



LIFE 05 NAT/ RO/000170

# LYMAN's RAPORT



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# LIFE NATURE

LIFE 05 NAT/ RO/000170



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# 4 YEARS



Foto: Despinel Dragomir

# LIFE Nature

## IMPROVING THE PROTECTION SYSTEM OF LARGE CARNIVORES IN VRANCEA COUNTY

Vrancea represents a region in which conserving nature suffered one of the most dramatic evolution regarding protected areas. These areas were drastically reduced in 2000 threatening the existence of the habitats and conservative interests species. In order to support the conservation actions of the environment and large carnivores, 4 years ago, at the end of 2005, in Vrancea a new project LIFE Nature began, "Improving the protection system of large carnivores in Vrancea", financed by the European Union. The institution that implemented this project is The Agency For Environmental Protection Vrancea (APM Vrancea) with

the support of partner institutions in this project which are Research Center Of the Environment And Performing Impact Studies within Bucharest University (CCMES), The Association for Durable Development "Focul Viu" Focsani (ADDFV Focsani), Forest Direction Focsani (DS Focsani) and The County Council Vrancea.

During the enrolling of this project, a series of actions have been undertaken: proposals for declaring sites Natura 2000, elaborating management plans for this sites, establishing intervention units in order to save wild animals (especially large carnivores), monitoring large carnivores and preys through different methods (radio,

GPS, noninvasive techniques), promoting the protection systems of flocks, orchards and agricultural cultures to the local population in the implemented area of the project and an awareness campaign for promoting the local protection network of large carnivores and of social-economic benefits of the European ecologic network Natura 2000 as for reducing trespassing and conflict amongst locals and carnivore species followed by this project.

## The objectives of the project

- To include the protected areas in the local network for protection of the large carnivores in the European network Natura 2000;
- Implementing management plans of the protected areas included in the local protection of large carnivores network according to the requests of Natura 2000 network and to the local plan for protecting large carnivores;
- Preventing the decline of large carnivores population by stopping the indirect or direct trespassing;
- Preventing the conflicts amongst large carnivores and local population;
- Awareness social- economic benefits generated by including the protected areas in the system Natura 2000.

## ... a continuation of the project LIFE Nature “ In - situ conservation of large carnivores in Vrancea”

At the level of the year 2002, in Vrancea, the activities

of conserving biodiversity were almost inexistent.

But in 2002 the first project Life Nature started in Vrancea. The project was called “In situ conservation of large carnivores in Vrancea” and was implemented by APM Vrancea having as partners the Research Center Of the Environment And Performing Impact Studies within Bucharest University , ADDFV Focssani, DS Focsani, CJ Vrancea, Vrancea Prefecture, City Hall Birsesti and the Geoecology Carpato - Danubian Center.

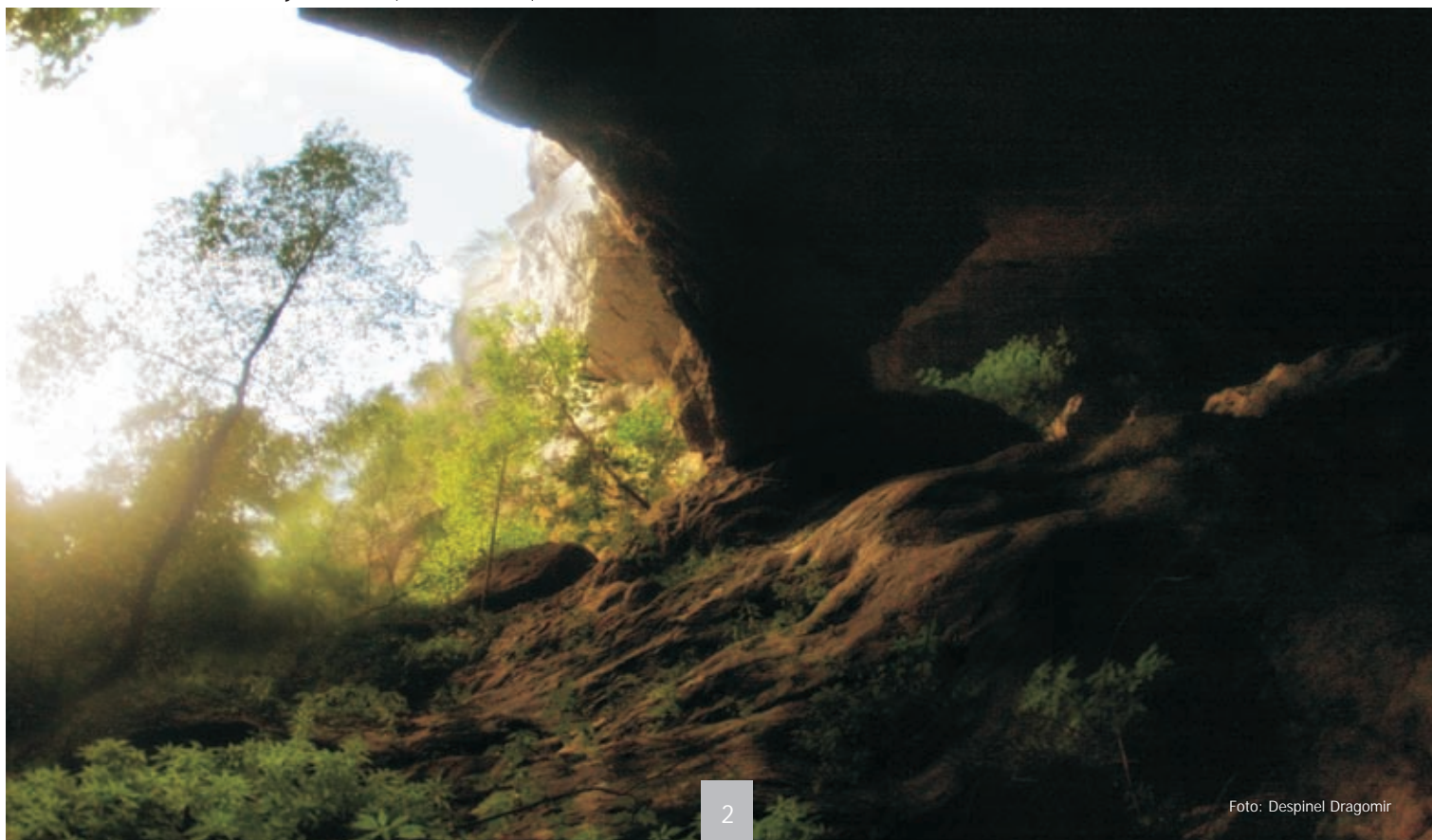
After this start, an ample program including the protection of large carnivores and their habitats begin, using telemetry studies , an educational campaign, establishing a Demonstrative Area in Barsesti in order to protect flocks, an ecological network of protected areas as well as other activities. The purpose of this project was conserving, administrating and rehabilitating viable big carnivore populations belonging to the

