

Project ID: 0545611

**Project Title: Conserving Wild Goats *Capra aegagrus* at Qara Dagh and
Peramagroon Mountains, Iraq**

Host country and site location: Iraq, Erbil and Sulaimani Governorates, May 28- June 23 &
September 20- October 1, 2011- January 3- 30 & February 2-12, 2012

Institutions involved in organizing the project or participating: Nature Iraq, Kurdistan
Regional Government Environmental Protection & Improvement Board (Erbil and
Sulaimani office), Mergasoor Forestry Police (Pesh-Marga), Sulaimani Directory of Forestry
Police, Plan for the Land Society, Iraq Upper Tigris Water Keeper.

Aim: To protect the globally vulnerable wild goat population and their habitat through
education and advocacy.

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Acknowledgements

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Summary

The Nature Iraq Conservation Leadership Program (CLP) team initiated work on the globally vulnerable Wild Goat (*Capra aegagrus*) in two mountainous areas in Sulaimani Governorate of Kurdistan, northern Iraq: Qara Dagħ and Peramagroon. Originally, the team intended to conduct research in the Barzan area, but because of security issues on the borders, the team substituted Qara Dagħ for Barzan, which was approved by the CLP.

The goal of the project has been to protect this species through conservation field research and education and advocacy based on the results of the survey efforts. The CLP team participated in a 6-day training on the Wild Goat survey methodologies as well as field outreach techniques.

The team conducted winter and summer surveys in both sites and reported on the survey findings to local media and international conservation organizations. In addition, the team engaged in meetings and gatherings with local communities and stakeholders, distributing education posters and flyers with a conservation focus in and around both study areas. The CLP team was able to introduce wildlife and conservation work for the first time to the local communities, which established a base for future conservation works in these areas.

Introduction

According to the International Union for Conservation of Nature (IUCN) (2012¹), Wild Goats (*Capra aegagrus*) are considered vulnerable (VU) and their population is decreasing globally. As for Iraq, and based on the IUCN Red List (Weinberg et al, 2008²), surveys are needed to determine firstly whether any populations of Wild Goat remain in Iraq and, if so, their status and distribution. According to Nature Iraq field surveys and local interviews conducted between 2007 to 2010³, Wild Goats are present in different areas of the Zagros range, but their population in these areas is under threat of decline and increased fragmentation due to uncontrolled hunting, logging and general habitat loss. As very little work on mammal conservation has taken place in Iraq in over 25 years due to war and sanctions, this project will be part of new conservation planning to protect wildlife in Iraq.

Two sites were selected for this project, which are Qara Dagħ and Permagroon Mountains (respectively 35km southwest and 20km northwest of Sulaimani city, to the northeast of Iraq). Both of the project sites have been proposed as a protected area by Nature Iraq. They are located within the Zagros Mountain Forest Steppe eco-region, which is a critically threatened eco-region. These areas are very important due to the richness of its flora and fauna.

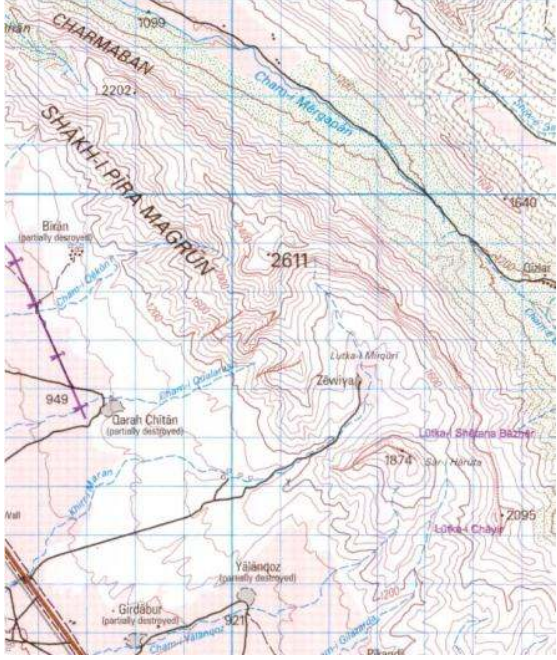

This project was funded by the Conservation Leadership Programme (CLP) and conducted by young conservationists from Nature Iraq who carried out the technical and logistical work. In addition, Nature Iraq CLP team conducted awareness and educational campaigns through media, social networks, scientific journals and newsletters, and visits and interacting with local communities and schools. The Kurdistan Commission of the Environment-Kurdistan Regional Government Environmental Protection & Improvement Board was involved through facilitating the field work by issuing required permits. Also the Forestry Police had a significant role to guide the team during the field surveys and participate in the advocacy campaigns. Other institutions like the Independent Media Centre Kurdistan

¹ IUCN (2012). IUCN Red List of Threatened Species. Version 2010.4 Retrieved from <http://www.iucnredlist.org/search> on 8 November 2012

² Weinberg, P., Jdeidi, T., Masseti, M., Nader, I., de Smet, K. & Cuzin, F. 2008. *Capra aegagrus*. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.1.

³ Nature Iraq and Ministry of Environment of Iraq (2010). Key Biodiversity Area KBA 2010 Site Review. NI-0311-01.

(IMCK) and the Iraq Upper Tigris Water keeper helped in the outreach development and educational campaigns.

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| <p>A topographic map of Peramagroon Mountain</p> | <p>A topographic map of Qara Dag Mountain</p> |

Project members

Korsh Ararat is the Conservation Leadership Program team leader. He has been working with Nature Iraq as an ornithologist and field researcher since late 2006 with contributions to many activities and technical work with Nature Iraq. He has given presentations at several international conferences and he has received a M.Sc. degree in environmental assessment and management at the University of East Anglia. He is now working as lecturer at the University of Sulaimani.

Nabeel Abdulhasan is an expert in the biology sector, in particularly of flora and vegetation. He has technical skills in the quadrat method for determination of plant cover percentage, point centric method for determination of plant cover percentage, Habitat Assessment Approach (HAA) for habitat assessment, classification and description of marshland's habitats, plant systematic and plant identification, plant profile photography, specimen

collection and herbarium work, practical methods for chemical and physical measurement in water and plants and, management of many environmental activities, conferences and meetings.

Mr. Abdulhasan is author of several publications: “Habitat Mapping and Monitoring of Iraqi Marshlands” paper, “Habitat Mapping and Monitoring of Iraqi Marshlands” technical report; “Key Biodiversity Areas of Iraq” technical reports (2); “Constructed Wetland for the Marshes Environment” technical report; and “Socio-economic study of National Park Area” technical report.

Moreover, Mr. Abdulhasan has actively participated in some of the major conferences and meetings about the Iraqi ecosystems and its biodiversity values, including: “Middle East Biodiversity conference” Aqaba, Jordan; “World Congress for Middle Eastern Studies” Barcelona, Spain; “Flora of Iraq Workshop”, Sulaimania, Iraq, “Ramsar meeting of Iraqi Marshlands” Amman, Jordan; “Ramsar meetings of Iraqi marshlands” Sulaimania, Iraq; “Mesopotamian Marshlands National Park Workshops” Sulaimania, Iraq; and a lecture about the botany work in Iraq, in Old Dominion University, Virginia, USA.

Job Title: Botanist, Employer: Nature Iraq.

Nabeel Abdulhasan is the team co-leader and he was the team representative at the CLP training 2011 in Calgary, Canada.

Hana Raza

Miss Raza graduated from Sulaimani University’s College of Sciences in the Biology Department. She has four years experience doing field surveys; writing reports and papers; conducting environmental awareness and advocacy campaigns, and educational activities; and coordinating training courses in the field of mammals and wildlife medicine. Currently working with Nature Iraq conservation organization as a mammals researcher, Miss Raza is an active member of the Conservation Leadership Programme (CLP), collecting data in the field, interacting with and interviewing locals at and near the study areas, working in close contact and communicating with the forestry police and stakeholders in the study areas, and writing the project reports, the newsletter contributions, media and outreach development and other publications.

Mariwan Qadir

A graduate of Sulaimani University-College of Sciences/Biology Department, Mariwan began working with Nature Iraq as a bird trainee in 2008 and he now works with Nature Iraq as a bird researcher. He also works with the Environmental Directorate of Sulaimani as an assistant biologist running microbiology tests on drinking water. Mariwan is an active member of the CLP team, participating in all the field surveys, contributing to reports and engaging with the media and outreach programs.

Laith Ali Al-Obeidi

Laith has a BSc in Biology and an interest in environmental sciences. He has attended many training courses inside and outside Iraq on birds and their habitats and analysing the different types of threats in the field. Since starting his work with Nature Iraq in 2008 as an Ornithologist, he has participated in different surveys in Iraq and is still working in this field.

Aim and Objectives

The project's aim has been to protect the population of globally vulnerable wild goat and their habitat in Peramagroon and Qara Dagħ mountains through education and advocacy based on the results of field surveys, and encompassed the following objectives:

Objective A. Develop the team's experience in the field of mammals and obtain information about the distribution, population, and status of wild goats in the study areas as well as the threats they face.

