Haut du formulaire

**Field Report**



**Welcome to the online Field Report form for your Earthwatch field season.**

This report is your main opportunity to present your results to Earthwatch. It gives you the chance to show us tangible evidence of your research progress, achievements and outcomes. Please include data, charts, graphs and other representations of your results. This is our tool for understanding how your research is progressing, and for assessing the impact of our support this year.

The report is in three sections:

* SECTION ONE: Scientific research achievements - Thanking your volunteers, detailing your scientific results and relating this work to your research objectives. Note: This section no longer asks for a non-technical summary of results. All research results should be presented when reporting against research objectives.
* SECTION TWO: Impacts – How your project has had positive impacts across a multitude of areas e.g. conservation, publication, community and educational. This relates directly to Earthwatch’s Measures of Success (MoS)
* SECTION THREE: Acknowledgements, appendices and anything else

The information you provide will be used by the Research, Development, and Marketing departments at Earthwatch, and disseminated to your past volunteers and the general public through our website. You will be sent a copy of the final report as it appears on the web. If you wish any content to remain confidential between you and Earthwatch, please indicate this in the text by entering 'CONFIDENTIAL' before the confidential information and 'END OF CONFIDENTIAL INFO' after it.

You must be online to complete and move through this form. A word template is available on request if you wish to work on your report offline and copy your information onto the form when it is ready to submit.  Please send any requests to your Program Manager.

Your final Field Report MUST be submitted to Earthwatch through this online form however.

\* Indicates Response Required

|  |
| --- |
| **Create a Login Account (recommended, but optional)** |
| New Users / Returning Users [**CLICK HERE**](https://fs22.formsite.com/EarthwatchResearch/FieldReport/form_login.html) to setup or return to your account for this form.Creating an account enables you to partialy complete this form and return later to finish the form. An account will also enable you to return to this form and viewyour submitted results. The account you establish is only for the Field Report. You can submit multiple Field Reports with one account. Creating an account is optional. |

**Background Information**

**\*** Lead PI

Aurélie Cohas 

**\*** Report completed by (name)

Aurélie Cohas & Sylvia Pardonnet



**\*** Period Covered by this report

07/15/2013 to 07/15/2014

We have your project details on record from your previous field report or proposal. If any of the information below has changed since your last report/proposal, please let us know.

Has your research site location changed? If so, please provide details regarding the changes. 

Has the protected area status of your research site changed? If so, please provide details. 

Have any scientists or field staff departed from or joined the research project? If new people have joined the project, please include thier contact details.

Entering: Sylvia Pardonnet, Earthwatch field manager

**SECTION ONE: Scientific research achievements**

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**Cover letter to volunteers**

Insert a brief, informal letter to your volunteers, expressing your thanks and outlining the highlights of the field season's achievements.

Dear marmot volunteers,

Thank you so much for your deep investment that permitted us to complete an incredibly successful 2014 season. We are really grateful to the unlucky teams who were facing particularly difficult weather conditions but kept smiling and joking everyday, still full of enthusiasm and willing to help! Thanks to all of you.

Thanks to your involvement, we captured 141 marmots and 96 pups! We also managed to monitor families with the transponder portal, and we start to map burrows with professional geometers. Additionally, we finished the smell experiments, ensuring enough samples to run deep analyses!

After a curiously late first emergence of the pups, we finally saw the first pup noze! We warmly thank all the volunteers involved in searching and counting pups for their dedication to this task also not always very rewarding. Special thanks to all of you who spent hours, days, weeks, looking at empty holes, under burning sun, storming wing or pouring rain. Unfortunately this year pups from A, B-fac and H never showed up... We also never caught males in A, Imilieu, C, N2 and P3 (We can see your faces trying hard to remember which territories we're talking about..).

Your work on every morning rebaits and fixing cages, collecting dandelions, searching hobbo, counting individuals or recording behaviors, would have been impossible to achieve, and the time you spent was then precious and done with extreme precautions, in a really professional way. Thanks for being reliable ans always enthusiasts, even for such (sometimes non-fun) things!