species *Ursus arctos*, *Canis lupus* and *Lynx lynx* as a part of the ecosystems in Vrancea , coexisting with the locals.

The actual project LIFE “Improving the protection system of large carnivores in Vrancea” came as a continuation of the undertaken actions in the project LIFE “In situ conservation of large carnivores in Vrancea” and enhanced the results until that moment.

## The purpose of the project

The purpose of the project was to reinforce the actual protection system for large carnivores in Vrancea and to correlate the protection network of large carnivores with the Ecological European Natura 2000 Network.



# 8 SITS FOR PROTECTING LARGE CARNIVORES IN VRANCEA

The conservation actions of large carnivores had as purpose maintaining some viable populations in the species *Canis lupus*, *Ursus arctos* and *Lynx lynx* which are at present in the danger of extinction in Europe.



The most important step in conserving animal population and plants it is represented by establishing a legal way of the protected areas. Therefore, a deeper understanding of the importance of creating sits Natura 2000 was necessary. Implementing the European Ecological network Nature 200 was one of the important objectives during the negotiation with the European Commission for Romanian adherence to the European Union.

The extending the Ecological Network Natura 2000 started by proposing some conservative interest sits for protecting large carnivores. The characterization of the sits was accomplished by APM Vrancea by completing some Standard Forms unique at European level (Standard Data Form) offering the evaluation committee and national experts the possibility of a correct unitary evaluation of scientific importance and which was later send to approval to the Environment and Farm Water Ministry existent at that time. Although given the data base and available accurate information on the habitats and species in the mountain area of Vrancea, numerous displaces were still necessary on field in order to identify, cart and set the hierarchy in the conservation stage point of view for the natural habitats listed in Habitats Directive.



In this moment, at national level there are 8 valid sits with a total surface of 40 102, 71 ha.

Situri Natura 2000	Area (ha)
Lacul Negru	88,3
Pădurea Verdele	250,00
Cascada Mișina	183,5
Căldările Zăbalei	350,00
Muntiorul-Ursoia	102,06
Poiana Muntioru	20,00
Șindrilita	883,81
Parcul Național Putna-Vrancea	38204,00

In these sits the next special area of conservation are included: Valea Tișitei, Lăcăuți - Izvoarele Putnei, Muntele Goru, Pădurea Lepșa - Zboina, Strâmtura Coza, Groapa cu Pini, Cascada Putnei, Strâmba, Condratu, Muntele Ciuta, Băhneanu.



## What is Natura 2000?

Natura 2000 is a protected area network spreading in the entire Europe which has as a purpose stopping the loss of the most important animal and plant species as well as habitats by protecting them on a long term. So the purpose would also be the protection and administration of species and habitats endangered with extinction on their natural ground, in Europe without taking into consideration the political borders. Legally speaking, Natura 2000 sits are constituted in the base of Birds Directive and Habitats Directive. The sits included in NATURA 2000 network offer direct protection to carnivore species assuring the protection of some very important population at European level. This should attenuate the destruction tendency of habitats occupied, destruction that would negatively affect the development and surviving of these species in the entire Europe. The new created ecological network for protecting large carnivores benefits by a very high level of protection, giving the fact that the human intervention in sits Natura 2000 is restricted. Natura 2000 is not a prohibitive system of protection but it offers the opportunity to the local communities in the neighborhood to obtain important economic benefits, these aspects being explained and demonstrated in the awareness campaign implemented in this project.

# How were the social – economic benefits of the network implementation natura 2000 and the local network for protecting large carnivores promoted to the population?