- **Activity 1:** Training- Nature Iraq conducted a training program from 24-29 May, which had ten trainees made up of staff from Nature Iraq, the Iraqi Ministry of Environment and the Kurdistan High Commission on the Environment. An additional two trainees were accepted into the course but canceled at the last minute. The training was conducted by Amir H. Khaleghi of Plan for the Land, an Iranian conservation organization. Amir has a long expertise in mammal field studies in Iran. During the training the team was able to receive knowledge on the methodologies that are carried out for Wild Goats surveys. The training began with a three-day in-

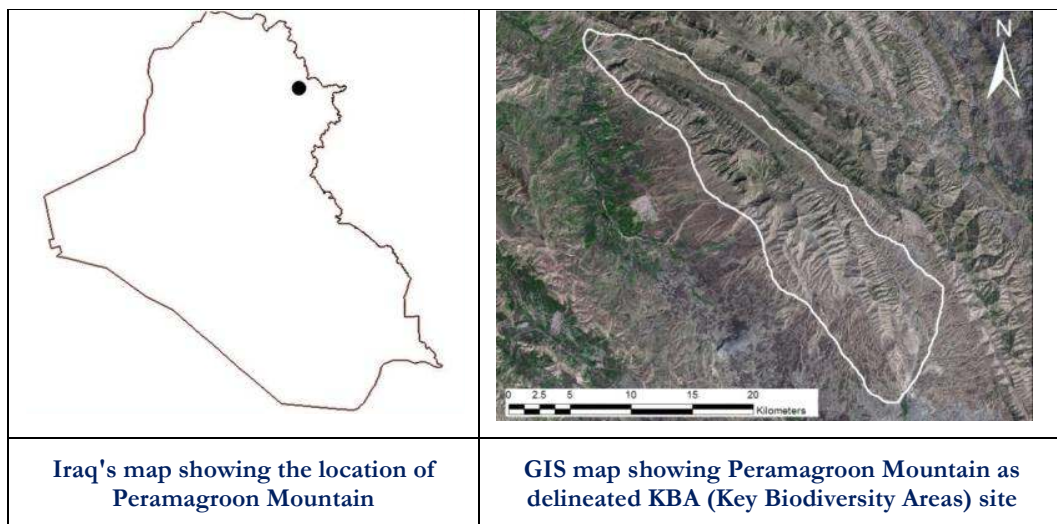
class course, where the trainees gained knowledge on the importance of these animals and the methods necessary in protecting these animals. This was followed by a 3-day field survey that was integrated with the training in the Barzan area (see Activity 2).

- **Activity 2:** Field survey training at Barzan (trip integrated with training)- After the three-day in-class training, the team and trainees visited Barzan Area (Shirin Mountain) and applied the methodologies learnt during the in-class training. The team learned a great deal during this first attempt at mammal field research in Barzan. The field survey was carried out through the use of a data sheet designed by the trainer with all information needed for a line transect method for studying Wild Goats. The team encountered over 50 Wild Goats during these activities and had the opportunity to spend time with the local Environmental Police (a subset of the Kurdish army, or Pesh Merga), who provided an expert guide who augmented the experience for the NI Team and trainees with his local knowledge. Trainees evaluated the course positively and the NI team now has a stronger foundation for continued field work in Wild Goats. Right after the training, the team was able to finish three days out of the twelve designated field work. As the team visited the area for the second time to finish the field survey, a logistical problem made them stop their field work in Barzan.

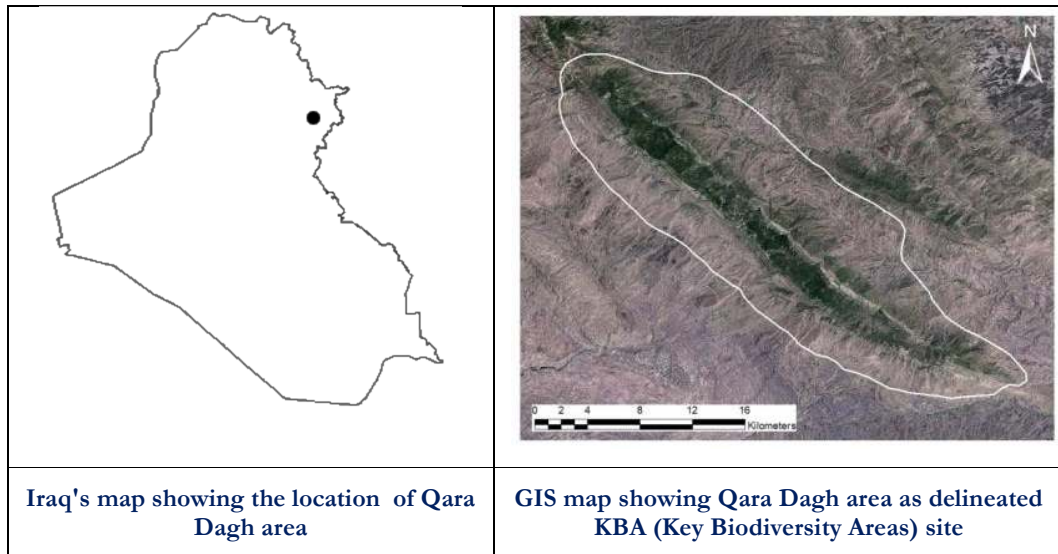
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| <p>Trainees learning how to set up camera traps (Photo by Mariwan Qadir)</p> | <p>Students outdoor activities in Barzan</p> |

- **Activity 3:** Field survey at Peramagroon- The CLP team was able to successfully complete 24 days of summer and winter field work at Peramagroon Mountain (from

N 35° 44' 05" E 45° 16' 12" to N 35° 50' 53" E 45° 06' 10"). The field work was carried out in two survey periods (summer and winter). The summer field work ran from June 10-23 2012 and the winter field work began on January 21-February 12, 2012. Hunting in this area is carried out extensively by the people surrounding the mountain. As a result, the population of Wild Goats in this area is much lower than is found in the Barzan Area. During the field work, surveying the top of the mountain to the foothills, the team was able to observe only eleven Goats at Peramagroon. Outside of the surveys, the CLP team observed another three Wild Goat individuals on the top of the mountain in May 2012.



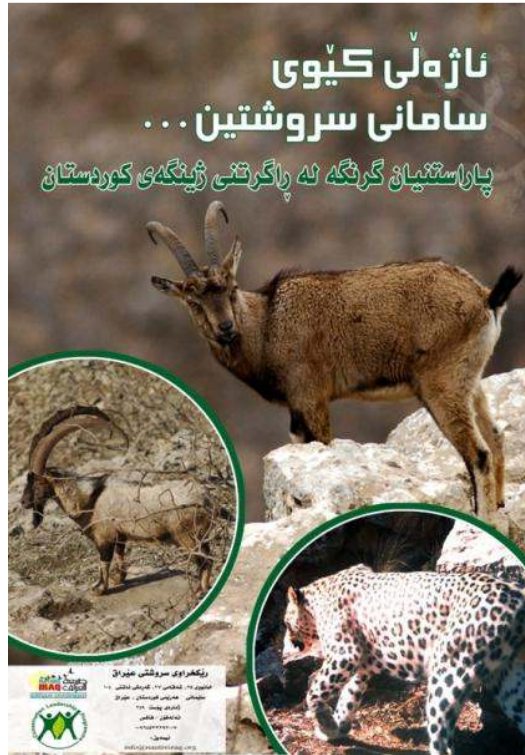
- Activity 4:** Field survey at Qara Dagħ Area- The CLP team was able to successfully complete 24 days of summer and winter field work around Qara Dagħ (from N 35° 09' 13" E 45° 28' 21" to N 35° 19' 52" E 45° 17' 25"). The summer field work ran from September 18-October 1, 2011 and the winter field work ran from January 3-17, 2012. Since hunting pressure is considerably decreased in Qara Dagħ Area, due to stricter implementation of penalties by the forestry police of this area as compared to Peramagroon Mountain, the population of Wild Goats in this area is much higher than is found in the Peramagroon Mountain. During the field work, surveying the eight different mountains that comprise the Qara Dagħ Area, the team was able to observe 23 Wild Goats in summer and 26 in winter.



Objective B. Increase awareness about the conservation status of wild goats and methods to protect them among local stakeholders.

- **Activity 1:** Developed educational leaflet – An educational brochure was produced in Kurdish on Wild Goats, the threats they face and the goals of the project as well as a flyer which was also in Kurdish and focused on protecting the environment and the animals that make up an important cultural heritage of the region





Poster designed for Environmental Awareness Raising Purposes

- **Activity 2:** Distributed flyers and posters and performed educational outreach. During the training the NI Team and trainees had the opportunity to do an exercise in education and outreach and then meet with students from the Montessori school of Zirara village (located near Barzan). Approximately 20 students from this school came to the NI team's training camp along the Rezan River below Shirin Mountain for a 2 hour talk and field trip focused on raising awareness about Wild Goats and other mammals of the area.

