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LE GRAND HAMSTER,
UNE ESPÈCE EMBLÉMATIQUE
D'ALSACE

REPORT

RESTITUTION SYMPOSIUM OF THE EUROPEAN LIFE ALISTER PROGRAM

LIFE ALISTER
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GRAND EAST REGION

Restitution Symposium of the European LIFE Alister Program

October 3, 2018 — Grand Est Region Hemicycle, Strasbourg

Report

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Opening speech

Laurence GANTZER

Assistant to the Director of Environment and Development - Greater East Region

I wish you all warmly welcome to the House of the Region for this conference presentation of the LIFE Alister program, on the preservation of the Common Hamster in Alsace. The LIFE Alister program started in July 2013, and will end on March 20, 2019. It was preferable that this restitution symposium be held before the spring, a period marked by a strong agricultural activity, but also by the subscription to agricultural measures. We decided to organize this meeting on October 3rd, because this date coincides with the holding of a scientific seminar led by the National Center for Scientific Research (CNRS) on the Common Hamster, which brings together European experts. Plus, Yvan Le Maho will give a lecture tonight at the National University Library (BNU) to the general public on the issues of biodiversity preservation. Thus, through these three events, the Common Hamster is celebrated before its departure in hibernation. The Region has agreed to fund this experimental program for three main reasons. First, the preservation of the Common Hamster is representative of the regional development issues of the Great East Region, which is subject to a high population density, and which is very attractive for human activity: it leads to an accelerated depletion of biological diversity. The program is therefore an excellent opportunity to make progress on defining sustainable solutions in order to combine productive agriculture and the needs of a protected species in a single space. Secondly, the aim of the program is to look for innovative crop routes, associated with the development of productions favorable to the Common Hamster. Finally, LIFE Alister provides quantified arguments to demonstrate concretely that the preservation of the Common Hamster is a benefit for other species, but also for the quality of the environment and the agronomic quality of the soil. Indeed, to make understand that a species can be considered as harmful and then protected is a challenging pedagogical exercise... I would also like to stress that beyond the technical advances, the LIFE Alister program is a human adventure, which saw researchers, farmers, municipalities and companies working together - alongside the Region, the State services, and of the European Union. While these five years have not been without pitfalls, the LIFE Alister program will ultimately have been shown to be particularly structuring in its ability to build bridges between the various stakeholders. And I would like to thank you all for your commitment.

LIFE Alister: program, partners, objectives and issues

Context

Sarah PINKELE

LIFE Alister Project Manager - Greater East Region

The Common Hamster is a hibernating mammal that resembles the Golden Hamster, known to all, but unlike the latter is a wild animal. It is present from eastern France to northwestern China. The populations of the Common Hamster have a very variable size according to the country. In Western Europe, the mammal is endangered because it is the victim of the destruction of its habitat by human activity (intensive agriculture and strong urbanization): currently, it is listed as the mammal the more threatened in Europe. In France, the Common Hamster is present only in Alsace, where there were large numbers in the 1970s, then a drastic drop in its presence from 1980. Today, it is found in three limited areas: two areas in Bas-Rhin and another on the border between the Bas-Rhin and the Rhine. While in 1930 this rodent was considered to be harmful because of crop damage, it is now protected by the 1979 Bern Convention and the 1992 Flora Community Habitats Directive, which was transcribed in the Environmental Code.

The main causes of the disappearance of the Common Hamster are the degradation of the quality of its habitat due to changes in farming practices since the 1980s, and the strong development of linear infrastructures. In addition, it suffers from a very bad image among the inhabitants and the farmers, who do not understand that means could be allocated to the preservation of this species. Several National Action Plans (NAPs) have succeeded since 2000, carried by the Regional Directorate for the Environment, Planning and Housing (DREAL) Grand Est. Thanks to these plans, the numbers have stabilized, but the threshold of viability of the species is still not reached.

The LIFE Alister project

In parallel with the 2012/2016 NAP, various actors came together to present an application folder to the European Union in order to benefit from the LIFE funding: from this initiative came the Alister project. Its budget is three million euros for the territory of Alsace, with a participation of the European Union up to 50%. The Ministry of Ecological and Solidarity Transition and DREAL have financed the project up to 25%, and five beneficiary partners have joined the Alsace then Grand Est regions:

- CNRS Strasbourg
- The Agricultural Chamber of Alsace
- The National Office for Hunting and Wildlife (ONCFS)
- The Study and Protection Group for Mammals of Alsace (GEPMA)

- ACTeon, a consulting and research firm specializing in sustainable development.

LIFE Alister is truly innovative, as it brings together for the first time all the partners concerned by the preservation of the Common Hamster.

Objectives

The Common Hamster is dependent on human activity for food, it is imperative to find a way to cohabit the Common Hamster and man, reconciling ecological and economic interests. The project is structured around four main operational axes:

- improvement of the habitat of the Common Hamster, by identifying and testing the relevance of sustainable farming practices, adapted to the pedoclimatic conditions of Alsace, favorable to the Great Hamster and the technical, economic constraints of farms; this axis is supported by the CNRS for laboratory tests, and by the Agricultural Chamber of Alsace for open-field tests, with the ONFCS monitoring the species
- the reconnection of the presence areas of the Common Hamster, and the establishment of anti-predation devices inside underground wildlife passages; this axis was carried by the CNRS
- the creation of new opportunities for the development of the species, by testing the establishment of hamsters near peri-urban areas in order to validate their relevance to the survival of the species; this axis was also supported by CNRS
- the communication of the project, which aimed to improve the image of the hamster to the general public, and to raise awareness of the issues of biodiversity preservation; This axis was supported by GEPMA and the Greater East Region, with ACTeon taking charge of perception surveys at the beginning and end of the project.

