Darwin Initiative: Half Year Report

(due 31 October 2007)

Project Ref. No.	13 – 034
Project Title	Wildlife health monitoring and capacity-building for leopard conservation in Russia = Amur Leopard & Wildlife Health Project (ALWHP)
Country(ies)	Russia, United Kingdom
UK Organisation	Zoological Society of London
Collaborator(s)	Primorskaya Sate Agricultural Academy (PSAA); Moscow and Novosibirsk Zoo; WCS; European Zoos; Lazovsky State Nature Reserve (LSNR); Russian Institute of Biology and Soils (IBSS); TIGRIS; Phoenix Fund; Utios Wildlife Rehabilitation Centre; IFAW Moscow; Wildlife Vets International (WVI); Faculty of Veterinary Science and National Centre for Zoonoses Research, University of Liverpool; Institute of Zoo and Wildlife Research, Berlin
Project Leader	Dr Claudia Schoene
Report date	April – September 2007
Report No. (HYR 1/2/3/4)	HYR 2
Project website	www.amur-leopard.org http://www.zsl.org/field-conservation/carnivores-and-people/amur-leopard-conservation-in-russia,468,AR.html

1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up).

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2. Give details of any notable problems or unexpected developments that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

The following problems have been encountered over the last six months (April – September 2007):

I. Wildlife Health Monitoring Unit (WHMU)

Following Russian legislation, all restoration and building work in public buildings (like Academies or Universities) is dependent on a tender process. This process requires at least three month for every branch of construction, such as putting up a fence around the building, installing new windows and doors, reconnecting water, electricity, sewage, heating, etc.

Furthermore, additional planning permission had to be obtained to erect a fence and for the exact location of the reconnection of water and electricity supplies.

Though an adequate budget had been provided by the ALWHP to the PSAA still at the end of the DI FY 2005/6, the restoration process experienced considerable delay due to the above mentioned bureaucratic hurdles.

A fence has now been erected and electricity installed in the building. The heating system will be reconnected in October and November 2007 so that inside restoration work can continue throughout the winter. At least one of the four rooms in the building will be operational in Spring 2008.

In the meantime laboratory work will be carried out in the recently finished mini-lab of the ALWHP, located on the balcony of the ALWHP's office flat (pictures of the laboratory are attached in **Annex I**). Therefore, the delay in restoration of the WHMU does not affect the time table of activities of the ALWHP.

II. Sampling

The collection of samples from livestock and pets (cattle, sheep, goats, dogs and cats) is dependent on permits from the Regional Veterinary Authority in Vladivostok. This is due to a recent change of legislation and was first brought to the ALWHP's attention at the beginning of September 2007.

We are currently applying for a respective licence for the sampling of domestic animals in Lazovsky rayon (region). Negotiations have to be led by a Russian organisation and the ALWHP is in this case being represented through the Scientific Director of the Lazovsky State Nature Reserve. We have been informed that a respective permit should be forthcoming before the end of 2007.

Since in the meantime permits have arrived from Moscow authorizing the ALWHP to start sampling Amur leopard prey species inside LSNR, the new and unexpected prerequisite of having to obtain a permit for the sampling of domestic animals does not delay the sampling efforts of the ALWHP.

Sampling will start inside LSNR after the completion of this year's veterinary workshop (06. – 15. November 2007)which is organized by the Project Manager of the ALWHP, and the ALWHP second Steering Committee meeting (16. November 2007).

Have any of these issues been discussed with the Darwin Secretariat and if so, have changes been made to the original agreement?

Since neither of the above mentioned developments has an impact on either the budget or the time schedule of activities of the Amur Leopard & Wildlife Health Project they have so far not been a topic of discussion with the Darwin Secretariat.

Discussed with the DI Secretariat: **no/~~yes~~, in…**n/a**… (month/yr)**

Changes to the project schedule/workplan: **no/~~yes~~, in…**n/a**….(month/yr)**

3. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures? n/a

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with the Darwin Secretariat directly.

Please send your **completed form email** to Eilidh Young, Darwin Initiative M&E Programme at Darwin-Projects@ectf-ed.org.uk . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 14-075 Darwin Half Year Report**

Progress outline (replies to Box 1):

Baseline project progress for April – September 2007	Actual project progress for April – September 2007	Comments
December 2006-February 2007: Capture session for wild leopards in SW Primorye	Due to unfavourable weather conditions the second capture period for wild leopards had to be postponed to April / May 2007. The capture team, consisting of scientists from WCS, IBSS and ZSL and Dr John Lewis from Wildlife Vets International caught one male Amur leopard. Dr Lewis and Dr Schoene furthermore performed a necropsy on a female Amur leopard which was poached during the same time	For further information on both activities a copy of the ALTA (Amur Leopard & Tiger Alliance) Newsletter from October 2007 is attached in **Annex II**.
May 2007: First set of training workshops completed in RFE	This had already been accomplished in April 2006. The second veterinary training workshop is now in preparation and will take place from November 6th – 15th, 2007.	
April 2008: Training workshop completed in Moscow Zoo	The dates for this workshop were brought forward into June 2007. The health and reproductive quality of Amur leopards at Novosibirsk Zoo and the Moscow Zoo Breeding Station were assessed. Five students from the PSAA received theoretical and practical training in the EEP and the veterinary evaluation of wild animals in captivity with a focus on Amur leopards.	For further information the Zoo workshop report is attached in **Annex III**.
September 2007: Article accepted for publication in German Veterinary Journal	An article on the relevance of veterinary medicine in conservation was published in the German Veterinary Journal, using the ALWHP as an example. This article was a joint publication by scientists from ZSL, WCS, PSAA, Moscow Zoo, IBSS and WVI.	For further information a copy of the article in the "Deutsches Tierärzteblatt" is attached in **Annex IV**.