We would also like to warmly thank everyone for the processing of the data: hair cutting, blood cells counting and data entry. Lot's of hours dedicated to this task but it was worthing it, and we started new analysis immediately after the season, saving once again an incredible amount of time.

Thanks for reviews that permitted us to correct and improve our protocols, and in the meantime, thanks for your patience, comprehension with our french switch, damn lovely pronunciation and so many more...

Finally, thanks to all of you, despite your wishes, habits, tastes, you really managed to be such amazing cooks! (ALL of you) Dealing with our strange crazy recipes and ingredients, turning every complicated moments into a delight for our stomachs (one knows how important it is!)

It's sometimes hard for you to realize how helpful you have been, but promise, you made our life easier, being there when needed, adding a delicious cherry on the cake! ;)

We wish we could have had more time to spend with everyone on the field, and really hope you enjoyed your time with us & the marmots in the mountain. It has been a very interesting sharing experience, with up and downs especially with promiscuity under harsh conditions, but we'll keep amazing memories!

Your help was very much appreciated, and you can be proud of the work accomplished, as we are!

We hope to see you again soon,and wish you all the best!

The marmot team

Dear marmot volunteers,

Thank you so much for your deep investment in this field season that permitted us to complete an incredibly successful 2014 season. We are really grateful to the unlucky teams who were facing particularly difficult weather conditions but kept smiling and joking everyday, still full of enthusiasm and willing to help! Thanks to all of you.

Thanks to your involvement, we captured 141 marmots and 96 pups! We also managed to monitor several marmot families with the use of the transponder portal, and we start to map all the burrows of the study site with the help of professional geometers. Additionally, we finished the smell experiments, insuring enough sample size to run deep analyses on these data!

After a curiously late first emergence of the pups this year (5 days late compared to the 23 previous years...), we finally saw the first pup noze! We warmly thank all the volunteers involved in searching and counting pups for their dedication in this task also not always very rewarding. Indeed, your help was especially precious this year as all the pups emerged during an extended period of time, making the catching really difficult and time consuming for the scientific team. Special thanks to all of you who spent hours, days, weeks, looking at empty holes, under burning sun, storming wing or pouring rain. Unfortunately this year, the families in A, B-fac and H never showed up... We also never manage to catch the males in A, I milieu, C, N2 and P3 (We can see your faces trying hard to remember which territories we're talking about....

The work you also did on every morning rebaits and fixing cages, collecting dandelions, searching hobbo, helping the the data sampling, counting individuals or recording behavior and activities, would have been actually very complicated for us to take care of, and the time you spent was then precious and done with extreme precautions, in a really professional way. Thanks for being reliable ans always enthusiasts, even for such (sometimes non-fun) things!

We would also like to warmly thank everyone for the processing of the data: hair cutting, blood cells counting and data entry. Lot's of hours dedicated to this task but it was worthing it: it was perfect, and we were able to start new analysis immediately after the field season, saving once again an incredible amount of time for the research team.

Thanks for all the reviews that permitted us to correct and improve the translations of our protocols in English, and in the meantime, thanks for trying hard to make french people speak a better english, being patient with our mistakes, french easy switches, damn lovely pronunciation, hard time to understand or translate, and so many more...

Finally, thanks to really all of you, because despite your wishes, your habits, your tastes, you really manage to be such amazing cooks! (ALL of you) You manage to deal with our strange crazy recipes and ingredients, turning every complicated moments into a delight for our stomach (and who don't know how important it is to have a belly full after a terrible day...

We know it's sometimes hard to realize how helpful you could have been for us, but we promise, you made our life easier, taking care of all the "simple" aspects, being there when needed, adding a delicious cherry on the cake! ;)

We wish we could have had more time to spend with everyone of you on the field, and really hope you enjoyed your time with us, with the marmots, in the mountain. It has been for us a very interesting sharing experience, with up and downs, as always in every day's life and especially in small close community under harsh conditions, but we'll keep amazing memories for this season!

 Your help was very much appreciated, and you can be proud of the work accomplished, as we are!

 We hope to see you again soon,and wish you all the best!

