

TOUR DU VALAT

ACTIVITY
REPORT
2020



Tour
du
Valat

Research institute
for the conservation
of Mediterranean
wetlands



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Left to right

PATRICK GRILLAS | Program Director

ANDRÉ HOFFMANN | President **JEAN JALBERT** | Director general

OLIVIER PINEAU | Director of the Estate **JEAN-JACQUES BRAVAIS** | Administrative and Financial Director

February 2020, the President of the Tour du Valat Foundation and its four directors.

In 2021, Patrick Grillas and Olivier Pineau will devote their time to various projects as researchers and senior advisors before leaving the Tour du Valat in 2022 for a well-deserved retirement.

EDITORIAL

“Humanity is waging an absurd and suicidal war on nature. The consequences of our recklessness are already apparent, in human suffering, towering economic losses, and the accelerating erosion of life on Earth [...] Making peace with nature is the defining task of the coming decades.” The Secretary General of the United Nations expressed himself in a recent report with this cry of alarm¹.

Meanwhile, the economist Partha Dasgupta has called for a radical change in the way we think, act, and measure success, especially at the economic and institutional levels². We have collectively failed to manage our global portfolio of assets sustainably. In just two decades, the capital produced per person has doubled. But the stock of natural capital per person has declined by nearly 40 percent. In other words, while humanity has enjoyed immense prosperity, it has come at a devastating cost to nature, which puts the well-being and prosperity of future generations at risk.

By wanting to isolate ourselves from nature, by considering it as only a stock pot of resources from which to serve ourselves without restraint, we have created the very conditions of today’s crisis, while its various facets such as climate change, biodiversity erosion, and health are rooted in our misguided relationship with the living world. We are nonetheless an integral part of this living fabric, fully dependent on and united with it.

Based on this observation, for more 60 years the Tour du Valat’s goal has been to reconcile People and Nature.

Abused, degraded and destroyed more than any other ecosystem, as they continue to shrink wetlands are proving to be our “life insurance”. We must therefore do our utmost to reverse this fatal trend.

2021 also marks the beginning of a new program at the Tour du Valat, focused on key challenges and aiming to have a greater impact. This program is based on a new internal organization, but also on a deep-seated conviction: more than ever we must be a catalyst for dialogue and alliances between government institutions, civil society, and the private sector, in order to invent a new relationship with the living world based on respect and solidarity.

ANDRÉ HOFFMANN
PRESIDENT

JEAN JALBERT
DIRECTOR GENERAL

1. “Making Peace with Nature”, UNEP, 2021

2. “The Economics of Biodiversity: The Dasgupta Review”, British Treasury, 2021

THE TOUR DU VALAT

Created more than 65 years ago by Luc Hoffmann, visionary naturalist and patron, the Tour du Valat has since then developed its research activities for the conservation of Mediterranean wetlands with the constant desire to achieve: better understanding for better management. Convinced that it will only be possible to preserve wetlands if human activities and the protection of the natural heritage can be reconciled, Tour du Valat has for many years been developing programmes of research and integrated management that favour interchanges between wetland users and scientists, and promote wetlands benefit to decision makers.

OUR ORGANISATION

The Tour du Valat is a non-profit foundation with two management bodies that handle its governance: the Board, made up of three colleges – the Founders, Ex-officio members, and Qualified personalities – and the Science Council, a body of internationally acclaimed scientists from major fields of wetlands research and conservation.

OUR LIFELOOD

In 2020, the Tour du Valat team was comprised of 77 employees, with five additional doctoral and one post-doctoral researchers who were

hosted on a non-contractual basis, representing a total of 73 full-time equivalent jobs (31 women and 42 men).

In addition to the three European volunteers from Spain who were with us until April 2020, two new recruits, one from Belgium and one from Slovenia, have joined us, while six civic service volunteers have begun their volunteer period, thus taking over from the five already present.

Finally, as we do every year, we have offered ten university or engineering school interns the opportunity to spend their internship period with us, thus contributing to the scientific dynamics of the Tour du Valat.




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1954 
FOUNDED BY LUC HOFFMANN

77 
EMPLOYEES

 AROUND
1 550 scientific
PAPERS PUBLISHED

97 
PhD


PROJECTS IN
+ THAN 20
MEDITERRANEAN
COUNTRIES
AND + THAN 300
PARTNERS


ORGANIC
AGRICULTURE AND
AGROECOLOGY


LOW EMISSIONS
thanks to local waste
recovery such as rice husk
for insulation and heating

WETLANDS,
are very productive
yet highly threatened areas

-35%*

Throughout
the world

-48%*

In the
Mediterranean
Region

*Between 1970 and 2015 according to the latest report of
the MWO2 and the Ramsar Global Wetland Outlook.

BUDGET & GOVERNANCE

The budget for the year 2020 amounts to 5,880,000 €

EXPENDITURES

3,737,600 € have been allocated to the scientific programmes, including 1,040,200 € for the “Conservation of species and their populations in the context of global changes” department, 1,332,200 € for the “Ecosystem modelling, restoration and management” department, 575,500 € for the “Monitoring and evaluation & wetlands policies” department, 474,000 € for the management of the estate and 238,800 € for shared scientific activities (scientific management, conferences, training, transfer, project development, etc.).

459,800 € have been allocated to general management (including the governance of the organization as well as the representation of the Tour du Valat in major forums) and to communication (website, annual report, etc.).

250,000 € have been allocated to the rehabilitation of the Tour du Valat laboratory (the offices) and the Petit Saint-Jean mas.

1,432,300 € have been allocated to ancillary services, which include financial and administrative services, the canteen, building maintenance, and the repair workshop.

EXPENDITURES IN EUROS

• Scientific programs	3,737,600 €
• General management / communication	459,800 €
• Building rehabilitation Tour du Valat & Petit Saint Jean	250,000 €
• Ancillary services (administration, library, maintenance, canteen...)	1,432,300 €
TOTAL	5,880,000 €

RECEIPTS IN EUROS

• Core funds	729,000 €
• Agreements with private organizations	3,250,000 €
• Agreements with public organizations	1,550,000 €
• Revenues from the Estate	350,000 €
TOTAL	5,880,000 €

THE TOUR DU VALAT RECEIVES ITS FINANCING FROM A NUMBER OF SOURCES

- 48 % of its receipts come from the MAVA Foundation (2,800,000 €)
- 26 % of its receipts come from partnership agreements with public organizations (1,550,000 €)
- 12 % of its receipts come from its own funds, held by the Pro Valat Foundation (729,000 €)
- 8 % of its receipts come from partnership agreements with other private organizations (450,000 €)
- 6 % of its receipts are revenues from the estate (350,000 €)

— BOARD

COLLEGE OF FOUNDERS

- André Hoffmann
President
- Maja Hoffmann
Vice president
- Vera Michalski-Hoffmann
- Isabel Hoffmann

COLLEGE OF EX OFFICIO MEMBERS

- Fabienne Ellul
Sub-prefect of Arles, representing the French Home
- Marc Savasta
Regional representative for Research and Technology, representing the French Ministry for Higher Education and Research
- Corinne Tourasse
Regional Directorate for Environment, Planning and Housing, representing the French Ministry of the Environment
- Patrick de Carolis
Mayor of Arles, representative of the Town Council of Arles

COLLEGE OF EXPERTS

- Dr. Gordana Beltram
Ministry of the Environment and spatial Planning (Slovenia)
- Dr. Claire Papazoglou
Associate Secretary, Consultant in European policies for NGOs (Cyprus)
- Antonio Troya
Treasurer, Director of the International Union for Conservation of Nature, Center for Mediterranean Cooperation (IUCN Med - Malaga, Spain)
- Dr. Tobias Salathé
Secretary, Ramsar Senior Advisor for Europe (Gland, Switzerland)
- Thymio Papayannis
Honorary member, MedWet senior adviser, President of MedINA (Greece)