Responses to Annual Report Review

Question 1:

"Will the project determine a new lower target figure and a reasonable argument for how the reduced sampling regime will still provide a robust illustration of the health status of the target species as listed? **(Response required for half year report)**"

Response 1:

This will be discussed in detail during the second Steering Committee meeting of the ALWHP on November 16th, 2007, when all relevant experts from the various partner organisations will be present. A respective decision and detailed reply will be submitted to the Darwin Secretariat immediately after the SC meeting. It will furthermore form part of the next Annual Project Report to the Darwin Secretariat.

The following suggestion will be brought to discussion by the ALWHP Project Manager:

Table 1: Sampling strategy – species of interest

Number	Species in three sampling areas (Lazovsky, Nadezhdenskii & Xasanskii rayon)	Number of samples / species
1	Red deer (*Cervus elaphus*)	18
2	Roe deer (*Capreolus capreolus*)	50
3	Sika deer (*Cervus nippon*)	50
4	Racoon dog (*Nyctereutes procyonides*)	20
5	Badger (*Meles meles*)	20
6	Far Eastern Wild Cat (*Felis eupilura*)	20
7	Manchurian Hare (*Caprolagus brachyurus*)	20
8	Siberian Chipmunk (*Tamias sibiricus*)	20
9	Sable (*Martes zibellina*)	10
10	Mouse-like rodents *(family Muridae*)	80
11	Dog (*Canis familiaris*)	50
12	Cat (*Felis catus*)	50
13	Cattle (*Bos taurus taurus*)	50
14	Sheep (*Ovis gmelini aries*)	30
15	Goats (*Capra hircus*)	30
16	Pigs (*Sus scrofa domestica*)	30
	Total number of collected samples	**548**
17	Humans (*Homo sapiens*) – hospital records only	+150

This increases the number of species from six to 17 while reducing the total number of samples collected and analyzed to 548 from 600. Using the current knowledge and experience as far as trapping efforts and the availability of samples from domestic animals and deer from commercial deer farms is concerned; the achievement of the sampling effort outlined in the above table seems realistic for the remaining sampling period in the years 2007 and 2008.

It is furthermore assumed that the increase in species numbers and hence in the number of potential Amur leopard prey species who become part of the sampling effort will compensate for the reduction in total number of samples collected per species and will therefore still allow for a valid prediction of disease risk present for the remaining Amur leopard (*Panthera pardus orientalis*) population as well as for a potentially re-introduced population in the selected regions in Primorski Krai.

Table 2 lists the diseases whose presence or absence in the prey population will be evaluated. This list will become more comprehensive in future depending on additional funding available.

Table 2: Sampling strategy – diseases of interest

Disease
Bacterial diseases
Feline chlamydophillosis
Sylvatic plague
Tuberculosis
Tularaemia
Viral diseases
Canine distemper
Feline Calici Virus
Feline Corona Virus
Feline Immunodeficiency Virus
Feline Infectious Enteritis
Feline Leukaemia Virus
Feline Rhinotracheitis Virus
Rabies
Parasitic diseases
Babesiosis
Dirofilariosis
Haemobartonellosis
Liver flukes
Lung worms

Question 2:

"It would have been appropriate at this stage to have revisited the initial assumptions on which the indicators for output 2 were based and to redraft these assumptions so that they are now in-line with the reduction in magnitude of assumption one **[indicator 1?]** and the refocusing on 'presence' rather than prevalence and incidence of each disease. **(Response required for half year report)**"

Response 2:

The same as stated under Response 1 applies here as well.
The effort to mitigate the effect of the reduction in magnitude on the overall result of the sampling effort has been outlined under Response 1 as well.

The following suggestions for the re-drafting of Assumption 1 – 3 for Output 2 will be brought to discussion by the ALWHP Project Manager during the second SC meeting:

Assumption 1: Necessary agreement reached with all parties.

Draft 1: Necessary agreements and sampling permits can be obtained in time to ensure the collection of all samples required for a scientifically sound assessment on the presence of the selected diseases of interest.

Assumption 2: Sampling effort successful.

Draft 2: The revised sampling strategy is statistically valid and ensures *detection* of disease in the overall selected prey species population comprising 17 species, if disease is *present*.

Assumption 3: Journal editor(s) interested.

Draft 3: The sampling results allow the prediction of health risks for Amur leopards in Primorski Krai and the establishment of respective models on disease risk assessment and mitigation.