

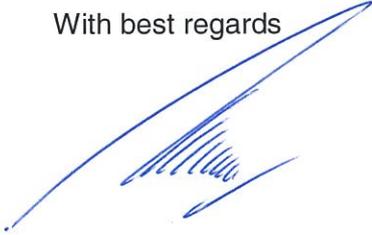
9th January, 2018

To whom it may concern

I am writing in order to confirm that the Mohamed bin Zayed Species Conservation Fund, a philanthropic organisation based in Abu Dhabi, United Arab Emirates, to support species conservation initiatives worldwide, awarded a grant (project Nr. 160513040) on 21.04.2016 of USD 4,450 to **Dr. Konrad Mebert** of the **IUCN Viper Specialist Group** working in association with **Dr. Bayram Göçmen** based at **Ege University** and **Dr. Naşit İğci** based at **Nevşehir Hacı Bektaş Veli University**. This grant was to support their conservation work with viper species in Turkey, through a project entitled "Threatened Anatolian Vipers: Evaluation of range limits, habitat and gene flow to better conserve vulnerable to critically endangered species".

This project is successfully completed with final reporting documents submitted on 28 June 2017.

With best regards



Nicolas Heard

Head of Fund Management

The Mohamed bin Zayed Species Conservation Fund Reportin (print version): Project 160513040 (2016)

Please keep the entered text brief and to the point.

Project number: 160513040

Target species: Montivipera wagneri, Montivipera albizona, Montivipera raddei, Vipera darevskii, Vipera eriwanensis, Vipera kaznakovi, Vipera barani

Countries / region of target species: North-eastern Anatolia is a biodiversity melting pot for palearctic species from Europe, Asia, and northern Africa, being also a global hotspot for vipers with at least 9 species within a radius of 200km around Erzurum, rivalling the viper diversity of tropical sites. This is paralleled by a great variety of habitats, including subtropical biome along the humid Black Sea coast with vast pine forests, alpine meadows and high, rocky mountain slopes, to semi-arid steppes on the central Anatolian plateau. Unfortunately, intensive agriculture practices and their monocultures (e.g., tea plantations, hazelnut along the Black Sea), overgrazing by domestic livestock, and dam construction in the valleys have reduced the habitat quality for many species including vipers. We have outlined a project area (Trabzon-Hopa-Camili-Cildir-Tuzluca-Kagizman-Horashan-Uzundere-Erzincan) that encompasses 7 variably threatened viper species in need of conservation and systematic evaluation. This is a long-term project, conducting every year 2-4 weeks field work during spring, when the rare target species are most likely to be monitored on the surface and assessed, resp. measured. Seeking small grants in stages for short term field works across multiple species enables to better respond to political instabilities in eastern Turkey by increasing flexibility to alter field dates and routes.

Grant awarded: \$4450.00

Awarded date: May 25, 2016

This report should be made available by November 25, 2016

Part 1 - Current status of project

1.1 Please update the following table to reflect the progress of project activity.

Activity	Description	Current Status	Next Steps	Deadline
flights	Zürich to Tr	Complete		Complete
car rental +	small 4x4 (Complete		Complete
accomodati	120 USD/da	Complete		Complete
analyzing d	compare ne	In progress	analyze	Next month
w riting task	for publicat	Not commenced	w riting pub	Next month
publication	discovery o	In progress	revision of	Next month

publication summarize Not commenced

formulation Next month

1.2 Have the project's objectives changed since your application or last report? If yes, please update the project's new objectives and an explanation why.

New Objective

Reason For New Objective

1. discussing new c

political instabilitie

1.3 Images and media coverage

If you have not done so already, please upload any images and / or media coverage you have received so far. You can upload these in the [Media Support](#) section. Additionally you are able to indicate to our team any images that are of particular relevance to reviewing your reports. **Before you navigate away from this page, remember to save any information you have entered so far in this form by clicking the 'Save' button below.** Please note that we may be contacting you in order to provide further information, material and commentary to the media.

You currently have 2 images in the media section tagged as being relevant to your reports.



1.4 Project expenses

	Expense Date (dd/mm/yyyy)	Expense Particular	Amount (US \$)
e.g.	14/10/2012	Build Sanctuary	2000.00
1.	31/05/2016	flights Zürich-Ista	480.00
2.	31/05/2016	small 4x4 (1200)	2100.00
3.	31/05/2016	accomodations a	1920.00

Expense Total US \$ 4500

N.B. Only enter numeric values in the amount column above.

