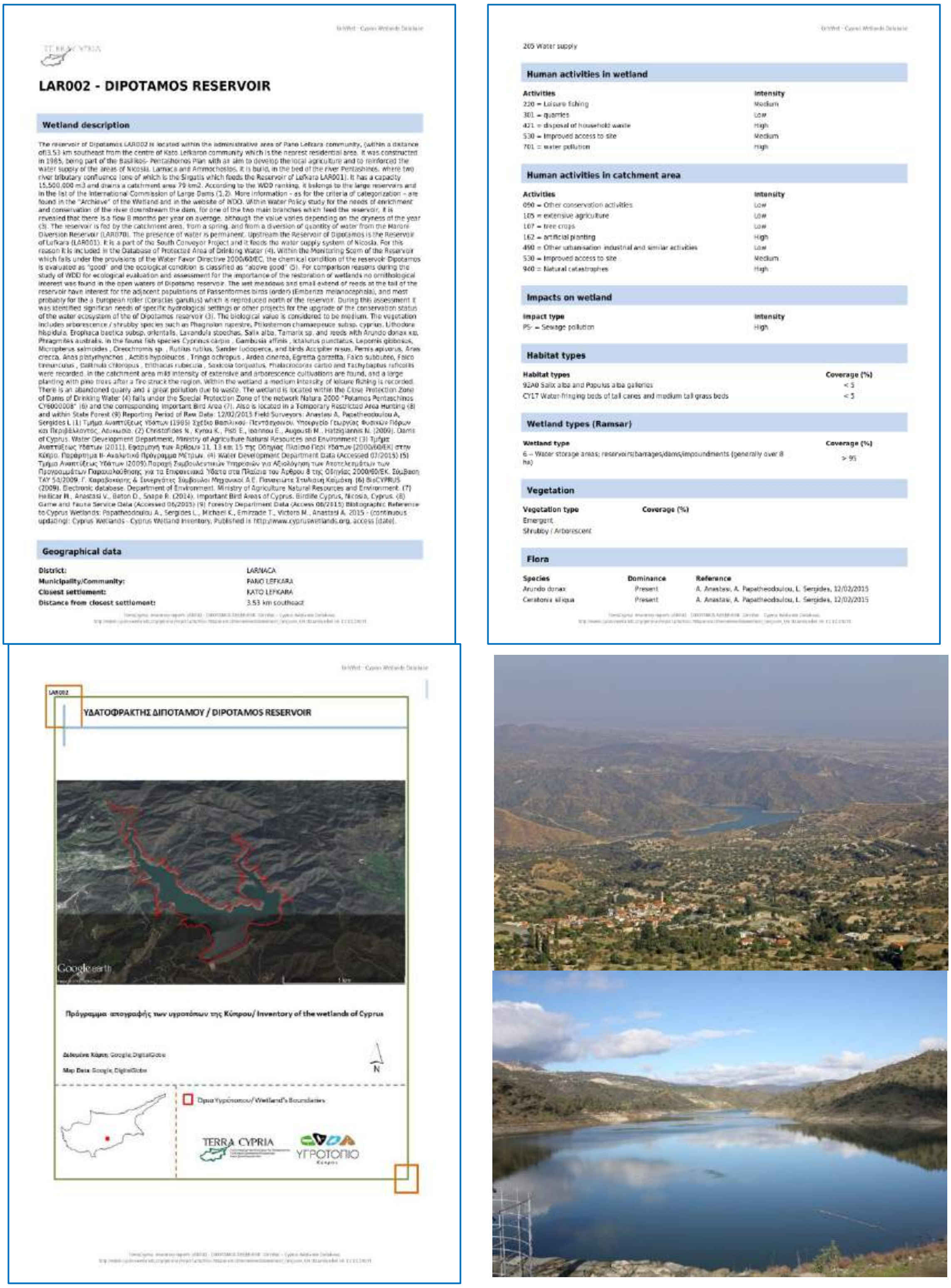
- **Photographic and Video Databases.** During visits to each wetland, pictures and videos were taken and stored in two databases. These databases help to better understand the situation of each wetland visited and offer very useful visual information to future decision makers, researchers etc. Due to their very large size the two databases are not online but stored at the premises of Terra Cypria. They are available for anyone who wants to use them for information.

Objective B: **Raise awareness among decision-makers and the general public on the presence and value of wetlands and the threats they face.**

The activities designed to achieve this objective were:

- Communication of the project's objectives and results to the competent authorities, the media and any other stakeholders.
- Promotion of the use of the openly accessible web platform all over the island and abroad.
- Dissemination of the project's results, through workshops, seminars and lectures (Picture 8).

Picture 8: Dissemination of the project results through open seminars at Terra Cypria's Head Office in Limassol



LAR002 - DIPOTAMOS RESERVOIR

Wetland description

Geographical data

District:	LARNACA
Municipality/Community:	PANO LEFKARA
Closest settlement:	KATO LEFKARA
Distance from closest settlement:	3.53 km southeast

205 Water supply

Human activities in wetland

Activities	Intensity
220 = Leisure fishing	Medium
301 = quarries	Low
421 = disposal of household waste	High
530 = Improved access to site	Medium
701 = water pollution	High

Human activities in catchment area

Activities	Intensity
090 = Other conservation activities	Low
105 = extensive agriculture	Low
107 = tree crops	Low
162 = artificial planting	High
490 = Other urbanisation industrial and similar activities	Low
530 = Improved access to site	Medium
940 = Natural catastrophes	High

Impacts on wetland

Impact type	Intensity
PS- = Sewage pollution	High

Habitat types

Habitat types	Coverage (%)
92A0 Salix alba and Populus alba galleries	< 5
CYL7 Water-fringing beds of tall canes and medium tall grass beds	< 5

Wetland types (Ramsar)

Wetland type	Coverage (%)
6 – Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha)	> 95

Vegetation

Vegetation type	Coverage (%)
Emergent	
Shrubby / Arborescent	

Flora

Species	Dominance	Reference
Arundo donax	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Ceratonia siliqua	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015

Figure 1: Example of the information contained in the electronic report for each wetland. The example presents information from the "DIPOTAMOS RESERVOIR" and includes a comprehensive report on the wetland (above), a map indicating the delineation of the wetland's area (below left) and pictures of the wetland.

Objective C: Promote tangible conservation measures, by mobilizing local society (on a pilot basis) and advocating initiatives at the technocratic level.

To achieve this objective, eight vulnerable wetlands were selected throughout Cyprus and six volunteers were used, along with Terra Cypria officers, for long-term monitoring of their condition and immediate reporting of any emerging threats.

2.2 MedIsWet project

As mentioned above the project was launched in 2017 and was a joint effort of 9 Mediterranean countries with island wetlands. The project replicated the initial Greek island wetland project on all the islands of the Mediterranean Basin.

The goal and objectives of the project are described as follows:

- Goal A - By 2022, Ramsar resolution XII.14 will have been implemented.
- Obj. B1 - By 2022, Mediterranean island wetlands will have been inventoried and adequately documented and knowledge will be made available to the public and to the scientific community.
- Obj. B2 - By the end of 2019, proposals for the improvement of the ecological status of at least 9 wetlands in all participant countries will have been completed and financing opportunities and tools for their implementation will have been mapped.
- Obj. C - By 2022, certain conservation measures will have been promoted on local, national and Mediterranean scales and relevant stakeholders will be fully informed.

The duration of the project for Terra Cypria was 24 months as the inventory had already been completed in a previous phase.

To achieve the project's goals and objectives Terra Cypria was engaged in three major objectives with several related activities for each objective.

Objective A: Contribute towards implementing the Ramsar Resolution XII.14 for the Conservation of Mediterranean Basin island wetlands.

The activities designed to achieve this objective were:

- Close communication with the Ramsar National Focal Point, other competent authorities, environmental NGOs and other stakeholders, to present MedIsWet and its goals and explore actions and activities that can help towards the full implantation of the Ramsar Resolution XII.14. (Annex I)
- Screening of all wetlands of the island to list those with higher ecological importance. From that list the wetlands located within the areas controlled by the Republic of Cyprus were shortlisted. The final list identified 85 sites included 18 natural and 67 artificial wetlands.

- Explore the possibility of using existing or developing new legislative and/or executive measures to prevent further deterioration of wetlands and ensure the proper protection and management of their biodiversity, and preserve their hydrological, cultural and social values. This activity covered the wetlands with higher ecological importance located within the areas controlled by the Republic of Cyprus.

To achieve this activity, external legal assistance was used. The Legal Advisor conducted an analysis (Emmanouilidou, 2018 - in Greek) of the current legal system of the Republic of Cyprus and identified the current protection status of wetlands within areas controlled by the Republic of Cyprus. She also identified several tools which could be used for further protection. She then produced a comprehensive report with proposed legislative and executive measures that can be used for implementing the Ramsar Resolution XII.14. This report was forwarded to the Ramsar National Focal Point. It is currently being thoroughly examined and discussed with the competent authorities to identify possible ways to maximise the protection of the wetlands within the areas controlled by the Republic of Cyprus.

Objective B: Communication and educational campaign to promote the importance of island wetlands for biodiversity but also for society and the economy.

The activities designed to achieve this objective were:

- Development of information material for the general public, introducing the two projects and explaining the importance of wetlands and the need for their immediate protection.

- Creation of wetland educational material for students and a wetland educational package for teachers.

- Environmental Education. Terra Cypria operates the Cyprus Environmental Study Centre (CESC) at Kritou Terra from 1995. CESC offers environmental education courses to thousands of children and students from nurseries, primary schools and secondary schools, as well as higher education institutions. Using the long-term experience of CESC, 16 educational/information activities have so far taken place reaching more than 1.200 students. As part of the educational activities more than 10 schools were visited. A large event to celebrate Word Wetlands Day (2/2/2018) was organised at Athalassa Environmental Education Centre and the adjacent wetland, in collaboration with the Pedagogical Institute, the Department of Environment, the Department of Forests and Birdlife Cyprus.

Picture 9: Celebrating World Wetlands Day 2018 at the Athalassa Environmental Education Centre. An educational activity of MedIsWet project co-organized with the Pedagogical Institute, Department of Environment, Departments of Forests and Birdlife Cyprus, reaching 290 students and 15 teachers.

Objective C: ***Screen the initial list of 373 wetlands and identify those with higher ecological importance that can be effectively protected.***

This activity was conducted to identify, from the initial list of wetlands (373) those: (a) with higher ecological importance and (b) that can be effectively protected and managed within the areas where the Republic of Cyprus exerts effective control. This procedure indicated 85 sites with **18 natural** (mainly estuaries) and **67 artificial** wetlands (mainly reservoirs and river recharge barriers).

This activity can help the competent authorities to implement the Ramsar Resolution XII.14 for the Conservation of Mediterranean Basin Island Wetlands (Annex I) by identifying the most sensitive and important wetlands that need protection and proper conservation and management.

The procedure described below was developed and used to identify the number of wetlands that should be promoted for further protection. The whole process took into consideration:

(a) the current condition of **natural wetlands**
(b) the biological significance of the **artificial wetlands** and
(c) the feasibility for effective control and protection by the Republic of Cyprus.

The steps followed to conduct the whole process are described below:

Step 1: **Identification of the wetland's current condition** (for natural) and **biological significance** (for artificial). The different classification categories developed for natural and artificial wetlands are presented in and, accordingly, together with the criteria used for each classification.

Application of Selection Criterion 1. Exclude *natural wetlands* whose current condition has been classified as "Totally changed" or "Highly modified".

Application of Selection Criterion 2. Exclude *artificial wetlands* whose biological significance has been classified as "Negative" or "Low" or "Neutral".

Step 2: **Application of Selection Criterion 3.** Selection of wetlands located in areas controlled by the Republic of Cyprus.

The selection criteria and the rationale behind their application are explained in **Error! Reference source not found.**

a/a	Classification	Description
1	*Undisturbed*	*No signs of man-made changes*
2	*Predominant*	*Original habitats/landform covers >50% of wetlands habitat/landform*
3	*Partially modified*	*Between 10-50% of the original habitats/landform remain untouched by man-made changes*
4	*Highly modified*	*Less than 10% of the original habitats/landform remains untouched by man-made changes*
5	*Totally changed*	*Original habitats/landform are totally changed*

Table 2: Classification of natural wetlands depending on their current condition.

a/a	Classification	Description
1	High	The physical and hydromorphic characteristics are such (smooth edges, extended shore with gentle slope, apical vegetation etc.) that allow the wetland to sustain populations of species or habitat types of European or national importance (i.e. Annexes 92/43/EC, Red data book, 2009/147/EE etc.) and/or mature ecosystem towards "*climax*" conditions. May or may not be part of the Natura 2000 network.
2	Medium	Physical and hydromorphic characteristics that can attract biodiversity (smooth edges, extended shore with gentle slope, apical vegetation etc.). Usually large water bodies that can host significant numbers of hydrophilic species mostly avifauna. Presence of species or habitats relating to optimum ecological conditions (indicative of naturalized/ integrated condition). Species and habitat types of European or national importance (i.e. Annexes 92/43/EC, Red data book, 2009/147/EE etc.) may or may not occur.
3	Low	Steep edge/slopes or edge abruptly deepens, making it difficult for flora to root and/or fauna species to use it as feeding ground or shelter.
4	Neutral	Although the wetland and the surrounding habitat is not able to attract and sustain biodiversity, it does not negatively affect the species that might use it for a short period of time.
5	Negative	Steep edge/slopes that convert the wetland to a trap for biodiversity (e.g. membrane covered reservoirs, concrete reservoirs) and/or Wetlands water/surface/surrounding area is highly polluted, with negative impact for biodiversity.

Table 3: Classification of artificial wetlands depending on their biological significance.

	Step 1: Identification of wetland's current condition	Description	Number of wetlands selected with high ecological importance
1	For Natural Wetlands the original habitat/landform to be more than 10% untouched	From a total of 58 natural wetlands 20 are facing serious man-made changes/pressures, placing them in the category of totally changed. (14 wetlands), or highly modified (<10% untouched of the original habitat) (6 wetlands). *These pressures are permanent and/or irreversible (e.g. urbanization), making any conservation action unsustainable*	**Total: 38 of the 58 natural wetlands**
2	For Artificial wetlands having either (a) High biological significance, or (b) Medium biological significance	From the 315 artificial wetlands 15 have Negative, 41 have low and 162 have Neutral Biological significance.	(a) 23 of the 315 artificial wetlands have high biological significance (b) 74 of the 315 artificial wetlands have medium biological significance **Total: 97 of the 315 Artificial Wetlands**
			As a result of the above exercise 136 wetlands from the 373 mapped on the whole island are considered of high ecological importance
	Step 2 : Location of Wetlands	**Description**	
3	Located within the areas controlled by the Republic of Cyprus	From the 373 wetlands mapped within the whole island 28 natural and 69 artificial **(97 in total)** are outside the areas controlled by the Republic of Cyprus.	

Table 4: Selection criteria for identifying wetlands that should be promoted for further protection with the rationale behind their application.

3. Results

The project Inventory of the Cyprus Wetlands resulted in the identification, delineation and characterization of 373 wetlands on the island of Cyprus. Of those, 58 are natural and 315 are artificial.

A map of Cyprus Wetlands is presented in *Figure 2: indicating the 373 wetlands identified and studied.*

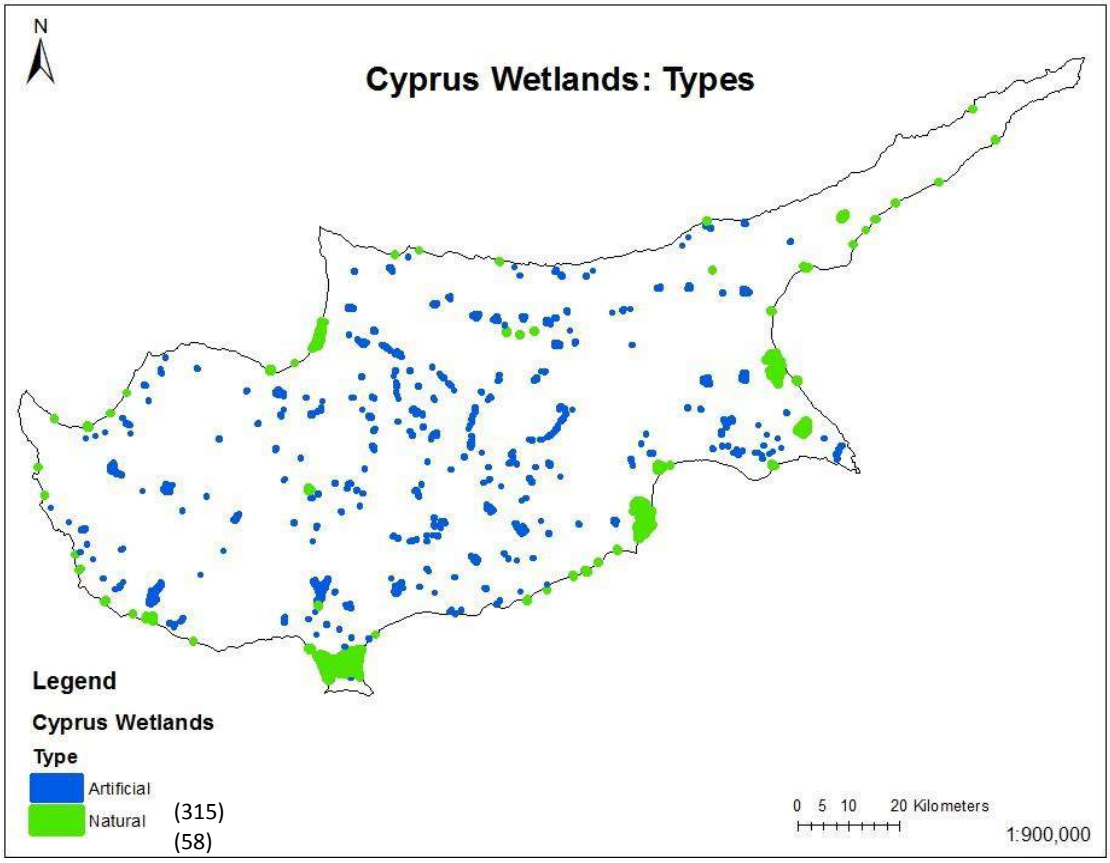


Figure 2: Map of Cyprus, indicating the 373 wetlands identified and studied during the "Inventory of Cyprus Wetlands" project.

Beside its location and delineation, each wetland is accompanied by information giving (a) Type and Category, (b) Biological information such as salinity, depth, water runoff, percentage of free water area, (c) Flora and fauna, (d) Vegetation and Habitats, (e) Activities in the wetland and its basin, (f) Human impact on the wetland and its drainage basin, (g) Wetland value/ecosystem services, (h) Available bibliography, (i) Protection status and (j) Pictures and videos.

All that information has been uploaded into a user-friendly web platform openly accessible to all: http://www.cypruswetlands.org. An example of the information available in the platform can be found in Annex IV (Example from *DIPOTAMOS RESERVOIR – LAR002)*.

3.1 Abundance, size and allocation

Figure 3 shows the two types of wetlands (natural and artificial) in relation to their size. Figures 4 and Figure 5 illustrate the abundance of wetlands and their total size per district respectively.

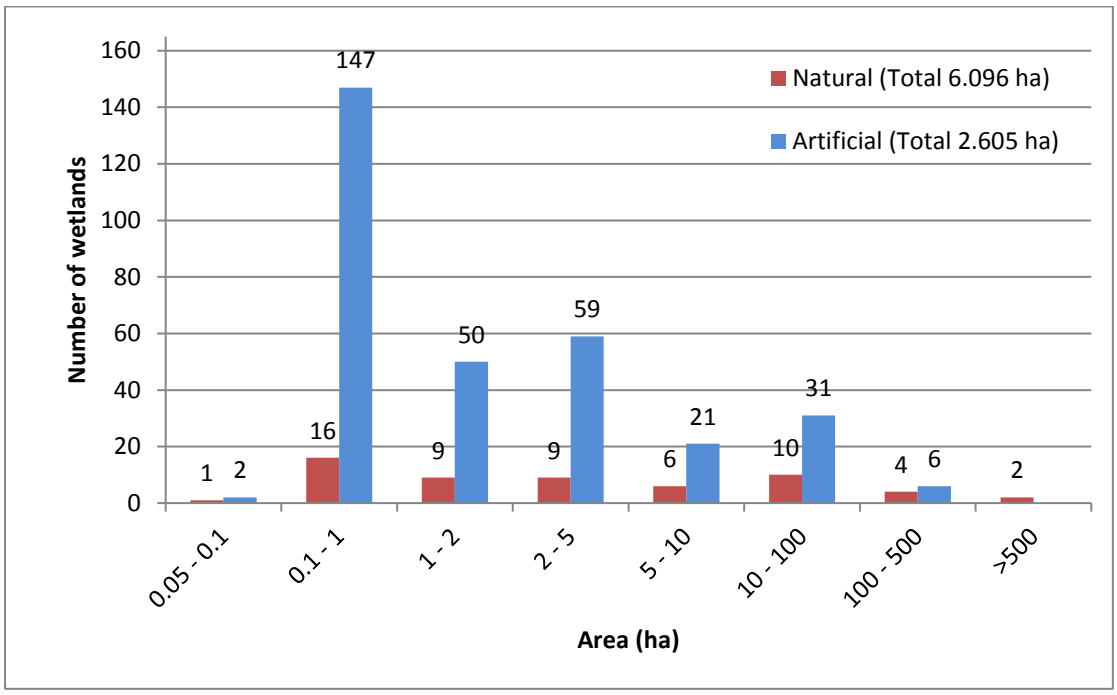


Figure 3: Number of wetlands by size depending on their type (natural or artificial).