— SCIENCE COUNCIL

- Dr. Patrick Duncan
President, Research director CNRS, Laboratory of Chizé (retired), France
- Prof. Debbie Pain
Vice-president, Honorary Professor, School of Biological Sciences, University of East Anglia; Honorary Research Fellow, University of Cambridge, United Kingdom
- Prof. Wolfgang Cramer
Research Director (CNRS), Professor of Global Ecology, Mediterranean Institute for marine and terrestrial biodiversity and ecology (IMBE), France
- Prof. Nick Davidson
Nick Davidson Environmental, United Kingdom & Institute for Land, Water & Society, Charles Sturt University, Australia
- Prof. Phoebe Koundouri
Athens University of Economics and Business; President-elect European Association of Environmental and Resource Economists; Director EIT Climate KIC Greece; Co-Chair United Nations SDSN, Greece
- Ms. Teresa Ribeiro
Head of Strategic futures, European Environment Agency, Denmark
- Dr. Yann Laurans
Head of the Land Biodiversity Team WWF France, France
- Dr. Ana Rodrigues
Research Director, CEFE / CNRS Montpellier, France
- Prof. Timothy Swanson
Professor of Economics, Centre for International Environmental Studies, Switzerland

— THEMATIC EXPERTS

In support of the Science Council, a high level of expertise will be provided by thematic experts for each of the Tour du Valat programmes, and for the duration of the five-year plan.

- Dr. Jacques Blondel
CEFE / CNRS, Montpellier, France
- Dr. Luis Costa
MAVA Foundation, Switzerland
- Dr. Jonathan Loh
Institute of Zoology of London, United Kingdom
- Dr. François Renaud
French National Research Institute for Sustainable Development (IRD), CNRS, France

THE ESTATE

The Tour du Valat Estate covers a total area of nearly 2,700 hectares in two different geographical areas in the Camargue. The Tour du Valat Estate itself, near the village of Le Sambuc (a commune of Arles, Bouches-du-Rhône) (2,548 ha, 1,845 ha of which is classified as a regional nature reserve). The Petit Saint-Jean Estate (101 ha) is in a part of the Camargue located in the Gard, thirty kilometers to the west, in the commune of Saint-Laurent-d'Aigouze.

These estates feature a wide range of natural environments characteristic of the Camargue: large temporary marshes, sansouïres, salt meadows, and fossil dunes at the Tour du Valat, and a large grove of stone pines, thickets, and grasslands at the Petit Saint-Jean.

Exceptionally rich natural heritage is found in these highly diverse environments: many rare and threatened species have their last refuges in the Camargue. In order to preserve and better

understand them, numerous monitoring operations and inventories are regularly carried out. The Estate's team works to ensure optimal conditions for maintaining biodiversity.

The research programs implemented on the Estate aim to better understand the functioning of environments and species in relation to the role of human activities.

Traditional activities are maintained there, such as breeding and agriculture.

The Tour du Valat has its own extensive livestock on the central part of the site and other parts of the Estate are grazed by the herds of well-known local ranchers. In 2020, some 450 cattle and 70 horses grazed on the site. The agricultural plots are cultivated according to the principles of agroecology with the production of rice, wheat, alfalfa, hemp, olives, and wine.

All agricultural activities are based on organic farming methods.

Since 2016, the Tour du Valat has been developing a "showcase" agroecology project on the Petit Saint-Jean Estate where wine growing, agro-forestry, and diversified pastoralism are conducted in the aim of providing answers to current issues such as climate change, and the erosion of biodiversity.

SUPERVISED HUNTING ALSO TAKES PLACE ON THE ESTATE

Three hunting groups can hunt according to precise rules. Lead ammunition has been banned since 1994 for small game and since 2019 for wild boar. The hunting groups also contribute to various scientific studies by keeping hunting registers and submitting animal gizzards.

The Tour du Valat also actively participates in the local effort to regulate the wild boar population by organizing hunts, shootings to protect crops, and bow hunting in the most fragile areas.



The Tour du Valat Estate
© Jean Jalbert



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LORENA SEGURA

International Science and Society Project Leader

“Just as the interactions between water and land in wetlands greatly increase their capacity to support life, I believe that alliances between people can also strengthen our impact on their conservation. My job is to enhance the value of wetlands as a source of life and well-being for our society through international cooperation projects.”



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ROGER KÄSLIN

Technician and Mechanic

“I arrived at the Tour du Valat at the beginning of 2018 to take over the general and mechanical maintenance missions. I’m very happy to be working here.”

BIODIVERSITY ON THE ESTATE

THE BAILLON'S CRAKE

Very difficult to detect, the species lives well hidden in the dense vegetation of some marshes and is active mainly at night. Its song is hardly distinguishable in the middle of the chorus of tree frogs and green frogs. Thus, one of the few ways to detect it is to prospect favorable marshes in the middle of the night – between midnight and 3am – when amphibian activity declines. Coupled with the installation of an automatic recorder, thanks to the Provence-Alpes-Côte d'Azur Regional Council, these various surveys have provided numerous signs of presence including the detection/recording of singing males, recording of contact calls, direct observation, and probable discovery of a predated nest.

In all, at least 16 different individuals in six temporary marshes of the regional nature reserve were discovered. In France, it is a rare breeder, considered “critically endangered” on the Red List of threatened birds in France (IUCN France et al., 2016).

Still on the subject of “birds”, another event may have gone unnoticed. Indeed, the long stay in autumn and winter of two adult Kites and a young bird in the south-eastern sector of the Tour du Valat, makes us think that local reproduction is not impossible.



Sicilian Melilot (*Melilotus messanensis*)
© Hugo Fontes

2020 was not only marked by the health crisis. On the Estate, we were affected by a decrease in our usual activity, but we were finally able to carry out targeted nocturnal surveys in our magnificent rush thickets, in search of a mythical small rail that we suspected to be more numerous than its very rare sightings. Let's not prolong the suspense... it is the Baillon's Crake.



THE FLORA

In the “flora” chapter, we can note the discovery of the Sicilian Melilot (*Melilotus messanensis*). This plant, protected in France and in the PACA region, is considered as vulnerable on the IUCN France Red List and endangered on the regional list. It is the 28th protected plant found on the domain.

Following the discovery of the *Scorzonera parviflora* at Petit Saint-Jean in 2019, a study conducted by the Conservatoire Botanique National Méditerranéen de Porquerolles (CBN-Med), the Centre d'Écologie Fonctionnelle et Évolutive (CEFE-CNRS), and the Conservatoire d'Espaces Naturels d'Occitanie (CEN-Occitanie) has made it possible to establish a better quantification of the stations of this plant. The species is considered to have disappeared from the Tour du Valat Estate and seems to be collapsing in the Camargue. It is protected in France and has endangered status on the IUCN France Red List.

— THE PROGRAM

Our five-year program (2016-2020) came to an end in 2020, a year also marked by the health crisis (Covid-19) which had an impact on our projects and led us to rethink how we run our operations. The crisis partially hindered our field activities, but their complete blockage was avoided thanks to our team of civic service and European volunteers who were confined at the Tour du Valat, and able to ensure almost half of the scientific monitoring. Our missions were almost totally stopped starting in mid-March, but nonetheless partially completed by the use of telecommunication tools. This evolution towards less travel, especially by air, will certainly be continued in the long term, but videoconferencing tools cannot entirely replace direct meetings. The latter are particularly important for maintaining meaningful relations in the Mediterranean Basin.

This situation did not prevent the launch of new projects, including a study in Algeria on the management of a peri-urban lagoon (sebkha), a study on the seed banks of a small rare dune euphorbia (*Euphorbia peplis*), and a major study on the impact of offshore wind turbines.