1.5 Reporting Files

You are able to indicate to our team any documents (up to a maximum of 10) that are relevant to reviewing your reports in the [Media Support](#) section. **Before you navigate away from this page, remember to save any information you have entered so far in this form by clicking the 'Save' button below.**

1.6 Please indicate whether this grant helped you leverage other financing for this project, and if so, how much?

MBZ financing levers all field costs. We keep to the lowest, reasonably applicable costs to still be able to perform at the most efficiency level. That means, we rent the cheapest 4x4 (Dacia Duster), stay in cheap hotels, sleep 3-4 hours at night, and catch up with the missing 2 hours in the heat of the afternoon somewhere in the field, when viper activity is at its lowest.

Part 2 - New information about your project

Please complete the questions below. If you provided answers for these questions on a previous report, the text you entered is displayed below each question in a light blue box to reference your previous entry.

2.1 Please outline additional findings, results or thoughts relevant to the project and funding (e.g. Once work commenced it was discovered that the target species was more threatened than initially thought, confirmed because of xxx). *

Due to political instability in eastern Turkey, we were not permitted to conduct our field research in eastern Anatolia. Consequently, we targeted related and threatened species that inhabit central and southern Anatolia. Concretely, we investigated the IUCN-endangered *Montivipera albizona*, the IUCN-near threatened *Vipera transcaucasiana*, and the IUCN-critically endangered *Vipera anatolica*, and accordingly switched our field work into the provinces of Kayseri, Kahramanmaras, Malatya, Sivas, and with a part-team visit to the province Anatalya.

A photo document report led us to the discovery of a second population of the critically endangered *Vipera anatolica*, with a large range extension of 200 km in eastern Antalya Province. This will form publication 1., which is currently under review.

In an upcoming publication 2., we will report on visiting and inspecting potential habitats of *M. albizona* in the province Kahramanmaras, confirming various sites in the province Sivas, and searching the contact zone between *M. albizona* and *M. xanthina* in the province Kayseri. We will also report on new findings and range extension of *Vipera transcaucasiana* in Sivas province.

Furthermore, we received a photoreport of a new mountain viper population in between the threatened White-banded Mountain Viper (*Montivipera albizona*) and the critically endangered Wagner's Mountain Viper (*M. wagneri*). We intend to visit and evaluate that population in 2017, if the political situation allows it.

We intend to continue this longterm project in annual stages and will submit the next funding request before the end of 2016.

2.2 Please outline challenges you have faced with the project in the last six months (e.g. More activity was completed in the first six months of the project because xxx). *

Because of armed conflicts between the Turkish authorities and Kurdish factions and bombings, our principal field sites in eastern Anatolia have been closed by the Turkish military. Hence, we were unable to visit sites for our originally targeted and threatened viper species in Kagizman, Kars, Sarikamis, Aras Valley, and Ardahan. As an alternative, we changed our expedition area to threatened species in central and southern Anatolia.

For all three species, we were able to collect new information, directly or indirectly, which we will report in a written document as well as in academic papers.

The weather during our field expedition was unusually dry for that period (June), reducing the surface activity, and thus visibility, of our target species.

As foreigners, including my Turkish field-colleagues from different provinces and universities, interactions with local people is often challenging. In the current politically very tense situation, any non-local person is viewed with suspicion, followed by being photographed and reported to the local police. Since we have permits, such reporting renders no further consequences, yet, the challenging interactions can take important time from the field work.

ONLY TICK THE BOX BELOW IF YOU BELIEVE THIS PROJECT IS COMPLETE

2.4 Please only tick this box if you believe the grant provided to you has been fully accounted for and there is no further reporting required from you.

YES, THIS PROJECT IS COMPLETE

Project Title (brief sentence which explains the purpose of the project for which a grant is being sought): *

20 word limit

Threatened Anatolian Vipers: Evaluation of range limits, habitat and gene flow to better conserve vulnerable to critically endangered species

Reporting 27- June 2017

1.1 Please update the following table to reflect the progress of project activity.

Activity	Description	Deadline
flights	Zürich to Tra	Complete
car rental + g	small 4x4 (12	Complete
accomodation	120 USD/day	Complete
analyzing dat	compare new	In progress
analyze		Next month
w riting task	for publicatio	Not commenced
w riting public		Next month
publication 1.	discovery of	In progress
revision of re		Next month
publication 2.	summarize a	Not commenced
formulation a		Next month

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1.2 Have the project's objectives changed since your application or last report? If yes, please update the project's new objectives and an explanation why.