Round table n ° 1: how to develop agricultural crops and practices favorable to farmers and the Common Hamster?

Increase the reproductive success of the Hamster

Caroline HABOLD

Researcher at the Hubert Curien Multidisciplinary Institute (IPHC) of the CNRS in Strasbourg, Head of the Department of Ecology, Physiology and Ethology.

As previously stated, the Common Hamster is a hibernating species whose reproductive success depends in part on hibernation and built-up food reserves. Only increasing the number of litters would stabilize populations. Before winter, the animal will constitute considerable reserves of food. In Alsace, the hamster has access to a large quantity of food, the difficulty of the hamster is therefore to find a food adapted to his needs. By the end of autumn, the challenge is to find qualitative nutritional intake of fatty acids, because of these will depend on the quality of hibernation and later reproduction. After reproduction, the protein intake must be important because the female is pregnant and then breastfeeding. Therefore, it is important to determine whether the majority of corn and maize crops in the region meet the needs of the hamster for reproductive success. To answer this question, we measured the consequences of this diet on reproduction in animal housing and in semi-natural conditions. The results show that both cultures alone are not suitable for reproductive success. If the animal feeds exclusively on corn, there is a deficiency of vitamin B3 and a deficiency of protein if it feeds only on wheat. To overcome these deficiencies, other crops have been associated. The combination corn / sunflower or corn / radish can meet the need for fatty acids, as the wheat / soy combination is interesting for protein intake.

Agronomic experiments in open field

Annabelle REVEL-MOUROZ

Environmental Protection Specialist, Environmental and Innovation Service - CAA

The goal is to ensure a diversified plant cover and food cover during critical periods, ie after wheat harvest and before semi-corn. In order to identify the ideal rotation, twenty-four agronomic trials have been held with farmers since 2014. There has been a need for specific materials financed by European LIFE project funds or self-financing by farmers. There was a need for specific equipment and that's why the Agricultural Equipment Utilization Cooperative (CUMA) of La Plaine was created. This material could be financed by European LIFE funds or by farmers. The improvement of these practices is not obvious and must combine agronomic good sense and the needs of the hamster. For this purpose, a piloting tool was created in collaboration with CAA, ONCFS, CNRS and the Association for Agronomic

Revival in Alsace (ARAA). It makes it possible to list the imperatives of the hamster and those of the farmers, namely respectively, a diversified vegetation cover and a profitable and robust system. A decision tree has also been designed to anticipate the different possibilities and possible solutions. As an example, this tool helps us to judge the need to intervene for a treatment according to the adventitious pressure.

In terms of knowledge acquisition, the synthesis is still ongoing, but we can already see the significant development of no tillage and direct seeding of straw cereals. Moreover, the total of hectares worked is in increasing increase since the beginning of the setting up of the Cuma. This shows a real dynamism on the part of farmers. There has also been great energy savings with the use of strip-till and the replacement of plowing. These experiments have highlighted the interest of intercrop covers with live multi-species covers as soon as possible after harvest. However, there is strong competition between crops and plant cover in association and a significant dependence on climatic conditions. The techniques are therefore not completely mastered and further work is needed.

To promote the exchange and dissemination of practices among farmers, the LIFE project has set up training courses and study tours to boost the processes and inspire the desire to innovate. There was also a large-scale experiment in partnership with Obernai Agricultural High School. This allowed the collection of a large amount of data and the publication of technical documents.

In addition, this was an opportunity to raise awareness of crop auxiliaries, such as the earthworm and the ground beetles that are favorable to biodiversity, but whose role is not well known to them.

Experimental approach to evaluate innovative farming practices: what impact on the hamster?

Charlotte KOURKGY

Farmland wildlife specialist, ONCFS

In order to evaluate these innovative practices, it was necessary to test them on real sized plots. This mobilized eight farmers and ten plots of about two hectares. To evaluate what worked, we chose to organize working groups and regular meetings. This made it possible to adapt the field practice if needed according to what we observed in the field. Each innovative practice has been tested for at least two years. The species' monitoring started by looking out for burrows. More than 250 adults and 220 young were captured and identified by RFID chips. Genetic samples, weight and tibia measure were made. Some individuals have been equipped with transmitters to track them by telemetry. Over the four years of the program, 98 females and 33 males were followed. For females, photo traps were installed near their burrows to estimate the number of litters per breeding season.

The results:

In 2014, we observed that semi-wild hamsters, that is to say descendant of released individuals, had a very low survival rate and were much more fragile than others. We also observed that individuals that moved to corn plots were able to breed there.

Vegetation density and height was measured once or twice a month. The earlier the cover is sown, the more it is present for the hamster. This catch crop cover is also consumed and

brought back into the burrow. As regard to movement, we observed different types of behavior. Between 2014 and 2015, hamsters moved very little while in 2017 movement were much higher. For each animal we followed, we recorded the different burrows they used. Over the four years of the program, only 27% of females changed plots during the season compared to 56% for males. We were able to conclude that any type of monoculture is not favorable to the hamster be it maize or wheat. To ensure a variety of dietary intakes, there must be diversity at the plot level for those who do not move, but also at the landscape scale. It should be noted that it has been difficult to measure the impact of agronomic techniques on wildlife in the field because the agricultural practices were not mastered. It was not always easy to keep farmers motivated especially when several failures occurred. We may have had too high ambitions. The goal is to continue these tests until they are mastered, we hope that this will continue in the next NAPs. Our foundations are solid thanks to the creation of the Cuma which allow a true dynamic; the farmers are committed and motivated. Regarding the impact of agri-environmental measures, farmers are ready to sow intercultures soon after harvest, even if it means having to do everything at the same time.