More intensive brochure and poster distribution were carried out after the end of the field surveys which included the participation of additional Nature Iraq staff and volunteers. The first round of the outreach program started in April 4, 2012 where hundreds of brochures were distributed to locals, forestry police departments, and schools.



Distributing leaflets and flyers at the study areas and talking to locals about the project

In addition, the CLP team took every opportunity in other outdoor activities and environmental outreach programs that were held by Nature Iraq and other institutions to disseminate brochures, posters and talk to people about the CLP project.

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| <p>Sulaimani Flower Festival where many flyers and brochures of the CLP project were distributed</p> | <p>Sulaimani Green Music and Arts Festival where many flyers and brochures of the CLP project were distributed</p> |

- **Activity 3:** Conducted interviews with hunters, locals, and decision makers – The team had extensive talks with the Environmental Pesh Merga and the forestry police in all the three study areas (Barzan Area, Qara Dagħ Area, and Peramagroon Mountain) as well as with local community groups such as the Hermin Institute; a nongovernmental organization for culture, research, and communication, specialising in local radio and television across Erbil region. During the course of the field activities, many locals and hunters were also encountered and the team took these opportunities to conduct outreach and awareness-raising with these individuals.



NI Team interviews with hunters and locals in Peramagroon (Photo by Mriwan Qadir)

- **Activity 3:** Conducting education and awareness-raising activity with students in both study areas- The CLP team conducted a two-day educational activity with student from two elementary schools (Shadalla elementary school in Peramagroon and Qara Dagh elementary school in Qara Dagh). Around 15 kids in Shadalla school and 25 kids in Qara Dagh school participated in this activity. PowerPoint presentations were used to explain the main goal of the study and the importance of conserving Wild Goats using engaging images, video, and hands-on activities to engage students in learning about these incredible creatures.



School activities in Shadalla and Qara Dagh elementary schools



Objective C. Develop site-specific conservation recommendations.

This objective includes the end of the year project summary and delivering a final project report to CLP, local communities, decision-makers and scientific institutions. In parallel to the project report writings many reports and papers were written to increase international knowledge about the conservation works that are taking place in Iraq.

- **Activity 1:** Adjusting the boundaries of KBA sites – Due to the more extensive field time that has been spent in the Barzan Area the delineated boundary of this important Key Biodiversity Areas site has been expanded. Originally the NI team had delineated an area of only 4708 hectares in the Barzan area but as a result of the more extended visits to Barzan and more in-depth discussion with local stakeholders the delineated area has been revised upwards to 171500 hectares, as this more accurately represents that area where Wild Goats can be found and the actual size of the Barzan protected area proposed by Nature Iraq. This means that the area now deemed important and worthy of official protection is 36 times larger than originally believed. The same is true for Peramagroon Mountain where the NI team had delineated an area of 10027 hectares, but after time spent on Peramagroon Mountain this led to an extension of the area to 26566 hectares, almost double the former delineation. As Qara Dagh Area was delineated as Key Biodiversity Sites after the CLP project, our understanding of the area increased throughout the CLP project and this helped in drawing a better boundary of our KBA site, an extraordinary development.

Methodology

The methodology of Wild Goat assessment included local interviews, direct observation of the animals and tracking signs such as footprints and feces of the wild goats using line transect methods to estimate the presence of Wild Goats. This method was executed by two groups of two observers walking along a fixed line against each other to cover as much area as possible. Because the density of Wild Goats in these study areas is very low, the team also employed a camera trap. Camera trapping was done in one study area (Qara Dagh) and the

team did not follow a particular methodology in camera trap placement. Camera trapping was done only during the course of the study to have a rough idea of the wildlife abundance of the study sites and for this purpose one camera trap was set in the same location over two survey periods: the first session of camera trapping ran from October 1st to October 20th 2011, where two camera traps were set in two different mountains of Qara Dagħ Area. The first camera (Stealth Cam STC-I540IR model) was left on Tasha Loos Mountain and the second camera (Keep Guard KG 550 model) was left on Jazhna Mountain. The second session of camera trapping ran from January 2nd to February 13th 2012, where only one camera trap (Keep Guard KG 550 model) was set on only Jazhna Mountain. The cameras were not checked until they were retrieved at the end of each survey. The field survey included a threat assessment using a BirdLife International pressure assessment, from the Toolkit of IBA conservation in Africa, 2008. To increase awareness among local communities, the team designed and printed educational leaflets and gave lectures in local schools. Interviews with local stakeholders were conducted as well at the two sites.

| Microsoft Excel - datasheet | | | | | | | | | | | | | | | | | | | | |
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| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | | |
| 1 | Field gear | | | | | | | | | | | | | | | | | | | |
| 2 | GPS, Compass, Rangefinder, Field protocols, Map, Animal ID booklet, Binoculars, Protractor, Compass. | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | |
| 4 | a) Study area: | Qara Dagħ | | | | e) | Time Hour Min. | | f) Weather/Temperature | | 25 C sunny weather | | | | | | | | | |
| 5 | | | | | | | Start | 4 | 15 | pm | | | | | | | | | | |
| 6 | b) Strip# | 1 | | | | | End | 5 | 40 | pm | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | c) Date | 20/09/2011 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | d) Observers | CLP Team/ Nabil Abdulhassan, Hana Raza, Mariwan Qadir, Laith Ali | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | g) | h) | i) Vegetation Type | j) Sighting | k) Sighting | l) Perp. Dist. | m) Adults | | | n) Subadults | | | o) Calves | | | p) Total | q) GPS | Elev. | NOTE | |
| 13 | Locality Name | odometer | | Dist. (meters) | angle | (meters) | M | F | ? | M | F | ? | M | F | ? | | | | | |
| 14 | Spain mountain/Balakjar | | Oak forest | 455 | 0 | 500 | 1 | 1 | | | | | 2 | | | | 4 | N 35 10 39.0 E 45 27 17.5 | 1634 | Sighting time: 5:00 pm |
| 15 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | |

Field data Entry

Outputs and Results

During the survey, the team was able to observe and photograph the Wild Goats in both designated areas (Peramagroon and Qara Dagh Mountains). During the field work, surveying the top of the mountain to the foothills, the team was able to observe only eleven Goats at Peramagroon and about 49 Goats in Qara Dagh. In the month of June 2011, seven Wild Goats (three males, two females, and two calves), and in the month of January 2012, four Wild Goats (one female, one sub-adult of which sex was not known, and two calves) were observed on Peramagroon Mountain. In the month of September 2011, twenty three Wild Goats (five males, eight females, six sub-adults, and four calves), and in the month of January 2012, twenty six Wild Goats (eleven males, six females, two sub-adults, and seven calves) were observed on Qara Dagh. Besides the Wild Goats, other interesting observations were obtained at various points in the project; the most important of those were recording of two new species for Iraq one mammal and one bird. The Least Weasel *Mustela nivalis*, whose presence in Iraq is mentioned in old literature, was photographed on Shirin Mountain by the Nature Iraq CLP team with our trainer Amir Hossein Khaleghi. A new population of the Plain Leaf Warbler *Phylloscopus neglectus* was found breeding near the top of Peramagroon Mountain.

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| Least Weasel <i>Mustela nivalis</i> confirmed for Iraq, photographed on Shirin Mountain, Barzan (Photo by Amir H. Khaleghi) | New record of Plain Leaf Warbler <i>Phylloscopus neglectus</i> at Peramagroon Mt. (Photo by Korsh Ararat) |

An outstanding result of the project was the contribution and the welcoming atmosphere the local people and students of the local schools showed throughout the program period.

Local communities, stakeholders and students were involved in the activities and responded very well to the talks and the lectures they were given. During the survey the CLP team found that the Wild Goats live near villages and it is likely that their habitat interact with livestock. A major threat to these animals and their habitat in both study areas was found to be overgrazing; this was mostly observed in Peramagroon Mountain where livestock are taken all the way to the top of the Mountain.

The CLP team throughout the survey period gained a better understanding of both study areas, allowing for extension of the KBA delineated boundaries of these study areas which increases knowledge and understanding of the team of these important sites within Northern Iraq which is more likely to make them priority sites by the Government to make them protected areas. The information obtained from the CLP Project will also be reflected in the publication of the Inventory of Key Biodiversity Areas that is to be published in 2013 and will form a strong foundation for Iraq's future protected area network.

Achievements and Impacts

Since very little mammal field research or conservation work has taken place in Iraq for more than 25 years, this project has been a ground-breaking experience for all involved. Through the project, the CLP team was able to advance international understanding about the presence of Wild Goats in Iraq.