A review of the 2016-2020 program was conducted internally. The overall objectives of the 2016-2020 program were (1) to increase understanding of the functioning, values, and services of Mediterranean wetlands, (2) to test management methods that would enable better wetlands conservation, restoration, and sustainable use, (3) to develop synergies between stakeholders, particularly through capacity building, to ensure effective change towards the sustainable management of wetlands, and (4) to federate key stakeholders so they can advocate the importance of Mediterranean wetlands. The final assessment of the five-year program shows very good results in terms of research (objective 1) and management (objective 2). On the other hand, while implementation is considered to be insufficient in terms of political transfer (objective 4), more significant efforts were made in the last three years of the program. In the Mediterranean Basin, our involvement increased during the last years of the program, reversing the trend observed in the previous program.

A new team for a new program. The new 2021-2025 program is being set up with a new team of coordinators and a new director. Built on a solid analysis of the issues at stake for Mediterranean wetlands and based on the recommendations of the Tour du Valat Science Council, it has been the subject of a major collective effort of co-construction involving all our teams. Although its structure and content have undergone significant changes, its implementation has now been launched and should very quickly become fully operational. A major challenge for this new program, which is organized in five themes instead of the three former departments, is the increased transversality between the teams, which is encouraged by the reorganization, the intellectual exchanges, and the new habits that result from them.

If the leitmotiv “understand / manage / convey / convince” remains more relevant than ever, the new program should enable the Tour du Valat to further increase its impact in terms of the conservation of Mediterranean wetlands while maintaining the scientific excellence that is its strength and the basis of its legitimacy. A refined intervention strategy, better monitoring of the impacts obtained in all their diversity, more concrete actions, and strengthened partnerships that support Mediterranean civil society: all these levers must be activated to respond to the ongoing degradation of wetlands, which cannot be attributed solely to a lack of knowledge and understanding of the mechanisms at play. This change of direction, by consolidating the social utility of the Tour du Valat, should finally contribute to increasing its external funding and the diversity of its partners.



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RAPHAËL BILLÉ | Program Director (since 2021)
PATRICK GRILLAS | Program Director (until 2020)



SPECIES

DEPARTMENT

Fish populations monitoring of the ponds and marshes on the former Camargue saltworks
© Patrick Grillas

Species conservation

The overall objective of this department is to contribute to the conservation and management of animal species in Mediterranean wetlands, in particular the most endangered, those in conflict with human activities (nuisance, health issues), and those of great interest for human activities (exploitation, tourism).

Our activities are organized in four areas:

- the population dynamics of species subject to pressure from human activities;
- the interaction between species conservation and veterinary and public health issues;
- the interaction between species of unfavorable conservation status and introduced non-native species;
- the 5- to 25-year projection of the distribution of species and their numbers, according to the modification of landscapes, the climate, and their exploitation.

Despite the health constraints, we were able to carry out most of our field monitoring. We endeavored both to promote our work and to open new avenues of inquiry for the 2021-2025 five-year program. We were able to show that, properly installed, artificial devices such as nesting boxes or islands did not risk becoming ecological traps for the targeted species (Timothée Schwartz's Ph.D. thesis). We also published a description of the bacterial communities found in the ticks of Yellow-legged Gulls, a species on which we are conducting a research project that combines health ecology and ecotoxicology, particularly concerning the effects of microplastics. Our expertise on the installation of GPS tags on Spoonbills has enabled us to develop a major study project on bird migration in the Camargue involving about twenty species.

ARNAUD BÉCHET | DEPARTMENT COORDINATOR

PROJECTS

1 Population dynamics in response to human activities

ARNAUD BÉCHET | bechet@tourduvalat.org

Greater Flamingos nested in the salt marshes of Aigues-Mortes with an exceptional reproduction of 21,000 pairs and 16,300 chicks fledged. Spoonbills experienced heavy losses of eggs and chicks due to wild boars. Nevertheless, we were able to limit the damage by installing an electric fence and to exchange eggs with the Netherlands within the framework of a study on deterministic migration.



Nursery of Greater flamingos at the Aigues-Mortes Saltwork (August 2020)
© Antoine Arnaud

Turtles could be tagged and we published a remarkable study on how their carapace supports diatom communities and can be used as an indicator of water quality. Over 300 eels were fitted with RFID tags to better understand their longitudinal movements between the Fumemorte basin and the Vaccarès lagoon.

RESSOURCE project participants in Sudan (December 2020)
© Alizée Chiappini / Camille Barbé



2 Health ecology

MARION VITTECOQ | vittecoq@tourduvalat.org

We studied the dynamics of antibiotic-resistant bacteria in the Fumemorte watershed, using an approach combining field measurements and hydrodynamic modeling.

We completed sampling of liver fluke populations and population genetic analyses have begun, but were partially delayed by the COVID crisis. Nevertheless, we were able to publish a paper on the genetic diversity of flukes and their relationship with native and introduced definitive and intermediate hosts in the Camargue. Finally, we demonstrated that the legislation on the prohibition of the use of lead shot for hunting was very poorly respected by hunters in the Camargue, 15 years after it was adopted.

3 Modelling and monitoring wetland biodiversity

JOCELYN CHAMPAGNON | champagnon@tourduvalat.org

We published a study on the effects of changing bird counters on the detection of population trends in birds. We published an analysis of 28 years of waterbird monitoring data in North Africa, using an innovative method for imputing missing data.

Within the framework of the RESSOURCE project, waterbird counts were conducted in Chad. Support for the Ramsar designation of an exceptional site in Sudan is underway and an educational film has been produced. Finally, we published an article showing how remote sensing of water areas can optimize winter waterbird counts.

Counts and distribution of waterbirds in the Camargue

THE CAMARGUE: A HAVEN FOR DUCKS, GEESE, AND SWANS (ANATIDAE)

The Camargue is the largest wetland in France and extends over more than 150,000 hectares covering the entire biogeographic delta of the Rhone. It is recognized as being of international importance for the wintering and conservation of six species of ducks as well as the Common Coot. Anatidae (ducks, geese, and swans) winter in the Camargue in a mosaic of landscapes that include rice fields, salt pans, lagoons, ponds, marshes, natural areas, and hunting grounds. Their population, whose abundance and distribution are linked to water management, both on hunting grounds and in natural areas, constitutes a conservation issue. This is what justified the first aerial counts carried out by Luc Hoffmann in 1955, and then the setting up by Alain Tamisier of regular winter monitoring that started in 1964.

Mosaic of agricultural and marsh landscape (natural areas or hunting grounds). In the Camargue, paying for hunting rights on certain private estates can be an economic alternative to agriculture.

© Tour du Valat

COUNTS

The use of an index that is comparable from year to year is necessary to be able to identify population trends. It is generally impossible to obtain an absolute number of birds present, due to a number of errors associated with counts such as the error in estimating groups of individuals. What are the limitations of the index obtained? Is it possible to improve ground or aerial counting methods? How can these errors be taken into account in the trend analysis?

David Vallecillo, a PhD student at Tour du Valat is attempting to answer these questions in order to help implement appropriate management measures. For example, he has shown that, given the error in estimating groups of individuals, we need to reconsider how we use population trend values and possibly base our decisions on the direction and duration of estimated trends, rather than setting threshold values that are too precise before even making the counts.





Photo showing the difficulty of estimating groups of individuals during an aerial count in the Camargue. Group mainly made up of Common Teal and Northern Shoveler ducks.

© Silke Befeld

Birds cannot be counted with certainty because detection is always imperfect, making trend calculations unreliable if detection varies too much in space and time. Simultaneous integration of ground and aerial count data into a model enabled us to correct the estimated abundance established by this imperfect detection of individuals, which varies according to monitoring method and bird counter. The resulting abundance estimates better reflect duck population dynamics.

Finally, work is underway to evaluate whether the implementation of aerial counts using a new sampling method is relevant in the Camargue. This initial work is essential for understanding the role of the bird counter and the influence of the monitoring method in the counts. They are a necessary preliminary step for studying the ecological aspects of changes in abundance in space and time.