Leader

What do you mean by failure?

Charlotte KOURGKY

Failure is at the agronomic level. There were years when corn was in great competition with companion plants. It's a compromise game. For example, we had to make sure we had clover but also maize, so we had to mow the clover which caused the hamsters to move.

Leader

In a context where the hamster may disappear, can we continue to grow corn in areas where the Common hamster lives?

Francis HUMANN

Farmer participating in LIFE Alister experiments

We can continue corn production in the presence of the hamster. The historical practices of farmers, the LIFE Alister project and the collective MAE have demonstrated this. There are also a number of areas where this mammal has always survived regardless of the majority culture. The region has traditionally grown potatoes, sauerkraut cabbages and sugar beets, which are emblematic regional productions. These productions have rotations that are long, hence the utility of having wheat and corn. Maize production is therefore not a monoculture. While it is easier to produce only corn, potatoes, cabbage and beetroot are high-value crops. Our goal is to keep these productions.

This program marks a turning point for the protection of biodiversity because it has not been imposed on farmers. Moreover, the experimental failures experienced by the latter have been well experienced. The LIFE Alister project provided some guarantees against these failures. Another positive remark: over the four years of the project, the climate was very fluctuating which allowed to collect a lot of data for the same space.

Leader

Why is the Cuma de la Plaine so special? Is this material really specific? What are the results for now?

Francis HUMANN

Farmer and Vice-President of the CUMA de la Plaine

The particularity of the Cuma de la Plaine is linked to its creation. In fact, 500 letters were sent, which brought together a nucleus of 16 motivated farmers. The goal of the Cuma is to allow the acquisition of very expensive equipment, which we could not have bought individually. A direct seeder costs for example 50000 euros. Its implementation made it possible to test new practices collectively. Innovation and the search for progress make it possible to share experiences and make failures credible. Failures are better experienced, and this prevents the same mistakes being reproduced. There is a solidarity between the farmers who advise each other during the meetings organized. Before the program, even with NAPs, there was not that kind of synergy. In addition, the agricultural contractors had to be reassured, because with the birth of the Cuma and acquired advanced equipment, they feared unfair competition. The rules and framework have been set and it has been made clear that Cuma should only be useful for agronomic experiments. We are not here to provide benefits.

Leader

What do you remember from the program?

Vivien EHRHART

Farmer participating in LIFE Alister experiments

I would like to recall the context. The former farmers were indeed paid to eliminate the Common Hamster while now we are paid for its protection. However, this animal always has a bad reputation and that's why the eyes of others are not easy. As a young farmer, I am sensitized to the preservation of biodiversity and I try to reconcile the interests of the mammal and those of farmers. This is not always easy because for example, in 2015, the plant cover was oats and had taken over the corn. The yield for that year has been lower and that is why the preservation of the Common Hamster requires significant efforts for professionals in agriculture. My plot neighbours are frightened by this loss of profit and feel negatively about my commitment even though most of this program is rather well received by non-participating farmers.

How can hamster habitat restoration programs be inspired by the results of the ALISTER program?

Anne GAUTHIER

Head of the Department of Agriculture Departmental Territories Department 67

At the level of the Departmental Direction of the Territories, we implement measures that are part of the toolbox of the Common Agricultural Policy (CAP). There is therefore a link between research and small-scale experimentation. The successes will then be transposed into a regulatory framework, validated by the European Commission. Prior to the Life Alister program, adherence to certain agricultural measures was voluntary. The approach is innovative because it is based on farmers' commitment and is collective. Indeed, the survival of the hamster does not depend on a plot, as is provided for in the European regulatory framework with the agri-environmental and climate measures, but it is played out on a scale of a territory and a mosaic of cultures. For this reason, since 2013, there have been five-year contracts signed by farmer groups on collective AEMs.

Results: out of the 500 farmers working in Alsace, 150 farmers have voluntarily committed to cover 3000 hectares, that is to say 40% of the area defined as being the habitat of the Hamster.

Within this EAW, the goal was to improve the presence of different crops to have a better balance at the zone level between what would be traditional spring crops (corn) and other crops (alfalfa).

According to the graph, thanks to this collective AEM, we go from a stable average of 20% wheat and alfalfa in the plain of Alsace, to 37%. Although there are slight fluctuations, the important thing is to observe that in a gradual manner, farmers have returned to wheat and alfalfa. In 2016/2017, we started to prepare the revision of the specifications by wishing to continue the successes of this MAE, namely the voluntary and collective approach, while trying to integrate all the results of research and experimentation were sufficient mature and robust. With all the partners of the program, we chose what could be transposed on a large scale and what needed to be further developed. For the new version, which runs from 2018 to 2022, we have selected several achievable points in relation to the LIFE project:

- The importance of the need for crop diversification for sufficient nutritional inputs
- The permanence of cutlery in space and time.

How does this translate into the specifications?