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| <p>Wild Goat <i>Capra aegagrus</i> on Peramagroon Mountain (Photo by Korsh Ararat)</p> | <p>Wild Goat <i>Capra aegagrus</i> on Qara Dagħ Mountain (Photo by Hana A. Raza)</p> |

Other observations of mammals made by the team throughout the survey period were sightings of Red Fox *Vulpes vulpes*, Golden Jackal *Canis aureus*, and European Hare *Lepus*

europaeus as well as hearing the calls of Striped Hyena *Hyaena hyaena* (Near Threatened) during the night. In addition, during the training for the CLP project, the team found three Eurasian Otters *Lutra lutra* (Near Threatened) in the Rezan River of Barzan, which were sighted with flashlights at night. The camera traps in Qara Dagħ Area also documented Persian Leopard (*Panthera pardus*), Wild Cat (*Felis silvestris*), Indian Crested Porcupine (*Hystrix indica*), Golden Jackal (*Canis aureus*), Persian Squirrel (*Sciurus anomalus*) and Wild Boars (*Sus scrofa*).





Persian Leopard *Panthera pardus* caught on camera trap on January 2012 (Photo Nature Iraq/CLP)



Syrian Brown Bear *Ursus arctos* caught on camera trap on June 2011 (Photo Nature Iraq/CLP)



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| Wild Cat <i>Felis silvestris</i> caught on camera trap on January 2012 (Photo Nature Iraq/CLP) | Golden Jackal <i>Canis aureus</i> caught on camera trap on January 2012 (Photo Nature Iraq/CLP) |
|  |  |
| Indian Crested Porcupine <i>Hystrix indica</i> caught on camera trap on October 2011 (Photo Nature Iraq/CLP) | Red Fox <i>Vulpes vulpes</i> caught on camera trap on January 2012 (Photo Nature Iraq/CLP) |

Conclusion

After finishing surveys in both areas, the team reports great success, finding Wild Goat and establishing their presence on both Qaradagh and Peramagroon Mountains where their status in Iraq was not certain until the Nature Iraq CLP team started investigating these animals and their status in the country. For the first time, the Nature Iraq CLP team has been able to make direct observations of 60 individuals of wild goats and photograph these animals during the CLP summer and winter surveys in both Qara Dagh and Peramagroon Mountains. However, there is not enough information about the population/distribution of Wild Goats neither in the survey areas nor in the entire country, where it's a long-term project.

Both areas have been impacted by hunting pressure and the Forestry Police in the region has begun implementing controls over hunting pressure in these areas in the last couple of years, thanks to a no hunting rule that penalizes hunters caught in action. As important as this policy is, a Forestry Policeman observed to the team that the rules are not strict and that the penalty is not enough to effectively reduce hunting pressure.

Some of the villagers around the survey areas were very positive in their response to the project and asked for more activities to advocate for the wildlife protection. It's very important to conduct more advocacy and educational campaigns to raise the awareness of

local communities about the importance of the wild goats. This will help to increase the number of these animals in both Peramagroon and Qara Dagħ Mountains by decreasing the hunting pressure.

Problems encountered and lessons learnt

One of the problems the team encountered was with field work in the Barzan area, as on the last trip to Barzan area to begin the field survey, the team faced problems with the Environmental Pesh Merga forces belonging to the Kurdistan Ministry of Interior and the security (Asaish) forces in the Barzan Area. The team was required to shorten the survey in this area due to political and security issues. This caused the team to change the area of the survey to Qara Dagħ Area, to avoid further delay in the survey period. This decision was accepted by CLP. Another problem that the team faced in Peramagroon Mountain was not being able to leave camera traps on the Mountain to help understand the wildlife in that area better, because of the difficulty of hiking the Mountain and lack of time to spend in retrieving camera traps. The lesson learnt regarding the security issue was that the team made close connections with the Forestry police and the Asaish forces, letting them know about our project and get strong permission letter beforehand. As for the difficulty in doing more camera trap studies in on Peramagroon Mountain, we are hoping to solve this problem in the future by dedicating more time surveying this mountain with Camera traps.

In the future

We plan to continue distributing brochures and provide more lectures to local schools, Environmental Pesh Merga/Police and other local stakeholders. This work will also be integrated with a new effort at one of the study sites (Peramagroon) under a conservation project funded by the Darwin Initiative. Future work in conserving the Wild Goats would take the form of grant-supported field research on the population status of this animal and its interactions with the people living close to their habitats.

Appendices

Copies of media articles relating to the project

First

"Web report on www.Xendan.org, November 15, 2011"

پلنگی دگمەن لە کوردستان

08:29:15/11/2011



پلنگی دگمەن فۆتۆ: ریکخراوی سروشتی عێراق

خەن، دان، س، امان س، دیق-
لەناوچەیەکی هەریمی کوردستان پلنگی دگمەن ١٣٠٠ سەر دەبێت.

لە ٣١ مانگی رابوردوودا، لەلایەن ریکخراوی سروشتی عێراق، کامیاریەکە لە ئەوەوە کە لەناوچەکانی کوردستان دادەنرێت و شەش رۆژ دواتر رەسمی پلنگی دگمەن دەکرێت.

هانرا، توێژەر لە ریکخراوی سروشتی عێراق، لەلایەن ریکخراوەکانی پلنگی دگمەن: پلنگی دگمەن لە ناوچەکانی کوردستان بێنراوە، دیکارە هێشتا مەواوە و تەندروستی زۆر باش بووە.

ناوبراو وتیشی: "پلنگی دگمەن لەلایەن سە فۆتۆ دەبێت و ئێرە و تانیستە نازانین چارەنووسی چیه".

نامازەشی بەوەدا، کە بە پلنگی فارسی ناسراوە و لەرووی زانستییهوه پێیان دەنێن "Panthera pardus saxicolor".

ئەو توێژەرە ناشرانیکرد، کە لەسەر ناستی جیهان نەم جۆرە پلنگە مەترسی نەمانیان لەسەر و رەنگە لە ناوچەکانی کوردستان تەنها ئەو دانەبە هەبێت و پێدەچێت لە وەرزی زاووزیدا بچێتە سەر سەرووی ئێران، بۆ ئەوەی لەگەڵ پلنگی میدا زاووزی بکات.

نەوێشی روونکردووە، ئەو جۆرە پلنگە گەرمی زۆریان هەیە و بەباشی ناتوانن بپێن و ئەو لێکۆڵنەوەی لەبارەیانەوه دەکرێت زیاتر لەرێگەی کامیاری دەکرێت و شەرمەن و زێرەن و بۆن زۆر بەباشی دەکەن، لەبەر ئەوە هەرشوێنێک مەوای لێبێت نزیکی ناکەن و مەگەر زۆر ناچارین و برسیان بێت و بەدەگمەن دەچنە دیکارەوه زیاتر لە شاخەکان دەمینن و مەل و ناوچە تاییەت بەخۆیان هەیە.

نەوێشی خستەروو، کە دانیان نین، نایا ئەوە تەنها پلنگە مابێت، بەوەوە ناوبراو، ئەمە پێویستی بە لێکۆڵنەوەی زۆر و دانانی کامیاری زیاتر هەیە.

گەشبینی خوشی دەری، بەوونی ژمارە زیاتری نەم جۆرە پلنگە، لەبەر ئەوەی بۆنی کێوی خواردنی سەرەکی نەم جۆرە پلنگە و ئەگەر بۆنی کێوی بێنن ئەگەر نەوێشی پلنگەش هەبێت، "لە ناوچەکانی کوردستان لەمەوه ١٢ رۆژدا ٢٣ سەر بۆنی کێویمان دۆزییەوه، نەمەش شتیکی باشە و پێشبینیم دەکرد ئەو جۆرە پلنگە هەبێت".

نەوێشی خستەروو، ئەو ناوچەکانی کوردستان مەل زۆر نییە، بۆیە بەناسانی توانیمان نەم نازەلە بپێن و ئێرەکانی زۆر لەبارە و تەنها مەترسی لەسەرەکان راوکردنە لەلایەن مەوێکانەوه.

ئەو توێژەرە ریکخراوی سروشتی عێراق ریکخراوە: نەم وێنەیە یەکەم ریکوردی رەسمە لەعێراقدا و یەکەمجار بەشیوەیەکی زانستی وێنە و گێڕاوە و دۆزییەوه و زۆر گەرم.

لەجیھاندا نەم نازەلە دەگمەنە و مەترسی نەمانیان لەسەرە و بەمگۆیرە زانیارییەکانی ریکخراوی جیھانی بۆ پاراستنی سروشت "IUCN" ژمارەیان لەسەر ناسی جیھانی 1300 مەتر لەسەر 1300 مەتر.

وتیشی: "تاتوانین لەعیراقددا کار بۆنەو بەکەین نەو نازەلە بپارێزین"، لەبەرئەوەی ژمارەیان نازان و لەمەولا هەول دەدەن لەبەری نەم وینەبەو لەسەر ناستی جیھانی کاری لەسەر بکەن و گەر پرۆپۆزەلیک نامادەبکەن، کە رەنگە لەلایەن ریکخراویکی جیھانییەو پشٹیوانی بکەین و کار لەسەر دیاریکردنی ژمارەیان بکەین و لیکۆلینەو لەسەر بکەن و کار بۆ بڵاکردنەو هۆشیاری و روشنبیری لەخوێندنگاکاندا بکەن.