 The marmot team

664/500 words

Upload your letterhead here

[papier-entete-nathalie.doc](http://fs22.formsite.com/EarthwatchResearch/files/f-0-16-7526087_xV2MJy2x_papier-entete-nathalie.doc) (62k)

Upload your signature here

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**Top highlight from the past season**

What has been the most significant, exciting, or innovative result from your research this field season? If you could tell a reporter one thing about your project, what would it be?

This season has been marked with the amazingly successful recaptures- retrieve and re-implantation of bio-loggers on the marmots followed by Cindy! This will give us a precious and large amount of data, needed to make a link between the climatic changes and its impact on the population.

Thanks to an extremely mild spring and in advance summer, we are happy to announce that this year was very rich in pups! We captured one of the largest number ever at the study site, thanks to the everyday attention to our very patient and attentive volunteers.

94/150 words

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**Reporting against research objectives**

Please report your results and progress this year against each one of your research objectives listed in your most recent proposal. This progress report should include data and results to inform us of your scientific findings as well as your data collection. Earthwatch will not publish any of the data you provide us without your permission – please clearly mark anything you do not wish to be shared externally as “CONFIDENTIAL”. • Specific objective 1: Environmental factors and population dynamics

1) Analyze how the local climatic variables (temperature, rainfall, snow cover) affect fitness components (reproductive success and survival);

→ We are now done with analyzing the effect of local climatic variables on litter size.

→ We have conducted all the analyses concerning the effects of local climatic variables on survival. We are now writing a scientific article on this topic.

2) Analyze how the global climatic variables (NAO) affect components of fitness (reproductive success and survival);

→ We are done with analyzing the effect of local climatic variables on litter size.

→ We have conducted all the analyses concerning the effects of global climatic variables on survival. We are now writing a scientific article on this topic.

3) Investigate the proximate mechanisms involved;

→ We have confirmed the feasibility of registering marmots body temperature using bio-logging. We conducted the first analyses on these data and the results had been presented this summer at a congress in South-Africa.

→ We retrieved and re-implanted temperature bio-loggers of every families.

→ We are still conducting analyses on several phenotypic traits to assess their response to climatic variables.

• Specific objective 2: Social factors and population dynamics

Here, we propose to:

1) Analyze how the size and the composition of social groups affect fitness components (reproductive success and survival);

→ We finished the investigations on how the composition of a litter influence the survival and access to dominance status of the pups and we show that the number of brothers and sisters influence the future of an individual.

• Data collection

→ We continue collecting capture-mark-recapture data to obtain phenotypic traits value, reproductive success and survival.

→ We continue collecting behavioural observations to obtain group size and composition as well as pups emergence date and number of pups at emergence.

→ We continue monitoring (capture-mark-recapture data + behavioural observations) six additional families where all individuals get implanted with a temperature logger.

→ We now have implanted all burrows with temperature logger and we hope to install the weather station this spring to get very local climatic data.

→ We are going to set up 2 automatic camera traps to record snow cover.

→ We continue the use of ultrasound to diagnose pregnancy as well as number of fetuses.

→ We validated the impedance measures to evaluate body fat.

→ We successfully used a transponder portal to get the exact composition of 2 families during the active season.

• Published results

The way that plants and animals respond to climate change varies widely among species but the biological features underlying their actual response remains largely unknown. Here, from a 20 year long monitoring study, we document a continuous decrease in litter size of the Alpine marmot (Marmota marmota) since 1990. To cope with harsh winters, Alpine marmots hibernate in burrows and their reproductive output should depend more on spring conditions compared to animals that are active year-round. However, we show that litter size decreased over years because of the general thinning of winter snow cover that has been repeatedly reported to occur in the Alps over the same period, despite a positive effect of an earlier snow melt in spring. Our results contrast markedly with a recent study on North American yellow-bellied marmots, suggesting that between-species differences in life histories can lead to opposite responses to climate change, even between closely related species. Our case study therefore demonstrates the idiosyncratic nature of the response to climate change and emphasizes, even for related species with similar ecological niches, that it may be hazardous to extrapolate life history responses to climate change from one species to another.

Tafani M., Cohas A., Bonenfant C., Gaillard J.-M., Allainé D. (2013) Decreasing litter size of marmots over time: a life-history response to climate change? Ecology, 94:580–586.