The inclusion in the specifications of the need for the presence of an early interculture. From 2018, there is a sowing of a canopy specially designed for the Common Hamster that will allow to have as early as possible food and protection. This is a concrete example of an experiment that has worked on a small scale and whose results have been applied to an area of over 3000 hectares. We have also recorded the introduction of a burrow premium with the distribution of a bonus based on the number of plots on which burrows are identified by the ONCFS. We go from a means bonus to an approach to results. Farmers have the capacity to exchange, to experiment, and we, thanks to a valid and stable protocol established by the ONCFS, we look at the number of burrows. This encourages them to optimize this mesh with innovative crop bands. Given the creativity of the farmers, everything cannot be written into the specifications. We had the validation on this subject from the European Commission. The financial amounts were calculated to make it economically attractive for farmers, but it was found that farmers were not only motivated by the gain. There is a real desire to understand and act on their behalf.

Julien EIDENSCHENCK

ONCFS, Hamster project manager and LIFE Alister coordinator

It is said that the more a species is threatened, the more we take care of it. So I hope that in a few years we will not have to watch this animal anymore, because that will mean that the species has exceeded its viability threshold. About ten years ago, two possibilities were open to us. We could indeed choose to put the nature under the roof or put in place safeguarding practices that reconciled economy and biodiversity. The choice was focused on the second scenario that pushed farmers to change the image they had of the Common Hamster. This marked a long period of fighting against a species that can ravage acres of crops. In France, we bet on working with farmers to preserve the species. In the Netherlands, the government had bought 350 hectares of land to create reserves. It is a choice that is regretted today. In France, to save the Common Hamster, wheat plots have not been mowed to allow the animal

to have a sufficient plant cover, but it is a solution that is not sustainable, because it puts in danger the economic survival of farmers. The program LIFE Alister, intervenes to propose a solution with less economically harmful consequences; we cannot ask farmers not to harvest. They are not hamster breeders.

Discussion

Alsace Nature newspaper

In the context of climate change, how can the agricultural practices tested under the NAP help to change the agricultural model in a global way? What do you think of the current soil quality?

Annabelle REVEL-MOUROZ

Climate change was actually observed during the five years of experimentation. There is not the same climate two years in a row. The techniques, thought to have been mastered, proved unsuitable the following year. We must therefore continue to test the techniques, trying to imagine the possible solutions in case of more or less extreme weather conditions.

Vivien EHRHART

The farmer can do nothing against the fluctuating weather conditions. In case of drought, we cannot, for example irrigate what is very damaging for the survival of the hamster. So we have to do with nature. Regarding soil quality, the amount of soil organic matter is decreasing because livestock has completely disappeared in the region. We cannot buy manure.

Francis HUMANN

In organic farming, we did not wait for Hamster concerns to worry about soil quality. Today, farmers who no longer have livestock are very worried about the quality of their soils. We are starting to come back to a common sense practice that is a necessity because we cannot deal with chemical inputs. In organic farming, you cannot practice monoculture, you need a lot of culture. Hamster zoning makes conversion to organic much easier.

Annabelle REVEL-MOUROZ

When we speak of mesh culture with a reinforcement of the diversity of the practices in hamster zone, it also means to have a better resilience vis-a-vis excesses of water or excess of heat. This brings an element of answer.

Yves HANDRICH

Indeed one can ask the question of the evolution of environments favorable to hamsters. Over the last fifty years, at the end of wintering, the body mass of hamsters has decreased significantly. Overall, we have no tangible change in annual precipitation or temperatures. On the other hand, we note that it rains much more in winter than before. The hamster has a wintering ability; maybe with more rain and milder winters they will have to go out because the reserves will rot in the burrows.

Round table n ° 2: what facilities to reconcile human activity and Grand hamster?

Fragmentation and anti-predation tube

Yves HANDRICH

Researcher at the Hubert Curien Multidisciplinary Institute (IPHC) of the CNRS in Strasbourg

Urbanization is a phenomenon that started to accelerate in the 1950s and is one of the causes of biodiversity loss worldwide. Areas available to wildlife are decreasing and road construction leads to a further fragmentation of remaining areas. Two questions arise:

- How can we compensate for the fragmentation problem associated with roads?
- Given the increase in urbanized areas, will a cohabitation between the Common Hamster and man be possible?

Between 1950 and 2010 the population of the Common Hamster in France declined sharply. This decline can be attributed to three different causes: (1) An increase in the number of roads, and (2) an increase in the size of agricultural fields, leading to a fragmentation of Hamster habitat; and (3) further changes in agricultural practises favouring monoculture. To improve habitat connectivity, wildlife underpasses for small mammals, that cross underneath highways, have been implemented. In areas inhabited by hamsters, fences for small wildlife were also placed alongside highways to prevent road kill. The DREAL has requested evidence for the ability of hamsters and other small mammals to use wildlife underpasses, since their construction is associated with non-trivial costs. It is generally assumed that the Common Hamster is able to use these wildlife underpasses. However, such use might be associated with an increased predation risk because some carnivores are known to stalk their prey at such long artificial corridors. Hence, the predation risk might undermine the attractiveness of these wildlife underpasses for micro-mammal species. The LIFE program has enabled us to consider a number of possible actions. We believe that by enriching wildlife passages with an anti-predation system, the mortality risk for small mammals can be addressed properly, and the attractiveness of such passages can be increased. We tested an "Anti-predation Tube" (APT), a plastic tube perforated every 50 cm, which allows hamsters to escape laterally inside wildlife underpasses. The effectiveness of the ATP was tested in the presence and absence of a predator both inside the laboratory and within a real wildlife underpass. During confrontation tests with a hamster, the predator was confined behind a fine wire mesh for ethical reasons, but was still able to pursue its prey alongside at segment of the APT.