— TREND IN THE DISTRIBUTION OF ANATIDAE AND PERSPECTIVES

In 2021, the last year of his thesis, David Vallecillo will focus his work on the distribution of Anatidae, which depends on the agricultural, hunting, and environmental protection activities practiced in their Camargue habitats. Changes in land status, the creation of reserves, agricultural and water management practices have profoundly influenced Anatidae distribution trends. Over the last 20 years, the distribution of wintering ducks has fluctuated from west to east. A detailed understanding of the influence of the factors at play will provide food for thought for exchanges within the network of Camargue stakeholders, managers, and hunters.

The Camargue is one of the most important wintering areas for ducks in the western Mediterranean and brings together a wide range of stakeholders including many nature managers and users. The results obtained will enable us to better understand both the counting methods and their reliability, as well as Anatidae ecology. This understanding will serve as a national and international model for better managing Anatidae and their habitats.

DOCTORAL STUDENT

David Vallecillo (expected thesis defense in December 2021)

SUPERVISORS

Matthieu Guillemain (OFB) and Jocelyn Champagnon (Tour du Valat)

MAIN PARTNERS

Fondation François Sommer (FFS), French Biodiversity Office (OFB), National Nature Protection Society (SNPN), Camargue National Nature Reserve (RNNC), Federation for the protection and management of the Gard Camargue (SMCG)



ECOSYSTEM

DEPARTMENT

At our participatory work project at the Verdier Marshes, we used a promising new tool (the Bacch'arrache—sent to us by the National Anti-Baccharis Collective in Brittany) to remove 660 *Baccharis halimifolia* shrubs (an invasive alien species).

© Virginie Mauclert

Ecosystem conservation

The Department's general objective is to conserve biodiversity and ecosystem functions and services, in a context of global changes, by means of multidisciplinary research in four complementary areas of research:

- modelling to assist management and restoration actions based on a better understanding of the functioning of ecosystems and their probable evolution;
- restoring the biodiversity and functionality of degraded ecosystems by using scientific expertise to pilot restoration actions and management decisions;
- implementing and promoting adaptive, intersectoral, and sustainable management systems integrated into the dynamics of local areas through a site-based approach;
- transferring the knowledge acquired to target stakeholders (managers, decision-makers, scientists, and the general public) by designing appropriate communication tools, in particular through the Mediterranean Lagoons Transfer Unit's actions.

Considered as a key element for conciliating nature, climate and people, ecosystem restoration plays a major role within the European Green Deal and the Biodiversity Strategy. Restoration ecology was also at the heart of the department in 2020 with two thesis defended on this subject. A third thesis project, showing our commitment to research across the Mediterranean area, is highlighted in the focus section.

BRIGITTE POULIN | DEPARTMENT COORDINATOR

PROJECTS

1 Ecosystem dynamics modelling

OLIVIER BOUTRON |
boutron@tourduvalat.org

The hydrothermal salinity dynamics model of the Vaccarès Lagoon-EMSC hydrosystem was finalized in 2020. This tool will help to understand the dynamics of the system in the context of global changes and to provide water management decision-making tools. In addition, the Mar-O-Sel.net tool has made it possible to estimate the impact of climate change in 2100 on the functioning of a network of Moroccan temporary ponds, located along a latitudinal gradient, which have been monitored for several years by Laila Rhazi's team from Mohammed V University in Rabat. Other joint projects involving various partners are underway and focus on the influence of wind on currents, water levels, and swell within the Vaccarès with the risks of overflow and the erosion of its banks; the vulnerability of coastal wetlands to rising sea levels in the Mediterranean; the geomorphological evolution of the Beauduc area in the Camargue, and the maximum permissible nutrient flows for lagoon systems.

2 Ecosystem restoration

FRANÇOIS MESLÉARD |
mesleard@tourduvalat.org

Wetland restoration relies on the recreation of favorable abiotic conditions, on the supply of propagules of desired species, and on the control of undesirable species in order to direct ecosystems toward desired trajectories. Our research is therefore based on ecological engineering and existing or experimental restoration ecology techniques including transfer, control of propagules, and control of competition, as well as on the main wetland management tools (hydrology, herbivory), with an emphasis on experimentation. Among the 4 current thesis projects, two carried out in collaboration with IMBE-Avignon University were successfully defended in 2020. Manon Hess's thesis revealed the interest of sowing seeds in the fight against invasive exotic plant species in the early phases of restoration, while Tania De Almedia's thesis demonstrated the role of ants as ecosystem engineers in Mediterranean grasslands.

3 Adaptive and integrated management

LISA ERNOUL | ernoul@tourduvalat.org

In order to preserve landscape diversity and improve wetland management, we tested management methodologies and approaches on various sites in the Camargue and in the Mediterranean basin. In 2020, the first cycle of the Conservation Standards of the Tour du Valat estate management plan (2016-2020) was evaluated. New agro-ecologic activities were tested at Petit Saint-Jean including research on the impact of bats to control crop pests and the plantation of hemp and sorghum as alternative crops. We also had an excellent grape harvest with the bottling of six vintages. The project Marais du Verdier continued to work with the local community and renewal of the administrative council. The site also developed and installed new educational panels for the general public to increase awareness about wetland habitats and species. A new Interreg project (Tune Up) began, testing voluntary contracts in Marine Protected Areas from eight Mediterranean countries, with the Former saltworks of the Camargue as the pilot site for France. This site also continued the diagnostic study prior to the ecological restoration of the wetlands located on the axis of the Old Rhone as well as the fish monitoring.

4 Mediterranean Laggons Transfer Unit

VIRGINIE MAUCLERT |
mauclert@tourduvalat.org

The Tour du Valat has been managing one of the five wetland transfer units since 2001, in partnership with the Occitanie Conservatoire d'espaces naturels (nature area conservancy) and the Office de l'Environnement de la Corse (Corsican Environmental Office). Its scope of action covers 130,000 hectares of lagoons and their peripheral wetlands in the French Mediterranean. Its ambition is to accompany all stakeholders to promote the sustainable management of these ecosystems. In this singular year, many webinars were organized that targeted elected officials, managers, scientists, government officials, and others. A technical dossier, the result of intense collaborative work informed by feedback, has been published in the framework of the Life Marha project, in collaboration with the MNHN's Natural Heritage joint service unit and the French Biodiversity Office. This key document will assist Natura 2000 managers and coordinators in their evaluation of "coastal lagoons", a priority habitat of community interest under the European Directive.

A comparative study of biodiversity between natural, urban, and agriculture environments in the Gediz Delta, Turkey

In 2018, the Tour du Valat created a new scholarship for Mediterranean PhD students and Dilara Arslan was selected as the first recipient. She developed a comparative study on biodiversity between natural, urban, and agriculture environments in the Gediz delta, Turkey. The Gediz delta is one of the most important wetlands for Turkey and is protected by national and international laws. However, similar to many other wetlands in the Mediterranean basin, the delta faces continued threats.

The main objective of this project is to better understand how agricultural activities and urbanization affect / direct biodiversity in the delta. The study is divided into 3 components:

- evaluate the avian biodiversity changes in Gediz delta from 1980s-2019 under the effects of the land-use changes of Gediz delta;
- compare the effects of habitat conversion on biodiversity in natural, urban, and agricultural environments;
- develop future predictions and a risk assessment for biodiversity and possible solutions for sustainable management in the delta using a participative stakeholder approach.

Dilara (first left) and her volunteers
in the Gediz Delta, Turkey
© Dilara Arslan





European Bee-eaters in the Gediz Delta, Turkey
© Dilara Arslan

Dilara has split her time between her field work in the Gediz delta and her preparation and analysis at the Tour du Valat. During this time, she has worked extensively with Thomas Galewski, Arnaud Béchet, François Mesleard, Philippe Lambret, Anthony Oliver, Anis Guelmami and Lisa Ernoul, experts from the three departments using a transdisciplinary approach and with a strong collaboration from Kerim Çiçek from the Aegean University in Izmir. She has also organized a small network of volunteers in the Gediz delta to carry out the intensive field work, studying bird, reptile, and dragonfly populations.