It is important to note that although there are 6 times more artificial wetlands than natural wetlands, they cover almost one third of the area covered by natural wetlands (Figure 3). The mean area for artificial wetlands is 8,25 ha while the mean area for natural wetlands is 106,93 ha.

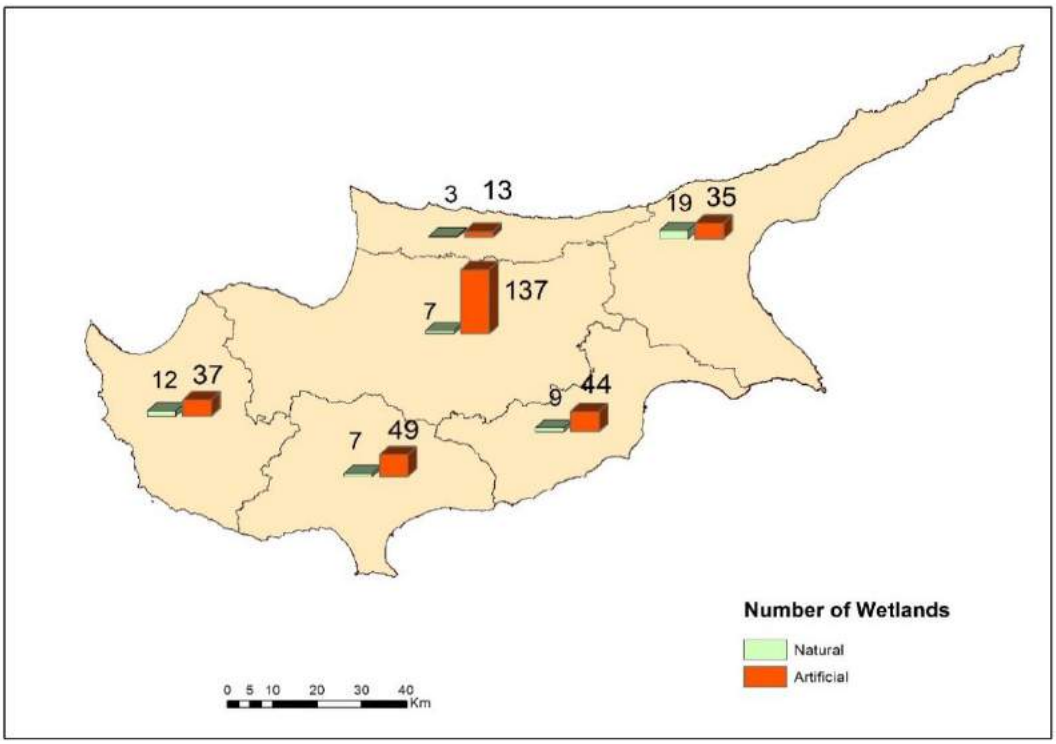


Figure 4: Number of wetlands (natural and artificial) allocated in the six districts of Cyprus.

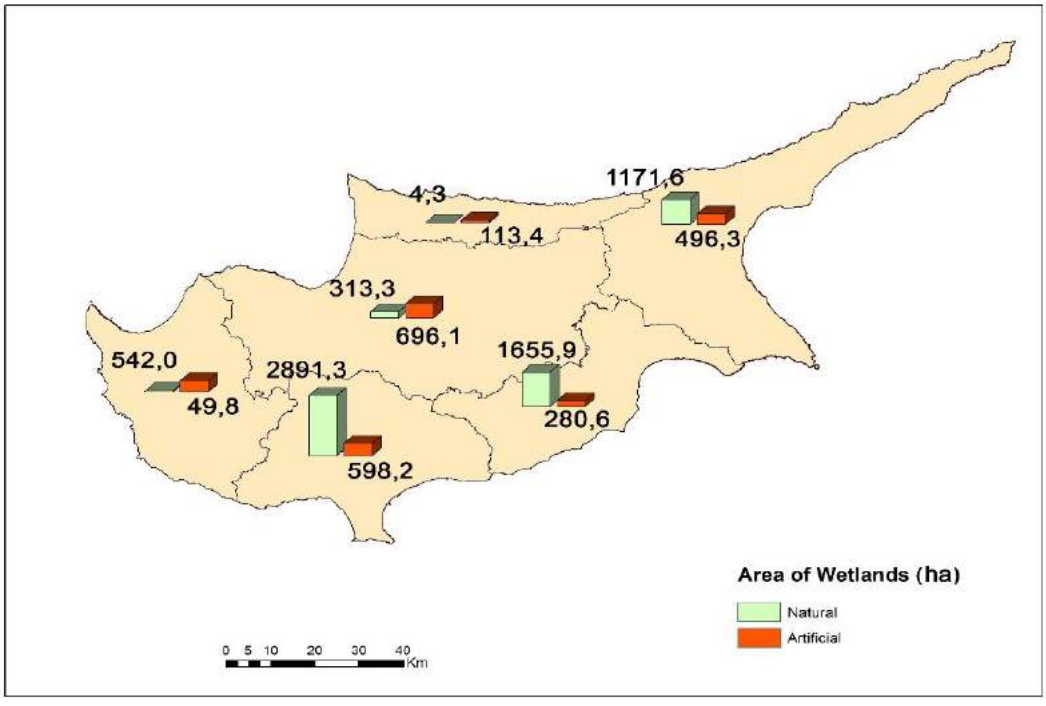


Figure 5: Total area covered by wetlands (natural and artificial) in the six districts of Cyprus.

While most of the natural wetlands are situated in the districts of Limassol, Larnaca and Famagusta the majority of artificial wetlands are situated in the Nicosia district (Figure 4). The districts of Limassol, Larnaca and Famagusta host a significant number of natural estuaries, while Nicosia district contains many artificial ponds, reservoirs and river recharge barriers that are utilizing water from the Troodos mountains.

3.2 Wetland types

Most of the natural wetlands are estuaries (68%) followed by marsh/swamps (16%). The rest of the natural wetlands (16%) are divided in four categories including wetlands systems, lakes, salt lakes and lagoons (Figure 6).

Almost half of artificial wetlands (48%) are river recharge barriers and reservoirs. One third (28%) are ponds (earth or concrete made). The rest of the artificial wetlands (24%) are divided into seven categories including mine ponds, membrane covered ponds, quarry ponds, tertiary treated waters, off-stream ponds, excavations ponds and wastewater treatment pools (Figure 7).

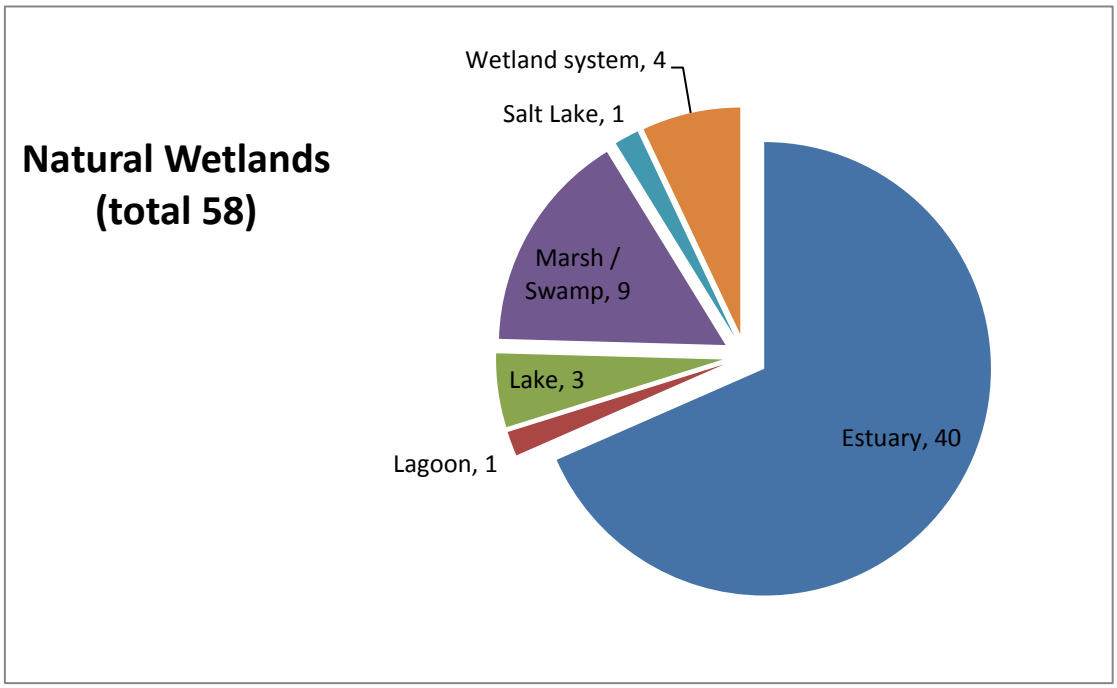


Figure 6: Categories of natural wetlands in Cyprus.

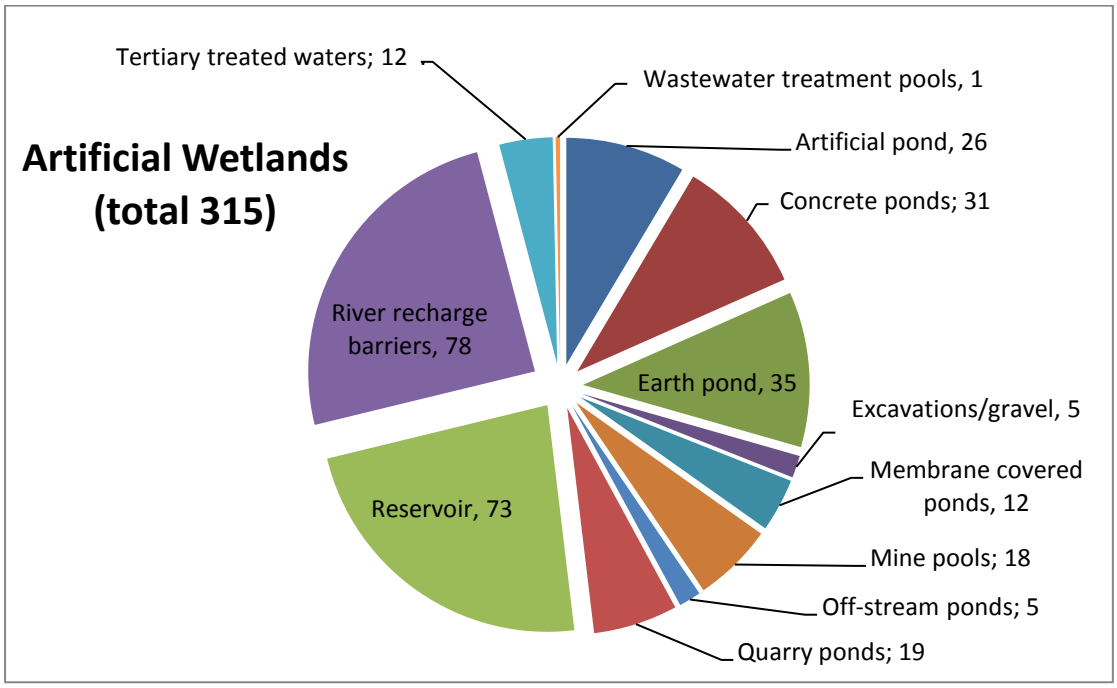
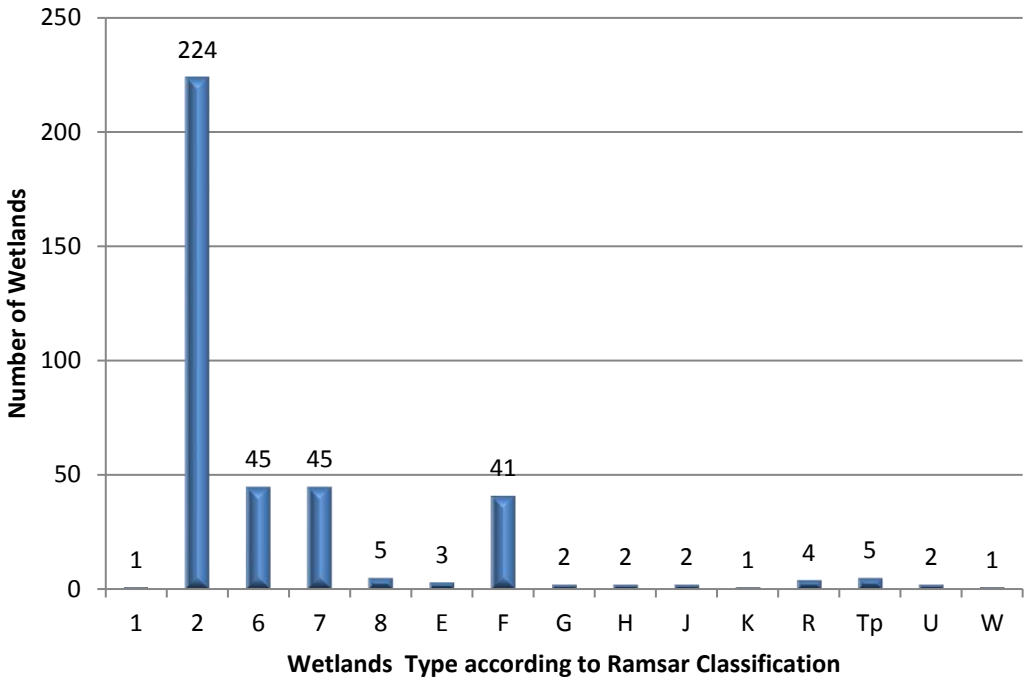


Figure 7: Categories of artificial wetlands in Cyprus.

The wetland types were further analysed using the Ramsar Classification System[2] for natural and man-made wetlands as shown in Figure 8. The 373 wetlands of Cyprus were classified into 15 of the 29 different Ramsar types. The Ramsar type 2 Ponds: (includes farm ponds, stock ponds, small tanks; generally, below 8 ha) is the most dominant type of wetland in the island (58%). Ramsar Type 6: Water storage areas: reservoirs/barrages/dams/impoundments. Generally, over 8 ha). Ramsar Type 7: Excavations, gravel/brick/clay pits, borrow pits, mining pools) and Ramsar Type F (Estuarine waters; permanent water of estuaries and estuarine systems of deltas) are represented in an even proportion of approximately 12% for each Type. The rest 7% of the wetlands of Cyprus (28 wetlands) are classified in 10 different Ramsar Types as shown in Figure 8.

[2] The complete Ramsar Classification System for Wetland Type can be found in Annex V.



1 -- Aquaculture (e.g., fish/shrimp) ponds
2 -- Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha)
6 -- Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha)
7 -- Excavations; gravel/brick/clay pits; borrow pits, mining pools
8 -- Wastewater treatment areas; sewage farms, settling ponds, oxidation basins, etc.
E -- Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks
F -- Estuarine waters; permanent water of estuaries and estuarine systems of deltas
G -- Intertidal mud, sand or salt flats
H -- Intertidal marshes; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes
J -- Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea
K -- Coastal freshwater lagoons; includes freshwater delta lagoons
R- Seasonal/intermittent saline/brackish/alkaline lakes and flats
Tp -- Permanent freshwater marshes/pools; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season
U -- Non-forested peatlands; includes shrub or open bogs, swamps, fens
W -- Shrub-dominated wetlands; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils

Figure 8: Types of Cyprus wetlands based on the Ramsar Classification System for Wetland Type. Six of the 373 Cyprus wetlands are classified into more than one wetland type.

3.3 Biotic characteristics

The Development of the Inventory of Cyprus Wetlands used a Rapid Assessment methodology approach in a predefined time period of two years (2014-2015) to gather, analyse and properly sort into an online database all available information on the identified wetlands.

As part of this procedure, all wetlands were visited and the biotic characteristics (i.e. flora and fauna) were rapidly recorded. Additional information was collected and added in the database from various bibliographic sources. The elaboration of complete and systematic field recordings of all the biotic characteristics of each wetland was not within the scope of this project.

In the chapters below, information of the flora (including vegetation and habitats) and fauna encountered in bibliography or recorded on site during the field visits are presented and discussed.

3.3.1 Flora, Vegetation and Habitats

The floral richness of each wetland was rapidly assessed during fieldwork and by reviewing a number of bibliographic sources. The flora species present were recorded to the lowest possible taxonomic level. It is worth noting that during fieldwork a number of species included in the Red Data Book of the Flora of Cyprus (such as the species *Najas marina)* were recorded. This information was enriched with data extracted from available publications and reports.

By combining bibliographical information and information from the field recordings, a total of 100 flora families (642 different species) have been reported within the 373 wetlands, including aquatic, ammophilous, emergent, halophytic, herbaceous, shrubby, arborescent, submerged, wet meadow and alien species (Figure 9). This number represents 35% of all plant species on the island (1.844 according to Flora of Cyprus dynamic e-checklist). Poaceae is the most common family of flora recorded in almost 95% of all Cyprus' Wetlands followed by Asteraceae (67%) and Tamaricaceae (54%). It is noted that beside the families presented in Figure 9, 82 more families of flora were recorded in less than 30 wetlands. The complete table with families and species can be found in the web platform at www.cypruswetlands.org.

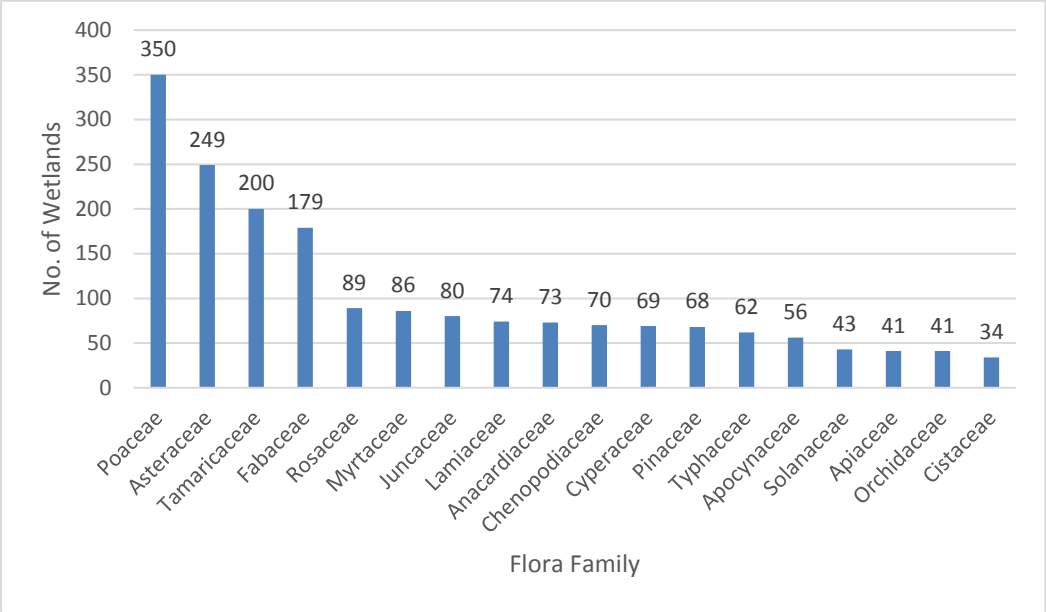


Figure 9: Families of flora recorded in Cyprus's wetland indicating the number of wetlands where each Family was found. Families that were recorded in less than 30 wetlands (82) are not shown here.

The identified flora families were grouped in 10 different vegetation types (Figure 10). From those vegetation types, the shrubby arborescent vegetation (mainly *Tamarix* sp. and *Dittrichia viscossa*) and hydrophilus and the emergent vegetation (mainly *Phragmites australis* and *Arundo donax)* were the most dominant types and were found in more than 60% of Cyprus's wetlands. Alien species non-native to the island (mainly *Eucalyptus* and *Acacia* sp.) were found in up to 30% of Cyprus's wetlands followed by wet meadow vegetation (mainly *Juncus* sp.) in 18% of Cyprus's wetlands (Picture 10). The rest of the vegetation types (i.e. submerged, Halophytic, Ammophilous, herbaceous, deep water and other) was found in less than 12% of the wetlands.

Apart from the vegetation types, the **habitat groups** and the **habitat types** were recorded using the coding system of the European Union Habitat Directive 92/43/EEC. Each habitat group is represented by a number of habitat types as seen in Annex VI.

A total of eight different **habitat groups** were recorded as seen in Figure 11. The raised bogs, mires and fens are the most common habitat groups recorded in 52 different wetlands followed by the coastal and halophytic habitats in 42 different wetlands (Picture 11) and Forest habitat group recorded in 28 different wetlands.

Picture 10: Shrubby arborescent vegetation (Tamarix sp.) at the Paralimni lake - FAM026.