بەوتە ی تۆیژەرەکە ی ریکخراوی سروشتی عێراق، لەکوردستاندا هۆشیاری ژینگەیی کەمە لەسەر هەموو شتێک، بەتایبەتی لەسەر نازەلە و ریکخراوەکەشیان پرۆژەبەکی نییە بۆ پاراستنی نەو نازەلە و بەنیازن لەداها توودا لیکۆلینەو هەبێت بۆ زانیانی ژمارەیان و بڵاکردنەو هۆشیاری بۆ پاراستنی جیھانی.

ریکخراوی سروشتی عێراق، سێ نووسینگە یەو و نۆفیسێ سەرەکی لە شارێ سلێمانییە و دوو نۆفیسێ تری هەبە، لە بەغدا و باشووری عێراق لە ناوچە ی جیابش.

Second

“Web report on www.Xendan.org, November 28, 2011”

سروشتی کوردستان لەبەردەم مەترسی راوچییهکاندا

03:58:28/11/2011



خەندان –

سەلامان سەلامان
هەرچەندە لەلایەن حکومەتی هەریمی کوردستانەو ریشوین گێراوەتەبەر بۆ بەرگرتن لە دیاردە ی راوکردنی نازەلە کۆییەکان، بەلام تانیستاش نەو دیاردەبەکی بەردەوامە و مەترسییش لەسەر نازەلە کۆییەکان هەبە.

توێژەران یواری پارێزگاریکردن لە ژینگە و نازەلە کۆییەکان، پێیان وایە: زۆری کەلوپەلی راوکردن لە هەریمی کوردستاندا و نەبوونی ناوچە ی قەدەغە ی راوکردن... زۆرجار ناستەنگ بوو لەبەردەمی هەولەکانی نەواندا و ژبانی نازەلە کۆییەکانی خستەتە مەترس.

جگە لە نەبوونی هۆشیاری لای خەلک و زۆریی راوچییهکان، بەشێکی زۆری جیا و ناوچە دورەدەستەکان مین-رێژکراون، نەو هەش وایکردووە ژبانی سروشتی بەسەر دوام رووبەرەو مەترسی بپنەو، تەنانەت هەندێک نازەل لەناوچوون.

چیرۆکی نازەلێکی دەگمەن لەناوچە جیاکانی کوردستان:

لە چەند ماتگی رابردودا لەلایەن ریکخراوی سروشتی عێراق، کامیرایەک لە بەکێک لە ناوچەکانی کوردستان دادەنریت و شەش رۆژ دواتر رەسمی پلنگێکی دەگمەن دەگریت کە لە سەرانیسەری جیھاندا تەنها 1300 دانە ی ماو و مەترسی لەناوچوونی هەبە.

هانرا هەزا، توێژەر لە ریکخراوی سروشتی عێراق، لە لێدوانێکدا بۆ ساینی (خەندان) رایگەیاند: پلنگەکە لە بەکێک لە ناوچەکانی کوردستان بینراوە، دینارە هیشتا مەتر و تەندروسێتی زۆرییەش بوو.

ناوبراو وتیشی: "پلنگەکە تەمەنی لەنێوان سێ بۆ حەوت سەل دەبێت و نێرە و تانیستە نازانین چارەنووسی جییه."

نەو پلنگە بە (پلنگى فارسى) ناسراوہ و لەرووی زانستییەوہ پێیان دەوتریت "Panthera pardus saxicolor".

نەو توێژەرە ناشرکراشیکرد، کە لەسەر ناستی جیھان نەم جۆرە پلنگانە مەترسی نەمانیان لەسەرە و رەنگە لەو ناوچەیە کوردستان تەنها نەو دانەییە ھەبیت و پیدەچیت لە وەرزى زاووزیدا بچیتە سەر سنووری نیسان، بۆنەوێ لەگەڵ پلنگى مێدا زاووزى بکات.

نەوھشی روونکردووە، نەو جۆرە پلنگە گرنگی زۆریان ھەیە و بەباشی ناتوانریت ببینرین و نەو لیکۆلینەوانەى لەبارەیانەوہ دەکریت زیاتر لەرنگەى کامیراوہ دەکریت و شەرمەن و زیرەکن و بۆن زۆر بەباشی دەکەن، لەبەرئەوہ ھەرشوێنێک مرقۆى لیبیت نزیکى ناکەون، مەگەر زۆر ناچارین و برسییان بیت، بەدەگمەنیش دەچنە گوندەکانەوہ زیاتر لە شاخەکان دەمیننەوہ و مأل و ناوچەى تابیبەت بە ھەخویان ھەبە.

نەوھشی خستەروو، کە دلتیا نین نایا نەو تەنها پلنگە ماییت، بە وتەى ناویراو، نەمە پنیوستی بە لیکۆلینەوہى زۆر و دانانى کامیرای زبەتر ھەبە نەگەر دايبینن.

گەشبینی خۆشی دەربەری، بە بوونی ژمارەى زیاتری نەم جۆرە پلنگە، لەبەرئەوہى بۆنى کپوێ خواردنى سەرەکی نەم جۆرە پلنگەى و نەگەر بۆنى کپوێ ببینن نەگەرى نەوہ ھەبە پلنگیش ھەبیت، "لە ناوچەى کوردستان لەماوەى دوانزە رۆژدا 23 سەر بۆنى کپویمەان دۆزیبەوہ، نەمەش شەش تیکى باشە و پێشەبەنیم دەکەرد نەو جۆرە پلنگە ھەبیت".

"راوکەردن" وەک زو زەنگێکى مەترسەى یی:

ھانا رەزا، توێژەر لە ریکخراوى سروشتى عیراق، نەوھشی خستەروو، لەو ناوچەى کوردستان مین زۆر نییە، بۆیە بەناسانى توانیمان نەم نازەلە ببینین و ژینگەکەى زۆر لەبارە و تەنها مەترسی لەسەریان راوکەردنە لەلایەن مرقەکانەوہ.

نەو توێژەرى ریکخراوى سروشتى عیراق رایگەیانەد: نەو وینەى ریکخراوەکیان ریکۆردى کردوہ؛ یەکەم ریکۆردى رەسمیە لە عیراقداو یەکەمجارە بەشەش نیوہەکی زانستى وینەى گیرابیت و دۆزینەوہى کى زۆر گرنگە.

لەجیھاندا نەم پلنگە دەگمەنە و مەترسی نەمانیان لەسەرە و بەگۆرەى زانیاریەکانى ریکخراوى جیھانى بۆ پاراستنى سروشت "IUCN" ژمارەیان لەسەر ناستى جیھان کەمترە لە 1300 سەر.

ھانا، وتیشى: "ناتوانین لەعیراقدا کار بۆ نەو بکەین نەو نازەلە بپاریزین"، لەبەرئەوہى ژمارەیان نازان و لەمەودوا ھەوڵدەدەن لەرێنى نەم وینەى لەسەر ناستى جیھانى کارى لەسەربکەن و گەر پڕۆژەلێک نامادەبکەن، رەنگە لەلایەن ریکخراوێکى جیھانییەوہ پشەتوانى بکەن و کار لەسەر دیاریکردنى ژمارەیان بکەن و لیکۆلینەوہى لەسەربکەن و کار بۆ بلۆکردنەوہى ھۆشیاری و رۆشنەبیری لەخوێندنگاکان.

بە وتەى توێژەرەکەى ریکخراوى سروشتى عیراق، لە کوردستاندا ھۆشیاریى ژینگەى کەمە لەسەر ھەموو شتێک، بەتایبەتى لەبەرى نازەلە کپویمەکان، ریکخراوەکیان پڕۆژەى نییە بۆ پاراستنى نەو نازەلەو بەنیازن لە داھاتوودا لیکۆلینەوہیان ھەبیت بۆ زانینى ژمارەیان و بلۆکردنەوہى ھۆشیاریى بۆ پاراستنى.

لەلایەکی ترەوہ ھەوڵەکانى پۆلیسى دارستان بۆ بەرگرتن لە دیاردەى راوکەردن بەردەوامە و لەو چوارچۆیەشدا پۆلیسى دارستانى سلیمانى لە ماوەى تەنها دوو مانگدا 72 راوچییان دەستگیرکردوہ و دەست بەسەر ژمارەیکە چەک و کەرەستەى راوکەردنى نایاساییش داگێراوہ.

لە لێدوانێکدا بۆ سايى (خەندان) ھێمن کەمەرخان، بەرپۆبەرى راگەیاندى پۆلیسى دارستانى سلیمانى ناشرکراى کردوہ، کە لەماوەى 8/1 تا 10/1 نەمسال توانیویانە لە سنوورى پارێزگای سلیمانىدا 72 راوچى و سەرپنچیکار دەستگیر بکەن.

بە پێى ناماریکى بەرپۆبەرایەتى پۆلیسى دارستانى گەرمیانیش لە سەرەتای نەمسالەوہ تا مانگی تشرینی یەکەم کە نۆ مانگ دەکات لە سنوورى نیاردەى گەرمیان 233 راوچى دەستگیر کراون.



کەمەرخان سەبارەت بە نامارەکان نەوہى خستەروو، کە (54) ھاوڵاتى لەسەر راوکەردنى نازەل و بالندەى کپوێ و ماسى (بەشێوہى نایاسایى) دەستگیرکراون.