3 scientific articles are now waiting for a last review before being published.

4205/15000 characters

**Figures and tables**
Upload all graphs, tables, or other figures referenced in the report regarding your research objectives. Any figures or photos you would like to send that are not related directly to the results or research objectives can be attached as Appendices at the end of this form.

Figures and tables 1

[1.jpg](http://fs22.formsite.com/EarthwatchResearch/files/f-0-20-7526087_9pSaXEYc_1.jpg) (46k)

**Figures and tables 2**

[2.jpg](http://fs22.formsite.com/EarthwatchResearch/files/f-0-21-7526087_jji77WFX_2.jpg) (86k)

**Figures and tables 3**

[3.jpg](http://fs22.formsite.com/EarthwatchResearch/files/f-0-53-7526087_iRkEjteS_3.jpg) (41k)

**Figures and tables 4**

**Figures and tables 5**

**Figures and tables 6**

**Figures and tables 7**

**Figures and tables 8**

**Figures and tables 9**

**Figures and tables 10**

**Changes to research plan or objectives**

If you have been required to alter your project in any way during the course of this year or are planning to make changes in the near future, please detail this below. Your Program Manager or Research contact will be in touch to follow up.

For new, removed or modified objectives since your last field report or proposal, include details of:

* the reason for the change
* new or changed methods and volunteer tasks relating to these objectives
* research progress and results carried out on any new objectives this year should be detailed in “Reporting against research objectives”



**SECTION TWO: Impacts**

The information you provide in this section will be used to help Earthwatch understand the achievements accomplished through the projects we support. We have developed our Measures of Success to enable us to provide evidence to our supporters of how we are working towards the Earthwatch mission. You can find more information on our website here: <http://www.earthwatch.org/aboutus/results/evaluating_success/> They look across our programs as a whole so we do not expect every project to make achievements towards every one of the Measures of Success, but progress and achievement towards some should be evident. To help us with this vital evaluation of our work, please be as specific as possible with the information you provide.

**Partnerships**

Enter details of your current active partnerships that contribute to the success of your project and give details of their contribution. Be sure to include partnerships you listed in previous field reports that are still active, otherwise we will assume this partnership has ended.

Current active partnerships:

-Vanoise National Park: provide authorization to capture the marmots and validate field protocol, punctual logistic support and a fixed contact point during field season;

-University of Lyon, LEHNA: Thierry Lengagnes: collaboration on communication in Alpine marmot;

-University of Barcelona: Bernat Claramunt Lopez: running a similar study on an introduced population of Alpine marmot;

-Slovak Academy of Sciences: Radovan Vaclav: collaboration on genotyping of Marmota marmota latirostris;

-Polish Academy of Sciences: Jacek Radwan: collaboration on MHC genotyping of Alpine marmot;

-NASA: provide NAO and NDVI data;

-Meteo France: provide climatic data (temperature, precipitation, ect...) over different meteorological stations around the study site;

-Service des pistes de Tignes and Val d'Isère: provide snow cover data for Tignes and Val d'Isère;

-Centre d'étude de la neige: provide model of snow cover over the study site;

-Mairie de Tignes: provide a local to store the field outside field season.

-Golf de Tignes: ensure access to a second population of marmots;

-University of Zurich: Arpat Ozgul: collaboration regarding marmot population dynamic;

-University of Strasbourg: collaboration regarding measuring body fat in marmots

-University of Montpelier: Roger Pradel: Group dynamics and impact on population dynamic.

**Contributions to conventions, agendas, policies, management plans**

Which international, national or local governing bodies/organizations have you worked with or influenced with your research results this year? How have your contributions led to implementation, revision, adoption, or change to a convention, agenda, policy or management plan? Provide specific details such as the name of the plan, important dates, level of influence and impact.