Results: In the absence of a predator in the underpass, the addition of an ATP did not increase the crossing frequency of hamsters. However, in the presence of a mobile predator hamsters used the APT as a refuge. Also, male hamsters used the ATP for crossing more frequently than females. Other micro-mammals (rodents and shrews) also use the ATP, but this enrichment seems to be more effective for large underpasses (such as roads underneath a highway bridge) than for the small diameter wildlife passes underneath highways. We

therefore recommend the enrichment of wildlife underpasses with an ATP in areas inhabited by hamsters because they are effective, inexpensive, and easy to maintain. Further studies are required to investigate the effectiveness of ATP's on all wildlife.

Urbanized environments: sources of opportunities for certain species

Odile PETIT

Director of research at the CNRS, Team of Cognitive and Social Ethology

I'm going to present one of the Life Alister project innovations that consisted in testing the rather counter intuitive hypothesis that urbanized environments could be a favourable environment for the species. In a peri-urban environment, there are several opportunities for the Common Hamster. Indeed, there are many plantations so many food resources and shelters that can protect them from potential predators. In addition, temperatures are higher than in rural areas, which generates significant energy savings for a wintering mammal. In several European border countries, the Common Hamster naturally occupies certain urbanized areas or areas at the interface between rural and urban areas. In Vienna, for example, on the lawns of a hospital, the animal lives very well. However, in these countries, unlike in France, the city came to Hamster, which gave it time to adapt to its new conditions. As part of the LIFE Alister experiment, hamsters were born in the laboratory and were placed directly in the city without a gradual transition. We will see if individuals have been able to adapt quickly to their new environment over a year. Indeed, the experiment was initially to take place over several years but due to a delay of the derogations, it could not start until 2017 while the program started in 2013. It was necessary to convince companies and the municipalities of us welcome and this has created additional difficulties.

I would like to thank in particular the Schiltigheim University Institute of Technology (IUT) and the Holtzheim postal sorting center, which were very proactive and agreed to receive us on their land.

We could not release pairs so it was not possible to observe the total cycle of the species whose reproductive phase. A total of 40 females were studied. Before the experiment, it was necessary to ensure that the animals would have food available in the parcels of the sorting center and the IUT. So we made a semi favourable to the Common Hamster and all the biodiversity as a whole. These are hardy plants that do not require maintenance. The IUT seemed to us at the beginning to be an ideal place, because there was almost no traffic, little light, and little human presence, because the experience took place during the school holidays. The postal sorting center, meanwhile, was busy, except Sunday, with a continuous flow of trucks and lighting constantly on for security reasons. These were two very interesting contexts, as they had little in common

Results

After two days, the females had recovered their usual behavior and had disappeared. We had dug pre-terriers but were not used because they built their own homes. People have used anthropogenic developments and this has saved them energy. Some individuals survived and were able to overwinter.

A small sticker "Alister friendly" was also made for the municipalities. A discussion was initiated with the latter on the acceptance of the project. It was a great success when initially we noticed some reluctance.

In Holtzheim, the animals had no problem with light and sound. They have actually dug their burrows under a lamppost, under a spotlight or beside road traffic. We did not observe any significant discomfort for human activity. One of the females regularly approached a bench where several employees were taking their break. Individuals also used to go out during the day, as predators were kept at bay by all of the above.

However, many disappearances are to be deplored, there are in fact 29. We cannot know if that means that these individuals died, because we could not follow them by telemetry. On the site of the IUT, the disappearances were made very quickly, because contrary to what we had envisaged, the absence of light and passage allowed the predators to be less visible and more numerous. At the postal sorting center, constant activity was able to protect the females. Nine hamsters were found in the mouths of water evacuation. During the exploration phase, shortly after the release of the females, these ducts were confused with burrow entrances. We could not anticipate this problem because in Vienna the manholes are closed. These falls happened at the time of a mowing, which forces the animals to explore again. Before this mowing, we had a rather high survival rate. Only two females wintered.

We have also developed panels prepared for the sites to explain to the general public or agents the experimentation. A guide of recommendations has emerged to recommend the use of draining plies, ramps in the mouths of sewers, a reasoned mowing, and to sow flowering meadows. As for light pollution, according to laboratory tests, it is very harmful for reproduction. However, as noted on the postal sorting center, this can protect individuals from predators. It is conceivable to install lighting with a presence detector for the fox or other predator. In the second part of the guide, we present more or less restrictive mechanisms to promote biodiversity if communities ever want to develop their territory. In addition, introducing more nature in the city is an essential educational issue for the younger generations and this allows us to rethink the links and place given to the Common Hamster.

Regulatory aspects: understand the reasons for some delays

Eric THOUVENOT

Responsible for protected species - mammal referent DREAL Grand Est

The Common Hamster is now a protected species so it is not possible to have an impact on its habitat without first obtaining a derogation. However, this poses several obstacles for its reintroduction in a peri-urban environment. Preservation actions are essentially focused on their usual environment. The population strengthening operations are carried out in the agricultural sector and the regulatory framework at the time did not allow people to be released in urban areas. This was changed in 2016, but this kind of experimentation is still subject to derogation. It is necessary to continue these experiments by observing a whole cycle of reproduction even if that worries the elected ones. Indeed, the presence of the Grand hamster complicates potential infrastructure projects. Today, we are still at the stage of research on the use of peri-urban environments. Unlike Vienna, France, the presence of the Grand Hamster in these environments is new. The agricultural milieu remains the animal's favorite environment, but the peri-urban environment could serve as reconnection zones between the countryside and the cities. This would prevent fragmentation which is one of the causes of the mammal's disappearance. For example, if you follow the Bruche, there is a whole area of activity that goes from Strasbourg to Molsheim, but there are only two Hamster protection areas, one in the North and the other in the South. This poses a connection problem.