ھەر لەو ماوەیەدا پۆلیسى دارستانى سلیمانى توانیویەتى دەستگیریت بەسەر (10) نامەزى بپارێزان و 3 بلاجکتۆر و 17 چەکی جۆرى تاپەرو 6 مۆلیدەى کارەبای و یەک ماتۆر سکیل و 7 تۆرى ماسى و 1 کەلەكەچوپ و 2 کەپسولەى نارنجۆک و 250 غرام مادەى تەقینەوہ دەستەبەرى بەسەرەدا گێراوہ.

بە پێى نامارەکەى بەرپۆبەرایەتى پۆلیسى دارستانى گەرمیان نەو 233

راوچیهی دهستگیرکراوون، به بری 19 ملیون دینار غرامه کراون، نهمه وئرای دهست بهسهراگرتتی چهندین نامیز و کهرهستهی راوکردن.

Third

CLP Newsletter found on

<http://maildogmanager.com/page.html?p=000001XDDtjL09oLIcfGo+zqgsHKVikg%3D%3D>, 2011.



Projects in the Middle East

After 20 Years, Mammal Research and Conservation Activities Begin Again in Iraq

By: Korsh Ararat, Hana A. Raza, Laith Ali and Mariwan Qadir

Conserving Wild Goats (Capra aegagrus) at Peramagroon Mountain & Barzan Area, Iraq (2011)

The Nature Iraq team, under a grant from the Conservation Leadership Programme (CLP) began work with the globally vulnerable Wild Goat (*Capra aegagrus*) in two mountainous areas in Kurdistan, northern Iraq - Barzan (Erbil Governorate) and Peramagroon (Sulaimani Governorate). After initial surveys in both areas, the team reports great success, finding Wild Goat not just where they are commonly reported in Barzan, but also establishing their presence on Peramagroon Mountain where their status was less certain. The animals are protected and relatively easy to see in Barzan but there are very few left on Peramagroon due to high hunting pressure.



The main goal of the project is to preserve this species in these and surrounding areas of Iraqi Kurdistan. In addition to field work, several activities have been accomplished including education, public awareness raising, and a training program for young conservationists with Amir Hossein Khaleghi, a mammal specialist from the Iranian conservation organization, Plan for the Land. This has been a new and ground-breaking experience for all involved because almost no mammal field research or conservation activities have taken place in Iraq for more than 20 years.



Beside Wild Goat sightings, other interesting observations were obtained including: for the first time in Iraq, a new population of Plain Leaf Warbler (*Phylloscopus neglectus*) was recorded and found breeding near the top of Peramagroon Mountain (at left). This is also a new breeding bird species for the Western Palearctic region.

Another exciting finding was the observation of the Least Weasel

(*Mustela nivalis*) in Shirin Mountain of the Barzan area. The likelihood of the presence of the Least Weasel in Iraq is mentioned in old literature but the Nature Iraq CLP team with our trainer Amir Hossein Khaleghi, were able to observe and photograph this species for the first time, making this the first record of the species confirmed for Kurdistan, northern Iraq.

Other observations of mammals made by the team were sighting of Wild Boars (*Sus scrofa*), Red Fox (*Vulpes vulpes*) (at right), and Cape Hare (*Lepus capensis*), as well as hearing the calls of Striped Hyena (*Hyaena hyaena*), a near threatened species, during the night. In addition, during the training for the CLP project, the team found three Eurasian Otters (*Lutra lutra*), also a near threatened species, in the Rezan River of Barzan, which were sighted with flashlights at night.



Fourth

CLP Newsletter found on

<http://maildogmanager.com/page.html?p=000001XDDtjL2KurMdfWs%2Fz6ktHaRjkw%3D%3D>, 2012



Projects in the Middle East

The Search for the Vulnerable Wild Goat (*Capra aegagrus*) Continues with Great Success

By: Hana A. Raza, Mariwan Qadir, Laith Ali, Korsh Ararat and Nabeel Abdulhasan

Conserving Wild Goats (Capra aegagrus) at Peramagroon Mountain & Barzan Area, Iraq (2011)

The CLP Nature Iraq team has begun work with the globally vulnerable Wild Goat (*Capra aegagrus*) in two mountainous areas in Sulaimani Governorate of Kurdistan, in northern Iraq: Qara Dag and Peramagroon. These two sites are both potential Key Biodiversity Areas (KBA) and designated protected areas and are projects of Nature Iraq supported by the Iraqi Ministry of Environment (IMoE) and the Italian Ministry of Environment Land and Sea (IMELS). Originally, the team intended to conduct research in the Barzan area, but because of security issues on the borders with Turkey and Iran, the team chose Qara Dag as a substitute site; this change was approved by the CLP.



The first round of field surveys in Qara Dagh ran from September 18 to October 1, 2011 with the intention of finding Wild Goats, obtaining information about their status in this area, and evaluating threats and current impacts on the species. After initial surveys in Qara Dagh, which included camping, early morning and evening surveys, the team was able to establish the presence of Wild Goat on seven of the eight mountain peaks surveyed, finding 23 goats in total, more than expected. The team conducted the same field survey in Peramagroon Mountain from 10 June to 23 June, 2011 and observed 7 goats. For the first time, the Nature Iraq CLP team has been able to make direct

observations of the wild goats and photograph these animals in both Qara Dagh and Peramagroon Mountains. The team also observed Red Fox (*Vulpes vulpes*), Golden Jackal (*Canis aureus*) and noticed scats of Cape Hare (*Lepus capensis*).

As part of the survey work in Qara Dagh, two camera traps were set in different places on the mountains for a period of one month. The team is proud to report having captured the first photographic evidence of the Persian Leopard (*Panthera pardus saxicolor*) in Iraq, an endangered subspecies according to the IUCN Red List. The camera trap also documented Wild Cat (*Felis silvestris*), Indian Crested Porcupine (*Hystrix indica*), Golden Jackal (*Canis aureus*), Persian Squirrel (*Sciurus anomalus*) and Wild Boars (*Sus scrofa*).



The team also relied on the Directory of Forestry Police of Qara Dagh to guide the team during their field work, and involved them in the project's advocacy work. The Forestry Police have been very helpful and without them the project would have been much less successful. Preliminary information was collected from villagers around the survey area, who have been very positive in their response to our project. Qara Dagh has been impacted by hunting pressure and the Forestry Police have begun attempting to control hunting in this area in the last couple of years, thanks to a no hunting rule that penalizes hunters caught in action. As important as this policy is, a Forestry Policeman observed to the team that the rules are not strict and that the penalty is not enough to effectively reduce hunting pressure. Therefore it's important to increase the awareness of local communities about the importance of the wild goats. This will help to increase their number in both Peramagron and Qara Dagh mountains by decreasing hunting pressure.

Fifth

Cat News article found on http://www.catsg.org/catnews/20_cat-news-website/home/index_en.htm, 2012.

CAT

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news



SPECIES SURVIVAL COMMISSION
CAT SPECIALIST GROUP

short communication

HANA A. RAZA¹*, SAMAN A. AHMAD², NABEEL A. HASSAN³, KIRISH ARARAT⁴, MARIWAN QADIR⁵ AND LAITH ALI¹

First photographic record of the Persian leopard in Kurdistan, northern Iraq

Under a grant from the Conservation Leadership Programme (CLP), the Nature Iraq team has been researching wild goat *Capra aegagrus* in the Kurdistan region of northern Iraq. On the IUCN Red List (Weisberg et al. 2008), wild goat is listed as Vulnerable, and our research will help to enrich international understanding about the status of this animal in Iraq and conserve this species. During the CLP field surveys the team set one camera trap in a habitat where it was thought to be a suitable place for different carnivorous animals. The Persian leopard *Panthera pardus* was our main target species because our team was already working on their prey species, wild goats, and because we have seen a few incidents of the killing of leopards, which made us want to clarify their status in our study areas. Persian leopard is an Endangered species whose presence in Iraq, according to IUCN Red List (Khorozyan et al. 2008) is uncertain.

According to Hatt (1968), leopards were few and scattered. He reported only two skins obtained from leopards in the Kurdistan Mountains; one recorded by Pocock (1930) from Rawanduz, and the other by Field (1956) from Gradost Mountain. These are very old sources and no information on the presence of this animal was documented since this time. Studies on biodiversity in this area have been undertaken by Nature Iraq for six years as part of the Key Biodiversity Areas (KBA) Project undertaken in partnership with the Iraqi Ministry of Environment and with the support of the Italian Ministry of Environment, Land & Sea. Nature Iraq has only had confirmation of the species presence in Iraq through animals

that were killed. One leopard was killed by landmine in 2005 near the village of Morika east of Darbandikhan Lake. This leopard was examined by Nature Iraq staff as a mounted specimen in 2010. A second was killed in Diyala in 2008 (Nature Iraq & Iraqi Ministry of Environment 2011). No live sightings have been made in Iraq until the Nature Iraq camera trap photographed a male leopard in October 2011. This project identifies globally, regionally, and nationally important areas for biological diversity within Iraq.