**International**

The marmot project is part of a European network of research teams working on alpine marmots (one team from the CREAF (Barcelona, Spain) working in the Pyrenees, on team from both the Gran Paradiso National Park and the UQAM (Quebec, Canada), on team from the Institute of zoology of the Slovak Academy of Sciences (Bratislava, Slovakia) working in the Tatra mountains on the endangered subspecies M. marmota latirostris and since this year with one team of the University of Zurich starting a new study on Alpine marmot. All these teams are conducting the protocol we defined for purpose of comparison and generalization of our findings. The marmot project is also part of an international network of researchers, all working on different species of marmots. A conference on marmot research is held every three year by this group.

National or regional

Dominique Allainé is a member of the scientific committee of the Vanoise National Park as such his expertise acquired through the project is taken into account, especially when in come to management plans. Since last summer, a management plan proposed by Dominique Allainé has been implemented to mitigate social conflicts between land owners and marmots in the Maurienne valley (France). Aurélie Cohas and the marmot project is involved in the ESCN a just born working group composed of young researchers from all over France that work in close proximity with managers. This working group aims at transferring scientific knowledge acquired from each scientific project such as the marmot project to managers and to educate and help managers towards the practical environmental issues they are facing.

We made a scientific animation for the school of Theys.

Local

Dominique Allainé is a member of the scientific committee of the Grande Sassière National Reserve as such his expertise is taken into account for the reserve management plans.

We have now new contacts with the school of Tignes!

**Developing Environmental Leaders**

What groups and individuals have benefited from educational experiences as part of your project this year? Describe any activities, significant accomplishments, or endeavours and who benefited.

- Development of the association “Les amis des marmottes alpines/ Friends of the Alpine marmots” which aims will be to communicate to the widest public possible the research done on the Alpine marmot project as well as to specifically keep in touch with the Earthwatch volunteers. This association is still recognized of “Public interest” by the French administration;

- A website about the project http://projetmarmottealpine.org/ and its associated Facebook page https://www.facebook.com/thealpinemarmotproject. We also start a twitter but not yet actively...;

- The “marmot day” where tourists are invited to discover the work conducted during a half day in the field with a tour and a talk of Aurélie Cohas; Retransmission of the marmot day on local press, radio and TV;

- Summer conference held in Tignes by Dominique Allainé to present the Alpine Marmot Project;

- We hosted during 15 days a local teenager interested in studying biology;

- Education to the environment via the schemes ASTEP and “La main à la pâte” in primary schools: explaining the societal challenge of biodiversity conservation;

- Master level classes (M1 and M2) in Conservation Biology, Evolutionary Biology and Behavioural Ecology;

- 6 graduate and postgraduate students involved in the field;

- 2 master students, one continuing in PHD with us the other one searching for a PhD funding;

- 3 PhD students

- 1 PhD thesis completed

- 2 postdocs.

**Actions or activities that enhance natural and/or social capital**

Describe any direct actions or activities that you have undertaken to enhance the local natural environment or human community in your project area. These can be one offs, or a regular activity. For example, conducting a beach clean-up or litter pick, removing damaging invasive species, restoring an important building, or planting trees.

Conducting such a project on an endemic species of the Alpine Arc is all the more relevant that climate change threats on distribution range and extinction risks are particularly acute at high latitude and high elevation ecosystems (Arctic, Antarctic, Alpine range). And indeed, many warning signs have been documented over the last 10 years for Alpine or high Arctic species such as caribou, polar bear or ptarmigan. These areas are witness of climate change and highly relevant indicators for the monitoring of consequences of climate change on our environment and its biodiversity. Moreover, the Alpine marmot is a keystone species of the alpine ecosystems, birds of prey rely on marmots to feed and marmots through grazing enhance the biodiversity of endemic alpine plants species. Thus, maintaining marmot is crucial to the maintenance of alpine ecosystems and monitoring marmots, as a bio-indicator, will help assess the health's state of alpine ecosystem.

**Conservation of Taxa**
Are you enhancing, restoring, or maintaining populations of any species of conservation significance as part of your project? For each species include where possible:

1) Scientific and common names
2) Significance of the species
3) Impact on the species e.g. range increased, population size increased, improving population structure, maintaining/enhancing genetic diversity

The alpine marmot, Marmota marmota: Ecologically (significant impact on several endangered bird of prey such as golden eagle and bearded vulture) and culturally significant.