The local's knowledge regarding the local ecological network for protecting large carnivores and European ecological network Natura 2000 was quite uncertain at the beginning of this project. Therefore, through the awareness campaign the population was informed about these aspects and realized a dissemination of the informative materials on the whole area of the project. The main objectives were informing the locals about the Natura 2000 proposals, acquaintance to the basic notions regarding the concept Natura 2000 and local network of



protecting large carnivores, presenting the benefits and attributes imposed by implementation of Natura2000 network on the country territory as well as the financing possibilities offered. For a better understanding and for making the whole promoting of ecological network process more attractive, 2 brochures were realized ("Protected Areas in Vrancea - protection network of large carnivores" and "Natural Park Putna - Vrancea - key element in conserving large carnivores") in which all age readers could find useful and accessible information in order to understand these notions.



The project implementing area holds the second population as size of large carnivores in Romania. Therefore, their protection was materialized starting with the year 2002, once with the debut of the LIFE Nature project "In situ conservation of large carnivores in Vrancea" with the necessary steps for establishing the local ecological network for large carnivores protection in Vrancea.

In order to enhance this protection system, establishing individual plans for each protected area were necessary in the current project (including Natural Park Putna - Vrancea). These plans had to integrate the principles presented in the local management plan for large carnivores (accomplished in the

# MANAGEMENT PLANS



previous project), principles accepted at local and national level. Establishing unitary management plans to integrate local management plans for large carnivores and including some stepping - stone protected areas in Natura 2000 network represented an important enhance brought to the local protection of large carnivores network, with positive effects.

In order to establish unitary management plans and for reducing possible negative opinions of land holders, it was necessary for these plans to be established using an unitary methodology and to be explained step by step. Within this purpose, the APM Vrancea coordinator of the action together with CJ Vrancea, ADDFV Focsani and DS Vrancea started an action to identify the main interested factors involved in administration processes of pSCI areas since February 2006 for completing a list of contact data.

Starting with September, on the basis of Territorial Planning Scheme and information offered by land administrators, the obtained data are to be available to Bucharest University in order to be integrated in a GIS database. The initial management plans for pSCI belonging the local ecological network for protecting large carnivores, have been debated with the Director Committee of Land Owners, committee organized for elaboration the management plans, and with the inhabitants of the neighbored villages of pSCI (Tulnici, Barsesti, Soveja, Vidra, Valea Sarii, Nereju, Naruja, Dumitresti, Paltin). After these public debates, the pertinent opinions were included in the final version of management plans for the 8 sits belonging to the ecological network for protecting large carnivores, these being finalized in July 2008.

**The management plans were based on defining some strategic objectives for conservation which are to be achieved by some management actions**

These actions have been drawn by Bucharest University , taking into consideration field information, the research made in the previous project, data of monitoring large carnivores, politics and strategies for biodiversity conservation of European Committee as well as the action


plans for wolf, bear and lynx, elaborated by European Council. Also for achieving management plans, the identification of conserving actions for each sit was necessary , their planning, the technique, financial and human resources needed to implement these actions and identification of some possible financing sources.

The achieving of plans has been followed by debates of them in communities leader, local authority assignees , foresters and land owners association assignees meetings. Thus, in the majority of villages with protected areas, meetings for debating management plans took place, although there was not a general consensus, the plans have been mostly accepted now including the demands of land owners and the principles for large carnivores conservation and their habitats.



Foto: Despinel Dragomir

# THE RESCUE ACTIONS

A close-up photograph of a brown bear standing in a snowy environment. The bear's mouth is open, showing its red tongue and teeth. Its fur is thick and brown, with some snow dusted on its face and chest. The background is a bright, snowy landscape.

ARMU action in this project was firstly based on releasing wild animals (especcially bears) from the traps installed by poachers thus, 18 bear exemplar have been relesed within the whole period of project development.

# UNDERTAKEN BY ARMU

Through LIFE projects in Vrancea, a great number of wild animals was rescued, amongst more than a half were large carnivores. There have been emergency situations where intervention team was solicited to rescue the trapped animals. Thus, bears caught in noose in various ways were released: caught by throat, body or leg. The team administrated the emergency situations in Vrancea which needed intervention actions since the previous project. The ARMU activity within this project was based on releasing wild animals (especially bears) from the traps installed by poachers.

Thus, during this project 18 bears were released, one of them needing a surgical intervention in the Rehabilitation and Monitoring Large carnivores Center. After



their release, the bears were monitored, their circulation in the area being a proof of the actions success.

In all these cases, the agents of hunting field and local police were called in and inquests were started. The information offered by LIFE team, the photo/ video materials during the interventions



constituted indubitable proofs on which local authorities can develop their inquiries. To present time the main culpable have not been identified but the inquiries have a deciding role in discouraging potential hunters.

Based on the casuistic of bears in which direct actions of Mobile Unit for Saving Wild Animals team and Monitoring and Rehabilitation Center of Large carnivores were undertaken, a statistical analysis was accomplished, meant to enhance risk area types and to contour action strategies for reducing the number of hunting cases.

ARMU efficiently acted for the orphaned baby bears. Spring is the season when the bears born during that year go out of their digs and start to acquaintance the habitat. The previous years experience showed us that this is a period of time when situations appear and cubs can be separated by their mothers.