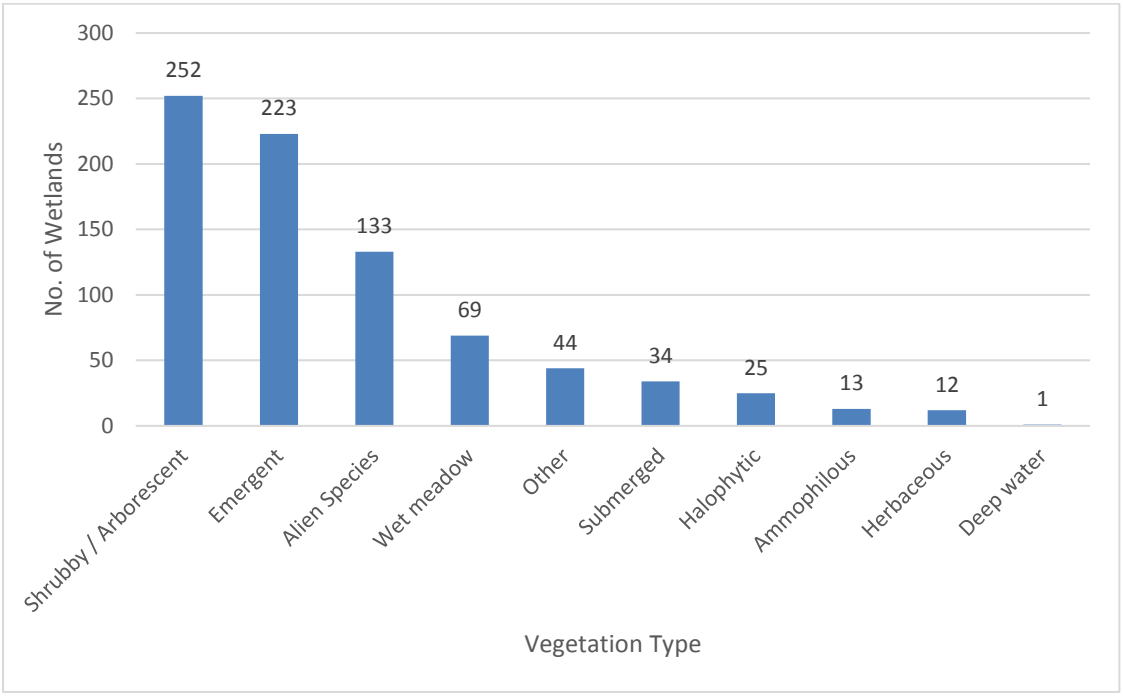


Figure 10: Vegetation types recorded in Cyprus wetlands. The Y-axes present the number of wetlands where each vegetation type was recorded. In most cases, more than one vegetation type was recorded in each wetland.

Picture 11: Mixture of coastal and halophylic habitats at Larnaca Salt Lake – LAR021

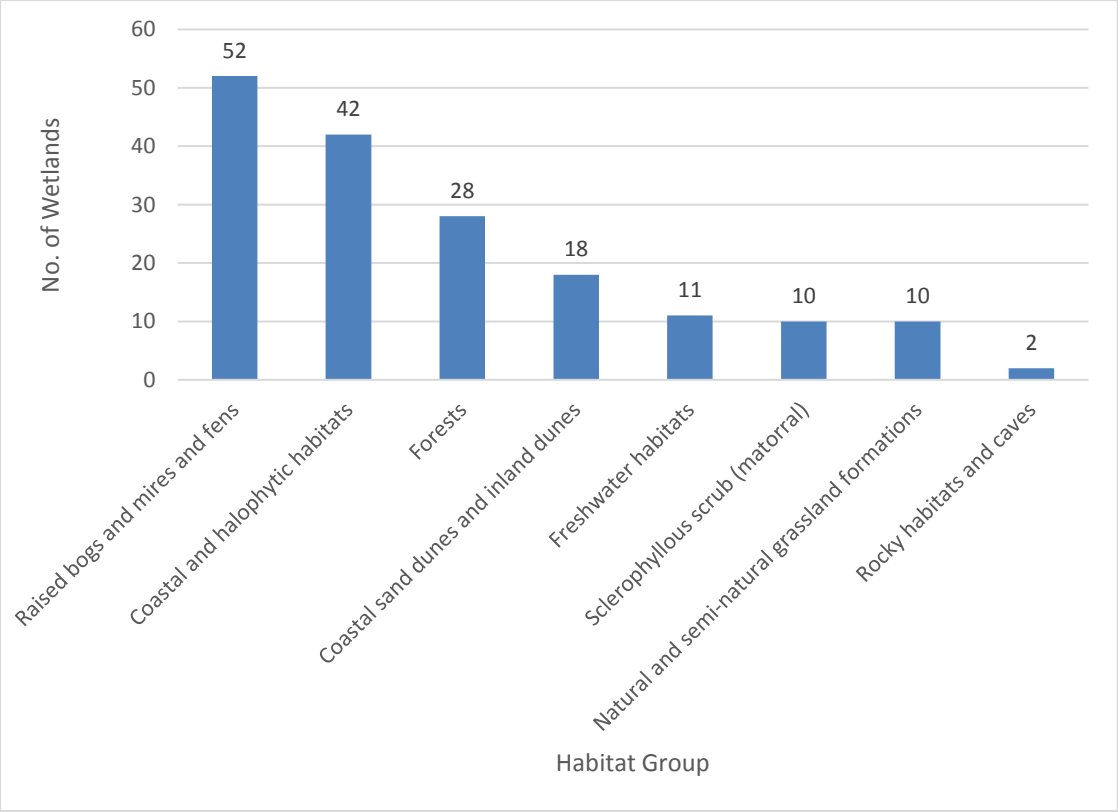
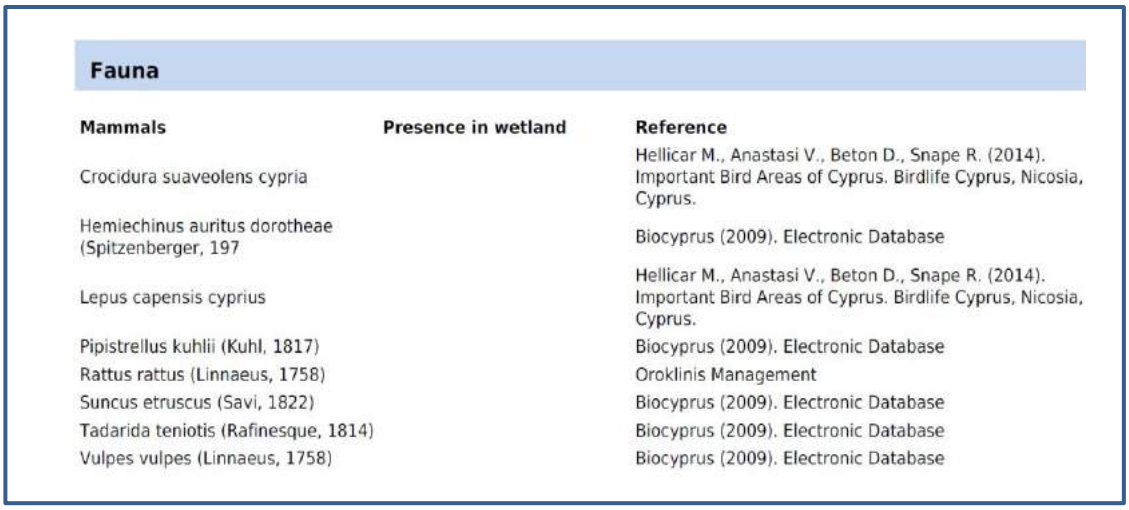


Figure 11: Habitat Groups that were recorded during the Inventory of Cyprus Wetlands. Within each group a number of habitat types are included (see Annex VI for more details).

3.3.2 Fauna

Information on the fauna diversity encountered in each wetland was also collected during the field visits and was enriched with extensive literature review. The relevant references from which this information was drawn are cited within the descriptive report of each wetland (

Figure *12*). These reports are available from the project's website. Some references with open access rights can be downloaded from the "References" section of the web platform at www.cypruswetlands.org .



Fauna

Mammals	Presence in wetland	Reference
Crocidura suaveolens cypria		Hellicar M., Anastasi V., Beton D., Snape R. (2014). Important Bird Areas of Cyprus. Birdlife Cyprus, Nicosia, Cyprus.
Hemiechinus auritus dorotheae (Spitzenberger, 197		Biocyprus (2009). Electronic Database
Lepus capensis cyprius		Hellicar M., Anastasi V., Beton D., Snape R. (2014). Important Bird Areas of Cyprus. Birdlife Cyprus, Nicosia, Cyprus.
Pipistrellus kuhlii (Kuhl, 1817)		Biocyprus (2009). Electronic Database
Rattus rattus (Linnaeus, 1758)		Oroklinis Management
Suncus etruscus (Savi, 1822)		Biocyprus (2009). Electronic Database
Tadarida teniotis (Rafinesque, 1814)		Biocyprus (2009). Electronic Database
Vulpes vulpes (Linnaeus, 1758)		Biocyprus (2009). Electronic Database

Figure 12: Part of the "Fauna" section of the descriptive report of Oroklini Lake (LAR020) as an example of the way information regarding fauna was enriched with data from existing literature.

In total **562 different fauna** species have been reported in the 373 wetlands. These species are of various taxonomic groups, including both vertebrates and invertebrates, marine, freshwater and terrestrial species, associated with wetlands (Figure 13). Although this information was not the result of standardised and intensive field sampling it is an important factor emphasising the significance of the island's wetlands (both natural and artificial) for biodiversity (Pictures 12, 13 and 14).

A total of 174 different invertebrate species were recorded including endemic butterflies (e.g. *Hipparchia cypriensis, Maniola cypricola, Glaucopsyche paphos*), endemic grasshopers (e.g. *Bucephaloptera cypria, Xerohippus cyprius, Pyrgomorpha cypria),* dragonflies (e.g. *Orthetrum chrysostigma*, *Selysiothemis nigra*), and crabs *(Potamon potamios).* Representatives from various other arthropods categories (e.g. Branchiopoda, Coleoptera, Decapoda, Dictyoptera, Hymenoptera) were also recorded. Although this is a very low percentage (nearly 3% of the total number of the invertebrates of the island (174 out of 5.785 invertebrates recorded in Cyprus, based on the Fauna European online database (https://fauna-eu.org/)), we have to take into consideration that the census was not aiming at the identification of all animals encountered and only those invertebrates easy to spot and identify were included in the database of each wetland. During the literature review we did not manage to find specific information for most wetlands visited and mapped.

The family Cyprinidae (Carp) is the freshwater fish family most recorded in the wetlands, followed by the family Poeciliidae (Mosquitofish). Both families were introduced to the island either to promote angling (sport-fishing) in reservoirs or as a means of controlling mosquitoes in marshes and standing waters. Four of the five native freshwater fish were also recorded (i.e. *Anguilla anguilla, Dicentrarchus labrax, Mugil cephalus* and *Liza ramada*).

All the amphibian species of the island were found during the Inventory of Cyprus Wetlands. *Pelophylax bedriagae* was the most common and was found in 85 different wetlands. *Bufo viridis* and *Hyla savignyi* were found in 34 and 27 different wetlands respectively.

All species of reptiles were recorded including the endemic snake species *Hierophis cypriensis*, the endemic lizard species *Phoenicolacerta troodica* and both marine turtles (*Caretta caretta and Chelonia mydas*). The native freshwater terrapin was also found along with the invasive alien terrapin *Trachemys scripta.*

Bats including protected species like *Rousettus aegyptiacus* and *Miniopterus schreibersii* were also recorded.

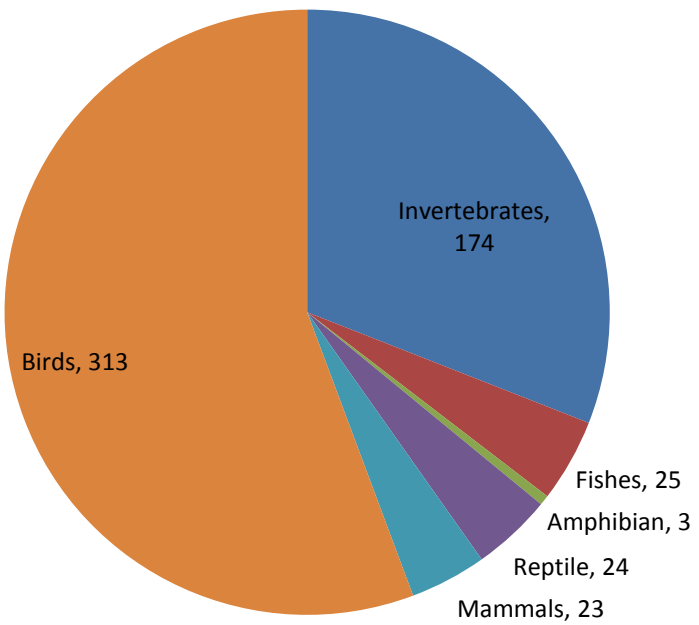
Endemic species such as the Cyprus mouflon (*Ovis gmelini ophion*) and the Cyprus mouse (*Mus cypriacus*) were also recorded in the past and included in the web platform for a number of wetlands.



Picture 12, 13 and 14: The humid environment of wetlands and surrounding habitats attracts a large diversity of animals (fauna) such as dragonflies (left), butterflies (middle) and lizards (right).

Of avifauna, 313 of the 401 species recorded in Cyprus have been included in the web platform. The majority of them are passerines (125 of the 173 known species). The most diverse Order is that of Charadriiformes (waders) with 72 different species (e.g. *Charadrius alexandrines, Himantopus himantopus, Larus audouinii, Vanellus spinosus*).

Both endemic species of Cyprus were recorded (*Oenanthe cypriaca* & *Sylvia melanothorax*) along with three of the four endemic sub-species (*Otus scops cyprius, Garrulus glandarius glaszneri* and *Parus ater cypriotes*) and a large number of other protected species.



INVERTEBRATES (174)

Category	number
Coleoptera	44
Hymenoptera	31
Lepidoptera	29
Orthoptera	39
Odonata	9
Other	**22**

MAMMALS (23)

Category	number
Mouflon	1
Fox	**1**
Domestic cats	1
Bats	**11**
Hedgehog	1
Hare	**2**
Mice	2
Rats	**2**
Shrew	2

FISH (25)

Category	number
Cypriniformes	6
Cyprinodontiformes	**3**
Perciformes	6
Mugiliformes	**3**
Other	7

REPTILES (24)

Category	number
Lizards	12
Snakes	8
Marine turtle	2
Fresh water turtle	2

BIRDS (313)

Category	number
Waders	72
Passerine	**125**
Other	116

Figure 13: Number of fauna species recorded in the wetlands of Cyprus per taxonomic group. The main taxonomic groups are summarized on the pie chart while the most common sub-groups can be found in the smaller tables.

3.4 Wetland Values

To be consistent with the evaluation of various wetland values, a list of prefixed values was shared among the teams that worked in the field. Wetland values are the services wetlands offer and are extremely important not only for the environment and biodiversity but also for human communities and their economies. Figure 14 illustrates the values reported during the inventory for the wetlands of Cyprus. Food chain support was identified as the most important value of Cyprus wetlands (56%) followed by the provision of habitat for wildlife (55%). Another important value is water supply (47%), since the majority of the artificial wetlands were created exactly for this reason (Picture 15).

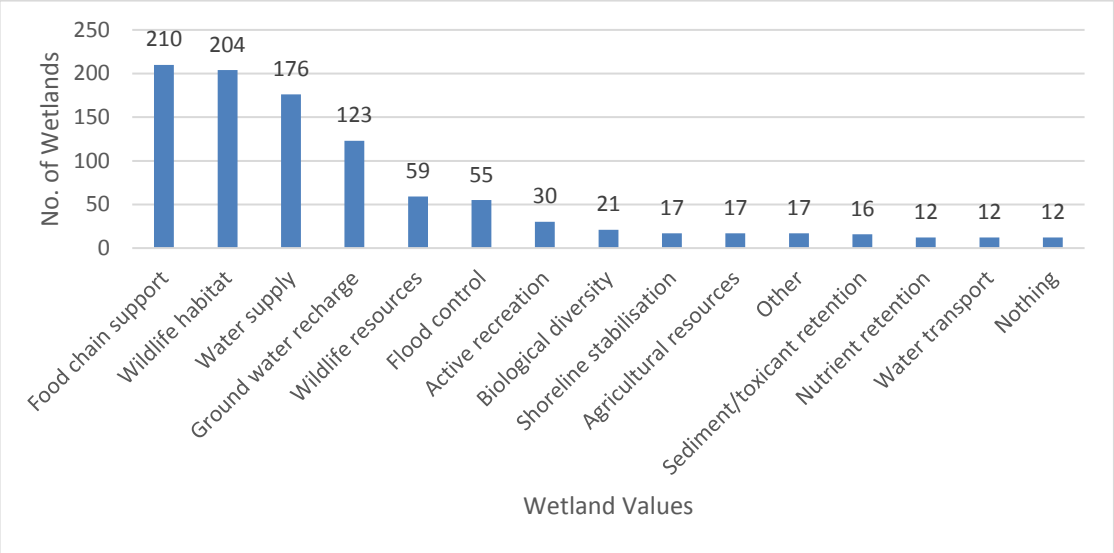


Figure 14: Wetlands values indicating the number of wetlands bearing each value/providing each service

Picture 15: Water supply is one of the main and most important values (services) of wetlands – Picture from Kotsiatis reservoir (NIC017)

3.5. Condition and Significance

3.5.1 Condition of Natural Wetlands

Of the 58 natural wetlands of the island only half of them (27) were in good condition (with no significant human disturbance). At 14 wetlands (23% of the island's natural wetlands) the original habitats/landforms were totally changed.

(Figure 15) shows the condition of the recorded natural wetlands. An example of an estuary being completely altered can be seen in Picture 16.

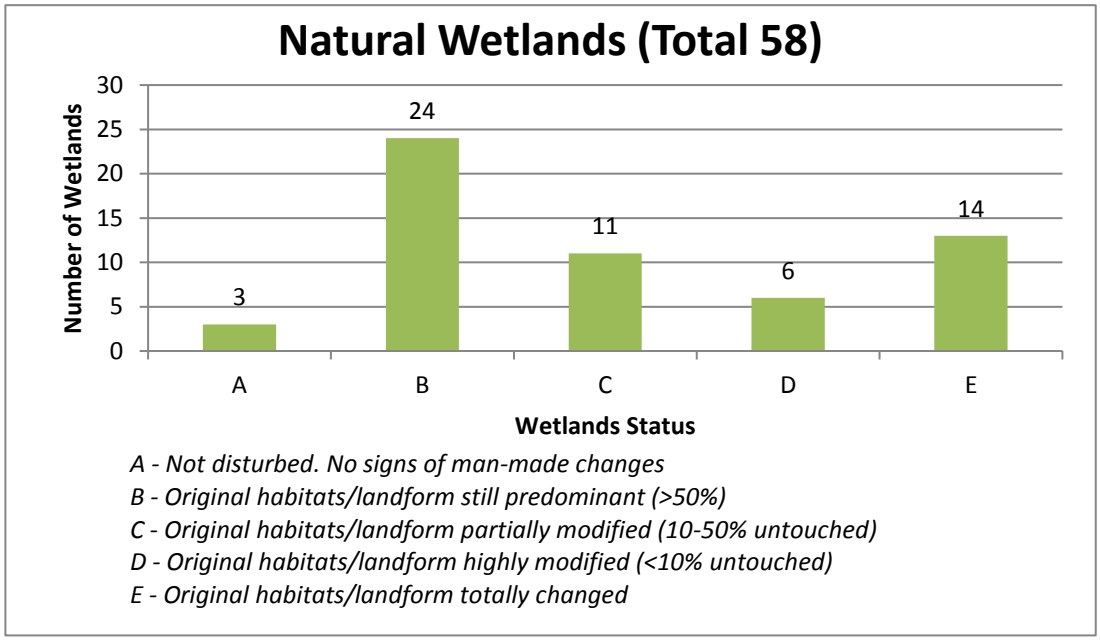


Figure 15: Condition of the natural wetlands of Cyprus according to MedWet classification

Picture 16: The original habitats/landform of Garyllis estuary (LIM084) have been totally changed during the development of the Limassol Marina.

3.5.2 Significance of artificial wetlands

The evaluation of the significance of artificial wetlands was based on various information, including (i) evaluation during the field visits, (ii) available literature on biodiversity and (iii) services provided by each wetland.

In cases of wetlands with no literature was available, the significance of artificial wetlands was based solely on expert judgement during the field visits. Their significance, scaled from negative to high, describes the support a wetland offers to the biodiversity and the ecosystem services it provides. A detailed explanation of the characteristics used for this classification can be seen in **Error! Reference source not found.**. A negative significance was given when it was considered that the potential negative impacts were greater than the positives. Such examples are wetlands with very steep banks that become wildlife traps as well as mine pools and pools with polluted waters. Based on the inventory, 97 out of the 315 artificial wetlands have high and medium biological significance Figure 16).

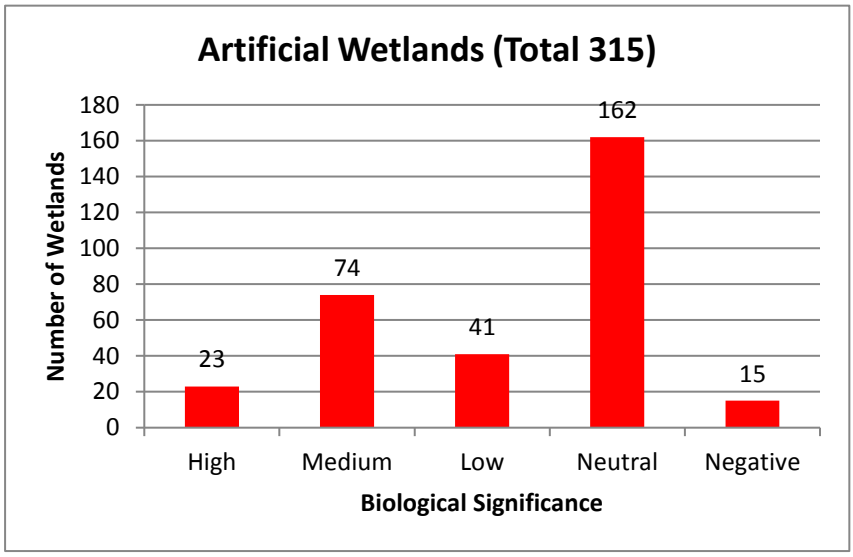


Figure 16: Biological significance of artificial wetlands of Cyprus.

Picture16: Although artificial, Athalassa's reservoir (NIC032) is one of the many artificial wetlands with high biological significance.