The species is not threatened at present (IUCN). Subspecies marmota is common within at least parts of its range and has no major threats. However, subspecies latirostris has a restricted range and small population, and should be monitored and protected. Our research show that the population studied is declining due to climate change. We are now trying to understand the pattern we observe.

**Conservation of Habitats**

Are you enhancing, restoring, or maintaining habitats as a result of your project? Include where possible:

1. Habitat affected (e.g. tropical rainforest, fen, coral reef, etc.)
2) Type of enhancement and resulting affect – e.g. extent maintained, condition achieved, restored, expanded, improved connectivity or resilience
3) Area of habitat enhanced
4) Baseline information on previous status

Beyond our research on Alpine marmots, we are launching a long-term monitoring concerning climate data (installation of a weather station to record climatic data), monitoring of the phenology of several endemic plant species present in the reserve as well as bird and amphibian species (the protected common red frog).

**Ecosystem Services**
Are you enhancing, restoring, or maintaining ecosystem services as a result of your project? Please state the ecosystem service affected and the impact your project has had, with supporting numbers or data if possible. For examples of ecosystem services click on the '?'.

  

**Conservation of Cultural Heritage**
Are you enhancing, restoring, or maintaining intangible or tangible cultural heritage as a result of your project? Please state the heritage component affected and the impact your project has had, with supporting numbers or data if possible. For definitions click on the '?'.

  

**Impacting Local Livelihoods**
Are you enhancing, restoring, or maintaining livelihoods in the local community as a result of your project? “Livelihood assets” include persons benefitting from economically applicable training, local employment for duration of project, and community assets such as clean water, access to resources, development of a community trust or setting up a museum, for example.

The Alpine Marmot Project has an impact on the local community through:

- economy: renting a flat, buying local goods (especially food), employing one local person at a moment where there is no much economical activities in Tignes (ski resort closed);

- training: through informal discussions with the Vanoise national park rangers: presentation of the Alpine marmot project scientific results, help to establish scientific protocols, networking;

- education: through informal and formal discussions with the local people when visiting the field or coming to conferences.

**Local community activities**

Describe the nature of the relationship between your research team and the local community during this field season, if you have not already done so. How do you inform local people of your project and how do they respond to your work? Give details, for example are there opportunities for community members to provide feedback on your work? Do you invite local volunteer participation in the data collection process?

- From this year and every year now, we organize a “Marmot Day”, the occasion for the local community and the tourist to visit the field site and discover The Alpine Marmot Project;

- Each year: one local teenager is invited to spend from one day to 15 days in the field with us to collect data and discover The Alpine Marmot Project;

- One conference to discover The Alpine Marmot project held every summer in Tignes;

- Informal talk with the hikers visiting the field site;

- Special links to the local rangers (see above);

- Special links to local guides that make the visit to The Alpine Marmot Project, a highlight of their tour.

**Dissemination of research results**

List all publications, already or soon to be published in peer-reviewed and grey literature, resulting from or supported by your Earthwatch project. List only ones that have been published or submited since your last Field Report, and provide any updates to papers which were previously listed as submited, in review, or accepted.  Include publications from all staff, whether or not the lead scientist is a co-author e.g. papers by students that have included Earthwatch volunteer data.

**Scientific peer-reviewed publications**

Provide full references, indicating the status of the publication (in press, published etc) and whether Earthwatch were acknowledged. We are very grateful to receive pdf copies where possible and expected publication dates if in press or accepted. Include papers in peer reviewed journals and books or book sections.

Scientific peer-reviewed publications (Earthwatch always aknowledged)

Tafani M., Cohas A., Bonenfant C., Gaillard J.-M., Allainé D. (2013) Decreasing litter size of marmots over time: a life-history response to climate change? Ecology, 94:580–586.

Tafani M., Cohas A., Bonenfant C., Gaillard J.-M., Lardy S., Allainé D. Sex-specific senescence in body mass of a monogamous and monomorphic mammal: the case of Alpine marmots. Oecologia, 172:427–436.