The first results of this work show that there has been an important evolution of bird species in the Gediz delta over the last century, with a decrease of farmland and scrub species over time, concomitantly with important increases in marine and generalist species. These trends correlate positively to the conversion of extensive pastures into farmland, marine wetlands into salt pans and the conversion of inland wetlands into constructible land. The threat's analysis demonstrates that pollution, land conversion, lack of enforcement of existing legislation and poaching are the main threats to the delta. In the next step of the project, a concentrated effort will be made to involve the local stakeholders to face these challenges and to create effective conservation actions for the future of the wetlands in the delta.

PHD STUDENT

Dilara Arslan

SUPERVISORS

Lisa Ernoul, François Mesléard and Arnaud Béchet

**MEMBERS OF
OUR TEAM**

Lisa Ernoul, François Mesléard, Arnaud Béchet,
Thomas Galewski, Anthony Olivier

PARTNERS

Ege University, Turkey • Mediterranean Institute of marine and
terrestrial Biodiversity and Ecology (IMBE), France.



OBSERVATORY
DEPARTMENT

Restoration of
Azraq, an important
wetland in Jordan
© Hazem Khreisha

Mediterranean Wetlands Observatory

The Mediterranean Wetlands Observatory (MWO) was launched by the Tour du Valat in 2008 and works within the framework of the MedWet initiative and the Ramsar Convention. It develops and synthesizes knowledge on the status and trends of the region's wetlands to provide scientific advice for the governance and management of these environments.

In order for this advice to result in concrete actions, the MWO cannot be satisfied with informing political decision-makers, it must also mobilize civil society so that indirectly, it becomes the voice of our recommendations vis-à-vis the elected officials and leaders of their country. This is one of the Mediterranean Wetlands Alliance's key missions.

THOMAS GALEWSKI | DEPARTMENT COORDINATOR

Southern Iraq marshes
© Jean Jalbert



PROJECTS

1 Mediterranean Wetlands Observatory Projects

THOMAS GALEWSKI |
galewski@tourduvalat.org

In 2020, significant efforts were made to update and acquire new biodiversity data or data obtained from satellite images:

- Update of the land use and land cover monitoring database (based on a sample of more than 300 wetlands), to analyze the changes that occurred between 1975 and 2018. These data enable scientists to analyze the causes of these changes and the consequences for wetland biodiversity and human societies;
- Two new pan-Mediterranean databases, one on protected areas and the other on dams and reservoirs, which will be particularly useful for cross-analyses with other variables, such as waterbird counts;
- Development of a pan-Mediterranean map of potential wetlands. It is mainly based on hydro-ecological criteria and makes it possible to detect and delimit areas where there is a high probability of wetland habitats. This cartographic information layer is also very relevant for detecting former wetlands that have disappeared and can therefore be potentially restored;
- Study on the exposure of Key Biodiversity Areas in the Mediterranean to climate change and land use changes to identify the most vulnerable sites that should be prioritized for conservation actions.

We continued to attempt to make others take our messages more seriously through:

- An evaluation of the indicators and the format used for the Mediterranean Wetland Outlook-2 (MWO2) to improve the next edition planned for 2024;
- Preparing our team and communication tools for the Ramsar COP and the IUCN World Conservation Congress, during which Ramsar will celebrate its 50 years of existence, as well as our written contribution to the upcoming Global Wetland Outlook 2 report.



GREPOM travels to the southern provinces of Morocco to provide material and technical support to local associations in order to conduct waterbirds winter censuses

© GREPOM

2 The Mediterranean Wetlands Alliance

LORENA SEGURA |
segura-champagnon@tourduvalat.org

CHRISTIAN PERENNOU |
perennou@tourduvalat.org

The Mediterranean Wetlands Alliance was created in 2017 to federate civil society and increase the visibility of wetlands in the region, particularly in national and regional policies. It brings together 27 NGOs and research centers from 15 countries, and is supported by a project backed by the French Development Agency (AFD), French Global Environment Facility (FFEM), and the French Biodiversity Office (OFB). Its 2020 activities focused on:

- The Red Alert: advocacy for threatened wetlands, especially in Erimitis, Greece and Daya de dar Bouazza in Morocco;
- The communication, in order to share its members best conservation and management practices;
- The distance learning of the 12 NGOs partners involved in the project, on: “How to involve local people in wetlands management?” and “Strategies to influence wetlands policies”. Organized by the Tunisian and Turkish partners, they largely reached their objectives - even if the absence of face-to-face training was regretted;
- The microprojects: partner associations back local projects concerning a wide variety of sites and themes. Two emblematic examples are illustrated here, in Jordan (urlr.me/M6wtb) and Lebanon (urlr.me/2WLDd).

The Living Mediterranean Report



Cinereous Vulture
(*Aegypius monachus*)
© Thomas Galewski

We face unprecedented global challenges that are a clear consequence of our actions, with temperatures rising and biodiversity collapsing. The Mediterranean basin, a region of the world where natural resources have ensured the prosperity of human societies for millennia, must also face these new challenges. The future appears even more uncertain here than the global average due to the combination of more rapid climate change and stronger anthropogenic drivers of environmental degradation. The Living Mediterranean Report sheds light on the fate of one of the other major features of the Mediterranean basin: its extraordinary biodiversity, which has earned it recognition as the world's second largest biodiversity hotspot.

We conducted in-depth research to gather abundance records of more than 80,000 animal populations, belonging to 775 vertebrate species (birds, fishes, mammals, reptiles and amphibians), i.e. 26% of all species in these taxonomic groups present in the Mediterranean hotspot. This is probably the best-documented database on animal population trends available for the Mediterranean.

This impressive amount of data makes it possible to calculate an average abundance change index, representative of the region's biodiversity, and to monitor its trend since 1993 which corresponds to the year following the Earth Summit in Rio where most nations made major commitments to biodiversity conservation.

The Dalmatian Pelican (*Pelecanus crispus*) is an emblematic bird of the eastern Mediterranean wetlands. Once close to extinction, decades of conservation actions to protect its nesting sites have allowed its populations to increase and to be out of danger today. These successes, still too rare, should give us the energy to intensify our efforts to preserve all Mediterranean biodiversity.

© Thomas Galewski



Sadly, nearly 30 years later the results have failed to meet expectations:

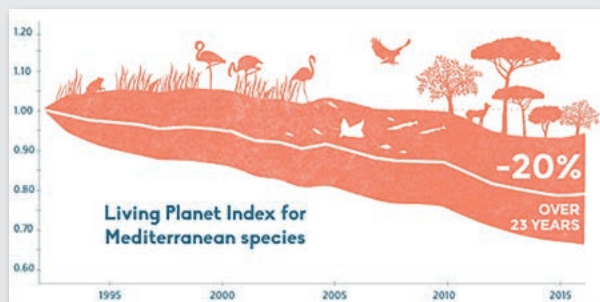
- The index shows a 20% average drop in vertebrate population abundance between 1993 and 2016;
- The declines recorded are even more dramatic for species living in marine (-52%) and freshwater (-28%) ecosystems, i.e. at sea, both offshore and on our coasts, and in our wetlands and rivers;
- One species out of 5 is at a risk of extinction, and even one species out of 4 in terrestrial ecosystems;
- Among the unsustainable practices threatening the survival of many species in these environments are overfishing (including by-catch), proliferation of dams on rivers, over-abstraction of water resources, and the intensification of agricultural practices that leads to pollution and loss of natural wetlands, such as olive groves and traditional dehesas, rich in biodiversity;
- Most species are experiencing the full impact of climate change, which is expected to increase in magnitude in the coming decades. A significant proportion of species in the Mediterranean basin are endemic and have restricted ranges, which means they are particularly vulnerable.