Study area

The area where the leopard was found (Fig. 1) is a key biodiversity area (KBA) and therefore

it has been proposed as a protected area by Nature Iraq. It is located within the Zagros Mountain Forest Steppe eco-region, which is critically threatened and part of a biodiversity hotspot. The specific study area is approximately 210 km² within the Gara Dagh range, which is part of the Zagros foldbelt that extends from southern Turkey through northern Iraq and down to southwest Iran (Fig. 2). The highest peak within the range is reaching 1,380 meters. This area is very important due to the richness of its flora and fauna. The habitat is mainly oak forest with vegetation coverage of about 90%. There are more than 500 species of plants, including the national or regional endemic species such as *Galium yunnanense*, *Cuscuta kurdica*, *Symphoricarpos kurdicus*, *Oenothera alba-rossii*, *Cephalanthus sinensis*, *Astragalus spinosus*, *Cephalanthus kurdicus* and *Silybum marianum* (Al-Rawi 1988). This area contains about 12% of flora species found in Iraq. Based on Nature Iraq's rapid assessments this area is home to more than 8 mammal species and over 87 bird species. Data for amphibians and reptiles are scarce.

Methods

There have been no field studies on leopards or their prey species in this area or Iraq as a whole. This discovery was made in the course of Nature Iraq's wild goat survey, in particular thanks to a camera trap set in the same location over two survey periods: the first session of camera trapping started from 1 October to 20 October 2011, where two camera traps were set in two different mountains of Gara Dagh Area. The first camera (Stoach Cam STC-640R model) was left on Jashra Mountain for 19 days and the second camera (Keep Guard KG 350 model) was left on Jashra Mountain, also for 19 days and both cameras were retrieved on the same day (20 October 2011). The second session of camera trapping started from 2 January to 13 February 2012, where only one camera trap (Keep Guard KG 350 model) was set on Jashra Mountain and the camera was left there for a period of approximately one month and was retrieved on 13 February 2012. The cameras were not checked until they were retrieved at the end of each survey.

Results & Discussion

During the first session of camera trapping in 6 October 2011, one picture of a male leopard was taken (Supporting Online Material, SOM Photo 1) with the Keep Guard KG 350 camera.



Fig. 1. View of the survey site looking south (Photo Saman A. Ahmad).

Link to abstract: http://www.catsg.org/catnews/20_cat-news-website/home/index_en.htm

Hana A. Raza⁴, Saman A. Ahmad⁵, Nabeel A. Hassan⁶, Korsh Ararat⁷, Mariwan Qadir⁸, and Laith Ali⁹

First Photographic Record of the Persian leopard in Kurdistan, Northern Iraq

Under a grant from the Conservation Leadership Programme (CLP), the Nature Iraq team has been researching wild goat *Capra aegagrus* in the Kurdistan region of Northern Iraq. On the IUCN Red List (Weinberg et al. 2008), wild goat is listed as Vulnerable, and our research will help to enrich international understanding about the status of this animal in Iraq and conserve this species. During the CLP field surveys the team set one camera trap in a habitat where it was thought to be a suitable place for different carnivorous animals. The Persian leopard *Panthera pardus* was our main target species because our team was already working on their prey species, wild goats, and because we have seen a few incidents of the killing of leopards, which made us want to clarify their status in our study areas. Persian leopard is a Near Threatened species whose presence in Iraq, according to IUCN Red List (Henschel et al. 2008) is uncertain.

According to Hatt (1959), leopards are few and scattered. Hatt reports only two skins obtained from leopards in the Kurdistan Mountains; one recorded by Pocock (1930) from Rawanduz, and the other by Field (1955) from Bradost Mountain. These are very old sources and no information on the presence of this animal was documented since this time. Studies on biodiversity in this area have been undertaken by Nature Iraq for six years as part of the Key Biodiversity Areas (KBA) Project undertaken in partnership with the Iraqi Ministry of Environment and with the support of the Italian Ministry of Environment, Land & Sea. Nature Iraq has only had confirmation of the species presence in Iraq through animals that were killed. One leopard was killed by landmine in 2009 near the village of Mortka east of Darbandikhan Lake. This leopard was examined by Nature Iraq staff as a mounted specimen in 2010. A second was killed in Diyala in 2008 (Nature Iraq & Iraqi Ministry of Environment 2011). No live sightings have been made in Iraq until the Nature Iraq camera trap photographed a male leopard in October 2011. This project identifies globally, regionally, and nationally important areas for biological diversity within Iraq.

Study area

The area where the leopard was found (Figure 1) is a key biodiversity area (KBA) and therefore it has been proposed as a protected area by Nature Iraq. It is located within the Zagros Mountain Forest Steppe eco-region, which is critically threatened and part of a biodiversity hotspot. The specific study area is approximately 31000 hectares within the Qara Dag range, which is part of the Zagros foldbelt that extends from southern Turkey through

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northern Iraq and down to southwest Iran (Figure 2). The highest peak within the range is reaching 1800 meters. This area is very important due to the richness of its flora and fauna. The habitat is mainly oak forest with vegetation coverage of about 90%. There are more than 500 species of plants, including the national or regional endemic species such as *Galium qaradaghense*, *Cousinia kopi-karadaghensis*, *Symphytum kurdicum*, *Onosma albo-roseum*, *Cephalaria syriaca*, *Astragalus spinosus*, *Cephalanthera kurdica* and *Silybum marianum* (Al-Rawi 1988). This area contains about 12% of flora species found in Iraq. Based on Nature Iraq rapid assessments this area is home to more than 8 mammal species and over 87 bird species. Data for amphibians and reptiles is scarce.



Figure 1: Showing the survey site facing south (Photo Saman A. Ahmad)



Figure 2: Google Earth Map showing Qara Dagh Area's location within Iraq and as part of the Zagros foldbelt

Methods

There have been no field studies on leopards or their prey species in this area or Iraq as a whole. This discovery was made in the course of Nature Iraq's wild goat survey, in particular thanks to a camera trap set in the same location over two survey periods: the first session of camera trapping started from October 1st to October 20th 2011, where two camera traps were set in two different mountains of Qara Dagh Area. The first camera (Stealth Cam STC-I540IR model) was left on Tasha Loos Mountain for 19 days and the second camera (Keep Guard KG 550 model) was left on Jazhna Mountain, also for 19 days and both cameras were retrieved on the same day (October 20th 2011). The second session of camera trapping started from January 2nd to February 13th 2012, where only one camera trap (Keep Guard KG 550 model) was set on only Jazhna Mountain and the camera was left on the Mountain for a period of approximately one month and was retrieved on February 13th 2012. The cameras were not checked until they were retrieved at the end of each survey.

Results & Discussion

During the first session of camera trapping in October 6th 2011, one picture of a male leopard was taken (Figure 3) with the Keep Guard KG 550 camera on Jazhna Mountain, while the Stealth Cam STC-I540IR was unsuccessful to photograph any wildlife on Tasha Loos Mountain, and in January 23rd 2012 during the second session of camera trapping on Jazhna Mountain, another picture of a leopard (possibly the same individual) was caught (Figure 4). Besides the persian leopard, six different species of mammals were photographed by the camera trap: wild cat *Felis silvestris* (Figure 5), red fox *Vulpes vulpes*, golden jackal *Canis aureus*, indian crested porcupine *Hystrix indica*, persian squirrel *Sciurus anomalus*, and wild boar *Sus scrofa* (Raza et al. 2011). In addition to this finding, the team was successful in observing and photographing 49 individual wild goats, during the CLP summer and winter surveys.

Although this finding is only a beginning of research on persian leopard's status in Iraq, it is a great finding. As leopards were last reported by locals (interviewed by Nature Iraq staff at different sites in the Kurdistan region in 2010 and as part of the Key Biodiversity Areas (KBA) project) in the 1980's, this could spur further research on this species and its prey species to improve our knowledge on their conservation status in Iraq. Leopards and wildlife in general are under threat from over-exploitation of their main prey species, and although the leopard is not usually hunted for their fur or other means of use but rather killed in self defense, as claimed by a local who recently killed a leopard in one of the mountains of Kurdistan, Northern Iraq. More studies are needed to understand the status of leopard in this area and all over Iraq and regulations are needed to better control the hunting pressure.



Figure 3: Male persian leopard *Panthera pardus* caught on camera trap on October 2011 (Photo Nature Iraq/CLP)



Figure 4: Persian leopard *Panthera pardus* caught on camera trap on January 2012 (Photo Nature Iraq/CLP).



Figure 5: Wild cat *Felis silvestris* captured by camera trap in the same area on January 2012 (Photo Nature Iraq/CLP)

Acknowledgement

Our thanks go to the Conservation Leadership Programme fund for helping us to initiate a project on wild goat conservation in Iraq. We would like to thank the members of the Nature Iraq team who have been dedicated for making this project a great success. We would also like to thank Amir Hussein Khaleghi of the Plan4Land Society in Iran for providing advice. Special thanks go to the forestry police, who have been very helpful in our

survey trips to the area, for their efforts to control the hunting pressure in this area. We also acknowledge Anna Bachmann and James Wudel for editing.