New Objective

Reason For New Objective

1.

1.6 Please indicate whether this grant helped you leverage other financing for this project, and if so, how much?

MBZ financing levers all field costs for our short term excursions. As at the current stage, we are doing the long-neglected, but pioneering fieldwork to assess the true extent of occurrence of several species of Anatolian vipers under conservation needs. We expend most reasonably low costs to simultaneously perform at the most efficient level. Luckily, MBZ funding is sufficient for this kind of short expeditions to search for secretive and rare viper species.

Longers studies dealing with aspects of over-grazing, tea plantations, and education with locals are in the outline stage. Such conservation related studies will require larger funding.

The political instability in Turkey has increased in 2017, and acquiring permits to field sites have become more complicated. As we were refused to conduct field research in far eastern Anatolia, we alternatively focused on variably threatened species in central and southern Anatolia, including the IUCN-endangered *Montivipera albizona*, the IUCN-near threatened *Vipera transcaucasiana*, and the IUCN-critically endangered *Vipera anatolica*. Our field work was conducted primarily in the provinces of Kayseri, Kahramanmaras, Malatya, Sivas.

A photo received in May 2016 revealed a new, and only the second known population of the critically endangered Anatolian Meadow Viper (*Vipera anatolica*) with a large range extension of 200 km in eastern Antalya Province. The results including analysis of a multitude of specimens, habitat description, morphology, diet and genetics have led us to describe a new subspecies that formed publication 1. This article has passed the review stage and is soon to be published (a screen shot of the proof front page can be found in the Media Support, please keep it confidential until publication).

In the upcoming publication 2., we will report on confirmed and potential habitats of *M. albizona* in the provinces Kahramanmaras, Malatya, and Sivas, and

searches for the contact zone between *M. albizona* and *M. xanthina* in the province Kayseri. Furthermore, we investigated new findings and range extension of *Vipera transcaucasina* in unusually high altitude in Sivas province. We also have drastically shortened the distance between the endangered White-banded Rock Viper (*Montivipera albizona*) and the critically endangered Wagner's Mountain Viper (*M. wagneri*). This and other results will form the basis of new assessments for the IUCN Red List for Anatolian vipers. We intend to continue this longterm project in annual stages and will submit the next funding request by the end of June 2017.

2.2 Please outline challenges you have faced with the project in the last six months (e.g. More activity was completed in the first six months of the project because xxx). *

Continuing armed conflicts between the Turkish authorities and Kurdish factions restricted our field work in eastern Anatoli. Hence, we were unable to visit sites for our originally targeted and threatened viper species in Kagizman, Kars, Sarikamis, Aras Valley, and Ardahan. Yet, by replacing eastern threatened species with more central and southern sites in Anatolia, we were able to greatly expand our knowledge on other geographic representants of these enigmatic animals. For all three species, we were able to collect new information, directly or indirectly. The weather during our field expedition in June 2016 was unusually dry, reducing the surface activity of our target species, yet expeditions planned for 2017 should compensate for parts of it. Interactions with local people is often challenging for foreigners and even for my Turkish field-colleagues from different provinces and universities. In the current politically very tense situation, any non-local person is viewed with suspicion, followed by being photographed and reported to the local police. Since we have permits, such reporting renders no further consequences, yet, the challenging interactions can distract and reduce valuable time for field work.

2.3 If you have completed your project, please provide a general statement which sums up its results and the difference it has made to the conservation of the target species.

Since the discovery and description of critically endangered vipers like *Montivipera wagneri* (Nilson & Andrén 1984), *M. albizona* (Nilson et al. 1990), *Vipera darevskii* (Vedmederja, Orlov & Tunyev 1986), and near threatened *Vipera barani* (Böhme & Joger 1983), our field work, supported by MBZ, has dramatically increased our knowledge of range limits and approximation of contact zones between pairs of Anatolian viper species. We are now in the position to quickly investigate the validity of species status and evaluate relevant habitat parameters in the seasons to come. This will help to better apply future conservation measures, in particular habitat management.

Finally, we intend to: a) arrive at more accurate threat assessments for many viper species from northeastern Turkey, including all available and reliable sources; b) evaluate the status of newly described species for eventual inclusion on IUCN Red List; and c) consequently promote a more efficient use of the scarce financial funds from governments, academic institutions, and foundations.