Despite a general downward trend in biodiversity in the Mediterranean basin, several measures and initiatives have saved numerous species from extinction and even made them flourish again. This is the case for the Alpine Ibex, the Cinereous Vulture, the Dalmatian Pelican and the Loggerhead Turtle. Decades of conservation actions to control hunting and fishing, to protect the biotopes of the rarest species or to reinforce the numbers through reintroductions have been successful.

To move from small-scale increases to widespread biodiversity recovery, governments must ensure environmentally responsible governance, sustainable socio-economic models, and regulate the sustainable use of resources. Promoting nature-based solutions is crucial to mitigating the serious

effects of climate change in the region. The protection of ecosystem functionality and biodiversity conservation are also critical to our own health, and in reducing risks of epidemic outbreaks.

Finding long-term sustainable solutions is our duty and responsibility, for the wellbeing of all humankind. If we are to succeed policy makers, scientists, civil society, businesses and local communities must share the same vision.



PROJECT LEADER

Thomas Galewski

TEAM

Lorena Segura, Nolan Boutry-Thivin, Juliette Biquet, Eleonora Saccon

TECHNICAL PARTNERS

IUCN Centre for Mediterranean Cooperation, WWF, MedPan, MedWet, Centre for Applied Ecology of the University of Lisbon, Zoological Society of London

FINANCIAL PARTNERS

The French Ministry of Ecological Transition, TotalEnergies Foundation, MAVA Foundation

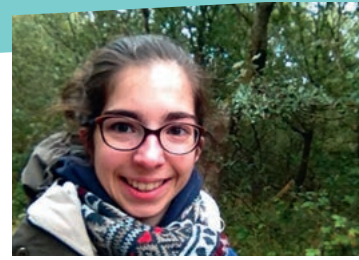
RETROSPECTIVE 2020



© Marion Laurencço

ROW, ROW, ROW YOUR BOAT

We don't mess around with invasive plants. Here is our "Anti-Baccharis" dream team on the road to fight back this unruly shrub.



© Tour du Valat

BUDDING RESEARCHERS

Tania de Almeida, Manon Hess and Timothée Schwartz brilliantly defended their thesis at the end of 2020. These promising young researchers worked on three very different subjects: "The use of ants as ecosystem engineers to restore degraded areas", "Strengthening the resistance capacities of restored plant communities to invasion" and "The effectiveness of artificial nest boxes for the European Roller".

© Lucie Parent



KIDS ACTIVITY

Workshop for children "Struck on fabric" during our "Open House" day.



© Victor Picon / Victor & Simon

FINE CAMARGUE WINES

The Petit Saint-Jean Estate offered us six tasty wines (tourduvalat.org/nosproduits/) draped in their stylish new labels. A blend of Sangiovese and Tempranillo as well as a pure Marsanne have been added to the ranks, all made with complete respect for the environment. In 2020, Petit Saint-Jean also got its own logo.





© Tour du Valat

THE LAB

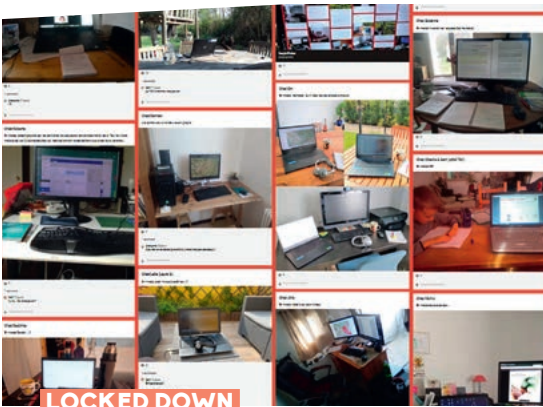
The main building (the “Lab” for those familiar with it) of the Tour du Valat has been renovated. An architectural and energy renovation project to reduce our impact!



© Tour du Valat

DAVOS FORUM

The Tour du Valat management team went to the Davos World Economic Forum. It defended Nature-based Solutions (NbS) as a relevant response to the challenges of the 21st century during an event entitled “Wetlands, NbS for a sustainable Mediterranean Basin”.



© Tour du Valat

LOCKED DOWN

During the first lockdown, many of us had to switch to telework. In order to not lose contact, the Tour du Valat wall appeared. Here's a view of our new improvised workstations!



© Lucie Parent

PARTICIPATORY NEST-BUILDING PROJECT

Tour du Valat employees and volunteers spent one day wielding shovels and pickaxes to build new nests on an islet ideal for Greater Flamingo nesting.



© Jean Jalbert

PARTNERSHIP

International meeting of coastal agencies, in Budva, Montenegro (February 2020), initiated by the French Coastal Protection Agency (CdL).



© Jean-Marc Caschetta

LAGOON FAIRY

“Fragility” was the theme of the 2020 Friends of Tour du Valat photo contest. This delicate dragonfly won first prize.



© Tour du Valat

ALL TOGETHER

A Science Council meeting with some masked and others behind the screen!



© Hervé Hôte / Agence Caméléon

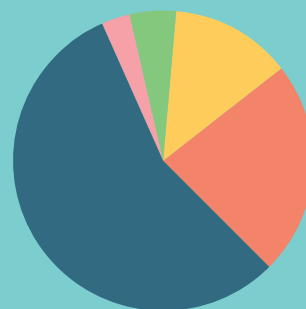
KATIA LOMBARDINI

PACA Project Manager for the Mediterranean Lagoons Transfer Unit

“Every day at the Mediterranean Lagoons Transfer Unit we build bridges between different stakeholders to promote the better recognition of lagoons and their sustainable management... This is always a great source of motivation for me!”

OUR ACHIEVEMENTS

Knowledge transfer is central to the Tour du Valat's mission, and a great amount of effort is made to achieve that goal. Communication in the scientific world, through publications and talks, and making the results of our research available to potential users (site managers in particular), are major activities for our teams.



We published a wide range of articles in international journals, with 56 publications by the end of 2020.

Our activities are not limited to our scientific publications, and our publications are diversified both in terms of nature of the documents (see figure above) and target audience (scientists, site managers, technicians, students, the general public, and others).

PUBLICATIONS 2020

SCIENTIFIC PUBLICATIONS	56%
PHD	3%
BOOKS/CHAPTERS IN BOOK	5%
STUDENTS REPORTS	13%
TECHNICAL DOCUMENTS	23%

RESOURCE CENTRE FRANÇOIS BOURLIÈRE LIBRARY

The Tour du Valat Resource Centre has been in existence since 1954. It was initially made up of documents from the personal library of the Tour du Valat's founder Luc Hoffmann:

- 8,500 publications and theses;
- 490 different periodicals of which 71 are running;
- 43,500 offprints, booklets and reports.

Thanks to our library portal, tourduvalat.centredoc.fr, the centre enables any Internet user to:

- discover the most recent publications by Tour du Valat researchers;
- carry out bibliographical research in the document collection;
- open an online reader account to benefit from a range of custom used services: saving of research results, and the possibility to create alerts or to generate an RSS flow...

INFORMATIONS

The Resource Centre is open to everyone, from Monday to Friday from 9.00 to 12.00 and from 1.00 to 5.30. It offers Wi-Fi -connected workstations, access to all documents, and the assistance of a librarian.

Ph. +33 (0)4 90 97 29 76
biblio@tourduvalat.org

Document portal:
tourduvalat.centredoc.fr

CONVEYING & CONVINCING

In addition to our multiple scientific publications and technical reports, every year we engage in numerous transfer and advocacy activities. These activities are essential for accomplishing our mission of “Ensuring the conservation and wise use of Mediterranean wetlands by improving our understanding of their functioning and by mobilizing a community of stakeholders”.

— TRAINING

We propose training sessions throughout the Mediterranean, within the framework of the Mediterranean Waterbirds Network, the Mediterranean Wetlands Alliance, and the project “Civil society, NGOs, and wetlands” financed by the French Development Agency – AFD and the French Global Environment Facility – FFEM. Several sessions took place this year in Turkey, Jordan, Albania, and the Camargue.