Odile PETIT

The ultimate goal is not that the Hamster stays in town; the idea is to identify the favorable conditions that could allow a better reproduction. The ideal is the proximity with the cultures so that they can return to their natural habitat. It is not a question of raising the Hamster in France, but of facilitating certain phases of their cycle, including reproduction. It is therefore necessary to find useful territories for reconnection.

Leader

What are the obstacles, the brakes put by the city councilors or developers?

Odile PETIT

The presence of the Common Hamster of Alsace complicates the expansion of the municipality; therefore, it creates constraints that scare mayors. Until now it was an experiment so there is a recapture phase of hamsters at the end. There are mayors who have not responded to our requests at all. If we imagined doing these tests in a strict protection zone, it would not add many constraints and we would be closer to the population nuclei. It would also be more interesting for the preservation of the species.

Eric THOUVENOT

Today, the legal straitjacket surrounding protected species scares the elected officials. In 2016, there was extensive consultation with mayors to establish the regulatory framework for Hamster Habitat Protection Areas. This helped to sensitize them. The current elected officials belong to the generation whose mission was to eliminate this animal. This problem is found in the agricultural sector. The context was however more tense with elected officials than with farmers. There is currently appeasement and better acceptance of the presence of the hamster, but their dedication is not fully acquired. Indeed, there are imperatives to respect in case of extension of the municipality that may require additional resources. These prescriptions are put in place by the agricultural world, but the compensatory measures that are related to the impact on the habitat of the Hamster, are provided for in the specifications of the MAE. This goes through the XXX and the Agricultural Chamber. For private compensators, it is the agricultural world that puts this in place.

The legal framework evolved in 2016 with the biodiversity law, but today we do not want hamsters reserves, nor land control by private compensators. The chosen policy in France, which today works, reconciles farming practice and Hamster survival thanks to the EAW or the compensatory measures. We absolutely do not want the farmer to become a provider. There are people from the agricultural world who make compensation, we refer to the specifications of the MAE, because in this way the device is identical, regardless of the methodology chosen. In general, the experiments that have been done must be reiterated. They must be valued by allowing their concrete use. The results of Yves Handrich, are used by the road infrastructure manufacturers who must install secure wildlife passages. As a result, all these prescriptions are already implemented, but they will be enriched and will be more used to define the new zone of zoning of the hamster.

Yves HANDRICH

As Odile Petit said, the Hamster's interest in peri-urban areas is the interaction and the possible rapprochement with the campaign. It can be seen that in current agricultural

practices, there may be limiting factors, so if one arrives through flowering meadows, or other types of lawn management or highly anthropised plots, to make hamsters compensate for the fact that they only have access to monocultures, great progress will have been made. We can draw parallels with beekeepers who bring their bees to town, because we have succeeded in demonstrating that in the city, the diversity of pollen is beneficial to the insect. In other words, if the evidence is established that hamsters will be able to fetch next to the field, nutrients because there is a plant biodiversity, we can extend it to the field in the countryside wondering on farm roads and otherwise manage the near-parcel like the road edges. At the edge of highways, we could imagine grazing and sheep for better biodiversity. All of these issues are related and we are trying to put them together in this new NAP.

Discussion

Question

Between urban and agricultural areas, the surface is not extensible and the land resource must be managed intelligently. I am therefore satisfied with the experiences that have taken place on the presence of wildlife in urban areas. So, how to allow hamsters to persist in areas? I will end with a personal reflection related to the legislative framework. Indeed, it is in areas where there is still hamster, that the frames are the most numerous. There are many municipalities that no longer have constraints. We must change the logic because it is the municipalities in which the Hamster is absent to make the most effort. Do not penalize good students. Another question to Yves Handrich: Have you worked on agricultural passages? It's also part of the answer. These passages deserve a development and be vegetated.

Yves HANDRICH

Yes, this has begun to be tested, this anti-predation tube is a method of enrichment at a lower cost. To pass the road bridges, one can imagine passages of small size. Small structures are more financially accessible. I agree with you about your personal reflection.

Eric THOUVENOT

Today the regulation is based on the presence of species: if there is no individual, there is indeed no constraint. However, the efforts undertaken in the framework of the NAP or in the life framework will lead to hopefully leading to population development. However, to find the whole area of historical presence of Hamster in Alsace is quite unlikely. The populations will then increase the protection zoning perimeters as well. In a few years, the extension to the south of hamster populations and therefore elected officials, farmers or developers will again be affected by a waiver request. Putting constraints in places where there is no presence has no interest. Today we have 686 terriers spread over more than 10,000 hectares, so there is already work to be done on this territory, because there are not enough individuals and viable population. A viable population is estimated at 1500 individuals out of 600 hectares. Offsetting this territory is the priority. Reinforcement operations are limited to areas where there are already hamsters because these operations are very time-consuming and require significant funding.