3.6 Human activities and their impact

Human activities around and within most of the Wetlands of Cyprus are intense and, in some cases, can seriously threaten both their biotic and abiotic characteristics (Figure 17). A complete list of impact on wetlands deriving from human activities can be found in Annex VII.

The most commonly recorded human activities are presented in Figure 18. The main recorded activities are the disposal of household waste and water pollution followed by leisure fishing and grazing (Picture 17). On the other hand, a number of conservation activities have been implemented in 24% of Cypriot wetlands. In addition to the activities presented in Figure 18, 91 activities (such as cultivation, landfills, trampling, overuse etc.) were recorded in less than 23 wetlands. The complete table of human activities recorded in the Inventory of Cyprus Wetlands can be found in Annex VIII.

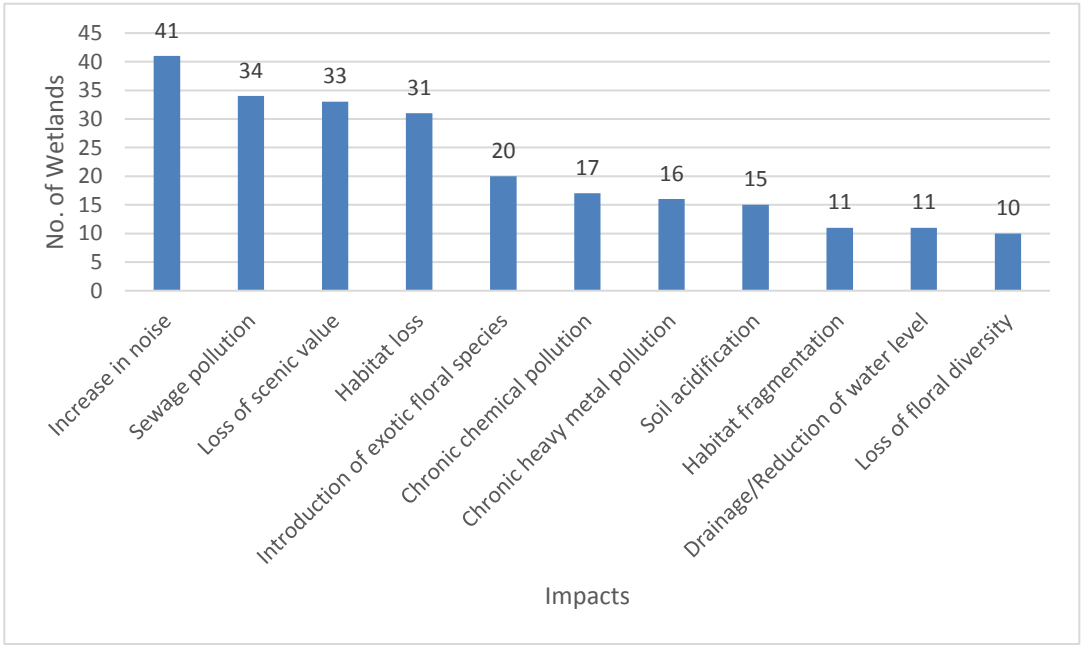


Figure 17: Impact of human activities on Cyprus Wetlands. Impacts that were recorded in less than 10 wetlands (48 impacts) can be found in the complete list of Impact of human induced activities (Annex VII)

The wetlands are also strongly dependent and influenced by their immediate catchment area (drainage basin with maximum distance of 2 km from each wetland). Activities occurring in the vicinity of the wetlands can affect their condition and conservation status in many ways. Figure 19 presents activities that were recorded within each wetland's drainage basin and the frequency of their occurrence. The most common activity is the "improved access to site" followed by "extensive agriculture" (Picture 18).

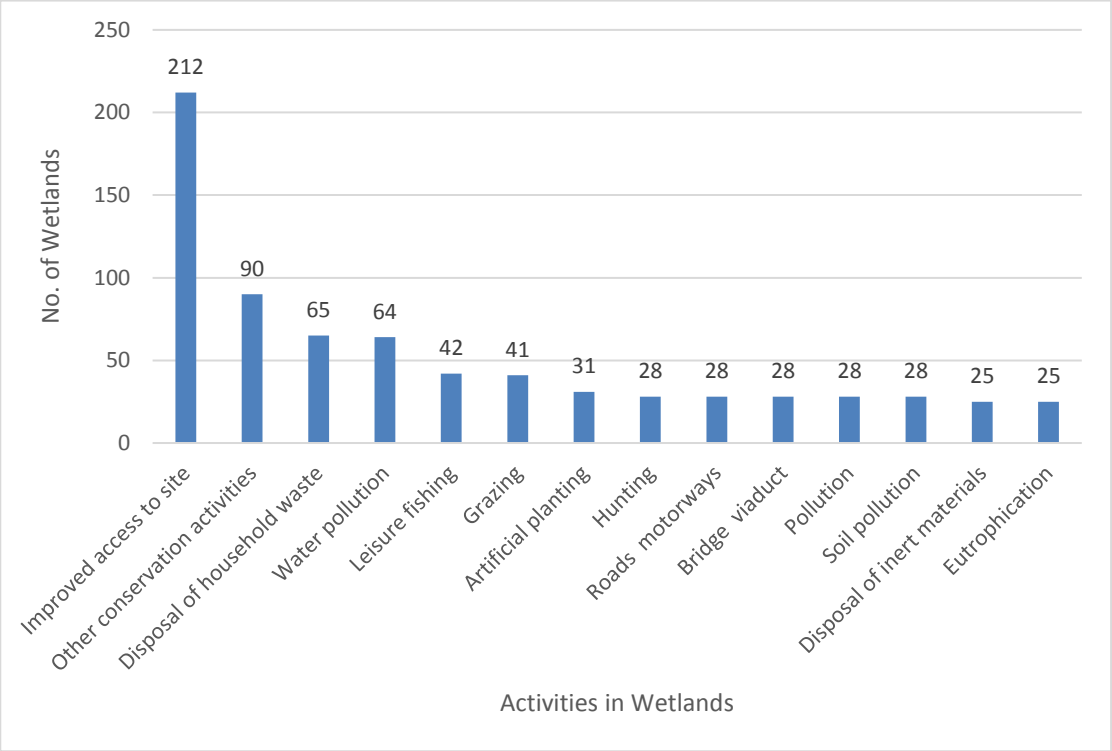


Figure 18: Human induced activities in Cyprus wetlands. In this figure only activities recorded in more than 25 wetlands are shown. The whole list can be found in the complete list of human activities identified in Cyprus wetlands and their drainage basin (Annex VIII)

Picture 17: Grazing activity at the Kouris reservoir (LIM034). This is a common practice during summer months when the water of the reservoir is lower providing easy access for the goat and sheep herds.

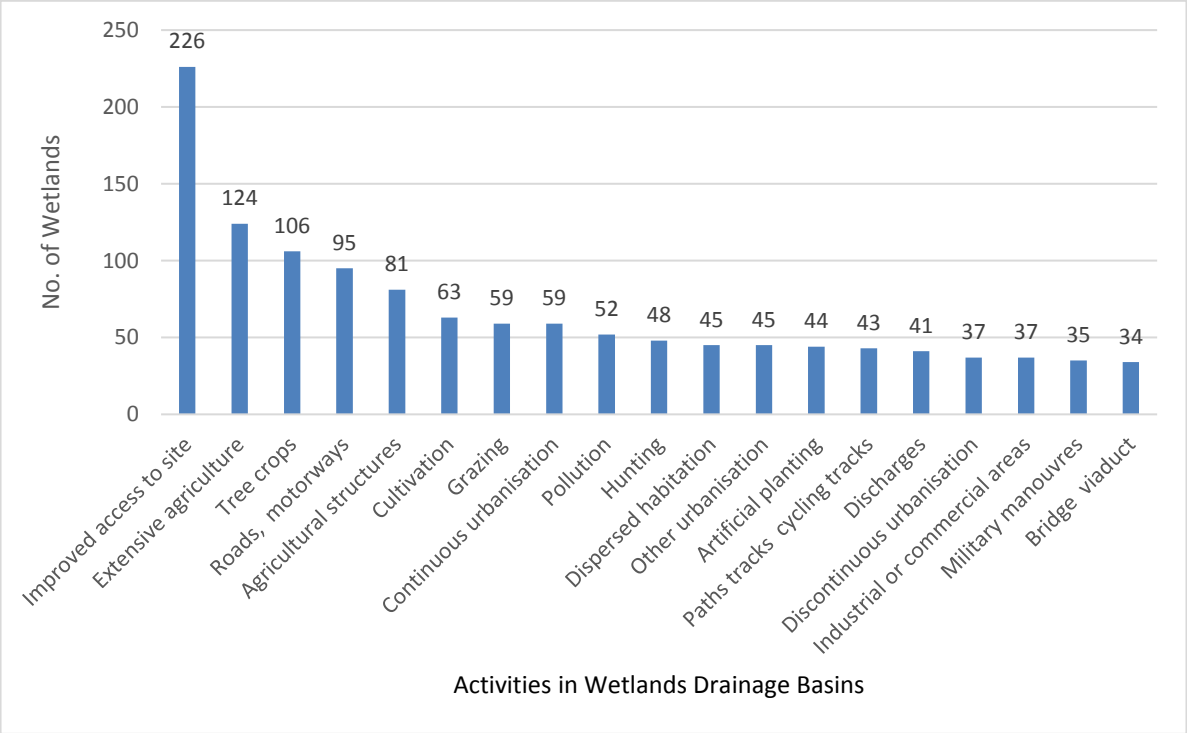


Figure 19: Human induced activities within the drainage basin of Cyprus wetlands. In this figure activities recorded in more than 35 wetlands are shown. The whole list can be found in the complete list of human activities identified in Cyprus wetlands and their drainage basins (Annex VIII)

Picture 18: Extensive agriculture at the drainage basin of Oroklini lake (LAR020).

3.7 Protection status

The protection status of Cyprus wetlands was initially grouped into the six following categories: a. Town Planning Regime, b. Hydrological Protection, c. Forest Protection, d. Game Reserve Areas, e. Archaeological Regime, and f. Natura 2000 Areas. Within each category certain types of protection status were identified and recorded, if present, for each wetland. Figure 20 shows the protection status recorded for the Wetlands of Cyprus. In most cases only a part of the wetland is protected and not the whole area.

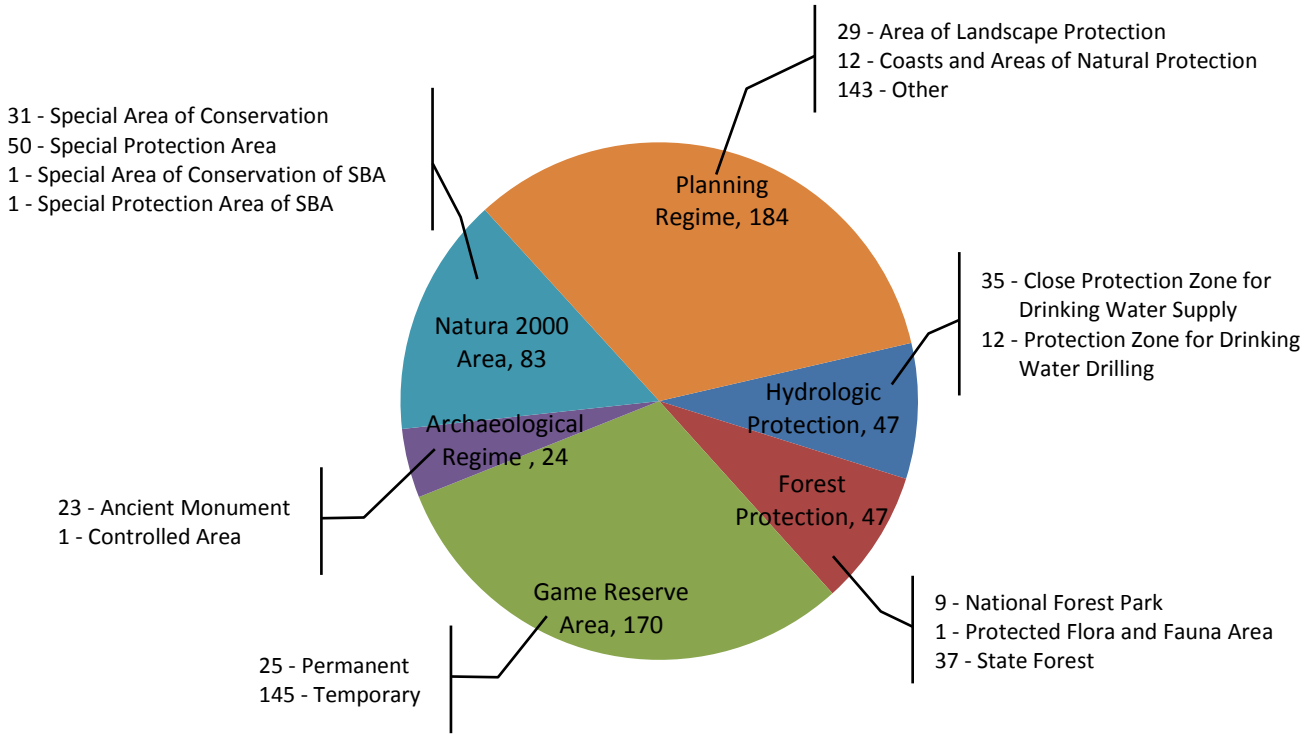


Figure 20: Protection status recorded in Cyprus wetlands and the number of wetlands in each category. In most cases the protection status covers only a percentage of the wetland and not its complete area.

3.8 Initial screening

Following the Selection Criteria and the steps process described in Methodology (chapter 2.2), a total of 85 wetlands were selected (18 natural - mainly estuaries - and 67 artificial - mainly reservoirs and river recharge barriers). This sub-group of the 373 wetlands of Cyprus represents the wetlands with higher ecological importance that can be effectively protected and managed within the areas controlled by the Republic of Cyprus. The details of the steps process are presented in Table 5, while a complete list of those 85 wetlands with their general characteristics is shown in Annex IX.

	Selection Criterion 1 on Natural wetlands. Exclude natural wetlands where the current condition has been classified as "Totally changed" or "Highly modified".
-14	Original habitat totally changed
-6	Original habitat highly modified
	Selection Criterion 2 on artificial wetlands. Exclude *artificial wetlands* where biological significance has been classified as "Low" or "Neutral" or "Negative"
-41	*Low biological* significance
-162	*Neutral biological* significance
-15	*Negative biological significance*
	Selection Criterion 3. Selection of wetlands located in areas controlled by the Republic of Cyprus *As seen below and following that criterion, 50 Wetlands with high ecological importance were excluded from the list as seen below*
-20	*Natural wetlands with original habitat >10%*
-8	*Artificial wetlands with high biological* significance
-22	*Artificial wetlands with medium biological* significance
85	*Total number of wetlands with high ecological importance that should be effectively protected and managed within the areas controlled by the Republic of Cyprus.*

Table 5: Detailed results of the screening process used to identify wetlands that should be effectively protected and managed by the Republic of Cyprus.

More information on the categories of the 85 wetlands chosen is presented in Table 6. Also, an analysis of their current protection status is shown in Table 7 and

Figure *21* below.

Type of wetland	*Category*	*Number*
Artificial	*Artificial pond*	*3*
	Earth pond	*6*
	Off-stream pond	*1*
	Quarry pond	*1*
	Reservoir	*40*
	River recharge barrier	*14*
	Tertiary treated water	*2*
	Total	*67*
Natural	*Estuary*	*12*
	Lake	*2*
	Marsh / Swamp	*3*
	Salt Lake	*1*
	Total	*18*
	Grand Total	*85*

Table 6: Descriptive analysis of the selected 85 wetlands in need of (further) protection.

% of surface area	Forest	Natura 2000	Temporary Game Reserve	Permanent Game Reserve
N/A	64	47	37	71
0-25 %	3	2	0	2
25-50 %	5	4	1	2
50-75 %	2	2	3	0
75-100 %	11	30	44	10
	85	**85**	**85**	**85**

Table 7: Analysis of the protection status of the selected 85 wetlands including the percentage of their area under protection in: (a) Natural Forest area, (b) Natura 2000 area, (c) Temporary Game Reserve area and (d) Permanent Game Reserve area. The analysis is based on four percentage groups 0-25%, 25-50%, 50-75% and 75-100%.

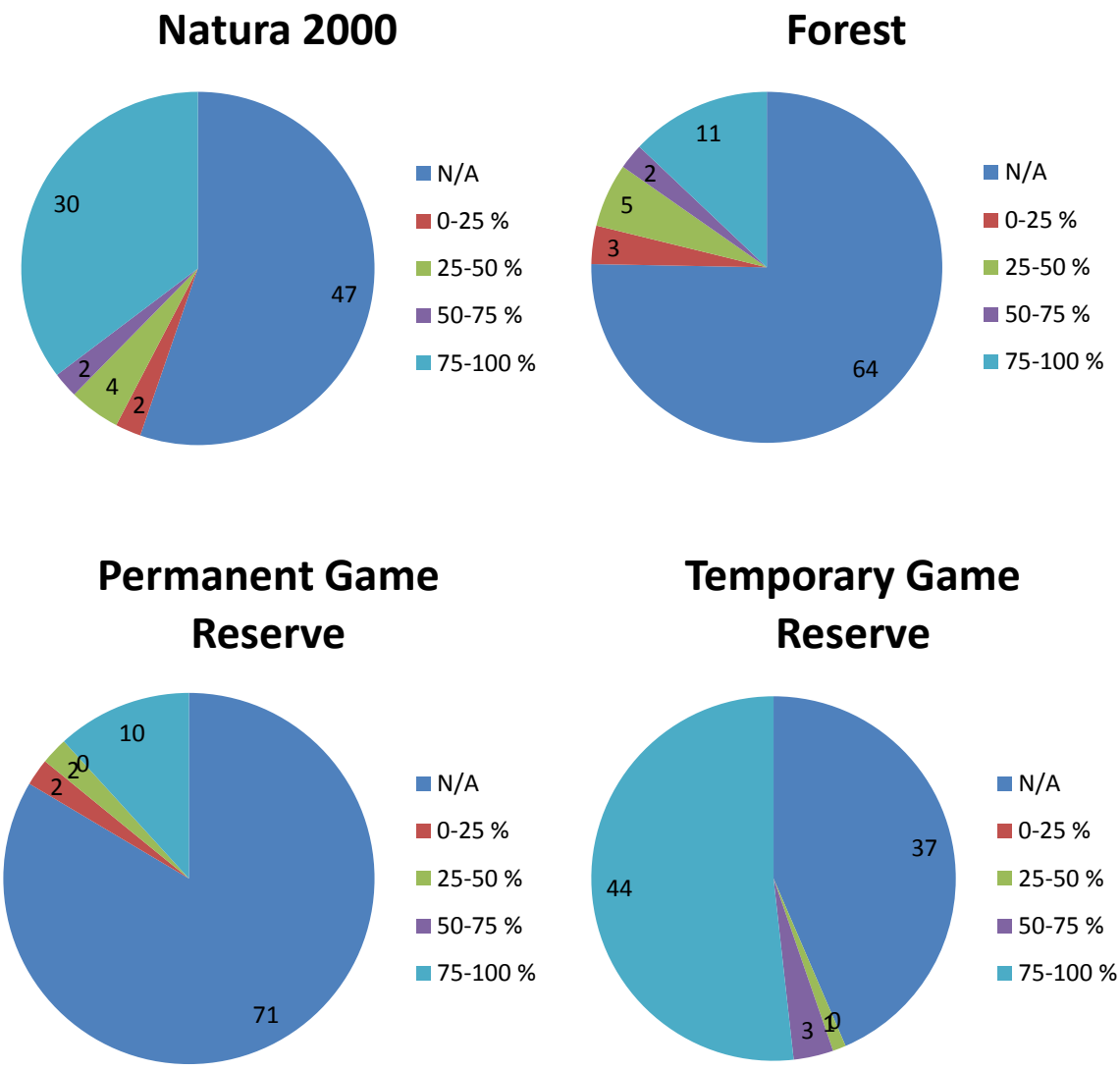


Figure 21: Pie charts presenting the analysis of the protection status of the selected 85 wetlands with the percentage of their area under protection in: (a) Natural Forest areas, (b) Natura 2000 areas, (c) Temporary Game Reserve areas and (d) Permanent Game Reserve areas. The analysis is based on four percentage groups 0-25%, 25-50%, 50-75% and 75-100%.

4. Conclusions

Taking into consideration the results presented above together with all the work of the two projects, most of which is available at the web platform (www.cypruswetlands.org), we have reached the following conclusions:

A – The Biological Importance of the majority of artificial wetlands is severely neglected.

During field visits and after examining the available bibliographical information, 30% of all artificial wetlands (94 of the 315 wetlands) were given a medium or high biological significance. This kind of biological importance is not recognized and is not reflected in their current protection. The biological importance is partially recognized and protected in 60% (58 wetlands) of the artificial wetlands which are to some extent protected either as Natura 2000 areas (26 wetlands), as State Forests (9), as Permanent Game Reserve Areas (1 wetland) and as Temporary Game Reserve Areas (21 wetlands).

This is very important if we consider that the majority of the wetlands of the island (315 of the 373), are artificial and a large number of natural wetlands have been lost or are seriously degraded due to land use changes, dam creations and other human activities.

B – The Biodiversity value of artificial wetlands is disregarded or neglected during their development or restoration stage.

The majority of artificial wetlands (51% - 151 wetlands) have neutral biological significance with an additional small proportion near 5% (15 wetlands) having negative biological significance. Based on the classification criteria shown in Table 3 this means that the specific wetlands and their surrounding habitats are not able to attract and sustain biodiversity (best case scenario) or are negatively affecting the species that might use them for a short period of time (worst case scenario). This mostly relates to either steep edge/slopes that are converting the specific wetlands into a trap for biodiversity (e.g. Membrane covered or concrete reservoirs), or to the pollution of the wetlands' area.