It is in this context that the Tour du Valat coordinated a training course financed by the AFD and the FFEM and organized by the Lebanese Society for the Protection of Nature (SPNL) on “Composting to limit polluting inputs at the Ammiq Ramsar site”.

— CONFERENCES AND SEMINARS

We regularly organize colloquiums, conferences, and seminars in which we welcome scientists whose research focuses mainly on Mediterranean wetlands conservation.

Prior to the 2020 health restrictions, we were able to hold three seminars in the usual Monday morning slot. Unfortunately, our annual conservation biology conference, initiated in honor of the waterbird and wetland conservation work of Heinz Hafner could not be held.

The Mediterranean Lagoons Transfer Unit organized two web conferences for elected officials:

- “Valorizing lagoon landscapes: an opportunity for a more resilient territory”;
- “Wetlands in my community? That’s good news! Our economic recovery requires resilient territories.” Webinars focused on “management and research” were also run.

— A COMMUNICATION WITH SEVERAL FACETS

Preparing training modules, producing videos, publishing brochures and reports, relaying information about awareness campaigns, participating in television and print media reports, and organizing events, conferences and seminars are all ways of reaching our various targets – nature managers, academics, and elected politicians, as well as students and the general public.



EVENTS

Several events were organized for World Wetlands Day and European Heritage Days, about which the Mediterranean Lagoons Transfer Unit has communicated by listing all the activities and events carried out in the French Mediterranean (Corsica, Occitania, and Provence-Alpes-Côte d'Azur regions).

Our traditional Open House Day took place on February 2 and was a great success. Many activities and events were proposed: conferences, free or guided tours on the Estate to discover marshes and birds from the Rendez-Vous and Saint-Seren hides, activities around the aquatic habitats of the Camargue, a “mocktail-quiz”, culinary events, and activities for the youngest.

BROCHURES AND DOCUMENTATIONS

The Tour du Valat has largely contributed to the publication of the brochure “Coastal wetlands and climate crisis: Why the Mediterranean needs Nature-based Solutions”, sponsored by the Off Your Map project.

Convinced that the concept of Nature-based Solutions (NbS) has great potential, the Tour du Valat is committed to a society reconciled with nature, supportive and respectful of the rest of



the living world, and has been experimenting with this NbS approach for several years, in collaboration with various partners. Many such approaches have been devised, implemented, evaluated and capitalized on by the Tour du Valat teams and its partners.

Three initial fact sheets entitled “Nature-based Solutions - Feedback from the Tour du Valat” have been produced on the following themes: the passive restoration of the Tourtoulon riparian zone; agroecology on the Petit Saint-Jean Estate; wise water management in Mediterranean marshes.

VIDEOS

Many videos were made this year: project reports, interviews, conferences, films for the general public, as well as one that promotes our “Adopt a Flamingo” program.



You can watch our films on our Vimeo channel / Tour du Valat

Among our achievements in 2020, you will find:

- In our series “Portraits of our Researchers”, we present the portrait of Brigitte Poulin, who participated by presenting her background, and the significance and central issues of her research.
- The result of a fruitful project with the MoPA animated film school in Arles, which enabled 3 short films to be produced by the school's students in an educational partnership with the Tour du Valat: “Mosquito control and biodiversity of wetlands in images”, “The European Turtle, a black box of the environment,” and “Antibiotic-resistant bacteria come to life!”.



You can find all of our achievements on our website www.tourduvalat.org and via our document portal tourduvalat.centredoc.fr

MEDIAS

In 2020, our actions were the subject of 294 media reports (including 14 television reports, 13 radio programs and 207 articles in the French press). Some of the topics that received the most coverage: the sponsorship of flamingos during the launch of the new website in November (monflamant.com) was widely reported (58 media returns), as well as the ringing on the Aigues-Mortes salt marsh (60 media returns), these two events having been the subject of an AFP dispatch.

Several articles have reported on the agro-ecological production system implemented on the Petit Saint-Jean estate, but also, through our partnership with Alpina Savoie, on the study “Agriculture and biodiversity”, which aims to identify agricultural practices that promote the restoration of biodiversity.

This year, of course, the Tour du Valat was not able to organise or participate in as many events as in

previous years, but our Open House Day on World Wetlands Day was held at the beginning of February and was the subject of articles and a radio program. The particular context of this year has led to an interest in nature and the damage to biodiversity.

Concerning other scientific activities, several articles were published concerning the combined threats of climate change and habitat degradation on bird populations, but also the potential role of ants as ecological engineers for the conservation and restoration of Mediterranean dry grasslands.

TOUR DU VALAT 2.0

The number of Facebook, Twitter and LinkedIn followers has been constantly growing.

At the end of 2020, the Tour du Valat Facebook page had 3,167 followers (+541 followers), while we had 1,576 followers on Twitter (+382 followers). The LinkedIn page counted 1355 followers (+840 followers).

On average, our Facebook posts are viewed by nearly 720 users, and register 56 interactions (sharing and likes). On Twitter, we have an average of 872 views and 14 interactions (retweets and comments) per publication. More than 100 videos are online on our Vimeo account, with more than 4,000 views in 2020.

MOST POPULAR AND SHARED PUBLICATIONS ON SOCIAL MEDIA

- Launch of the monflamant.com website / sponsorship of flamingos
- Tour du Valat Open House Day and World Wetlands Day
- Tour du Valat publications
- Off Your Map campaign on coastal wetlands
- Relay from our partners and the media
- Job offers, for internships and civic services

2020 IN NUMBERS

 **3167 FOLLOWERS | 307 PUBLICATIONS | 220 806 VIEWS | 17181 ENGAGED USERS**

 **1355 FOLLOWERS | 302 TWEETS | 263 300 VIEWS | 4175 ENGAGED USERS**

 **1355 FOLLOWERS | 158 PUBLICATIONS | 66 375 VIEWS**



© Herve Hôte / Agence Coméléon

PIERRE MALLET

Doctoral student

“Working at the Tour du Valat gives me wings, and it is with great enthusiasm that I am studying biodiversity in the Camargue rice-growing region.”



© Hervé Hôte / Agence Caméléon

**CÉLINE VAN WEELDEN, SANDRA HODIC,
RAQUEL AMBROSIO AND LUCIA LLORENTE ZUBIRI**

European volunteers

"It's exciting to gain so much experience monitoring different species and seeing how a research institute works. For international volunteers, this is an incredible opportunity for personal and professional growth!"

— THEY SUPPORT US

Providing realistic responses to issues in the Mediterranean region, promoting and implementing integrated management processes, mobilising the most pertinent expertise, and funding projects. All our activities require the development of strategic relations with various organisations. Today, we conduct our activities in synergy with more than 300 partners throughout the Mediterranean Basin (research centres, NGOs, governmental or supra-governmental organisations, and foundations). Establishing these solid partnerships is indispensable for achieving our objectives, and we wish to thank all of our partners and financial backers.

The Tour du Valat has created links with numerous financial partners at various levels, including the following:

INTERNATIONAL PARTNERS

- European Union
- CEPF - Critical Ecosystem Partnership Fund
- AFD - French Development Agency
- FFEM - The French Facility for Global Environment
- FAO - Food and Agriculture Organisation

NATIONAL PARTNERS IN FRANCE

- Ecological Transition Ministry
- Ministry of Agriculture and Food
- Rhone-Mediterranean and Corsica Water Agency
- OFB - French Biodiversity Office
- ANRT - French National Research and Technology Agency
- CNRS - French National Research Centre

TERRITORIAL PARTNERS

- South Region Provence-Alpes-Côte d'Azur
- Bouches-du-Rhône Departmental Council
- Camargue Regional Nature Park
- National Society for the Protection of Nature

OUR PRIVATE PARTNERS & SPONSORS



The MAVA Foundation was created by Luc Hoffmann in 1994, with the mission of establishing solid partnerships so as to preserve biodiversity for future generations. The Tour du Valat is one of the key projects backed by the MAVA Foundation, from which it receives major support.