Thus, there were cases when locals arrived to hold bear cubs most probably found in the nearby woods. During this project, ARMU team undertook seizing actions from these illegal holders of 4 bear cubs which were firstly housed at the Rehabilitation Center in Lepsa, being transferred to Orphan Cubs Center in Balani, Harghita. All the found cubs were 1 to 3 months old, originated in areas with foresters works. After 2-3 years rehabilitation period, the cubs are relocated in their natural habitat in the originating area being continuously monitored. The team also seized 3 *Capreolus* specimens and 2 *Cervus elaphus*.

There has been also a case where relocating a bear in Cheile Tisitei was necessary. The bear that transited the area for 2 weeks in search of food offered by tourists was captured by ARMU team and relocated in Special Conservation Area Stramba and monitored using a radio-transmitting ear - tag type.

A sustainable awareness campaign doubled by ARMU team presence in the field and the success of their intervention actions were the most important elements which led to better perceiving of locals in the project implementation area and further, of Rehabilitation Center purpose and of Mobile Unit for Saving Wild Animals. Based on this portfolio, the team became well known in the project area, thus increasing the chances of useful intervention in order to save wild animals.

A close-up photograph of a lynx in a snowy environment. The lynx is looking upwards and to the right, with its head turned slightly. Its fur is a mix of brown and orange with dark spots. The background is a bright, snowy landscape with some dark, snow-covered branches visible. The text is overlaid on the right side of the image.

# HOW THE MONITORING OF LARGE CARNIVORES AND PREY SPECIES TOOK PLACE?

## Monitoring through radio - telemetry

One of the important actions during the project was monitoring bears, wolves and lynx in order to determinate the spatial distribution of these populations for projecting Natura 2000 network and accomplishing management

plans of these sits. In the study for estimating and characterizing large carnivores territory in Vrancea, the status and biology of these species, the most used method was radio - telemetry. This monitoring had to be accomplished by following a specific methodology of thus activities. The monitoring methodology of large carnivores, undertaken from the previous project, was adapted by APM Vrancea and Bucharest University to the new demands in the current project, being modified in these aspects: enlistment files of tracks and radio - monitoring; capturing procedures of large carnivores; particularization of monitoring procedures with the help of GPS collars. Thus, three monitoring methodologies have been accomplished, one for each species.

Monitoring actions by radio techniques developed on more plans. Marking and monitoring released bears was undertaken, individual monitoring of carnivores captured in the previous project, capturing and marking a limited number of wolves and lynx and the data registered during monitoring being interpreted at the end of these actions.

Marking and monitoring procedure of released bears or of the relocated ones after finishing rehabilitation stages at Orphan Bears Center in Balan was accomplished as an integrated part of regulations of ARMU and of Rehabilitation and Monitoring Large carnivores Center. The procedure establishes marking the subject with radio collar transmitter or ear tag so the success of the rescuing/ rehabilitation action can be analyzed in order to obtain data regarding the ecology of species. During this project, ARMU stepped in for saving 18 *Ursus arctos* caught in nooses by hunters of which 16 have been marked with radio transmitter M3400 ear tag type or



developing the action. Monitoring exemplars with exclusive radio transmitters involves, in order to avoid the data interruption, the assistance of the exemplar at a medium interval of 12 hour maximum from a maximum of 15 km in open field. Precise registration of the locations by GPS and stocking the information offers the possibility of rebuilding of much more accurate moving trace and punctual activities of monitored exemplars. Information in monitoring actions have been integrated in the database of the project and in the monitoring rapports, being used for establishing the conservation measures.\

Installing 4 GPS collars for wolf and lynx (two for each species) needed unrolling of specific identification actions of large density areas of the carnivores made by the team, installing and checking the traps in the attempt to capture wolves and lynx in order to get them GPS transmitters attached. Capturing sessions totalized 2629



M2610 collar (purchased in the previous LIFE project) and o which a drop off system has been adapted for rapid recuperation. Post dismissal recuperation period were very different but for all animals the success of rescue actions was confirmed by registering the locations that showed the movements of animals. Post monitoring of these animals offered information about habitats types used in certain periods and about the spatial movements, these being used in establishing the conservation measures imposed by the management plans.

Radio monitoring of captured animals during the LIFE NAT/ RO/ 8576 project has been made for 8 exemplars in *Ursus arctos* species and 5 exemplars in *Canis lupus* and *Lynx lynx* species, whose monitoring started previously the beginning of the project, the action continuing till the disappearance of the radio signal. By monitoring large carnivores to which transmitters were attached, different results have been distinguished and two different ways of



days with an amount of 545 active traps installed in 41 villages. The success rate was small, only one exemplar of *Lynx lynx* species being captured, although in the same



interval 44 presences have been registered in capturing interest species sits. The inefficiency of this action could be correlated with extreme weather conditions, reduced dimensions and the mechanic characteristic of the traps used in the first capturing stage, imposed by the no traumatic character of the traps. An enhanced breakdown was also correlated with the thickness of the snow covering the traps, with precipitation levels and ground temperature (the negative temperatures having a major influence). The capturing method has been changed since September 2006 by installing a trap - transmitter system and by installing odour vectors jets battery charged. Due to this method, human presence decreased around the traps, human being needed only in the case of transmitter activation in order to reposition the traps, changing the batteries or administrating the odour vectors. On February 16<sup>th</sup>, the team efforts in the attempt of large carnivores exemplars knew a success by capturing a lynx exemplar. To this female the team attached a VHF radio transmitter collar (150.962) and a GPS and was radio telemetric monitored right after setting it free.

