

This report will be made public. If it contains confidential or sensitive information, please also provide a revised report for sharing with the public.

Section I. Project Information	
Project Title: Monitoring populations of Amur leopards and tigers in Southwest Primorye, Russia	
Grantee Organisation: Wildlife Conservation Society	
Location of project: Southwest Primorskii Krai, Russian Far East. Land of the Leopard National Park (LLNP) is approximately 43.100 N 131.200 E.	
Size of project area (if appropriate): 957.58 km ²	No of tigers and / or Amur leopards in project area, giving evidence & source: Amur leopard (protected in the Red Books of Primorskii Krai and Russian Federation; listed as “Critically Endangered” by IUCN) and Amur tiger (protected in the Red Books of Primorskii Krai and Russian Federation; listed as “Endangered” by IUCN). Our 2018 publication estimated a stable global population of Amur leopards at 84 adults/subadults in 2014-2015. Surveys since then in Russia suggest the population has continued to increase. The official estimate of Amur tiger numbers in Russia is 523-540 (adults and cubs) but is based on expert assessments of unknown accuracy and precision.
Partners: <i>(Please give details of partners, including communities, academic institutions etc. for this project.</i> We updated our formal agreement with Land of the Leopard National Park to work within its borders in 2018. We will also inform the Nezhinoe Naval Hunting Lease of our camera trapping activities on their land (adjacent to LLNP), although legally we do not require formal approval to work there. To better coordinate a transboundary camera trap database, we coordinate activities in China through WCS China and their contacts with Hunchun Nature Reserve and the larger Northeast Tiger Leopard National Park.	
Project Contact Name: <i>(main contact via email):</i> Dale Miquelle, Jonathan Slaght	
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Actual start date of project: <i>(if different from 1st February)</i> 12 January 2021	
Reporting period: February 1, 2021 - June 30, 2021	

Section II. Project Progress

Summary of progress for the first 6 months: *(please provide a summary for use in our communication materials)*

The work is proceeding as planned, although we encountered some unique difficulties this year (see *Obstacles* section, below). In general, we have sought to institutionalize rigorous methods of population monitoring in the Russian Far East for nearly twenty years, and continue to make strides in 2021. This positioning allows us to help guide LLNP management, and provides an example of how to properly estimate leopard abundance. These activities also demonstrate our strengths as a science-based conservation organization, which helps us negotiate and be engaged in transboundary conservation activities.

Our evidence-based survey methodologies, enacted as part of a long-term monitoring project, have allowed us to demonstrate that leopard numbers have increased over the past five to ten years in Southwest Primorye, which is a testament to improved law enforcement efforts and better management coming after the creation of Land of the Leopard National Park. The collective results demonstrate that recovery of leopard numbers is possible in northeast Asia when appropriate and dedicated management efforts are applied, and are a testimony to the value of dedicated monitoring efforts.

Details of activities and results to date: *(Please give details of progress made towards the objectives & outputs of your Logframe, and activities included in your Workplan. Please add any relevant charts, maps and images.*

Objective 1: Continue monitoring in Nezhino and Northern Sectors of LLNP.

Activity 1.1. Deploy cameras

During 18 days (from January 12 to February 10, 2021) a team of 5 field workers set 62 pairs of camera traps within and adjacent to LLNP. During this period, ~3,500 km were covered by vehicle and snowmobile, and ~100 km covered on foot. Logframe target: 54 pairs set in early winter [achieved]

Activity 1.2. Collect cameras

Over a 15 day period (May 11 to May 27, 2021) a team of 6 employees collected 60 pairs of camera traps within and adjacent to LLNP (2 pairs of cameras were stolen). Camera collection resulted in ~4,000 km covered by vehicle and ATV, and ~100 km on foot. Logframe target: camera collected by mid-June [achieved]

Activity 1.3. Analyse data and develop report

The process of curating photos and entering them into our database began in early June. A total of about 300,000 photos were collected, including 2,315 images of leopards and 1,125 images of tigers. The process of individual identification of tigers and leopards is ongoing. Logframe target: data analysis commence in June 2021 [achieved]

Objective 2. Deploy anti-poacher camera traps

Activity 2.1. Agree on process with LLNP administration.

The use of three poacher cams to prevent illegal entry into the protected area was discussed with the administration of LLNP, who agreed to work with us to collect data on use of this new technology. The theoretical process is as follows: a poacher cam records someone entering the park illegally, sends images directly to inspectors via the cellular network, inspectors mobilize and confront the violators. Logframe target: process agreed upon [achieved]

Activity 2.2 Deploy poacher cams.