References

- Al-Rawi A. 1988. Wild Plants of Iraq with their distribution. 3rd edition. Ministry of Agriculture & Irrigation, State board for Agricultural & Water Resources Research National Herbarium of Iraq. Baghdad, Iraq.
- Nature Iraq & Iraqi Ministry of Environment. 2011. Key Biodiversity Areas of Iraq 2010 Site Review. Sulaimani: Nature Iraq. Publication No. NI-0311-01
- Field H. 1955. Animals of Jebel Bradost, Iraq. Amer. Doc. Inst., Doc. No. 4427: 60-62.
- Hatt R. T. 1959. The mammals of Iraq. Museum of Zoology, Univ. of Michigan No. 106.
- Raza H.A., Qadir M., Ali L., Ararat K., & Abdulhasan N. 2011. The Search for the Vulnerable wild goat (*Capra aegagrus*) Continues with Great Success. Conservation Leadership Programme (CLP), BirdLife International, Conservation International (CI), and Fauna and Flora International (FFI): Projects in the middle east. Retrieved from <http://maildogmanager.com/page.html?p=000001XDDtjL2KurMdfWs%2Fz6ktHaRjkw%3D%3D> on 16 February 2012.
- Henschel P., Hunter L., Breitenmoser U., Purchase N., Packer C., Khorozyan I., Bauer H., Marker L., Sogbohossou E. & Breitenmoser-Wursten C. 2008. *Panthera pardus*. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2. <www.iucnredlist.org>. Downloaded on 15 February 2012.
- Pocock R. I. 1930. The Panthers and Ounces of Asia. *Ibid.*, pp. 64-82, 307-36.
- Weinberg, P., Jdeidi, T., Masseti, M., Nader, I., de Smet, K. & Cuzin, F. 2008. *Capra aegagrus*. In: IUCN 2011. IUCN Red List of Threatened Species. Version 2011.2. <www.iucnredlist.org>. Downloaded on 15 February 2012.

Sixth

Article on Flora Fauna International (FFI), 2012

FAUNA & FLORA INTERNATIONAL
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UPDATE
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The newsletter of Fauna & Flora International
www.fauna-flora.org/ff-update-newsletter



Elusive snow leopards caught on camera in Tajikistan

When scientists decided to carry out a biodiversity survey in the remote Zorkul Nature Reserve in Tajikistan, they didn't expect to find a snow leopard hotspot.

Although research conducted in previous years had revealed the importance of the reserve's Lake Zorkul and wetlands for migrating birds, biodiversity in the surrounding mountains remained largely unknown.

To address this, Fauna & Flora International assembled a team to complete the first detailed biodiversity survey of the reserve, aiming to establish a baseline for future conservation work.

The team also hoped to learn more about one of the world's rarest cats: the snow leopard.

The snow leopard lives in the remote mountainous regions of Central Asia. Protected by thick, smoky-grey fur and capable of leaping thirty feet and taking prey three times its own weight, it is well adapted to the cold, harsh landscape.

Sadly, this species is now listed by the IUCN as Endangered, and numbers are thought to have declined by at least 20% in the last 16 years, largely due to habitat loss and poaching. Scientists estimate there may be as few as 4,000 individuals left in the wild.

The shy and elusive nature of snow leopards makes conserving the species even more problematic, as it is not easy to estimate population numbers, or to identify critical habitat areas for protection.

Camera traps (automatic, motion-detecting cameras) can therefore play a crucial role in snow leopard conservation, as they allow scientists to identify individuals from their unique spot patterns.

With the support of Panthera, the Zorkul survey scientists placed 11 automatic cameras high up in the Wakhsh mountain range in the hope of gaining some insight into snow leopard activity and behaviour in the region.

They were in luck. Over the survey period, the camera traps photographed five separate snow leopards living in one valley system, including a family with two cubs.

When the team returned to retrieve the cameras after three months, one camera was missing. The culprit was soon caught however – images from the paired camera showed the cheeky cubs carrying it off!




▲ Snow leopard cub carrying the camera trap in its mouth and running

▲ Camera trap caught in the net

Wild goats and big cats soldier on in war-torn Iraq

Conservation is always challenging, especially in a country with a history of conflict.

This makes the work of a team from Nature Iraq all the more remarkable. Funded by the Conservation Leadership Programme (CLP), the team has been researching the wild goat, an important species with historical links to the people of Iraq.

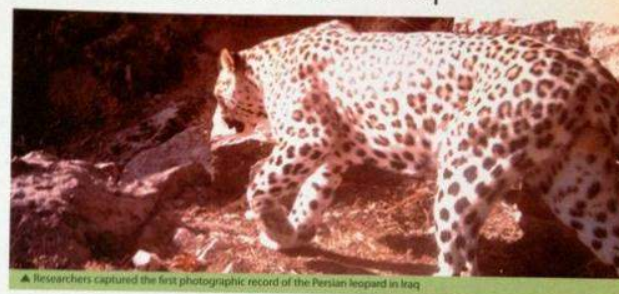
Here Hana Ahmed, mammal expert with Nature Iraq, talks about the research and its findings, and discusses some other unexpected results...

Where have you been working?

The research has focused on two key areas in north-east Iraq: Permagroon Mountain (which is the highest peak in the Sulaimani governorate) and Qara Dagh, an area of oak forest composed of eight peaks and nine valleys.

What is the significance of this research?

The wild goat (*Capra aegagrus*) is thought to have declined by around 30% in recent years due mainly to over-exploitation and habitat loss. The IUCN lists it as Vulnerable, but its distribution is not well known. The team was looking to enrich international understanding about the status of this animal in Iraq, which would help us to protect it more effectively.



▲ Researchers captured the first photographic record of the Persian leopard in Iraq

What are your findings so far?

In both survey sites, the team found an unusually high number of wild goats. Although they are known to live in large herds, we believe this indicates that Iraq could be an important area for the conservation of this species. The data gathered will be combined with Nature Iraq's threat assessments to help us protect the wild goat in these areas where hunting pressure is high.

Did you observe any other species during your surveys?

We actually recorded quite a few significant sightings of other animals during the CLP survey work, including the first photographic record of the Persian leopard in Iraq (captured

by a camera trap in Qara Dagh). Classified as Endangered on the IUCN Red List this species was, until now, thought by many to have been lost from the region. Other interesting findings included the first records of the least weasel and the Eurasian lynx (spotted by Muhammed Saddik from the Forest Police, KRG) in Kurdistan, northern Iraq.

The CLP is an international capacity building programme that awards funding for exceptional people who are beginning their careers in conservation. CLP is run as a partnership between Fauna & Flora International, Conservation International, Birdlife International and the Wildlife Conservation Society.

Seventh

Video about the Conservation Leadership Programme:

English narration found on <http://vimeo.com/52530216>, November 2012.

Kurdish narration found on <http://vimeo.com/52533927>, November 2012.

Eighth

Species observed or reported during the CLP project

| No. | Common Name | Scientific Name | IUCN status |
|-----|--------------------------|------------------------------|-------------|
| 1. | Persian Leopard | <i>Panthera pardus</i> | NT |
| 2. | Wild Cat | <i>Felis silvestris</i> | LC |
| 3 | Eurasian Lynx | <i>Lynx lynx</i> | LC |
| 4 | Syrian Brown Bear | <i>Ursus arctos syriacus</i> | LC |
| 5 | Golden Jackal | <i>Canis aureus</i> | LC |
| 6 | Red Fox | <i>Vulpes vulpes</i> | LC |
| 7 | Eurasian Otter | <i>Lutra lutra</i> | NT |
| 8 | Least Weasel | <i>Mustela nivalis</i> | LC |
| 9 | Striped Hyena | <i>Hyaena hyaena</i> | NT |
| 10 | Indian Crested Porcupine | <i>Hystrix indica</i> | LC |
| 11 | Wild Goat | <i>Capra aegagrus</i> | VU |
| 12 | Persian Squirrel | <i>Sciurus anomalus</i> | LC |
| 13 | European Hare | <i>Lepus europaeus</i> | LC |
| 14 | Wild Boar | <i>Sus scrofa</i> | LC |

Bibliography

Weinberg, P. (2001). *On the status and biology of the Wild Goat in Daghestan (Russia)*. J. Mt. Ecol., 6: 31-40.

Genov P., Georgiev G., Georgiev V. (2009). *Persian Wild Goat (Capra aegagrus erxleben)- biology, ecology and possibilities for its reintroduction in Bulgaria*.

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Distribution list

This report is still not published or distributed anywhere, but there is plan to publish it on Nature Iraq's website, next Nature Iraq's newsletter, and CLP newsletter. Also copies of this report will be sent to the Ministry of environment of Iraq, Kurdistan Regional Government Environmental Protection & Improvement Board (Erbil and Sulaimani office), Sulaimani Directory of Forestry Police, and University of Sulaimani.