## Monitoring by noninvasive techniques

In order to evaluate the relative abundance of large carnivores, noninvasive techniques were used (distance cameras, fur traps, prints, signs, droppings counting and the use of pellets method). Bucharest University, APM Vrancea, Forester Direction Vrancea and ADDFV conceived a series of methodologies for starters which have been accomplished base on the experience of other similar projects and that include evaluation methods of large carnivores number and their preys (pellets method, photo cameras), taking field samples method (droppings, fur traps), the necessary equipment, analysis methods. These methodologies comprise: succinct description of the techniques used, taking samples method, equipment installing manner, installing sits (random selected) and the registering and archiving data files. These methodologies have been projected for a period of three years (2006 - 2009) 15 sample taking sessions being unrolled of 45 days maximum, of which 10 complete sessions were used in analysis.

Taking into consideration the study type chosen, more auto photo cameras have been evaluated, Tallon Extrem type being selected, with dual day/ night function. These cameras are equipped with infrared and moving sensors, thus registering all the events at the place of the monitoring sit. For sampling images, 10 auto photo/ video cameras in pairs have been used. Inside the selected sit, location decision came to the working team, the used criteria being: the existence of moving routes of large carnivores, reduced human accessibility, the lack of some entropic activities such as growing animals, tourism, forester exploiting.

The cameras were put in pairs, the sample sits being prepared with specific attractors (concentrated for bears, fruits, Nepeta oil, Valerian extracts). Ten sample sessions have been developed throughout this study including 3 visits of the sit. The cameras have been active


for 450 days, identifying species such as: *Ursus arctos*, *Canis lupus*, *Lynx lynx*, *Cervus elaphus*, *Capreolus capreolus*, *Sus scrofa*, *Vulpes vulpes*, *Felis sylvestris*, *Sciurus vulgaris*, *Martes foina*. Results indicated that



habitats occupation probability by bears is indifferent towards the habitat with a value of 0.8493. this value indicates that in Natural Park Putna Vrancea bear is present on a surface of 459 square kilometers of all 531 investigated kilometers. At the same time, the probability of photographing an animal at least once in a studied sit is of 15,17% into the forest and of 39,05% in non forest during the 45 investigation days per session.

Based on the established methodology, fur sample sessions have been unrolled, being accomplished a number of 3 fur traps as a prototype, which were tested in the field for 2 months and still being active according to the methodology calendar and the samples being



A close-up photograph of a brown bear climbing a tree. The bear's head is on the left, looking towards the camera with its mouth open, showing its teeth. Its right paw is visible on the right side of the tree trunk, with sharp claws gripping the bark. The tree trunk is thick and has rough, peeling bark. The background is a soft-focus green, suggesting a forest setting.

Following certain chemical reaction and visualization of the results with Ethidium bromide, some information regarding bears sex structure have been obtained.

refrigerated at LCMC for 6 months at -200C. Fur traps collar and tree rub type are composed of metallic pieces (barbed wire) that collect animals fur in contact.

These traps have been mounted around cameras, feeding sits, the sample sit has been prepared with specific attractants (bears concentrated, fruits, Nepeta oil, Valerian extracts). Following certain chemical reaction and visualization of the results with Ethidium bromide, some information regarding bears sex structure have been obtained

These information have been correlated with the images recorded on cameras. 13 samples from the total of 45 reacted, the 32 remaining having a too small AND quantity or being contaminated. Of the reacted samples, 8 were of females, only 2 belonging to males, fact that indicates a strong unbalanced rapport In order to equilibrate the population, measures for reducing dominant bear males hunting have been undertaken in the management plan. There have also been made recommendations regarding sex structure analysis in the future.

Evaluating large carnivores population based on prints, signs, droppings of them is complementary to evaluating large carnivores species and preys abundance by placing photo cameras, pellets transects, fur traps.

This has been accomplished using the methodology already created in the previous project. In order to evaluate bears diet, samples have been collected on 10 transects randomly chosen in all seasons.

On each transect samples were taken in 30 circles of 1 m radius. During monitoring actions, prints left by large carnivores have been described and data were stocked and processed by Monitoring and Rehabilitation Center of Large carnivores. Bear droppings in food different availability period have been stocked at the Center in the refrigerator and analyzed in order to establish the diet. The obtained data (routes, prints frequency) have been processed in GIS for establishing the utilization method of the area space by large carnivores.

Data have been included in the database of APM Vrancea and used for elaboration of management plans for Natura 2000 sits and in local population and authority information.

In order to estimate the relative abundance of prey species using pellets method, a sample campaign have been organized based on created methodology. Researches had as a purpose implementing relative density of prey species of large carnivores estimation method by determining representative indices in the density calculation using quantification of dropping groups of the studied species after the melt of the snow. Collecting field data period using pellets numbering method started in the spring of 2007 in the period between snow melting and the debut of vegetative season. 30 transects have been randomly selected, each transect measuring 150 meters

On each transect 30 circular 1 m radius sample surfaces have been evaluated. Thus the total surface number for density estimation of prey animals on 38000 ha is 900.