Julien EIDENSCHENCK

If we cannot reduce the constraints, we can perhaps value the exemplarity of the actors of the territory. At the agricultural level, there are committed groups, farmers who only respect the specifications, but others who go further. There was an initiative to involve the inhabitants of their village in the activities of farmers to enhance the beautification of the landscape that is caused by the Hamster measures. There are a dozen communes where there are collectives of farmers, villages where elected officials are engaged with farmers. There is a real emulation. When a small-scale zone is created, one can imagine a systematic integration of basic measures that will make it easier to reconcile the development of wildlife and the area.

Regarding the label Aliter friendly, I find it unfortunate that we have not found a formula in French. It would be nice to replace by "Hamster country" or "Hamsterland" with reference to the Alsatian region. Why not value all these synergies? For the future, it is conceivable to imagine a labeling of the efforts of the territories. In the Basque country, there are villages with signs "here common without pesticides". One can therefore imagine a common "prodiversite" when certain elements are respected.

Round table n ° 3: how to make accept the Common hamster in our region?

The main results of the survey of knowledge and perceptions

Maëlle Drouillat

ACTeon design office

As said before, the Common Hamster suffers from a poorly defined picture. In fact, it was classified as a pest in 1937 because of the damage caused to crops and then as a protected species in 1993. The regulatory context linked to the status of a protected species imposes constraints on socio-economic actors. economics of the hamster area. Since the 2000s, various preservation and reinforcement policies have been carried out in Alsace. The national plans of action carried out by the DREAL Grand Est aim at the conservation of the species and not the experimentation. However, there is a real injunction to act because the Court of Justice of the European Union threatens France with a fine of several million euros if it does not seek solutions to this risk of extinction. The LIFE Alister project therefore participates in finding solutions through different experiments and better communication and awareness. The Grand Est region and the agency "Under the sign of Capricorn" have aimed to improve the image of the Common Hamster regionally and have created various information tools that have been made available to all partners in the region. the framework of different actions. GEPMA, has participated in raising awareness of the general public and the problem with different tools such as information stands. The firm Acteons that I represent has conducted a large perception survey of Alsations on the problem of hamster and participated in the evaluation of the social and economic impact of the actions of LIFE Alister.

The survey was conducted in 2014 with a sample of more than 700 Alsations. This sample is totally representative of the Alsatian population. Indeed, age, sex, socio-professional categories are very varied. There was a multitude of questions about the perception and knowledge of Alsations about animals and more general questions about the environment and biodiversity. Three quarters of Alsations had heard of the Common Hamster and more than 90% were aware of the issues of safeguarding. However, only one in five knew that there were actions to preserve the species. If we go into detail, there are disparities. One of the most surprising is that 96% of the over 60s knew the Common Hamster, however only 66% of the category 18/30 years. While the older ones know the big hamster, they are not necessarily aware of the survival status of the species. In fact, 28% did not know if the big hamster is endangered or if the animal was fine. On the other hand, the youngest age groups who knew the Common Hamster were aware of the problem of conservation of the species. All these results make it possible to have ways of working for the structures that work for a better communication and sensitization. Given these statistics, it is therefore more interesting to raise the awareness of the youngest age groups because the result can be greatly improved. In addition, we counted many individuals who were very little informed about the habitat of the Hamster. Many people think that hamsters live in the grasslands. It is also important to have these results for the decision-makers and the elected officials,

because it allows to have the pulse of the Alsatian population. If the results show that Alsatians are concerned with the preservation of the animal, this can convince the communities to adopt the measures in favor of the preservation of the Common Hamster.

Valerie PALANCHON

Agency Under the Sign of Capricorn (in charge of communication of LIFE Alister)

I represent an external service provider who has been chosen by the Greater East region after a public consultation that carries this information and awareness on the Common Hamster. Since 2013 I joined the team for the strategy set up for awareness and communication. Through the first two round tables, you have been able to perceive the complexity of the subject, which is also delicate and confrontational. When we started on the LIFE project, we tried to have a state of the place on the media awareness of the Common hamster. The press review confirmed the aprioris, namely that elected officials and farmers had a negative opinion on the Common Hamster. This is particularly related to this status of protected species which causes a lot of constraints. These two populations are very important stakeholders for the realization of the LIFE project experiments. So we had to think about how we would talk about the Common Hamster and the LIFE Alister program. The objective was to define a choice of words to talk about the Common Hamster and to come up with a common discourse between the partners. Another difficulty was to get the different structures to speak collectively on behalf of LIFE Alister. The emblematic character of the Common Hamster for the Alsace region immediately appeared; the animal is indeed part of the identity of the region because the animal is only present in this part of France. We also wanted to mark this issue of biodiversity by pressing the fact that it is an umbrella species. Indeed, if it disappears full of other less visible species will also disappear. Regarding the project, we wanted to emphasize its multi-partnership, innovative and pioneering nature in experimentation, in farming methods and in the functioning of working groups. The project paved the way. The communication had to be very open, action-based with the provision of information with the creation of a website, a Facebook page, and videos on the YouTube channel to drain the youngest populations and be in relationship with other LIFE projects and with Austrian, German and Polish professionals working on the hamster issue. We also disseminated information on the progress of the project in the general and agricultural press.

Pedagogical work for the Alsatian public and specifically young people

Florian KLETTY

GEPMA

We have seen through the video and polls, the need to raise public awareness on different scales about the big hamster and the problems that this animal is facing. This was the work of GEPMA throughout the program and was aimed at different audiences during events and interventions in schools. For the younger ones, we made paper games, a life-sized goose game, coloring and a great mascot. This tool has attracted many children and has been used for many activities. For an older audience, a video game presents the Big Hamster. In short, different games for different audiences have been considered. Between 2015 and 2017, 118 events were attended by 13,442 people. The numbers are substantial and we can be proud of it.