Following this, we need to acknowledge that the value of the wetlands for biodiversity and ecosystem services has not been taken into consideration or was disregarded during the construction stages. It is clear that biodiversity driven specifications during the construction stage or after that, as improvement or readjustment measures, will highly improve the impact artificial wetlands have on biodiversity. At the same time, proper restoration procedures and plans must be followed, in the case of polluted artificial wetlands (i.e. mine pools, quarry pond, wastewater treatment areas).

5. Implementation of the Ramsar Resolution

The Ramsar Resolution XII.14 “Conservation of Mediterranean Basin island wetlands” was signed and adopted during the 12th meeting of the Conference of the Parties to the Ramsar Convention on Wetlands that took place on June 2015 in Uruguay. As seen in Annex I, the resolution stresses the importance of conserving island wetlands of the Mediterranean Basin and urges the contracting parties to follow a number of steps towards this direction.

The results of the two projects “Inventory of Cyprus Wetlands” and Mediterranean Island Wetlands project (MedIsWet), in Cyprus have fully implemented some of the recommendations of the above resolution and have set the basis for the full implantation of the rest.

Picture19: Birdwatching at Athalassa reservoir (NIC032), in collaboration with Birdlife Cyprus, as a parallel activity during the celebrations of World Wetlands Day 2018

The Republic of Cyprus has a complete, science-based inventory of the island’s wetlands which is stored in a publicly available web platform. It now has to make sure that the monitoring of these wetlands continues and any new information regarding the island’s wetlands is uploaded on the database.

Another very important step towards the successful implantation of the Resolution is to establish clear and effective legal protection for the Republic's wetlands, so as to ensure the conservation of their biodiversity, and the maintenance of their hydrological, cultural and social values.

For the elaboration of this task, as mentioned at the Methodology part (Chapter 2.2), external assistance from an environmental lawyer was used. The Legal Advisor conducted an analysis of the current legal system of the Republic of Cyprus and identified what is the current protection status of the wetlands located within areas controlled by the Republic of Cyprus. She also identified several tools that can be used for further protection. She then produced a comprehensive report with proposed legislative and executive measures which can be used for implementing the respective requirements of the Resolution XII.14.

This report was communicated with the Ramsar National Focal point. It is currently thoroughly examined and discussed with the competent authorities to see if and how the proposed legislative and executive measures can be formally institutionalized. The aim is to adopt those legislative and/or executive measures that will have the same results in Republic of Cyprus as those of the Presidential Decree adopted in Greece.

Picture20: Educational activity as part of the celebrations for World Water Day 2018 (a collaboration between Terra Cypria, the Pedagogical Institute and Water Board of Nicosia). In this picture, a wetland's model is used to stress how human activities and wetlands influence each other.

Picture 21: Role play game at Kalavasos reservoir inducing positive reaction amongst students. In the picture a colleague pretending to be a local farmer explains how non-sustainable development will hurt and pollute the wetland, destroying the place he loves with impacts on the cultivations, the economy of the nearby villages and the families.

Terra Cypria will continue its communication education and advocacy campaigns to continue raising awareness on the importance of the wetlands of Cyprus and push for the adoption of the appropriate legislative and/or executive measures. It will also maintain and continue updating the web platform created and will pursue suitable funding opportunities and mechanisms to initiate projects for the restoration, conservation, protection and management of the wetlands of the whole island.

Picture 22: A poster (left) made by the students of Petrideio nursery school of Pafos and a commemorative picture of the Terra Cypria's team (right) during our visit to their premises. Petrideio nursery school was our first stop in the long MedIsWet educational tour conducted during 2018 aiming to reach out to students and promote the importance of wetlands and their ecosystem services.

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Management Plans

- Akrotiri peninsula environmental management plan, Version 2.0 - 17/09/2012
- Maroullena River Management Plan - November 2009
- Oroklini Lake, Water Management Plan – April 2014

Data from Public Authorities

- Department of Antiquites Data (Accessed 06/2015)
- EIONET – EEA (Accessed 08/2015)
- Forestry Department Data (Access 06/2015)
- Game and Fauna Service Data (Accessed 06/2015)
- ICOSTACY project (Accessed 08/2015)
- Vasilikos Energy Center Data (Accessed 07/2015)
- Water Development Department Data (Accessed 07/2015)

Data from Projects

- BioCyprus - Electronic Database (Accessed 08/2015)
- ICOSTACY (Accessed 08/2015)

ANNEX I

Ramsar resolution XII.14

on

Conservation of Mediterranean Basin island wetlands

Punta del Este, Uruguay, 1-9 June 2015

Resolution XII.14

Conservation of Mediterranean Basin island wetlands

1. AWARE that the Mediterranean Basin is a global biodiversity hotspot and hosts one of the largest groups of islands in the world with a rich history and varied cultural values;

2. ALSO, AWARE that the Mediterranean Basin is one of the leading tourist destinations in the world and that its coastal and island ecosystems are facing intense and multiple pressures from this sector;

3. ACKNOWLEDGING the crucial role of Mediterranean island wetlands in protecting these islands against the impacts of climate change and desertification, and their critical significance for a variety of threatened and endemic species of flora and fauna and an important number of migratory species;

4. CONCERNED that Mediterranean island wetlands increasingly face serious pressures, such as the spread of urban and coastal developments that threaten to undermine their ecological character and lead to the increased degradation of wetland areas and, subsequently, to ecosystem fragmentation;

5. AWARE of the fact that small island wetlands are extremely vulnerable and could be easily destroyed, including by non-intentional actions and/or lack of awareness of their significance;

6. ALSO CONCERNED that several Mediterranean island wetlands have already been partly or fully drained, or are increasingly water-stressed, and AWARE that the demand for fresh water for human use on these islands continues to grow;

7. RECALLING the commitments made by the Contracting Parties to achieving the wise use of all wetlands in their territories;

8. ALSO RECALLING Recommendation 6.11, which encouraged continuing collaboration for Mediterranean wetlands and urged all government and non-government organizations and individuals concerned with wetlands in the Mediterranean to commit their best efforts for the preparation and implementation of a concerted Mediterranean Wetlands Strategy;

9. NOTING that the Mediterranean Wetlands Initiative (MedWet) has successfully contributed to the protection of Mediterranean wetlands for more than 20 years and it is anticipated that it will continue to do so;

10. ALSO NOTING the efforts made by organizations and initiatives directly focusing on the Mediterranean, such as the Convention for the Protection of the Mediterranean Sea Against Pollution (the Barcelona Convention) and its Mediterranean Action Plan, the Union for the Mediterranean and others;

11. FURTHER RECALLING that the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (as adopted through Resolution VII.11 (1999) and amended through Resolution XI.8 *Streamlining procedures for describing Ramsar Sites at the time of designation and subsequent updates* (2012) indicates that smaller wetlands should not be overlooked for designation as Wetlands of International Importance and that such wetlands may be especially important in maintaining habitat or ecological community-level biological diversity; and

12. ALSO RECALLING Recommendation 5.3 (1993), which called for the establishment of strict protection measures for Ramsar Sites and wetland reserves of small size or particular sensitivity;

THE CONFERENCE OF CONTRACTING PARTIES

13. CALLS UPON Contracting Parties in and around the Mediterranean to address urgently the significant human-induced pressures threatening island wetlands through effective and decisive legislative or executive measures and other actions which apply a precautionary approach that would prevent the destruction of island wetlands, while developing more long-term and integrated strategies or plans;

14. ALSO CALLS UPON Mediterranean Contracting Parties to grant clear and effective legal protection to Mediterranean island wetlands, so as to ensure the conservation of their biodiversity, and the maintenance of their hydrological, cultural and social values;

15. REQUESTS that Mediterranean Parties continue to designate under-represented types of wetlands as additional Wetlands of International Importance;

16. URGES Mediterranean Contracting Parties in the framework of the MedWet Initiative, to produce or update as a matter of high priority a complete, science-based inventory of their island wetlands, based on appropriate methodologies, and to share it with neighbouring countries, for example, through a MedWet database;

17. REQUESTS Mediterranean Contracting Parties to ensure effective and long term conservation and whenever applicable the restoration of their island wetlands, including by incorporating them in territorial planning and/or land use and development plans, as well as in their integrated water resources plans and water efficiency plans, and by considering designating key small island wetlands for inclusion in the List of Wetlands of International Importance;

18. ALSO REQUESTS that Mediterranean Contracting Parties provide the Ramsar Secretariat with regular updates on all Mediterranean island wetlands, whether or not they have been designated as Ramsar Sites, through the triennial National Reports, including information on their number, extent, biodiversity, current conditions and protection status, and where possible on the ecosystem services which they perform;

19. INVITES the Contracting Parties in and around the Mediterranean, with the support as appropriate of the Ramsar Secretariat, to:

    a. further promote the importance of the conservation and restoration needs of the Mediterranean island wetlands to the Convention on Biological Diversity (CBD), the Convention on the Conservation of Migratory Species of Wild Animals (CMS), and to global trade, tourism and transport organizations and other relevant international institutions, organizations and initiatives, so as to ensure that the degradation of these fragile aquatic ecosystems is stopped and reversed;

    b. share this Resolution with Conventions, organizations and initiatives directly focusing on the Mediterranean, such as the Barcelona Convention and its Mediterranean Action Plan, the Union for the Mediterranean and others, to ensure cooperation with existing programmes and to initiate new partnerships;

    c. develop, share and disseminate case studies, with the help of the MedWet Initiative and other partners, where Mediterranean island wetlands have been:
        i. negatively affected by human interventions, including through the spread of invasive species; and
        ii. effectively protected or restored, through particular measures and through their designation as Ramsar Sites and/or other forms of protection;

20. PARTICULARLY INVITES non-Mediterranean Contracting Parties to give also special attention to their own island wetlands, taking into account their regional specificities, in recognition of their fragility and special conservation and management needs; and

21. INVITES all Contracting Parties to report on their island wetlands conservation results in their National Reports.

ANNEX II

Field protocol

TERRA CYPRIA

Ερευνητικό Πρόγραμμα Απογραφής των Κυπριακών Υγροτόπων
Πρωτόκολλο Εργασίας Πεδίου

Κωδικός Terra Cypria Κύπρος:	**Όνομα Υγροτόπου:**
Ημερομηνία απογραφής:	**Όνομα Απογράφοντα:**

Θέση Υγροτόπου: Παράκτιος ☐ Εσωτερικός ☐

Τύπος & Κατηγορία Υγροτόπου:

Φυσικός	Εκβολή ☐ Λίμνη ☐ Εποχιακό αλμυρό τέλμα ☐ Εποχιακό τέλμα γλυκού νερού ☐ Έλος ☐ Ποτάμι / ρύακας ☐ Λιμνοθάλασσα ☐ Μόνιμο τέλμα γλυκού νερού ☐ Καρστική πηγή ☐ Σύστημα Υγροτόπων ☐ Μόνιμο τέλμα αλμυρού νερού ☐ Συστήματα αμμοθινών, λωρίδες άμμου & αμμώδεις νησίδες ☐	Τεχνητός	Υδατοφράκτης ☐ Υδατοσυλλέκτης από απόληψη αργίλου - αδρανών υλικών ☐ Εξωποτάμια Δεξαμενή ☐ Λιμνοδεξαμενή με εμφανή μεμβράνη ☐ Λιμνοδεξαμενή με σκυρόδεμα ☐ Αλυκή ☐ Λίμνη ορυχείων ☐ Έλος επεξεργασίας λυμάτων ☐ ΠΕΦΑ ☐ Δεξαμενές Τριτοβάθμια Επεξεργασμένων λυμμάτων ☐

Αλατότητα νερού: Αλμυρό ☐ Υφάλμυρο ☐ Γλυκό ☐

Είσοδος Γλυκού νερού:	**Τύπος επιφανειακής εξόδου νερού:**
Λεκάνη Απορροής (από κατακρημνίσματα) ☐	Έξοδος ελεγχόμενη από υπερχειλιστή ☐
Χείμαρρος / Ρύακας ☐	Έξοδος ελεγχόμενη από αγωγό ☐
Καρστική πηγή ☐	Έξοδος ελεγχόμενη από θυροφράχτη ☐
Γεωτρήσεις ☐	Έξοδος από παρυφές λίμνης, ή ανεμπόδιστη έξοδος από ποτάμι ☐
Άγνωστο ☐	Έξοδος ελεγχόμενη από φράγμα ☐
Άλλο ☐	Δεν υπάρχει εμφανές σημείο εξόδου του νερού ☐
	Άγνωστο ☐ / Άλλο ☐

Ελεύθερη επιφάνεια νερού (%):	<5	5-25	26-50	51-75	76-95	>95

Παρουσία νερού:	Εποχιακή	Μόνιμη	Σποραδική	Άγνωστη

Κατάσταση υγροτόπου (κατά IUCN):

0 - Άγνωστη κατάσταση ☐
1- Απείραχτος. Χωρίς σημάδια από ανθρωπογενείς επιδράσεις ☐
2- Το αρχικό φυσικό περιβάλλον/τοπίο κυριαρχεί στο χώρο (>50%) ☐
3- Το αρχικό φυσικό περιβάλλον/τοπίο μερικώς διαταραγμένο (10-50% απείραχτο) ☐
4- Το αρχικό φυσικό περιβάλλον/τοπίο πολύ διαταραγμένο (<10 απείραχτο) ☐
5- Το φυσικό περιβάλλον/τοπίο έχει μεταβληθεί από την αρχική του κατάσταση ☐

Βιολογική Αξία (για τεχνητούς)
Αρνητική | Ουδέτερη | Μικρή | Μεσαία | Μεγάλη

Αξίες Υγροτόπου *(Οφέλη για τον άνθρωπο)*

101 Εμπλουτισμός υδροφορέα ☐	111 Αναψυχή ☐
102 Εκφόρτιση υπόγειων νερών ☐	201 Παρουσία ενδιαφερόντων ειδών άγριων ζώων και φυτών ☐
103 Έλεγχος πλημμυρικών φαινομένων ☐ (Κυρίως εκβολές ποταμών και χειμάρρων με μεγάλες λεκάνες απορροής)	202 Αλιευτική ☐
104 Κατακράτηση ιζημάτων/τοξικών ☐	203 Τροφοληπτική ☐ (Συλλογή τροφής / βοσκή)
105 Κατακράτηση θρεπτικών ☐	204 Αγροτική ☐ (Ο υγρότοπος ως αγροτική γαία / Επέκταση καλλιεργειών περιμετρικά του υγρότοπου)
106 Σταθεροποίηση ακτογραμμής ☐ (Όλοι οι παράκτιοι υγρότοποι με συστήματα θινών)	205 Υδρευτική/Αρδευτική ☐ (Ύδρευση για τον άνθρωπο / άρδευση / πότισμα για ζώα)

107 Προστασία από καταιγίδες/Ανεμοφραγή ☐	301 Μεγάλη βιολογική ποικιλία ☐
108 Μεταφορά νερού ☐	302 Πολιτιστική ☐
109 Υποστήριξη τροφικών αλυσίδων ☐	Καμία ☐
110 Ενδιαίτημα άγριων ειδών ζώων και φυτών ☐	Άλλο ☐

Δραστηριότητες στον υγρότοπο (Εντός της Οριοθετημένης Περιοχής)

00 = Διαχείριση για την Διατήρηση

	Σχόλια	Επίπτωση Μικρή Μεγάλη Μεσαία
010 = Διατήρηση οικοτόπων *ΤΚΣ, ΖΕΠ*		
020 = Διατήρηση φυσικών πόρων		
030 = Διατήρηση ειδών , *ΣΠΠ*		
040 = Αποκατάσταση εδαφών		
090 = Άλλες δραστηριότητες διατήρησης *Ταμπέλες προστασίας, Αρχαιολογική περιοχή, Προγράμματα LIFE, Περιφράξεις*		

10 = Αγροτικές / Δασοκομικές δραστηριότητες

100 = Καλλιέργειες		
101 = αλλαγές στις καλλιεργητικές πρακτικές		
110 = Χρήση φυτοφαρμάκων/παρασιτοκτόνων		
120 = Χρήση λιπασμάτων		
130 = Άρδευση		
140 = Βόσκηση		
141 = εγκατάλειψη κτηνοτροφικών συστημάτων		
150 = Αναδασμός		
160 = Διαχείριση δασών		
161 = φύτευση δασών Οργανωμένη δραστηριότητα. Φύτευση δασών εκεί που δεν υπάρχει		
162 = δεντροφύτευση Πιο μικρή κλίματα. Μεμονωμένα δέντρα δεξιά και αριστερά		
163 = αναδάσωση Μετά από καταστροφή (πυρκαγιά)		
164 = καθαρισμός δασών		
165 = αφαίρεση δασικού υποόροφου		
166 = αφαίρεση νεκρών / ξερών δένδρων		
167 = δασική εκμετάλλευση χωρίς αναδάσωση		
170 = Αναπαραγωγή ζώων		
180 = Χρήση φωτιάς για αγροκτηνοτροφικά οφέλη		
190 = Άλλες αγροτικές και δασοκομικές δραστηριότητες *Επέκταση καλλιεργειών, Περιφράξεις για αγροτική/κτηνοτροφική χρήση, πότισμα ζώων, Καθαρισμός από καλάμια.*		

20 = Αλιεία, κυνήγι και συλλογή φυτών και ζώων

200 = Ιχθυοκαλλιέργειες / Οστρακοκαλλιέργειες		
210 = Επαγγελματική αλιεία		
220 = Ερασιτεχνική αλιεία		
230 = Κυνήγι		
240 = Συλλογή / Αφαίρεση ζώων		
241 = συλλογή (έντομα, ερπετά, αμφίβια, κ.α.)		
242 = συλλογή από την φωλιά (γεράκια)		
243 = λαθροθηρία, χρήση παγίδων και δηλητηρίων		
244 = άλλοι τρόποι αφαίρεσης πανίδας		
250 = Συλλογή / Αφαίρεση φυτών		
290 = Άλλες δραστηριότητες που δεν αναφέρονται παραπάνω		

30 = Εξορυκτικές δραστηριότητες

300 = Εξαγωγή αδρανών υλικών (άμμου, χαλικιών, κ.ά.) *Αμμοληψίες για οικοδομικές δραστηριότητες*		
301 = λατομεία		
302 = αφαίρεση υλικών από παραλίες *Αμμοληψίες για οικοδομικές δραστηριότητες*		
330 = Μεταλλεία		
331 = Ανοιχτά μεταλλεία		
~~340 = Αλοπηγία~~		
390 = Άλλες εξορυκτικές δραστηριότητες		

40 = Αστικοποίηση, βιομηχανοποίηση και συναφείς δραστηριότητες

400 = Αστικοποιημένες περιοχές, δόμηση		
401 = συνεχής δόμηση		
402 = ασυνεχής δόμηση		
403 = διασκορπισμένες κατοικίες		
409 = άλλη κατανομή των κατοικιών		
410 = Βιομηχανικές / Εμπορικές περιοχές		
411 = εργοστάσια		
412 = αποθήκες βιομηχανιών Κλειστές αποθήκες (*Το είδος της αποθήκης*)		
419 = άλλες βιομηχανικές / εμπορικές δραστηριότητες		
420 = Απορρίψεις απορριμάτων / αδρανών		
421 = απόρριψη οικιακών απορριμάτων *Σκουπίδια*		
422 = απόρριψη βιομηχανικών απορριμμάτων *Παλέτες, μάρμαρα, μαρμαρόσκονη, πλαστικά, υλικά συσκευασίας από βιομηχανίες*		
423 = απόρριψη αδρανών υλικών *Μπάζα και άλλα αδρανή υλικά από εξορύξεις*		
424 = απόρριψη άλλου τύπου αποβλήτων		
430 = Αγροτικές (γεωργικές) κατασκευές *Θερμοκήπια, αποθήκες, μαντριά για ζώα*		
440 = Αποθήκευση υλικών Υπαίθριες: *Δεξαμενές πετρελαίου, καυσίμων, στύλοι ΑΗΚ, σωλήνες*		
490 = Άλλες αστικές, βιομηχανικές και συναφείς δραστηριότητες *Περιφράξεις για οικοδομική χρήση, εκχερσώσεις υγροτοπικής βλάστησης, χώρος στάθμευσης αυτοκινήτων, Αντλιοστάσιο*		

50 = Μεταφορές και επικοινωνίες

500 = Δίκτυα επικοινωνιών		
501 = μονοπάτια, ποδηλατικές διαδρομές		
502 = οδικό δίκτυο *Διάνοιξη δρόμων*		
504 = λιμάνι *Αλιευτικό καταφύγιο, μαρίνες, γλύστρες, μεγάλα λιμάνια, λιμανάκια*		
505 = αεροδρόμιο		
506 = αεροδιάδρομος / ελικοδρόμιο		
507 = γέφυρες, οδογέφυρες		
509 = άλλα δίκτυα επικοινωνιών		
510 = Μεταφορά ενέργειας		
511 = δίκτυα μεταφοράς ηλεκτρικής ενέργειας		
512 = αγωγοί μεταφοράς πετρελαίου/φυσικού αερίου		
513 = Άλλα δίκτυα μεταφοράς ενέργειας		
520 = Εγκαταστάσεις μεταφόρτωσης		
530 = Βελτιωμένη πρόσβαση στην περιοχή		
590 = Άλλες μορφές δικτύων μεταφορών και επικοινωνιών *Αρδευτικά δίκτυα, Αγωγοί όμβριων, Υδρευτικά δίκτυα*		