Results were stocked in the database, at the end of 2008 returning on the same surfaces in order to compare data. Estimation results were very good, the applied method which was selected according to the methodology being realistic and applicable in Vrancea conditions.



# WHAT IS

## THE UNIT OF INTERVENTION?

One of the important activities of the LIFE project “The improvement of protection system of large carnivores in Vrancea” is its goal to lower the mortality rate among large carnivores, to this end it was created an intervention unit that incorporates The Mobile Unit for Saving Animals (A.R.M.U.) and The Rehabilitation and Monitoring Center for Large Carnivores.

Through APM Vrancea with the participation of DS Vrancea, The University of Bucharest and ADD FV this unit was created for the cases of wild animal injuries, especially large carnivores.

**The Mobile Unit for Saving Animals (A.R.M.U.)** is created like an ambulance for large carnivores and it has a team of field operators and a veterinarian. It is equipped with a transport cage built in the platform of a Dacia Pick-up 4x4 car, tranquilizer guns, contention arms and the necessary instruments for small field surgical interventions. The transport cage it is detachable and can be manipulated and installed on other means of transportation (in case the ambulance can not reach areas where only big off-road cars can).

A.R.M.U. operates based on strict regulations and intervention protocols known perfectly by the crew. The intervention costs for saving poached animals should be sustained by the guilty party, but presently the difficulties in identifying the poachers made so that all the costs were supported by the project. In case of inquiries being solved and the culprits indentified the costs will be charged on the culprits.

**The Rehabilitation and Monitoring Center for Large Carnivores** is located in Lepsa Funicular, in the National Park Putna-Vrancea, in a building made available by Forester Direction Vrancea under a contract.

Even if the building was in a state of advanced degradation (the lodge was all wood, built in 1953) it was successfully rehabilitated and the lodge divided so that it can cover the following areas:

- medical facility,
- storage facility for equipments, electric generator and welding machine
- living quarters for field teams (3 rooms) - furnished
- furnished work area equipped with laptops, VHF monitoring equipments, photo/video equipments, day/night optics equipments, topographic maps
- a furnished kitchen with washstand
- shower room with a boiler and washstand

The modular enclosure system is near the lodge in an area covered by natural vegetation.

The enclosure system is composed from 4 separate modules, joined by sliding doors, so that quartered animals can be moved from module to module with the help of a system of levers and pulleys. The whole enclosure system is surrounded by an electric fence powered by a solar generator. The enclosure system can be taken apart and moved according to different situations. The treatment of certain carnivores within The Rehabilitation and Monitoring Center assumed the administration of medicines, within the temporary captivity containment area.

Marking The Rehabilitation and Monitoring Center for Large

Carnivores with indicator panels favored the media of the facility. Presently the center is admired by locals, it became a symbolic landmark for the community. The Rehabilitation and Monitoring Center for Large Carnivores is operational as of July 2006.



# ELECTRIC FENCES

A large number of attacks by large carnivores have a high success rate because of the rudimentary protection systems. Thus there are a lot of domestic animal losses and sometimes even the risk



of human life loss. Losses are usually high and that encourages poaching.

The landowners will set up traps in order to capture wild bear, but in many cases the victims will be the bears. And



thus the growing rate of poaching. The advantages of electric fence systems for protecting orchards, sheep pens, crops is that will lower poaching and reduce adversity regarding large carnivores.

Based on a similar activity during the LIFE02/NAT/RO/8576 project, implementing the electric fence systems benefited of equipment bought in 2003 and the experience gathered by the field team in 4 years. So, the systems were set up annually during the duration of the “Improving the protection system for large carnivores in Vrancea county”, 6 electric fence systems, first