In April 2021 the first three 3 poacher cams were deployed within the territory of LLNP, and the results are already encouraging. Despite problems getting everything functional in the beginning, there have already been six citations written up by law enforcement inspectors responding to photographs sent by our poacher cams. Citations were issued for illegal entry, fishing, and hunting within the park. We will continue to experiment with these cameras to determine the most effective places to monitor, which will likely change over time and seasons. Logframe target: at least 3 poacher cams deployed and functional [achieved]

Activity 2.3. Include camera trap data in SMART report.

SMART software used by LLNP has been updated so that data from poacher cams can be incorporated into the SMART database. By including poacher cams as a type of “patrol” activity, we will be able to determine how many infractions they record, how many of these are responded to by inspectors, and the results of those responses. We will be able to develop “catch rates” similar to our other SMART indicators (e.g. the number of violators that enter per 1000 hours) and track these over time to measure results. Another metric we can begin to measure is “response time,” i.e. the amount of time it takes a team to mobilize after a violation was detected. We have already had several instances in which intruders have been identified by cameras, but inspectors have not been able to find intruders. Hence, it is clear there is still some work that needs to be done to improve response time and strategic approaches to find intruders in these cases. Logframe target: Poacher cam data adopted into SMART [achieved].

Objective 3. Influence Amur Leopard Management

Activity 3.1. Work on Expert Group to develop effective recommendations for National Strategy.

We participated in two meetings (on March 22 and June 22, 2021) of the Working Group of experts on conservation and recovery of the Amur leopard population. The working group made revisions and additions to the National Strategy on Amur Leopard Conservation.

The Working Group consists of senior representatives of the federal government, research institutes, and NGOs. Aleksandr Rybin, manager of our leopard project, represented WCS. In addition to minor revisions to the strategy, two issues were decided at this meeting. First, that hunting with dogs should be banned for a period of five years in the southern Sikhote-Alin region, where Amur leopard reintroductions are planned. Second, that the Russia Federation would begin working with the DPRK government to improve habitat for leopards on the northern half of the Korean peninsula. The

revised strategy, taking into account the amendments, is currently being finalized and will be sent for intradepartmental approval. *Logframe target*: first draft prepared by end of 2021 [in progress]

Give details of any obstacles to success that the project has encountered over the last 6 months.

(Please provide detailed examples, explain what impact these will have on the project results and the changes to the budget and timetable of project activities)

As stated in a blog post submitted to WCCA with our last report, in November 2020, an early winter ice storm descended on southwest Primorye, followed by a deep and prolonged freeze. Even by January 2021, at the start of this grant, the hills remained encased in a solid, thick layer of ice, and subsequent snowfalls dusted this surface with a shallow covering of snow. This made it practically impossible to ascend the steep slopes to reach the ridges where we set our camera traps for leopards. In fact, a typically-quick ascent of 10-15 minutes turned into 45-90 minutes of teeth-clenching struggle; pulling ourselves upslope from one handhold to the next. After successfully placing our first few traps we realized that these were in the flattest areas, and it dawned on us that the steepest and most remote sites were still ahead. This was unsustainable and dangerous.

We temporarily abandoned our work to drive into the city of Vladivostok some three hours away, where we went from store to store looking for ice crampons. This is a city unaccustomed to such needs, and any that stores may have once had crampons were now long sold out. We found some recreational ice cleats—the kind of thing people use for extra grip on icy sidewalks—but these were useless for our needs. Two pairs shredded on their first day in the forest. We needed mountaineering-grade equipment, and the closest place we could find such gear in Russia was in Moscow, some 6,400 kilometres to our west. We ordered four pairs of ice crampons and two ice axes—items we never thought we'd need in Primorye.

Outfitted as though to storm a glacier, we returned to the field and succeeded in placing all of our cameras in the forest, and collected them in spring. Data processing is ongoing.

Budget: Is the spend on target? **If not, please give details and provide an updated budget sheet.**

Spending is on target.

Media: Please provide a list of recent publications and media both local and national which mentions the work funded by this project and/or mentions WildCats Conservation Alliance

LLNP is preparing to publish a monograph on leopard monitoring, and we have requested that WCCA be acknowledged for providing support for this effort. Once the paper is ready we will share a copy with WCCA.

WildCats Conservation Alliance asks for at least 5 relevant high-resolution jpeg files of images of the project activities during this time period.

Attached.