60 = Αναψυχή / Τουρισμός

600 = Εγκαταστάσεις αθλητισμού / αναψυχής		
601 = γήπεδο γκολφ		
603 = στάδιο		
604 = πίστα μηχανοκίνητου αθλητισμού		
605 = ιππόδρομος		
606 = πάρκο αναψυχής		
608 = χώροι για οργανωμένη κατασκήνωση και τροχόσπιτα		
609 = άλλες μορφές εγκαταστάσεων άθλησης / αναψυχής *Ομπρέλες στην παραλία*		
610 = Κέντρα ενημέρωσης		
620 = Υπαίθριες δραστηριότητες αθλητισμού και αναψυχής *Γήπεδο βόλεϊ, Θαλάσσια ποδήλατα, Παραλία κολύμβησης*		
621 = ναυτικά αθλήματα		
622 = πεζοπορία, ιππασία, και μη-μηχανοκίνητα οχήματα		
623 = μηχανοκίνητα οχήματα *Off road*		
624 = ορειβασία, αναρρίχηση, σπηλαιολογία		
629 = άλλες δραστηριότητες αθλητισμού και αναψυχής *Περιβαλλοντική εκπαίδευση, γαλάζια σημαία*		
690 = Άλλες δραστηριότητες αναψυχής και τουρισμού *Σκηνές και τροχόσπιτα στην παραλία / ελεύθερο camping, έργα ανάπλασης*		

70 = Ρύπανση και άλλες ανθρώπινες επιδράσεις / δραστηριότητες

700 = Ρύπανση		
701 = ρύπανση νερού *Σκουπίδια μέσα στο νερό, βοθρολύματα (αστικά λύματα), κατσίγαροι, πετρέλαια, λάδια, Αγωγός αστικών/βιομηχανικών αποβλήτων, Περιττώματα ζώων*		
702 = ρύπανση αέρα		
703 = ρύπανση εδάφους Στερεά ή υγρά απορρίμματα που ρίχνονται σε υγροτοπικά εδάφη (πλυντήρια, μπαταρίες, πλαστικά, σκουπίδια), *δεξαμενές ελαιοτριβείων,*		
709 = άλλες μορφές ή μικτές μορφές ρύπανσης		
710 = Ηχορύπανση		
720 = Ποδοπάτηση *Είσοδος Off road οχημάτων και συμπίεση εδάφους*		
730 = Στρατιωτική χρήση		
740 = Βανδαλισμός		
790 = Άλλες μορφές ανθρώπινων *Μηχανικός καθαρισμός άμμου στην παραλία* Επιδράσεων / δραστηριοτήτων		

80 = Ανθρωπογενείς αλλαγές στις υδρολογικές συνθήκες

800 = Επιχωματώσεις, διαμορφώσεις, αποστραγγίσεις Αν τα μπάζα αλλάζουν τις υδρολογικές συνθήκες μπαίνει εδώ.		
801 = επιχωμάτωση θαλάσσιων περιοχών Π.χ. Γιόφυρος		
802 = απόκτηση εδαφών από θάλασσα, εκβολή ή έλος		
803 = επιχωμάτωση χαντακιών, τελμάτων, στερνών, βάλτων		
810 = Αποστράγγιση		
820 = Απομάκρυνση ιζημάτων (λάσπη, κ.ά.)		
830 = Δημιουργία καναλιών		
850 = Ανθρωπογενής μεταβολή των υδρογραφικών Λειτουργιών διαμόρφωση κοίτης		
852 = κατασκευές τροποποίησης των διαδρομών των εσωτερικών υδάτων *Φράγματα αντιστάθμισης* (μπαίνουν όλα τα φράγματα σε αυτή την κατηγορία), εκτροπή κοίτης, *Ευθυγράμμιση της κοίτης*		
853 = διαχείριση της στάθμης του νερού *Υπεράντληση τους θερινούς μήνες για άρδευση*		
860 = Απόρριψη υλικών από εκβαθύνσεις Για τεχνητούς υγρότοπους που έχουν δημιουργηθεί από εκσκαφές (π.χ. Εύβοια), από έργα που γίνονται πλησίον στον υγρότοπο		
870 = Τάφροι, αναχώματα, τεχνητές παραλίες		
871 = έργα παράκτιας προστασίας (κυματοθραύστες)		
890 = Άλλες ανθρωπογενείς αλλαγές στις υδρολογικές συνθήκες *Εγκιβωτισμός της κοίτης ή/και της εκβολής με σκυρόδεμα / συρματοδεμένα δεμάτια πέτρας, πηγάδια, διάνοιξη κοίτης, Παράνομη άντληση*		

90 = Φυσικές διεργασίες (βιοτικές και αβιοτικές)

900 = Διάβρωση		
910 = Εναπόθεση ιλύος		
920 = Αποξήρανση		
930 = Καταβύθιση		
940 = Φυσικές καταστροφές		
941 = κατακλυσμοί		
943 = κατολισθήσεις		
944 = καταιγίδες, κυκλώνες		
946 = σεισμοί		
948 = φωτιά (από φυσικά αίτια)		
949 = άλλες φυσικές καταστροφές		
951 = αποξήρανση / συσσώρευση οργανικών υλικών		
952 = ευτροφισμός		
954 = εισβολή ξενικών ειδών		
960 = Ενδοειδικές πανιδικές σχέσεις		
961 = ανταγωνισμός μεταξύ ειδών		
962 = παρασιτισμός		
963 = εισαγωγή ασθενειών		
965 = θήρευση		
966 = αύξηση ανταγωνισμού λόγω εισαγωγής ξενικών ειδών		
967 = ανταγωνισμός με οικόσιτα ζώα		
969 = άλλες μορφές ή μικτές μορφές ενδοειδικού ανταγωνισμού ζώων		
970 = Ενδοειδικές χλωριδικές σχέσεις		
971 = ανταγωνισμός μεταξύ ειδών		
972 = παρασιτισμός		
973 = εισαγωγή ασθενειών		
974 = γονιδιακή ρύπανση		
975 = έλλειψη παραγόντων επικονίασης		
976 = ζημιές από θηρευόμενα είδη		
979 = άλλες μορφές ή μικτές μορφές ενδοειδικού ανταγωνισμού φυτών		
990 = Άλλες φυσικές διεργασίες		

Δραστηριότητες στην Λεκάνη Απορροής (κοντά στον υγρότοπο, ανάλογα με το μέγεθος του μέτρα/χιλιόμετρα)

00 = Διαχείριση /Προστασία Περιοχών		
010 = Διατήρηση οικοτόπων		
090 = Άλλες δραστηριότητες διατήρησης		
10 = Αγροτικές / Κτηνοτροφικές / Δασοκομικές δραστηριότητες		
100 = Καλλιέργειες		
105 = Εκτατικές καλλιέργειες		
106 = Εντατικές καλλιέργειες		
107 = Δενδρώδεις καλλιέργειες		
120 = Χρήση λιπασμάτων		
140 = Βόσκηση / Βοσκότοποι		
162 = δεντροφύτευση		
180 = Χρήση φωτιάς για αγροκτηνοτροφικά οφέλη		
190 = Άλλες δραστηριότητες		
20 = Αλιεία, κυνήγι και συλλογή φυτών και ζώων		
220 = Ερασιτεχνική αλιεία		
230 = Κυνήγι		
240 = Συλλογή / Αφαίρεση ζώων συλλογή από την φωλιά (γεράκια), λαθροθηρία, χρήση παγίδων και δηλητηρίων		
250 = Συλλογή / Αφαίρεση φυτών		
290 = Άλλες δραστηριότητες		
30 = Εξορυκτικές δραστηριότητες		
300 = Εξαγωγή αδρανών υλικών (άμμου, Λατομεία, αφαίρεση υλικών από παραλίες χαλικιών, κ.ά.)		
330 = Μεταλλεία		
340 = Αλοπηγία		
390 = Άλλες εξορυκτικές δραστηριότητες		
40 = Αστικοποίηση, βιομηχανοποίηση και συναφείς δραστηριότητες		
401 = συνεχής δόμηση		
402 = ασυνεχής δόμηση		
403 = διασκορπισμένες κατοικίες		
410 = Βιομηχανικές / Εμπορικές περιοχές Εργοστάσια, αποθήκες βιομηχανιών		
420 = Απορρίψεις απορριμάτων / αδρανών Απόρριψη οικιακών, βιομηχανικών απορριμμάτων και αδρανών υλικών		
430 = Αγροτικές (γεωργικές) κατασκευές *Θερμοκήπια, αποθήκες, μαντριά για ζώα*		
440 = Αποθήκευση υλικών Υπαίθριες: *Δεξαμενές πετρελαίου, καυσίμων, στύλοι ΔΕΗ, σωλήνες*		
490 = Άλλες αστικές, βιομηχανικές και συναφείς δραστηριότητες *Περιφράξεις για οικοδομική χρήση, Δεξαμενές ελαιοτριβείου Αντλιοστάσια*		
50 = Μεταφορές και επικοινωνίες		
501 = μονοπάτια, ποδηλατικές διαδρομές		
502 = οδικό δίκτυο *Διάνοιξη δρόμων*		
504 = λιμάνι *Αλιευτικό καταφύγιο, μαρίνες, γλύστρες, μεγάλα λιμάνια, λιμανάκια*		
505 = αεροδρόμιο		
507 = γέφυρες, οδογέφυρες		
510 = Μεταφορά ενέργειας Πετρέλαιο, ηλεκτρική ενέργεια		
520 = Εγκαταστάσεις μεταφόρτωσης		
530 = Βελτιωμένη πρόσβαση στην περιοχή		
590 = Άλλες μορφές δικτύων μεταφορών και επικοινωνιών *Αρδευτικά δίκτυα, Αγωγοί όμβριων, Υδρευτικά δίκτυα*		
60 = Αναψυχή / Τουρισμός		
600 = Εγκαταστάσεις αθλητισμού / αναψυχής Διάφορα γήπεδα, στάδια, πάρκα αναψυχής, camping		
609 = άλλες μορφές εγκαταστάσεων άθλησης / αναψυχής *Ομπρέλες στην παραλία*		
610 = Κέντρα ενημέρωσης		
620 = Υπαίθριες δραστηριότητες αθλητισμού και αναψυχής Αυτοσχέδια γήπεδα: *Γήπεδο βόλεϊ, Θαλάσσια ποδήλατα, Παραλία κολύμβησης, ναυτικά αθλήματα. Πεζοπορία, ιππασία, μηχανοκίνητα οχήματα, ορειβασία αναρρίχηση, σπηλαιολογία*	,	
629 = άλλες δραστηριότητες	*Περιβαλλοντική εκπαίδευση, γαλάζια σημαία*	

70 = Ρύπανση και άλλες ανθρώπινες επιδράσεις / δραστηριότητες

700 = Ρύπανση		
730 = Στρατιωτική χρήση		
790 = Άλλες μορφές ανθρώπινων επιδράσεων/δραστηριοτήτων *Μηχανικός καθαρισμός άμμου στην παραλία*		

80 = Ανθρωπογενείς αλλαγές στις υδρολογικές συνθήκες

800 = Επιχωματώσεις, διαμορφώσεις, Αποστραγγίσεις. Αν τα μπάζα αλλάζουν τις υδρολογικές συνθήκες μπαίνει εδώ.		
830 = Δημιουργία καναλιών		
850 = Ανθρωπογενής μεταβολή των υδρογραφικών λειτουργιών. *Φράγματα αντιστάθμισης, Υπεράντληση τους θερινούς μήνες για άρδευση*		
871 = έργα παράκτιας προστασίας (κυματοθραύστες)		
890 = Άλλες ανθρωπογενείς αλλαγές στις υδρολογικές συνθήκες *Εγκιβωτισμός της κοίτης ή/και της εκβολής με σκυρόδεμα / συρματοκιβώτια*		

90 = Φυσικές διεργασίες (βιοτικές και αβιοτικές)

920 = Αποξήρανση		
930 = Καταβύθιση		
940 = Φυσικές καταστροφές Κατακλυσμοί, κατολισθήσεις, καταιγίδες, κυκλώνες, ηφαιστειακή δραστηριότητα, σεισμοί, παλιρροιακό κύμα, φωτιά (από φυσικά αίτια)		
952 = ευτροφισμός		
990 = Άλλες φυσικές διεργασίες		

XX = Αμελητέα ή μηδενική δραστηριότητα ή επίπτωση

Επιπτώσεις στον υγρότοπο από δραστηριότητες εντός και εκτός αυτού

A-- Απώλεια αισθητικής αξίας

Επίπτωση	Σχόλια	Μικρή Μεγάλη Μεσαία
AN- Αύξηση θορύβου		
AS- Μείωση αισθητικής τοπίου		

E-- Βελτίωση αξιών του υγροτόπου (από δράσεις για βελτίωση της κατάστασης του)

EA- Αύξηση της μεταφορικής ικανότητας των υγροτόπων		
EB- Αύξηση αισθητικής αξίας		
ED- Αύξηση στην αφαίρεση/κατακράτηση ιζημάτων		
EE- Αύξηση της δυνητικής οικονομικής αξίας		
EF- Αύξηση προστασίας από φυσικές καταστροφές		
EI- Αύξηση άλλων κοινωνικο-οικονομικών αξιών		
EO- Αύξηση δυναμικού για φυσικά προϊόντα		
EP- Μείωση της δυνητικής αρμύρινσης (εισόδου αλμυρού νερού)		
ER- Αύξηση της ρυθμιστικής ικανότητας της ροής του νερού		
ES- Αύξηση στην παροχή νερού		
ET- Αύξηση της ικανότητας αφαίρεσης/κατακράτησης τοξικών ουσιών		
EU- Αύξηση στο δυναμικό για τουρισμό/αναψυχή	*Μέσω προγραμμάτων LIFE, οικοτουρισμού*	
EW- Αύξηση της φυσικότητας		

F-- Αλλαγές στην πανίδα

FA- Αλλαγή στην ηλικιακή σύνθεση των ειδών ζώων Απομάκρυνση συγκεκριμένης ηλικίας ζώων		
FB- Διαταραχή της φυσικής ισορροπίας/αλληλεπίδρασης μεταξύ ειδών ζώων		
FC- Αλλαγές στην σύνθεση των ειδών πανίδας		
FCD Απώλεια της πανιδικής ποικιλότητας		
FCP Εισαγωγή επιβλαβών ζώων		
FF- Διαταραχή (ή διακοπή) των φυσικών κύκλων/λειτουργιών των ειδών της πανίδας		
FFB Διαταραχή στην αναπαραγωγή		
FFO -Άλλες διαταραχές στους πανιδικούς κύκλους/λειτουργίες		
FP- Μείωση των πληθυσμών των ειδών ζώων		
FPX Τοπική εξαφάνιση ειδών ζώων		

H-- Υποβάθμιση ενδιαιτημάτων

HC- Απώλεια διαδρόμων επικοινωνίας για την πανίδα		
HF- Κατακερματισμός ενδιαιτημάτων		
HL- Απώλεια ενδιαιτημάτων		

L-- Μείωση των υπηρεσιών (ωφελειών) που προσφέρουν οι υγρότοποι

LA- Μείωση της μεταφορικής ικανότητας των υγροτόπων		
LD- Μείωση στην αφαίρεση/κατακράτηση ιζημάτων		
LE- Μείωση της δυνητικής οικονομικής αξίας		
LF- Μείωση της προστασίας από φυσικές καταστροφές		
LI- Μείωση άλλων κοινωνικο-οικονομικών αξιών		
LO- Μείωση του δυναμικού για φυσικά προϊόντα		
LP- Μείωση της ικανότητας παρεμπόδισης της αλμύρινσης (intrusion of sea water)		
LR- Μείωση της ρύθμισης της ροής του νερού		
LS- Μείωση της παροχής νερού		
LT- Μείωση της ικανότητας αφαίρεσης/κατακράτησης τοξικών ουσιών		
LU- Μείωση στο δυναμικό για τουρισμό/αναψυχή		
LW- Μείωση των αξιών άγριας πανίδας/άγριας ζωής		

P-- Ρύπανση

PC- Χημική ρύπανση		
PCA Χημική ρύπανση από ατύχημα		
PCC Χρόνια χημική ρύπανση		
PCO Χημική ρύπανση άγνωστης έκτασης/διάρκειας		
PF- Ρύπανση από υπερβολική χρήση λιπασμάτων		
PFA Ρύπανση από λιπάσματα εξ αιτίας ατυχήματος		
PFC Χρόνια ρύπανση από υπερβολική χρήση λιπασμάτων		
PFO Ρύπανση από λιπάσματα άγνωστης έκτασης/διάρκειας		

PM- Ρύπανση από βαρέα μέταλλα		
PMA Ρύπανση από βαρέα μέταλλα εξ αιτίας ατυχήματος		
PMC Χρόνια ρύπανση από βαρέα μέταλλα		
PMO Ρύπανση από βαρέα μέταλλα άγνωστης έκτασης/διάρκειας		
PO- Ρύπανση από πετρέλαιο		
POA Ρύπανση από πετρέλαιο εξ αιτίας ατυχήματος		
POC Χρόνια ρύπανση από πετρέλαιο		
POO Ρύπανση από πετρέλαιο άγνωστης έκτασης/διάρκειας		
PP- Ρύπανση από ζιζανιοκτόνα		
PPA Ρύπανση από ζιζανιοκτόνα εξ αιτίας ατυχήματος		
PPC Χρόνια ρύπανση από ζιζανιοκτόνα		
PPO Ρύπανση από ζιζανιοκτόνα άγνωστης έκτασης/διάρκειας		
PS Ρύπανση από αστικά απόβλητα	*Στερεά απορρίμματα – Υγρά απόβλητα*	
PSA Ρύπανση από αστικά απόβλητα εξ αιτίας ατυχήματος		
PSC Χρόνια ρύπανση από αστικά απόβλητα		
PSO Ρύπανση από αστικά απόβλητα άγνωστης έκτασης/διάρκειας		

S-- Επιπτώσεις στο έδαφος

SA- Αύξηση/Απόθεση		
SC- Αποστράγγιση ιζήματος		
SE- Αύξηση διάβρωσης		
SEH Αύξηση στη διάβρωση από το νερό		
SEW Αύξηση στη διάβρωση από τον άνεμο		
SI- Οξίνιση εδαφών		
SK- Συρρίκνωση τύρφης		
SL- Κατακρήμνιση εδαφών		
SP- Συμπίεση εδαφών		
SS- Απόφραξη με ίζημα		

V-- Υποβάθμιση βλάστησης

VA- Αλλαγή στην ηλικιακή σύνθεση των ειδών της χλωρίδας		
VC- Αλλαγή στην σύνθεση των ειδών χλωρίδας		
VCD Απώλεια της χλωριδικής ποικιλότητας		
VCX Εισαγωγή ξενικών ειδών		
VP- Μείωση των πληθυσμών των ειδών χλωρίδας		
VS- Αλλαγή στην δομή της βλάστησης		

W-- Επιπτώσεις στην υδρολογία

WD- Εκτροπή της ροής του νερού		
WF- Αύξηση πλημμυρικών φαινομένων		
WG- Αποστράγγιση/Μείωση της στάθμης του νερού	*Υπεράντληση τους θερινούς μήνες για άρδευση*	
WGL Αποστράγγιση των στάσιμων νερών		
WGS Αποστράγγιση βάλτων/ελών		
WGT Ταπείνωση του υδροφόρου ορίζοντα		
WR- Τροποποίηση της κανονικής ροής		
WS- Παρείσδυση αλμυρού νερού		
WSG Παρείσδυση αλμυρού νερού στα υπόγεια ύδατα		
WSL Παρείσδυση αλμυρού νερού στο έδαφος		
WSR Παρείσδυση αλμυρού νερού στα επιφανειακά νερά		
WT- Μεταβολή του παλιρροιακού καθεστώτος (παλιρροιακή κατάσταση) – θηροφράχτης στη θάλασσα		