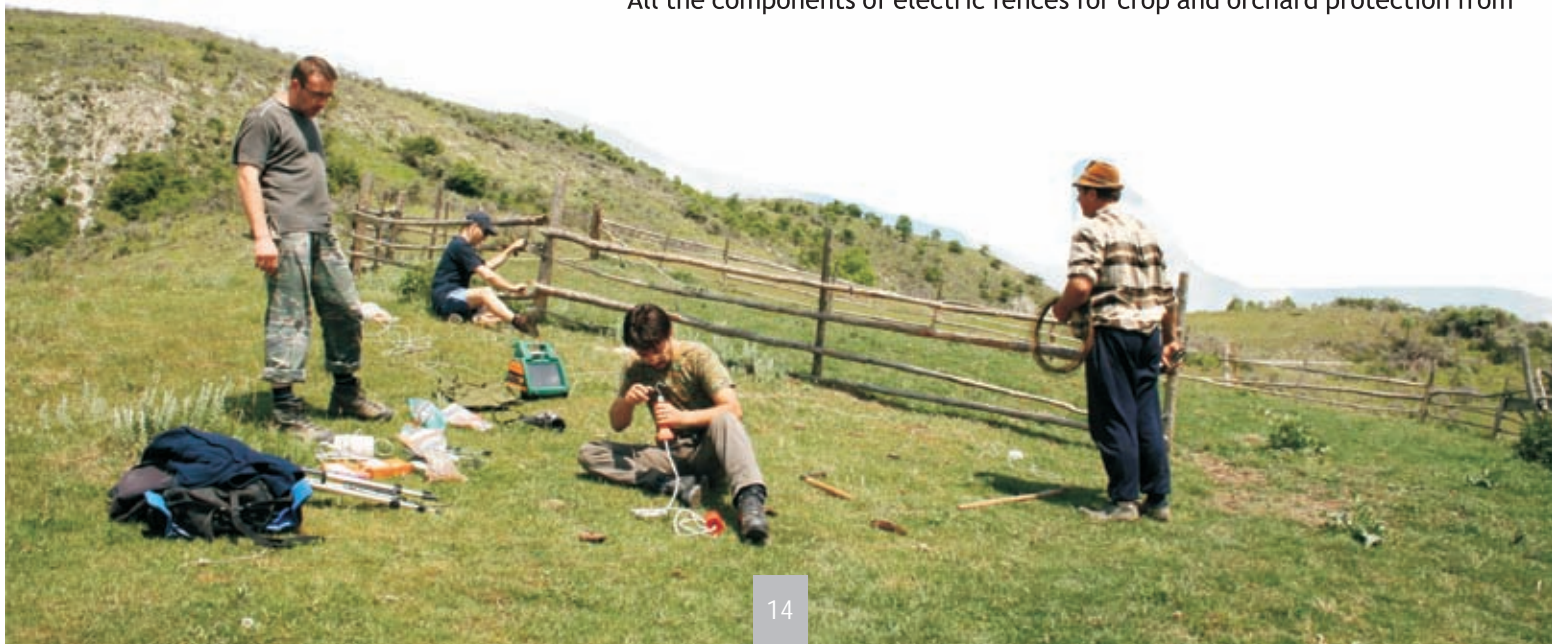


at sheep pens. Thanks to experience gathered during the last project these were set up with no problems. After setting up the electric fences, teams of 2 persons assured the supervision of the functionality of the system through weekly inspections and completion of supervision forms in order to avoid technical issues and evaluate the success of the mission.

Preventing the conflicts between large carnivores and the locals continued by implementing protection systems for orchards and crops by identifying the areas where there were the biggest losses in previous years. 6 perimeters have been selected with orchards and corn crops where bears caused damages. It was noted that these areas were the same areas where bear poaching was also high. So, after the first half of the project another series of electric fence systems was acquired, the areas where they were set up are near Soveja, Vizantea, Campuri si Negrilesti.

Considering that the attacks on orchards and crops start with the ripe season of fruits and vegetables, the protection systems were set up gradually according to altitude, exposure and culture type.

All the components of electric fences for crop and orchard protection from



the project area are especially made to prevent damage done by wild animals by limiting their access in the protected perimeter.



# HOW were the Vrancea county locals informed?

To make the public aware of the new LIFE Nature project in Vrancea county, the project secretariat offered the national and local mass-media, a series of handouts with the message to promote the aim and objectives of the project. Articles like “Help for large carnivores” or “Hospital and ambulance for bears and wolves” have presented some aspects in a note with inclinations to the sensational, addressing the creation of The Mobile Unit for Saving Animals and The Rehabilitation and Monitoring Center for Large Carnivores. Till now many articles were printed referring to the actions that took place during the project, there were televised releases on national and local television, interviews and local radio stations, also internet adds, one of the actions was the showing of the documentary “In situ conservation of large carnivores in Vrancea”. Also the concept of Natura 2000 and the ecological protection network, educational campaign in schools, the implementation of protection systems regarding large carnivores attacks. Also cases of poaching that were solved by saving the captured animals had an echo in the local press and on one of the national television channels.

Given the fact that promoting the project represented an essential condition for the success of the project's activities, a series of promotional materials and leaflets have been created in English and Romanian, containing information regarding the aim and objectives of the project, also personalized pens, stickers, badges and blotters. The media team created the project's web page (it can be viewed at [www.carnivoremari.ro](http://www.carnivoremari.ro)) and the protected areas in Vrancea county, the web page also offers information about locations of field markings, maps, protected areas visitation rules, accommodations info. The web page Protected Areas in Vrancea is hosted in the web domain of the project at [www.carnivoremari.ro/rezervatii](http://www.carnivoremari.ro/rezervatii).

To ensure good information to the population of Vrancea, in front of the main buildings of partner institutions were displayed posters presenting the LIFE05/NAT/RO/000170 project, at the main building of Vrancea Environment Protection Agency it was set up a panel presenting the project. Also in places where field activities took place informative panels were displayed as is the case of panels set up at The Rehabilitation and Center for Large Carnivores in Lepsa Funicular. For marking the limits of Putna Natural Park there were assembled and set up informative panels with the Park's map, the main conservation areas, tourist routes and attraction points, information regarding the Park and rules that apply within the Park's area.

Because education of children was a priority right from the concept stages of the project, presentations were set up at schools, aimed for schools in the rural areas. Meetings were held in the areas where the “Strengthening the protection system of large carnivores in Vrancea county” project was implemented, where members of the awareness team presented various themes regarding the ecology of large carnivores and the necessity of coexistence of local population and the animals. At these meetings the



documentary “ In situ conservation of large carnivores in Vrancea” made during the previous LIFE project was shown and promotional materials like leaflets, posters, brochures were given.