Kuduk K., Johanet A., Allainé D., Cohas A., Radwan J. (2012) Contrasting patterns of selection acting on MHC class I and class II DRB genes inthe Alpine marmot (Marmota marmota). Journal of Evolutionary Biology, 25: 1686-1693.

Publications can be found : http://projetmarmottealpine.org/publications/scientific-publications/ and are provided all year round once published to Kate Grounds

**Grey literature and other dissemination of your results**

Any form of dissemination that is not a peer reviewed paper or book. For example:
 **- Printed**: reports or policy documents, posters, academic theses, annual reports, proceedings,
**- Educational resources:** lesson plans, resource packs
**- Meetings and conferences:** presentations/ lectures, conferences, workshops, training sessions, discussions, local community meetings and events
**- Media and web** (provide web address where relevant): broadcast production, film, TV, radio, newspaper/ magazine coverage, press releases, press conference, press trip, newsletters (print or email), fact sheets, brochures, websites, email or social media group, blog, web or pod cast
**- Other:** database, CD Rom, artwork, photographs

Available at: http://projetmarmottealpine.org/publications/

- Printed: reports or policy documents, posters, academic theses, annual reports, proceedings,

Tafani M. (2013) "Traits d’histoire de vie et démographie face aux changements globaux en milieu alpin : L’exemple de la marmotte alpine (Marmota marmota)" PhD Thesis.

- Educational resources:

Teaching resources for primary school (hope to put that on the web next year)

Master classes resources (available only to the University students)

- Meetings and conferences:

Local community meetings and events

The marmot Day

Tignes Marmot Conference

- Media and web

Press

Dupuis F. (2013) ALPES NATURE : Vanoise, objectif marmotte ! Alpes Magazine, n°142.

Milleret R. (2013) Dans le terrier des marmottes à La Grande Sassière. Le Dauphiné Libéré, 21 Juillet 2013.

Websites

http://projetmarmottealpine.org/

https://www.facebook.com/thealpinemarmotproject.

**SECTION THREE: Acknowledgements, funding and appendices**

**Project funding**

Earthwatch is working towards improving long-term sustainability of its projects and we see that sourcing funding from multiple sources is a key component towards this. Provide a brief statement relating to other funding sources (or funding sources you anticipate receiving from or plan to apply to) and the relative (or anticipated) contribution of Earthwatch support for project success.

- One intra-european fellowship for the 2 year-postdoctoral fellowship of Cindy Canale (20 000 euros + salary);

- One AXA research grant for Aurélie Cohas and Cindy Canale that will allow us to buy some field materials necessary to study the response of marmots to climate and the physiological mechanisms behind it (30 000 euros);

- A French Research Agency grant (ANR jeune chercheur) for Aurélie Cohas to continue on the mate choice project for the three next years (287 000 euros);

- A FR41 grant to understand genetic diversity of Alpine marmots across the Alps and the Pyrenees (6 000 euros);

- 3 new pHD students: Vérane Berger (salary), Pierre Dupont (salary) and Celia Rezouky (salary + 5 000 euros).

Is there anything else you would like to tell us?

**Please notice that we put most of the information you can be interested in on our website.**

**Acknowledgements**

The Alpine Marmot Project is supported by the University Claude Bernard Lyon 1 and the CNRS. Running The Alpine Marmot Project would not be possible without the authorization of the Vanoise National Park. Thanks are also extended to all the Vanoise National Park's rangers, Gwendal, Jean-Luc, Sabine and Vanessa and to all the EDF employees. We also acknowledge the important contribution of staff at the Earthwatch Institute, warm thanks to Lucy and Kate for always being there.

**Appendices**

If there is any other information you would like to share with us, please upload attachments here. We appreciate any of the following that you can provide:

* Photos, with caption and credit. If no credit is supplied, image credits will revert to Earthwatch.
* pdfs of papers published or in press
* Copies of any other published materials e.g. posters, newsletters, press articles, reports
* Maps
* CVs for any new scientists joining the project

Appendix 1

Appendix 2

Appendix 3

Appendix 4

Appendix 5

Appendix 6

Appendix 7

Appendix 8

Appendix 9

Appendix 10

**\*** Indicates Response Required

Bas du formulaire