Τύποι Οικοτόπων

Κωδικός	Τύπος	% κάλυψη
1110	Αμμοσύρσεις που καλύπτονται διαρκώς από θαλάσσιο νερό μικρού βάθους	
1120*	Εκτάσεις θαλάσσιου βυθού με βλάστηση (Ποσειδώνιες)	
1140	Λασπώδεις και αμμώδεις επίπεδες εκτάσεις που αποκαλύπτονται κατά την αμπώτιδα	
1150*	Παράκτιες Λιμνοθάλασσες	
1210	Μονοετής βλάστηση μεταξύ των ορίων πλημμυρίδας και άμπωτης	
1240	Απόκρημνες βραχώδεις ακτές με βλάστηση στη Μεσόγειο με ενδημικά *Limonium spp*	
1310	Πρωτογενής βλάστηση με Salicornia και άλλα μονοετήείδη των λασπωδών και αμμωδών ζωνών	
1410	Μεσογειακά αλίπεδα (*Juncetalia maritimi*)	
1420	Μεσογειακές και θερμοατλαντικές αλόφιλες λόχμες (Sarcocornetea fruticosi)	
1430	Αλο-νιτρόφιλες λόχμες (*Pegano-Salsoletea*)	
2110	Υποτυπώδεις κινούμενες θίνες	
2190	Υγρές κοιλότητες μεταξύ των θινών	
2220	Θίνες με Euphorbia terracina	
2230	Εκτάσεις θινών με Malcolmietalia	
2240	Εκτάσεις θινών με Brachypodietalia και μονοετή φυτά	
2250*	Θίνες των παραλιών με άρκευθους (Juniperus spp.)	
2260	Θίνες με βλάστηση σκληρόφυλλων θάμνων (Cisto-Lavenduletalia)	
3140	Σκληρά ολιγο-μεσοτροφικά ύδατα με βενθική βλάστηση χαροειδών Characees	
3150	Ευτροφικές φυσικές λίμνες με βλάστηση τύπου *Magnopotamion* ή *Hydrocharition*	
3170*	Μεσογειακά εποχικά τέλματα	
3290	Ποταμοί της Μεσογείου με περιοδική ροή	
5210	Δενδροειδή matorrals με Juniperus spp.	
5220*	Δενδροειδή matorrals με Zyziphus	
5230*	Δενδροειδή *matorrals* με *Laurus nobilis*	
5310	Συστάδες από *Laurus nobilis*	
5330	Θερμομεσογειακές και προστεπικές λόχμες: διαπλάσεις ή σχηματισμοί ή θαμνώδεις φυτοκοινωνίες με Euphorbia dendroides, διάσπαρτοι υποβαθμισμένοι πουρναρότοποι (garrigues).	
5420	Φρύγανα Sarcopoterium spinosum	
6220*	Ψευδοστέπα με αγροστώδη και μονοετή φυτά από Thero-Brachypodietea	
6420	Μεσογειακοί λειμώνες με υψηλές πόες και βούρλα (Molinio-Holoschoenion)	
6460	Τυρφώνες του Τροόδους	
8310	Σπήλαια των οποίων δεν γίνεται τουριστική εκμετάλλευση	
8330	Θαλάσσια σπήλαια εξ ολοκλήρου ή κατά το ήμισυ κάτω από την επιφάνεια της θάλασσας	
9290	Δάση κυπαρίσσου (Acero-Cupression)	
92A0	Δάση-στοές με Salix alba και Populus alba	
92C0	Δάση πλάτανου της Ανατολής (Platanion orientalis)	
92D0	Παρόχθια δάση-στοές της θερμής Μεσογείου (Nerio-Tamariceteae) και της Νοτιο-Δυτικής Ιβηρικής χερσονήσου (Securinegion tinctoriae)	
9320	Δάση με Olea και Ceratonia	
9390*	Θαμνώνες και δασικές συστάσεις της Quercus alnifolia	
93A0	Δασικές συστάδες της Quercus infectoria (Anagyro foetidae-Quercetum infectoriae)	
9530*	(Υπο)μεσογειακά πευκοδάση με ενδημικά μαυρόπευκα	
9540	Μεσογειακά πευκοδάση με ενδημικά είδη πεύκων της Μεσογείου	
9560*	Ενδημικά δάση με Juniperus spp.	
9590*	Δάση με Cedrus brevifolia (Cedrosetum brevifoliae)	
CY01	Θαμνώνες (γκαρίγκ) της Ανατολικής Μεσογείου - Δενδρώδεις θαμνώνες με Quercus coccifera	
CY02	Καλαμώνες και κοινότητες υψηλών βούρλων (Phragmition australis, Scirpion maritimi)	
CY03	Χασμοφυτικές κοινότητες βράχων που ψεκάζονται ή περιλούονται με νερό (Adiantetea)	
CY04	Ύφαλοι με Vernetus (Vermetus "Trottoir")	
CY05	Γυμνές αμμώδεις ακτές - Θέσεις φωλεοποίησης χελωνών	
CY06	Θαμνώνες με Calicotome villosa	
CY07	Χαμηλή υπερυδατική βλάστηση σε ύδατα με ταχεία ροή (Nasturtio-Glyceretalia)	
CY08	Ασφοδελώνες	
CY09	Κοινότητες αγκαθιών (Artemisietea vulgaris)	
CY10	Συστάδες Ferula	
CY11	Ποταμοί με υφυδατική βλάστηση με Chara sp. (Charetea fragilis)	
CY12	Ματοράλ με αείφυλλες δρύες της Κύπρου (εξαιρείται η Quercus alnifolia)	
CY14	Συνανθρωπική βλάστηση (ξηρά λιβάδια)	
CY15	Συνανθρωπική βλάστηση (άγονες εκτάσεις, οικοδομημένες περιοχές κλπ.)	
CY16	Μη θαλάσσιες κοινότητες με Ruppia	
CY17	Παρυδάτιες κοινότητες ψηλών καλαμιών (Arundo, Imperata, Saccharum)	
CY19	Συνανθρωπική βλάστηση (θαμνώνες με επιγενή είδη)	
CY20	Πλατύφυλλες-σκληρόφυλλες δασικές συστάδες των Quercetea ilicis (χωρίς Quercus)	

Κατηγορία Υγροτόπων κατά Ramsar – ΣΕ ΜΙΑ ΕΚΤΑΣΗ ΜΠΟΡΕΙ ΝΑ ΕΧΕΙ ΠΟΛΛΟΥΣ ΤΥΠΟΥΣ ΤΟΣΟ ΦΥΣΙΚΟΥΣ ΟΣΟ ΚΑΙ ΤΕΧΝΗΤΟΥΣ

Φυσικοί Θαλάσσιοι – Παράκτιοι Υγρότοποι

Αλμυρό - θαλασσινό νερό	Μόνιμα πλημμυρισμένες εκτάσεις από θάλασσα	Μόνιμα θαλάσσια ύδατα βάθους < 6 m κατά τη ρηχία, συμπεριλαμβανομένων κόλπων και στενών.	A	%	Σχόλια
		Υποπαλιρροιακές υδρόβιες στρωμνές.	B		
	Ακτές	Αμμώδεις, χαλικώδεις και κροκαλώδεις παραλίες. Περιλαμβάνονται συστήματα αμμοθινών, λωρίδες άμμου και αμμώδεις νησίδες.	E		
Αλμυρό ή υφάλμυρο νερό	Διαπαλιρροιακές εκτάσεις (μεταξύ παλίρροιας και άμπωτης-αλμυρόβαλτοι)	Διαπαλιρροιακοί ιλυώδεις, αμμώδεις ή αλατούχες επίπεδες εκτάσεις (Αλυκές)	G		
		Διαπαλιρροιακά έλη. Συμπεριλαμβάνονται αλμυρόβαλτοι, αλίπεδα, φυσικές αλυκές, παλιροιακά έλη υφάλμυρου και γλυκού νερού (με αρκετό γλυκό νερό)	H		
	Λίμνες/Lagoons (Λιμνοθάλασσες)	Παράκτιες υφάλμυρες ως αλμυρές λίμνες που έχουν μία ή περισσότερες σχετικά στενές διόδους επικοινωνίας με τη θάλασσα.	J		
	Εκβολικά ύδατα	Εκβολικά ύδατα. Τα μόνιμα ύδατα των εκβολών και τα εκβολικά συστήματα των δέλτα.	F		
Αλμυρό, υφάλμυρο ή γλυκό νερό	Υπόγεια ύδατα	Καρστικά και άλλα υπόγεια υδρολογικά συστήματα. Θαλάσσια/Παράκτια	Zk(a)		
Γλυκό νερό	Λίμνες (οτιδήποτε πάνω από 80 000km^2)	Αβαθείς λίμνες και έλη γλυκού νερού της παράκτιας ζώνης	K		

Φυσικοί Εσωτερικοί υγρότοποι

Γλυκό νερό	Νερό σε κίνηση	Μόνιμη παρουσία νερού	Ποταμοί και ρυάκια με συνεχή ροή	M	%	Σχόλια
			Πηγές γλυκού νερού, οάσεις	Y		
		Εποχιακή/σποραδική παρουσία νερού	Ποταμοί και ρυάκια με ασυνεχή ροή (ρέουν μόνο κατά ένα διάστημα του έτους ή κάθε μερικά έτη)	N		
	Λίμνες και λιμνούλες	Μόνιμη παρουσία νερού	Μόνιμες λίμνες γλυκού νερού (> 80 στρέμματα).	O		
			Μόνιμες λιμνούλες (ponds) γλυκού νερού (< 80 στρέμματα).Με υπερυδατική βλάστηση	Tp		
			Μόνιμες λίμνες γλυκού/ αλμυρού/υφάλμυρου νερού	Q		
		Εποχιακή/σποραδική παρουσία νερού	Εποχιακές λίμνες γλυκού νερού, λίμνες πλημμυρογενών πεδιάδων (> 80 στρέμματα).	P		
		Εποχιακή/σποραδική παρουσία νερού	Λίμνες και πλημμυρογενή πεδιάδες αλμυρού/υφάλμυρου και γλυκού νερού	R		
			Εποχιακές λιμνούλες (ponds) γλυκού νερού	Ts		
	Έλη σε ανόργανα εδάφη	Μόνιμη παρουσία νερού	Μόνιμα έλη γλυκού/ αλμυρού/υφάλμυρου νερού	Sp		
			Έλη γλυκού νερού των οποίων ο πυθμένας αποτελείται από ανόργανα υλικά. Υπάρχει υπερυδατική βλάστηση	Tp		
		Μόνιμη/εποχιακή/σποραδική παρουσία νερού	Έλη με θάμνους. Έλη γλυκού νερού στα οποία κυριαρχεί θαμνώδης βλάστηση. Ο πυθμένας αποτελείται από ανόργανα υλικά	W		
		Εποχιακή/σποραδική παρουσία νερού	Εποχιακά έλη γλυκού νερού των οποίων ο πυθμένας αποτελείται από ανόργανα υλικά.	Ts		
			Εποχιακά έλη αλμυρού/υφάλμυρου και γλυκού νερού	Ss		
	Έλη σε τυρφώδη (οργανικά) εδάφη		Τυρφώδεις γαίες (τυρφώνες). Έλη με τυρφώδη πυθμένα αποκλειστικώς ή μη ομβροδίαιτα, με θάμνους ή χωρίς θάμνους.	U		
Γλυκό, αλμυρό, υφάλμυρο ή αλκαλικό νερό	Υπόγεια ύδατα	Καρστικά και άλλα υπόγεια υδρολογικά συστήματα. Εσωτερικά		Zk(b)		

Τεχνητοί Υγρότοποι

	%	Σχόλια
1 – Λιμνούλες υδατοκαλλιεργειών		
2 – Λιμνούλες αγροκτημάτων για άρδευση φυτών και εξασφάλιση νερού σε ζώα καθώς και μικρές δεξαμενές (< 80 στρέμματα).		
4 – Εποχιακώς πλημμυριζόμενες αγροτικές γαίες (συμπεριλαμβανομένων των εντατικά καλιεργούμενων ή βοσκούμενων υγρών λιβαδιών η/και των βοσκοτόπων).		
5 – Υγρότοποι προς εκμετάλλευση αλατιού (τηγάνια αλυκών, αλυκές, κ.ά).		
6 – Περιοχές αποθήκευσης νερού. Ταμιευτήρες, υψηλα φράγματα, διάφορα εμπόδια ροής νερού. (> 80 στρέμματα)		
7 – Λιμνούλες από εκσκαφές (λατομεία, ορυχεία, απόληψη αδρανών, αργίλου, κ.ά.).		
8 – Υγρότοποι που δημιουργούνται για επεξεργασία λυμάτων.		
9 – Κανάλια, αποστραγγιστικά κανάλια, τάφροι		

Χλωρίδα Υγροτόπου

Τύπος Βλάστησης	Κάλυψη (%)- Της συνολικής φυτικής βλάστησης	Είδος	Κυριαρχία Κ-Σ-Π	Φυτ. στον υγρότοπο	Άλλα είδη
Αλοφυτική	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Salicornia sp.			
		Halocnemum sp.			
		Crithmum maritimum			
		Arthrocnemum sp.			
Βαθειά νερά (>6m)	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95				
Βλάστηση αμμωδών ακτών	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Ammophila arenaria			
		Pancratium maritimum			
		Eryngium maritimum			
Ελεύθερη επιπλέουσα (επιπλέει η ρίζα)	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Lemna minor			
		Spirodella sp.			
Εφυδατικά ριζόφυτα (ριζώνουν και τα φύλλα και άνθη πάνω από νερό)	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Nuphar sp.			
		Nymphaea sp.			
		Trapa sp.			
Θαμνώδης Δενδρώδης	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Tamarix sp.			
		Nerium oleander			
		Populus nigra			
		Salix sp.			
		Vitex agnus-castus			
		Pistacea lentiscus			
		Platanus orientalis			
		Populus sp.			
		Alnus glutinosa			
		Phoenix theophrasti			
Ξενικά είδη	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Ricinus communis			
		Opuntia ficus-indica			
		Phoenix sp.			
		Washingtonia filifera			
		Acacia retinodes			
		Robinia pseudoacacia			
		Yucca sp.			
		Eucalyptus sp.			
		Carpobrotus sp.			
		Nicotiana glauca			
		Mesembryanthemum sp.			
Υγρολίβαδα	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Carex sp.			
		Juncus sp.			
		Ranunculus sp.			
Υπερυδατική (ριζωμένα στο νερό με κορμό απ'έξω)	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Phragmites australis			
		Scripus sp.			
		Typha sp.			
		Arundo donax			
Υφυδατική	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Potamogeton sp.			
		Ceratophyllum sp.			
		Myriophyllum sp.			
Άλλο	<5 | 5-25 | 26-50 | 51-75 | 76-95 | >95	Pteridium aquilinum, Crithmum maritimum			

Πανίδα Υγροτόπου

Σπονδυλωτά

Αμφίβια
Ερπετά
Θηλαστικά
Ψάρια

Ορνιθοπανίδα

Ασπόνδυλα

ANNEX III

Indicative pictures for each wetlands type identified in Cyprus

Types of Natural wetlands

Lagoon
(Ammochostos lagoon - FAM044)

Lake
(Oroklini lake – LAR020)

Marsh/Swamp
(Livadi tou Pasia – LIM072)

Salt Lake
(Larnaca Salt Lake – LAR021)

Wetland system
(Akrotiri Wetlands – LIM027)

Estuary
(Pissouri river estuary – LIM045)

Types of Artificial wetlands (page 1 of 2)

Artificial pond (Golf pond – Elea golf course – PAF028)

Concrete pond (Kissonerga irrigation tank – PAF069)

Earth pond (Kritou Marottou irrigation tank – PAF004)

Excavations/gravel/brick/clay pit pool
(Xyliatos lake – NIC118)

Membrane covered pond
(Monagrouli irrigation tank – LIM020)

Mine pool
(Vretsia abandoned mine lake – NIC019)

Types of Artificial wetlands (page 2 of 2)

Off-stream pond
(Pano Koutrafas off-stream pond – NIC060)

Quarry pond (Kidasi quarry lake – PAF067)

Reservoir(Mavrokolimpos reservoir – PAF034)

River recharge barrier
(Mathiatis recharge weir – NIC114)

Tertiary treated water tank
(Moni Wastewater treatment plant – LIM021)

Wastewater treatment area
(Untreated sewage disposal pond – Vati – LIM079)

ANNEX IV

Example of Extracted Database from DIPOTAMOS RESERVOIR – LAR002

GrIsWet - Cyprus Wetlands Database

Coordinates (WGS84): 33.355850 E - 34.858210 N

Fundamental data

Wetland location:	Inland
Wetland category:	Artificial
Area:	844151.249081 m²
Hydrological interaction with other wetland:	Yes
Water salinity:	Fresh
Fresh water entry:	Catchment area (precipitation)
Surface water runoff:	Outflow controlled by spillway
Open water area (%):	> 95
Hydroperiod:	1. Permanent

Protection status

Category of protection status	Type of protection status	Site name	Code	Coverage (%)	Legislation
Foresry Protection	State Forest			100	
Aquatic Protection	Close Protection Zone for Drinking Water Supply Re			100	
Natura 2000 Area	Special Protection Area	POTAMOS PENTASCHINOS	CY6000008	100	
Game Reserve Area	Temporary			100	
Planning Regime	Other		Δα1	100	

Other designations

CDDA designation

CDDA code	Category

IUCN PA category

Important Bird Area

IBA Code	Site name	Coverage (%)
12015	Pentashoinos River	100

National Wetland Inventory

Code	Site name

Wetland status

Biological significance: Medium

Property status

Wetland values

109 Food chain support
110 Wildlife habitat

205 Water supply

Human activities in wetland

Activities	Intensity
220 = Leisure fishing	Medium
301 = quarries	Low
421 = disposal of household waste	High
530 = Improved access to site	Medium
701 = water pollution	High

Human activities in catchment area

Activities	Intensity
090 = Other conservation activities	Low
105 = extensive agriculture	Low
107 = tree crops	Low
162 = artificial planting	High
490 = Other urbanisation industrial and similar activities	Low
530 = Improved access to site	Medium
940 = Natural catastrophes	High

Impacts on wetland

Impact type	Intensity
PS- = Sewage pollution	High

Habitat types

Habitat types	Coverage (%)
92A0 Salix alba and Populus alba galleries	< 5
CY17 Water-fringing beds of tall canes and medium tall grass beds	< 5

Wetland types (Ramsar)

Wetland type	Coverage (%)
6 -- Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha)	> 95

Vegetation

Vegetation type	Coverage (%)
Emergent	
Shrubby / Arborescent	

Flora

Species	Dominance	Reference
Arundo donax	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Ceratonia siliqua	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015

Cistus creticus	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Dittrichia viscosa	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Erophaca baetica subsp. orientalis	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Genista fasselata	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Lavandula stoechas	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Lithodora hispidula	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Olea europaea	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Phagnalon rupestre	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Phragmites australis	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Pinus brutia	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Pistacia lentiscus	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Platanus orientalis	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Ptilostemon chamaepeuce subsp. cyprius	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Salix alba	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Scirpoides holoschoenus	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Tamarix sp.	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Teucrium creticum	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Thymus capitatus	Present	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015

Fauna

Mammals	Presence in wetland	Reference

Birds	Number	Nesting status	Reference
Accipiter nisus (L., 1758)			Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Pernis apivorus (L., 1758)			Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Anas crecca (L., 1758)	10-100		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Anas platyrhynchos (L., 1758)	1-10		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Actitis hypoleucos (L., 1758)	1-10		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Tringa ochropus (L., 1758)	1-10		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Ardea cinerea (L., 1758)	1-10		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N

Egretta garzetta (L., 1766)	1-10	Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Falco subbuteo (L., 1758)		Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Falco tinnunculus (L., 1758)	1-10	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Gallinula chloropus (L., 1758)	1-10	Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N
Erithacus rubecula (L., 1758)	1-10	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Saxicola torquatus (L., 1766)	1-10	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Phalacrocorax carbo (L., 1758)	1-10	A. Anastasi, A. Papatheodoulou, L. Sergides, 12/02/2015
Tachybaptus ruficollis (Pallas, 1764)	1-10	Charalambidou I., Gucel S., Kassinis N., Turkseven N., Fuller W., Kuyucu A., Yorganci H. (2008). Waterbirds in Cyprus 2007/08. UES- CCEIA/TCBA/CGF. N

Reptiles	**Presence in wetland**	**Reference**

Amphibians	**Presence in wetland**	**Reference**

Fishes	**Presence in wetland**	**Reference**
Cyprinus carpio Linnaeus, 1758		Fisheries Department
Gambusia affinis (S. F. Baird & Girard, 1853)		Fisheries Department
Ictalurus punctatus (Rafinesque, 1818)		Fisheries Department
Lepomis gibbosus		Fisheries Department
Micropterus salmoides (Lacépède, 1802)		Fisheries Department
Oreochromis sp. (Günther, 1889)		Fisheries Department
Rutilus rutilus (Linnaeus, 1758)		Fisheries Department
Sander lucioperca ≡ Stizostedion lucioperca		Fisheries Department

Invertebrates	**Presence in wetland**	**Reference**
Tetrarthrosoma syriacum		Vagalinski et al. (2014)

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LAR002

ΥΔΑΤΟΦΡΑΚΤΗΣ ΔΙΠΟΤΑΜΟΥ / DIPOTAMOS RESERVOIR

Πρόγραμμα απογραφής των υγροτόπων της Κύπρου/ Inventory of the wetlands of Cyprus

Δεδομένα Χάρτη: Google, DigitalGlobe

Map Data: Google, DigitalGlobe

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Όρια Υγρότοπου/ Wetland's Boundaries

TERRA CYPRIA

ΥΓΡΟΤΟΠΙΟ Κύπρου

ANNEX V

Ramsar Classification System for Wetland Types

Ramsar Classification System for Wetland Types

The codes are based upon the Ramsar Classification System for "Wetland Type" as approved by Recommendation 4.7 and amended by Resolution VI.5 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

Marine/Coastal

A. Permanent shallow marine waters less than six metres deep at low tide; includes sea bays andstraits.
B. Marine subtidal aquatic beds; includes kelp beds, sea-grass beds, tropical marine meadows.
C. Coral reefs.
D. Rocky marine shores; includes rocky offshore islands, sea cliffs.
E. Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems.
F. Estuarine waters; permanent water of estuaries and estuarine systems of deltas.
G. Intertidal mud, sand or salt flats.
H. Intertidal marshes; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
I. Intertidal forested wetlands; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
J. Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea.
K. Coastal freshwater lagoons; includes freshwater delta lagoons.

Inland Wetlands

L. Permanent inland deltas.
M. Permanent rivers/streams/creeks; includes waterfalls.
N. Seasonal/intermittent/irregular rivers/streams/creeks.
O. Permanent freshwater lakes (over 8 ha); includes large oxbow lakes.
P. Seasonal/intermittent freshwater lakes (over 8 ha); includes floodplain lakes.
Q. Permanent saline/brackish/alkaline lakes.
R. Seasonal/intermittent saline/brackish/alkaline lakes and flats.*
Sp. Permanent saline/brackish/alkaline marshes/pools.
Ss. Seasonal/intermittent saline/brackish/alkaline marshes/ pools.*
Tp. Permanent freshwater marshes/pools; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.
Ts. Seasonal/intermittent freshwater marshes/pools on inorganic soil; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.*
U. Non-forested peatlands; includes shrub or open bogs, swamps, fens.

Va. Alpine wetlands; includes alpine meadows, temporary waters from snowmelt.
Vt. Tundra wetlands; includes tundra pools, temporary waters from snowmelt.
W. Shrub-dominated wetlands; Shrub swamps, shrub-dominated freshwater marsh, shrub carr, alder thicket; on inorganic soils.*
Xf. Freshwater, tree-dominated wetlands; includes freshwater swamp forest, seasonally flooded forest, wooded swamps; on inorganic soils.*
Xp. Forested peatlands; peatswamp forest.*
Y. Freshwater springs; oases.
Zg. Geothermal wetlands.
Zk. Subterranean karst and cave hydrological systems.