During the 4 years of the project, there were set up for school children, 4 inter-school contests, having as a main goal to increase the awareness regarding the vulnerability of large carnivore species. Children had the opportunity to engage in drawing contests, plays and essays on various themes. In the first stages the schools were informed about the conditions to participate in these contests. A component part of organizing the contests and disseminating the information regarding the contests was distributing the rules and informative materials to teachers in target schools. Also there were disseminated materials and information regarding the protected areas for conservation of large carnivores. The prizes were camping objects, bicycles, photo cameras.

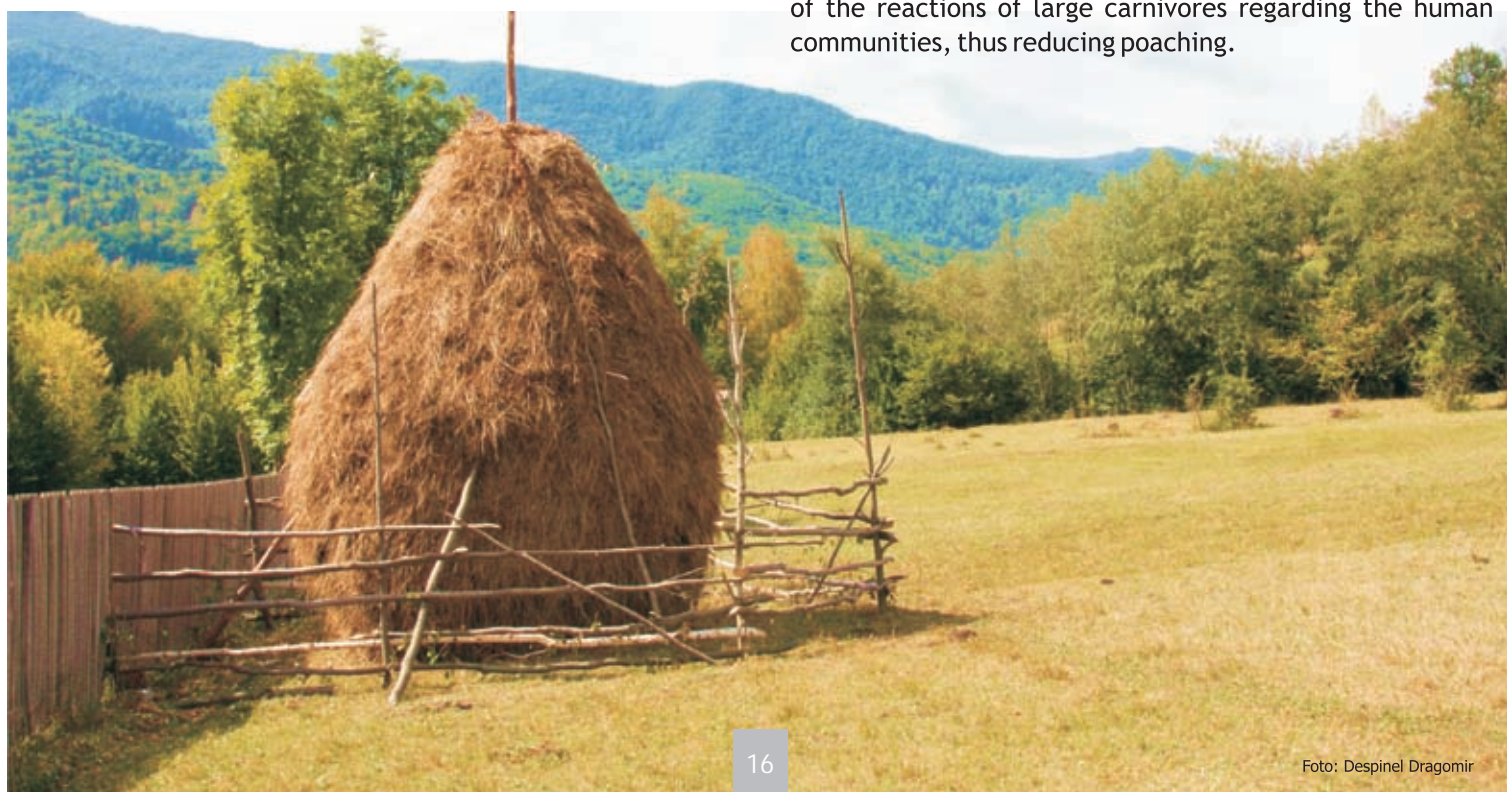
Also with the occasion of celebrating events regarding Earth Day, Environment Day, The International Biodiversity Day, European Park Day, and Green Week a series of presentations took place during actions in the area where the project was implemented.



## Which were the campaign results ?

Meetings with locals to explain them the importance of protected areas for conserving large carnivores, the legal procedures to be applied against poaching, benefits of the implementation of the European network Natura 2000. These were organized by APM Vrancea and ADD FV using the “door to door” method. It was noted that this method for talking with the locals at least in regard of poaching was more efficient opposed to forcing them to have a public debate about this illegal activity.

The main results of these sessions were: the increase of awareness regarding problems that affect the population of large carnivores; improving the understanding of the implications that human actions have on the habitats of large carnivores; the development of a positive attitude regarding large carnivores and the European network Natura 2000 or the reduction of their rejection by better understanding the behavior of species and the benefits that Natura 2000 brings, and at the same time, the justification of the reactions of large carnivores regarding the human communities, thus reducing poaching.





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# LIFE NATURE



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