In early 2017, the Axiome endowment fund signed a 5-year sponsorship agreement to support the awareness-raising missions of the Mediterranean Lagoons Transfer Unit, particularly those linked to World Wetlands Day and European Heritage Days.



The Fondation de France supports two multi-disciplinary research projects at the Tour du Valat. Actually, a project which focuses on agricultural production systems, seeks to develop a showcase site for agroecology on the Petit Saint-Jean Estate in the western Camargue.



AccorHotels has been a partner of the Mediterranean Lagoons Transfer Unit since 2004. It helps the MLTU celebrate World Wetlands Day and supports its communication campaign that promotes events in Mediterranean lagoon territories. Its employees also participate every year in a wetlands conservation project.



CAISSE D'ÉPARGNE
PROVENCE - ALPES - CORSE

The CEPAC (bank) will continue to support our projects by funding an electric vehicle, and sponsoring the creation of agroforestry plots on the Petit Saint-Jean Estate, and an alternative mosquito control project that uses no insecticides.



The Heritage Foundation supports an agroforestry and agroecology project on the Petit Saint-Jean Estate. This project aims to develop a showcase site for permaculture, with the planting of berry hedges and the creation of ponds. Its overall goal is to create a model for tomorrow's farms.



A manufacturer of pasta and semolina using organic durum wheat grown in the Camargue, ALPINA supports a research project on biodiversity in agricultural habitats, in particular the development of ecological monitoring processes that can be carried out by local farmers who care about the environment, and would like to enhance the biodiversity of their farms.



The foundation supports useful initiatives in the field of collective solidarity, knowledge sharing, and promotes terroirs and built- or natural heritage. It chose to support the creation of a web platform dedicated to our Tour du Valat flamingo sponsorship program which enables us to raise public awareness and contributes to the preservation of biodiversity in Mediterranean wetlands.



Grounded in the many common points linking the François Sommer Foundation and the Tour du Valat Foundation, a partnership has been established to develop and promote sustainable hunting practices, and engage in scientific activities that focus on wetland species.



The Gecina Foundation provides support for the Résifaune Health Ecology project, which aims to improve our understanding of the role played by wildlife in the circulation of antibiotic-resistant bacteria by studying those carried by rodents and gulls in different habitats in the Camargue.



In the framework of our development of a showcase site for permaculture on the Petit Saint-Jean Estate, which focuses on agroforestry and agroecology projects, the François Lemarchand Foundation is providing support for overhauling the irrigation network and developing niche crops.



The “Helping hand” programme sponsored by the Nature et Découvertes Foundation provided funding for a project to fit Eurasian Spoonbills with GPS tags. This project was carried out with the school in Le Sambuc (commune of Arles), and will follow their migrations to sub-Saharan Africa.



Since the Mediterranean Wetlands Observatory was set up, the Prince Albert II of Monaco Foundation has helped the Tour du Valat to assess the status and trends of wetlands in the Mediterranean Basin, in particular by developing indicators concerning their water resources and biodiversity.



We are partners in a hydraulic and ecological restoration project on an agricultural wasteland belonging to the maritime port of Marseille, intended to favour hunting and grazing activities while preserving Mediterranean biodiversity. This project is co-financed by the ERDF and the Water Agency.



The public works group NGE, which has already worked with the Tour du Valat Foundation on a previous project for controlling invasive alien species, is financing research on how to prevent the encroachment or re-encroachment of these species after habitat disturbance.



Providing more solutions, for more patients and more quickly, by responding to uncovered medical needs, acting and co-constructing with all healthcare stakeholders, to improve the lives of patients. ROCHE supports the Foundation's health-environment program through the “ONE HEALTH” approach, which takes into account the close links between human health, animal health and ecosystem health, as well as raising public awareness of wetlands and their issues.



Continuing our partnership initiated ten years ago, this year the TotalEnergies Foundation provided support for our Greater Flamingo research programme. It also supported our monitoring of the Slender-Billed Gull, a modelling project on the site of the former saltworks in the Camargue, the monitoring of biodiversity in marshes, as well as the Mediterranean Wetlands Observatory.



In 2017, VINCI Autoroutes (ASF south of France motorway network) signed a three-year partnership agreement with the Tour du Valat, which is intended to support its Mediterranean Lagoons Transfer Unit. This partnership reflects a common desire to promote Mediterranean lagoon habitats for the employees and users of this motorway network.



In the framework of an international partnership, WWF is working with Coca-Cola in its “Replenish” programme. The aim is to give back to nature and communities the same amount of water as that used for the worldwide production of its drinks. In France, this commitment has resulted in a sponsorship agreement between Coca-Cola and WWF-France for a project aiming to improve the hydrological and biological exchanges in the lagoons and marshes on the former Camargue saltworks site.

TO JOIN US

In order to help the Tour du Valat to continue its actions for the common good, we need your support.

There are several ways in which you can support wetland research and conservation. Each of your donations, however small, can make a difference!

To support us, go directly to our online payment platform: tourduvalat.org/en/faire-un-don/



In 2020, nearly 3,000 sponsors have joined the adventure by adopting more than 2,000 flamingos. We hope that the story will not end there. The more people who sponsor a flamingo, the more the species will be followed, understood and protected in the Mediterranean. It is also a wonderful way of preserving the wetlands, that these birds love so much and which they obviously cannot live without.

So, why don't you adopt a Greater Flamingo?
monflamant.com

MAKE A DONATION OR BEQUEST

If you value the values of the Tour du Valat, if you appreciate the quality and independence of our work, and if you are convinced that a healthy natural environment is essential for building tomorrow's world together, you can act in the long term and support us in our work by making a donation or a bequest to the Tour du Valat Foundation. We will assist you in this process, in accordance with the law and with respect for individuals.

Do not hesitate to contact Anne Ackermann, your contact person, for further information: +33 (0)4 90 97 29 60 / ackermann@tourduvalat.org

ADOPT A FLAMINGO

If, like us, you are under the spell of this wonderful bird and want to contribute to the protection of this species, why not adopt a flamingo?

The Tour du Valat invites you to "adopt a flamingo"; an original and fun way to learn more about this mysterious bird that still has many surprises in store for us.

Just browse through our website monflamant.com and you're sure to find the right flamingo for you. You are spoiled for choice: adopt one of our mascots, discover the fabulous stories of our four flamingo families and find the one that looks like you, or choose a flamingo according to his or her age, sex... and give him or her the name of your choice. There is something for every taste and budget!

TAX-DEDUCTIBLE SUPPORT

The Tour du Valat Foundation is recognised as a public utility and is therefore entitled to receive donations. 66% of your donation is tax deductible up to a limit of 20% of your taxable income (for French residents). Thus, for a donation of €100, it will only cost you €34 after tax deduction.



VISITING US

THE TOUR DU VALAT IS OPEN TO THE GENERAL PUBLIC ON SEVERAL OCCASIONS EACH YEAR:

- On World Wetlands Day, usually the first Sunday in February, Tour du Valat has an open house, with conferences, video presentations and guided tours of the Estate.
- Together with the Bureau des Guides Naturalistes (BGN), paying guided visits are organized from November till April, every second Saturday. Registration is compulsory at BGN Bureau (+33 (0)6 95 90 70 48)
- If you wish to receive information about the programmes and other events organized at the Tour du Valat for the general public, please contact us at: secretariat@tourduvalat.org



WWW.TOURDUVALAT.ORG



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**GRAPHIC DESIGN
AND LAYOUT:**
Guillaume Baldini

**COVER & BACK COVER
PHOTOGRAPHY:**
Lucie Parent

PRINTING:
JF Impression, on PEFC certified paper.
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