** As appropriate, includes: floodplain wetlands such as seasonally inundated grassland (including natural wet meadows), shrublands, woodlands or forest.*

"Man-made" wetlands

1. Aquaculture (e.g. fish/shrimp) ponds.
2. Ponds; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
3. Irrigated land; includes irrigation channels and rice fields.
4. Seasonally flooded agricultural land.**
5. Salt exploitation sites; salt pans, salines, etc.
6. Water storage areas; reservoirs/barrages/dams/impoundments; (generally over 8 ha).
7. Excavations; gravel/brick/clay pits; borrow pits, mining pools.
8. Wastewater treatment areas; sewage farms, settling ponds, oxidation basins, etc.
9. Canals and drainage channels, ditches.

*** To include intensively managed or grazed wet meadow or pasture.*

ANNEX VI

Habitat groups and Habitat types recorded in Cyprus' wetlands

Habitat groups and Habitat types recorded on Cyprus' wetlands

Habitat Group	Habitat Type	
1. Coastal and halophytic habitats	1110 Sandbanks which are slightly covered by sea water all the time	1
	1120* Posidonia beds (*Posidonion oceanicae*)	1
	1150* Coastal lagoons	3
	1170 Reefs	1
	1210 Annual vegetation of drift lines	5
	1220 Perennial vegetation of stony banks	1
	1240 Vegetated sea cliffs of the Mediterranean coasts with endemic *Limonium* spp.	1
	1310 Salicornia and other annuals colonizing mud and sand	10
	1410 Mediterranean salt meadows (*Juncetalia maritimi*)	9
	1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*)	6
	1430 Halo-nitrophilous scrubs (*Pegano-Salsoletea*)	3
	CY03 Chasmophytic communities of water-sprayed or water flushed rocks (*Adiantetea*)	1
		42
2. Coastal sand dunes and inland dunes	2110 Embryonic shifting dunes	6
	2120 Shifting dunes along the shoreline with *Ammophila arenaria* -white dunes	1
	2190 Humid dune slacks	1
	2195 Dune-slack reedbeds and sedgebeds	1
	2230 Malcolmietalia dune grasslands	1
	2240 *Brachypodietalia* dune grasslands with annuals	1
	2250 * Coastal dunes with *Juniperus* spp	2
	2260 Cisto-Lavenduletalia dune sclerophyllous scrubs	3
	CY05 Sand beaches - Turtle nesting grounds	2
		18
3. Freshwater habitats	3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	8
	3150 Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* type vegetation	1
	3170* Mediterranean temporary ponds	1
	3290 Intermittently flowing Mediterranean rivers of the *Paspalo-Agrostidion*	1
		11
5. Sclerophyllous scrub (matorral)	5210 Arborescent matorral with *Juniperus* spp.	1
	5212 Arborescent matorral with *Juniperus phoenicea*	1
	5220* Arborescent matorral with *Zyziphus*	2
	5330 Thermo-Mediterranean and pre-desert scrub	2
	5420 *Sarcopoterium spinosum* phryganas	4
		10
6. Natural and semi-natural grassland formations	6220* Pseudo-steppe with grasses and annuals of the *Thero-Brachypodietea*	3
	6420 Mediterranean tall humid grasslands of the *Molinio-Holoschoenion*	3
	6460 Peat grasslands of Troodos	2
	CY09 Thistle fields	1
	CY14 Synanthopic vegetation (dry grassland)	1
		10

Habitat Group	Habitat Type	
7. Raised bogs and mires and fens	CY02 Reedbeds and sedgebeds (*Phragmition australis*, *Scirpion maritimi*)	34
	CY17 Water-fringing beds of tall canes and medium tall grass beds	18
		52
8. Rocky habitats and caves	8220 Siliceous rocky slopes with chasmophytic vegetation	1
	8330 Submerged or partially submerged sea caves	1
		2
9. Forests	92A0 *Salix alba* and *Populus alba* galleries	5
	92D0 Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*)	20
	9320 Olea and Ceratonia forests	1
	9540 Mediterranean pine forests with endemic Mesogean pines	2
		28

ANNEX VII

Impacts of human induced activities on Cyprus Wetlands

List of Impacts of human induced activities on Cyprus Wetlands

Code*	Impact	No**
AN-	Increase in noise	41
PS-	Sewage pollution	34
AS-	Loss of scenic value	33
HL-	Habitat loss	31
VCX	Introduction of exotic floral species	20
PCC	Chronic chemical pollution	17
PMC	Chronic heavy metal pollution	16
SI-	Soil acidification	15
HF-	Habitat fragmentation	11
WG-	Drainage/Reduction of water level	11
VCD	Loss of floral diversity	10
SP-	Soil compaction	9
WD-	Diversion of flowing water	9
EU-	Increase of tourist/recreation potential	8
LR-	Decrease in flow regulation	8
FCD	Loss of faunal diversity	7
LW-	Decrease in wilderness/wildlife values	7
WR-	Altered flow regime	6
EI-	Increase of other socio-economic value(s)	5
PSC	Chronic sewage pollution	5
EW-	Increase in wilderness/wildlife values	4
PC-	Chemical pollution	4
PM-	Heavy metal pollution	4
VC-	Change in vegetative species composition	4
VP-	Decrease in population of floral species	4
EB-	Increase in aesthetic qualities	3
FCP	Introduction of animal pests	3
HC-	Loss of wildlife corridor(s)	3
LS-	Decrease in water supply	3
PMO	Heavy metal pollution of an unknown severity/duration	3

Code*	Impact	No**
PSO	Sewage pollution of an unknown severity/duration	3
SE-	Increased erosion	3
FB-	Disruption of natural balance/interaction between faunal species	2
FC-	Change in faunal species composition	2
FFB	Disruption of breeding	2
LA-	Decrease in transport capability	2
LI-	Decrease in other socio-economic value(s)	2
LU-	Decrease in tourist/recreation potential	2
PCO	Chemical pollution of an unknown severity/duration	2
SS-	Soil siltation	2
VS-	Change in vegetative structure	2
WGS	Drainage of swampland	2
ER-	Increase in flow regulation	1
FP-	Decrease in population of faunal species	1
FPX	Local extinction of faunal species	1
LD-	Decrease in sediment removal/retention	1
LO-	Decrease in natural product potential	1
LP-	Decrease in prevention of salt intrusion	1
PCA	Chemical pollution as an accident/event	1
PF-	Fertilizer/Excess nutrient pollution	1
PFO	Fertiliz./Excess nutrient pollut. of an unknown severity/duration	1
PP-	Pesticide pollution	1
PPO	Pesticide pollution of an unknown severity/duration	1
SC-	Soil leaching	1
SEH	Increased water erosion	1
WF-	Increase in flooding	1
WS-	Salt water intrusion	1
WSG	Salt water intrusion of ground water	1
WSL	Salt water intrusion of land	1

*: Code of Impact based on MedWet classification

**: No indicates the number of wetlands where those activities were recorded during the field visits

ANNEX VIII

Impacts of human induced activities on Cyprus Wetlands and their drainage basins

List of Impacts of human induced activities on Cyprus Wetlands and their drainage basins

Activities in Wetlands basin	No*
Improved access to site	226
Extensive agriculture	124
Tree crops	106
Roads, motorways	95
Agricultural structures	81
Cultivation	63
Grazing	59
Continuous urbanisation	59
Pollution	52
Hunting	48
Dispersed habitation	45
Other urbanisation	45
Artificial planting	44
Paths tracks cycling tracks	43
Discharges	41
Discontinuous urbanisation	37
Industrial or commercial areas	37
Military manoeuvres	35
Bridge viaduct	34
Sport and leisure structures	29
Other conservation activities	24
Sand and gravel extraction	22

Activities in Wetlands basin	No*
Energy transport	21
Other forms of transportation and communication	21
Habitat conservation	20
other outdoor sports and leisure activities	18
Landfill land reclamation and drying out general	15
Fertilisation	13
Storage of materials	12
Mines	10
Golf course	10
Outdoor sports and leisure activities	10
Interpretative centres	9
intensive agriculture	8
Agriculture and forestry activities not referred to above	8
Leisure fishing	8
Other sport/tourism complexes	8
Port areas	7
Other human induced changes in hydraulic conditions	5
Taking / Removal of flora general	4
Burning	3
Taking / Removal of fauna general	3
Hunting fishing or collecting activities not referred to above	3
Urbanised areas human habitation	3

Activities in Wetlands basin	No*
Airport	3
Water pollution	3
Canalisation	3
Modification of hydrographic functioning general	3
Sea defense or coast protection works	3
Quarries	2
Mining and extraction activities not referred to above	2
Disposal of household waste	2
Other pollution or human impacts/activities	2
Natural catastrophes	2
Other natural processes	2
Species conservation	1
Land restoration	1
Trapping poisoning poaching	1
Disposal of industrial waste	1
Disposal of inert materials	1
Other discharges	1
Soil pollution	1
Noise nuisance	1
Trampling overuse	1
Management of water levels	1
Drying out	1

*: No indicates the number of wetlands where those activities were recorded during the field visits

Activities in Wetlands	No*
Improved access to site	212
Other conservation activities	90
Disposal of household waste	65
Water pollution	64
Leisure fishing	42
Grazing	41
Artificial planting	31
Hunting	28
Roads motorways	28
Bridge viaduct	28
Pollution	28
Soil pollution	28
Disposal of inert materials	25
Eutrophication	25
Cultivation	23
Habitat conservation	22
Landfill land reclamation and drying out	22
Trampling overuse	21
Discharges	20
Other forms of transportation and communi	19
invasion by a species	17
Other leisure and tourism impacts not ref	12
management of water levels	12
Noise nuisance	11
Species conservation	10
Agriculture and forestry activities not r	9
other discharges	9
Other urbanisation industrial and simila	9
motorised vehicles	9
Canalisation	9
Modification of hydrographic functioning	9
Other human induced changes in hydraulic	9
Erosion	9
Silting up	9
Communication networks	8

Activities in Wetlands	No*
paths tracks cycling tracks	8
Irrigation	7
trapping poisoning poaching	7
Mining and extraction activities not refe	7
walking horseriding and non-motorised ve	7
Military manoeuvres	7
Sport and leisure structures	6
other outdoor sports and leisure activiti	6
Resource conservation	5
Burning	5
Sand and gravel extraction	5
Outdoor sports and leisure activities	5
modifying structures of inland water cour	5
Drying out	5
Use of pesticides	4
Fertilisation	4
General forestry management	4
Quarries	4
Mines	4
electricity lines	4
nautical sports	4
other forms or mixed forms of pollution	4
Drainage	4
Taking / Removal of flora general	3
discontinuous urbanisation	3
dispersed habitation	3
other sport/tourism complexes	3
Other pollution or human impacts/activities	3
forest planting	2
forestry clearance	2
removal of dead and dying trees	2
Hunting fishing or collecting activities	2
removal of beach materials	2
Urbanised areas human habitation	2
continuous urbanisation	2

Activities in Wetlands	No*
Industrial or commercial areas	2
Factory	2
industrial stockage	2
isposal of industrial waste	2
Agricultural structures	2
Shipping	2
circuit track	2
camping and caravans	2
infilling of ditches dykes ponds pools	2
Land restoration	1
modification of cultivation practices	1
abandonment of pastoral systems	1
forest replanting	1
removal of forest undergrowth	1
Fish and shellfish aquaculture	1
other industrial / commercial areas	1
Storage of materials	1
port areas	1
Airport	1
aerodrome heliport	1
other communication networks	1
Energy transport	1
golf course	1
Interpretative centres	1
air pollution	1
reclamation of land from sea estuary or	1
Removal of sediments (mud...)	1
Dykes embankments artificial beaches g	1
sea defense or coast protection works	1
fire (natural)	1
drying out / accumulation of organic mate	1
Predation	1
antagonism with domestic animals	1
Competition	1
Other natural processes	1

*: No indicates the number of wetlands where those activities were recorded during the field visits

ANNEX IX

List of 85 wetlands selected through screening procedures

List of 85 wetlands selected through screening procedures. The list contains the wetlands with the highest ecological importance that can be effectively protected and managed within the area that Republic of Cyprus exerts effective controls

A/A	Code	Name	Area (m^2)	Type	District
1	FAM026	PARALIMNI LAKE	3,818,312.86	Natural	AMMOHOSTOS
2	FAM029	AFTELLOTOS DAM	36,695.10	Artificial	AMMOHOSTOS
3	FAM031	ACHNA RESERVOIR	849,257.92	Artificial	AMMOHOSTOS
4	FAM071	PARALIMNI IRRIGATION TANK	3,538.69	Artificial	AMMOHOSTOS
5	LAR001	LEFKARA RESERVOIR	361,215.15	Artificial	LARNACA
6	LAR002	DIPOTAMOS RESERVOIR	844,151.25	Artificial	LARNACA
7	LAR008	KALAVASOS RESERVOIR	609,883.34	Artificial	LARNACA
8	LAR013	AGIOI VAVATSINIAS RESERVOIR	11,039.25	Artificial	LARNACA
9	LAR020	OROKLINI LAKE	956,859.39	Natural	LARNACA
10	LAR021	LARNACA SALT LAKES	15,244,268.80	Natural	LARNACA
11	LAR025	MARONI ESTUARY	54,100.22	Natural	LARNACA
12	LAR029	LYMPIA RESERVOIR	73,458.03	Artificial	LARNACA
13	LAR033	KITI RESERVOIR	249,151.97	Artificial	LARNACA
14	LAR038	ARADIPPOU RESERVOIR (PARTHENITIS)	25,787.53	Artificial	LARNACA
15	LAR039	ABANDONED UMBER QUARRY LAKE	7,862.51	Artificial	LARNACA
16	LAR049	RECYCLED WATER TANKS, LARANACA WASTEWATER TREATMENT PLANT	254,177.30	Artificial	LARNACA
17	LAR052	ALETHRIKO RESERVOIR	18,834.94	Artificial	LARNACA
18	LAR053	MILOS RIVER RECHARGE WIER - DELIKIPOS	2,390.12	Artificial	LARNACA
19	LIM004	CHANDRIA IRRIGATION TANK (STAVROS TOU KAMPOU)	15,513.66	Artificial	LIMASSOL
20	LIM007	AGRIDIA RESERVOIR	9,926.19	Artificial	LIMASSOL
21	LIM008	KATO MYLOS IRRIGATION TANK	19,454.73	Artificial	LIMASSOL
22	LIM015	ARAKAPAS RESERVOIR	16,967.02	Artificial	LIMASSOL
23	LIM016	ARAKAPAS IRRIGATION TANK No.1	28,172.02	Artificial	LIMASSOL
24	LIM025	GERMASOGEIA RESERVOIR	1,042,517.12	Artificial	LIMASSOL
25	LIM026	TRIMIKLINI RESERVOIR	28,801.90	Artificial	LIMASSOL
26	LIM032	POLEMIDIA RESERVOIR	285,335.97	Artificial	LIMASSOL
27	LIM033	MARSH DOWNSTREAM OF KOURIS RESERVOIR	74,197.85	Natural	LIMASSOL
28	LIM034	KOURIS RESERVOIR	3,306,130.61	Artificial	LIMASSOL
29	LIM045	PISSOURI RIVER ESTUARY	4,007.90	Natural	LIMASSOL
30	LIM070	PERA-PEDI RESERVOIR	7,285.59	Artificial	LIMASSOL
31	LIM071	ALMIROLIVADO	19,165.19	Natural	LIMASSOL
32	LIM072	LIVADI TOU PASIA	19,348.66	Natural	LIMASSOL
33	LIM082	ARAKAPAS RIVER RECHARGE BARRIER	3,991.34	Artificial	LIMASSOL
34	NIC009	XYLIATOS RESERVOIR	96,390.40	Artificial	NICOSIA
35	NIC010	KALOPANAGIOTIS RESERVOIR	38,235.85	Artificial	NICOSIA
36	NIC013	KALO HORIO RESERVOIR	14,565.67	Artificial	NICOSIA
37	NIC017	KOTSIATIS RESERVOIR	15,661.50	Artificial	NICOSIA

A/A	Code	Name	Area (m^2)	Type	District
38	NIC021	PALAICHORI, KAMPI (APLIKI) RESERVOIR	57,180.52	Artificial	NICOSIA
39	NIC024	LYTHRODONTAS RIVER RECHARGE BARRIER PANO DIMMA	6,874.35	Artificial	NICOSIA
40	NIC025	LYTHRODONTAS RIVER RECHARGE BARRIER KATO DIMMA	13,888.77	Artificial	NICOSIA
41	NIC032	ATHALASSA RESERVOIR- ATHALASSA NATIONAL FOREST PARK	122,336.57	Artificial	NICOSIA
42	NIC034	AGIOS GEORGIOS LAKE- ATHALASSA NATIONAL FOREST PARK	13,610.32	Artificial	NICOSIA
43	NIC038	TAMASOS RESERVOIR	302,413.26	Artificial	NICOSIA
44	NIC039	KLIROU-MALOUNTA-AKAKI RESERVOIR	198,767.61	Artificial	NICOSIA
45	NIC043	RECYCLED WATER TANKS, ANTHOUPOLI WASTEWATER TREATMENT PLANT	24,958.98	Artificial	NICOSIA
46	NIC045	MANGLI LAKE	43,209.52	Artificial	NICOSIA
47	NIC047	MENIKO RECHARGE WIER No.1	16,759.17	Artificial	NICOSIA
48	NIC056	HADJIKYRIAKOU PIG FARM LAKE- KATO MONI	22,164.14	Artificial	NICOSIA
49	NIC059	VYZAKIA RESERVOIR	160,382.24	Artificial	NICOSIA
50	NIC077	LEFKA (MARATHASA) RESERVOIR	37,641.43	Artificial	NICOSIA
51	NIC078	KAFIZIS RESERVOIR	17,338.41	Artificial	NICOSIA
52	NIC079	TSAKISTRA RESERVOIR	15,941.68	Artificial	NICOSIA
53	NIC080	PYRGOS TILLIRIAS RESERVOIR	28,135.61	Artificial	NICOSIA
54	NIC109	GIALIAS RIVER RECHARGE WIER - LYTHRODONTAS	5,221.61	Artificial	NICOSIA
55	NIC114	MATHIATIS RECHARGE WIER No.2	9,714.59	Artificial	NICOSIA
56	NIC132	GIALIAS RIVER RECHARGE WIER – KOTSIATIS	1,815.70	Artificial	NICOSIA
57	NIC143	GIALIAS RIVER RECHARGE WIER - DALI No.2	3,693.27	Artificial	NICOSIA
58	NIC145	GIALIAS RIVER RECHARGE WIER - AGIOS SOZOMENOS No.3	25,171.80	Artificial	NICOSIA
59	NIC151	KOUTIS RIVER RECHARGE WIER - PALIOMETOHO No.1	7,473.01	Artificial	NICOSIA
60	NIC167	POLITIKO RIVER RECHARGE WIER	1,467.18	Artificial	NICOSIA
61	NIC175	PANO DEFTERA RECHARGE WIER	4,710.61	Artificial	NICOSIA
62	NIC177	KATO DEFTERA RECHARGE WIER No.2	1,624.86	Artificial	NICOSIA
63	NIC184	OROUNTA RECHARGE WIER	21,590.89	Artificial	NICOSIA
64	PAF001	EVRETOU RESERVOIR	1,036,173.51	Artificial	PAFOS
65	PAF003	KANNAVIOU RESERVOIR	781,612.95	Artificial	PAFOS
66	PAF005	AVGAS ESTUARY	14,560.36	Natural	PAFOS
67	PAF006	POMOS RESERVOIR	81,115.59	Artificial	PAFOS
68	PAF007	AGIA MARINA CHRISOCHOU RESERVOIR	29,376.31	Artificial	PAFOS
69	PAF008	ESTUARY AT GIALIA	2,453.73	Natural	PAFOS
70	PAF010	GIALIA RESERVOIR	1,213.90	Artificial	PAFOS
71	PAF011	ARGAKA RESERVOIR	90,359.81	Artificial	PAFOS
72	PAF018	SECRET VALLEY RESERVOIR CHA POTAMI	65,617.02	Artificial	PAFOS
73	PAF020	ARMINOU RESERVOIR	301,743.10	Artificial	PAFOS

A/A	Code	Name	Area (m^2)	Type	District
74	PAF023	ASPROKREMOS RESERVOIR	2,687,362.81	Artificial	PAFOS
75	PAF025	DIARIZOS ESTUARY	131,561.81	Natural	PAFOS
76	PAF026	XEROS ESTUARY	124,855.70	Natural	PAFOS
77	PAF027	EZOUSA ESTUARY	60,163.42	Natural	PAFOS
78	PAF029	PIANIA (ANATOLIKOU) RESERVOIR	33,859.44	Artificial	PAFOS
79	PAF032	CHLORAKA ESTUARY	15,357.30	Natural	PAFOS
80	PAF033	LEMPA ESTUARY	8,110.73	Natural	PAFOS
81	PAF034	MAVROKOLIMPOS RESERVOIR	195,450.97	Artificial	PAFOS
82	PAF056	MIRILLIS ESTUARY	6,929.93	Natural	PAFOS
83	PAF061	POLIS IRRIGATION TANK No.1	3,167.40	Artificial	PAFOS
84	PAF066	TIMI ESTU╬ΣRY	5,011.75	Natural	PAFOS
85	PAF070	AYIOS IOANNIS RIVER ESTUARY AY BATHS OF APHRODITE	595.48	Natural	PAFOS