Discussion

Leader

Have you felt an evolution of perception?

Florian KLETTY

The feedback on these communication and awareness actions has been very positive. Word of mouth worked well and many people came back to the animations from year to year and talked about them around them. There was no scientific evaluation and it is not necessarily quantifiable but according to what we perceived, our actions had a real impact.

Leader

In the sidewalks, the elderly have a negative image of the Hamster, it is often categorized as harmful. Have you met this kind of people?

Florian KLETTY

Indeed, several people came to us to tell us that in the villages, people were paid to kill them. Therefore, this difference between what has been conducted before and today questions. We have therefore emphasized that what is done in favor of the preservation of the Common Hamster is useful for biodiversity in a global way. We must provide explanations and it is our role to bring for understanding. The animations will continue because there are many people to raise awareness. The communication actions will be done in the long term thanks to the future NAP.

Annabelle REVEL-MOUROZ

Which communication tools have been chosen by the other European partners? How was the geographic targeting of the survey and actions conducted? Today there are reflections with farmers on possible sectors that would value the efforts in favor of the Hamster and this will be based on local notoriety.

Valérie PALANCHON

We mainly worked at a very local level, in the Bas-Rhin on the Hamster area. We chose a visible and accepted communication even if it could fuel a controversy. When Odile Petit talked about the Alister friendly label, it was not easy to convince communities. This frank and honest posture worked because we see an evolution. At the international level exchanges have been limited, but in the coming days a symposium will be held in Strasbourg with a more detailed presentation of communication actions. Several foreign colleagues were particularly interested in video games. Alsace will present the project hamster land which will be focused on communication and participatory sessions. We will therefore consider the possibility of creating bridges.

Conclusion of the morning

Bernard GERBER

Vice-President of the Environment Commission - Greater East Region

I would like to greet Laurence Gantzer for the introductory and for her piloting work with Sarah Pinkele, DREAL and all the other partners. It is with great pleasure that I appear before you to represent the Regional Council and to participate in the closing of this morning whose wealth of exchanges is waiting to continue throughout this day of colloquium. I would like to warmly welcome the teams present for the organization and work accomplished during these five years of program. Welcoming you here has a special character, as the preservation of biodiversity is a major issue for Alsace and the East. The Common Hamster of Alsace recognized as one of the most endangered and emblematic species of Europe should not be reduced to the idea of a local symbol because it is only one of the many issues that we must all face. Multi-stakeholder work reveals the scale and impact that such a project must represent on a European scale. Therefore, it is expected that the studies and recommendations resulting from this project will be available to all Europeans by March 2019. Also, this day allows us to become aware of all the interest of the European Community funding. contributed 50% to the project. State participation accounted for 25% of funding. The main challenge is the compatibility between human actions and biodiversity. I am thinking in particular of agricultural activities and you will have the opportunity to observe the outlines during the visit this afternoon. I will be at your side during the visit to Oberschaeffolsheim on the ground of Jean-Luc Meppiel because it is our role to discover this farm and anti-predation system. I welcome this momentum that the LIFE Alister program has been able to inspire all project partners. I also welcome the innovative nature of such an experience. This is the first time that such a partnership has emerged between all these actors despite the complexity of the subject. I remain convinced of the positive result given the interest shown by each of you in this day of exchange and work. Thank you all for your attention and for your commitment.

Perspectives of the results of LIFE Alister in the next National Action Plan Large Hamster

Laurent DARLEY

Deputy Regional Director DREAL Grand EST

What is happening in Alsace is quite emblematic. Biodiversity is something that we take very seriously and as such the theme of the Common hamster is quite remarkable. I would like to thank all the partners involved in this program, the CNRS for laboratory research on feeding the Common Hamster, the effects of light pollution, research on the reconnection of hamster populations. I thank the ONCFS that I meet quite regularly about the improvement of cultural routes in connection with the Agricultural Chamber of Alsace. The ONCFS which ensured the follow-up of the animals is a key actor. We need the agricultural world to set up innovative farming itineraries. ONCFS has also worked to raise the awareness of the agricultural world which is very mobilized. The highlighting of the CUMA de la Plaine is relevant in terms of mobilizing farmers. I would like to thank GEPMA for its mission to raise awareness and communicate about the hamster who has done an important job. I also thank Acteons and the regional council. These lines of research must be pursued. How to preserve your habitat, how to reconnect areas of presence by securing the passage of the hamster from one area to another? How are new opportunities for the development of the species developed and how can the image of the species be improved?

The working community is strengthened because for the first time it brings together farmers, ONSCF and other actors. It is therefore an established community. This is a very good sign and the results of the CNRS translate into concrete action. These results can be taken into account through practical applications. The strong knowledge of the hamster is no longer in doubt. The results are stabilizing and efforts continue under the NAP for ambitious funding to carry out a number of actions. Thank you to the European Union and thank you to the French State.

Abbreviations

BNU: National University Library

CNRS: National Center for Scientific Research

CAA: Agricultural Chamber of Alsace

DREAL: Regional Directorate for the Environment, Planning and Housing

GEPMA: Group of studies and protection of mammals of Alsace

IPHC: Hubert Curien Multidisciplinary Institute

ONCFS: National Office for Hunting and Wildlife

TAP: Anti-predation tube

NAP: National Action Plan



Restitution symposium report of the European Life Alister program
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