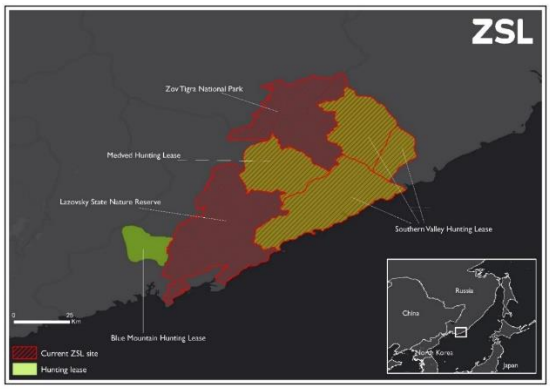
This report will be made public. If it contains confidential or sensitive information, please also provide a revised report for sharing with the public.

Section I. Project Information	
Project Title: Amur Tiger Conservation in the Lazovsky Landscape	
Grantee Organisation: Zoological Society of London	
Location of project: ZSL's tiger conservation landscape including Lazovsky State Nature Reserve (LZ), Zov Tigra National Park (ZT) and adjacent hunting leases in the Russian Far East. The Coordinates**:** 43.2°N 131.95°E 	
Size of project area (if appropriate): 3,000 km^2	**No of tigers and / or Amur leopards in project area, giving evidence & source:** 18-22 tigers annually based on our monitoring survey reports
Partners: *(Please give details of partners, including communities, academic institutions etc. for this project.* We have worked with our partners at United Administrations of Lazovsky Zapovednik and Zov Tigra National Park (UALZZT) since 2001 with whom we have a MoU. Additionally, Dr. Kerley is integrated into protected area management as a part time employee of the UALZZT, at the request of the Director. She holds the camera trap monitoring work permits with the protected area secured to December 2022 and small carnivore capture permits for wildlife disease monitoring. We have been collaborating with WCS and Phoenix Fund to implement SMART in UALZZT for the past ten years and continue to have a good working relationship with both NGO. We have a MoU between ANO Amur in partnership with ZSL, UALZZT, WCS, and Phoenix fund. ZSL's partner to support our work in UALZZT and the wider landscape, is with the Russian NGO 'Protection of Amur Tigers and Far Eastern Leopards' or Amur (ANO Amur). Amur is an autonomous non-profit organisation incorporated under the laws of the Russian Federation, that is working to	

protect Amur Tigers and Far-Eastern Leopards in Russia. Under the collaborative agreement that ZSL has with Amur, our work in the region is delivered under the umbrella of Amur.
Project Contact Name: (*main contact via email)* Linda Kerley
Email: linda.kerley@zsl.org & kerley_linda@yahoo.com
Actual start date of project: *(if different from 1st February) 1st February 2020*
Reporting period: 1 February – July 31, 2020

Section II. Project Progress

Summary of progress for the first 6 months:

With support from WildCats Conservation Alliance, ANO Amur in partnership with ZSL's Amur tiger conservation project, Southeast Primorsky Krai, has developed a holistic programme for tiger conservation in Lazovsky Zapovednik (LZ), Zov Tigra National Park (ZT), and adjacent areas. So far in 2020, ZSL worked with partners to conduct tiger population monitoring, implement improved management plans that have increased the effectiveness of anti-poaching activities in the area, and continued wildlife veterinary capacity building and strategic planning. Although our work was slowed due to the COVID19 pandemic, preliminary tiger monitoring results for 2020 show an increase in adult tigers after several years of good reproduction. Monitoring efforts in the unprotected area between LZ and ZT provided evidence that tigers are surviving and reproducing there as well. Our programme also continues to focus on combating threats in protected areas (most importantly poaching and wildfires) which contributed to stable tiger and prey numbers, verified by effective monitoring results. The continued success of our conservation activities will ensure a source of tigers for dispersal into adjacent unprotected areas with fewer tigers.

Details of activities and results to date:

A female tiger recorded in Zov Tigra National Park in February 2020

Objective 1. Long term population monitoring of Amur tigers in the protected areas of United Administrations of Lazovsky Zapovednik and Zov Tiger National Park, and the adjoining hunting leases.

Over the past 12.5 years (2008-2020), ZSL has worked with partners UALZZT using camera traps and conducting snow track surveys to monitor tigers in Lazovsky Zapovednik (LZ); we have also been using these methods for the past 10 years in Zov Tigra National Park (ZT) (although we have been involved indirectly with tiger monitoring since 2001). In November 2014, LZ and ZT were joined to form the United Administration of Lazovsky Zapovednik and Zov Tigra National Park (UALZZT), but they continue their original functions as a strictly protected area (LZ) and a national park (ZT), so we continue to refer to them as such. Because it is critical to understand how tigers move between the two protected areas, we extended our survey in 2013 to include the unprotected Medved Hunting Lease (MHL), situated between LZ and ZT and managed by a private hunting club. In 2016, we again extended our survey to include the Southern Valley Hunting lease (SVHL) (See map above). Monitoring a larger contiguous area provided better information about tiger survival, reproduction and movements through unprotected areas, where they are more susceptible to poaching. This year, we continued our long-term tiger monitoring over the tiger conservation landscape.

Beginning before February 2020, Together with UALZZT, we successfully completed our annual camera trapping surveys (although see below for problem details), with paired cameras set at 110 locations for at least 90 days between December 2019 and May 2020 consistent with prior winter tiger surveys (hereafter referred to as the "2020 tiger survey"). Forty camera traps will remain operating in LZ and ZT to record supplemental information about resident tigers, including site persistence, body condition, and evidence of reproduction (cubs or lactating females).

A few problems have slowed our progress so far in 2020. First, due to the COVID-19 pandemic and resulting travel and social restrictions, coupled with severe spring weather, we were not able to recover field data (camera traps and tiger photographs) until mid-July 2020 (1.5 months later than usual). As a result, 2020 tiger survey data are still being sorted and compiled into SECR statistical format and the ZSL's CTAT format. Second, we lost some data because an unusually large number of camera traps were stolen (19 camera traps) during the COVID19 lockdown, presumably by people illegally collecting lichen's to sell on the black market.

Although 2020 survey results are still being analysed, the minimum number of tigers counted so far is 20 adults and 3 litters of cubs, including 12 adults (8 males and 4 females) and 2 litters of cubs (one 1-year old litter of 2 cubs and one new litter with an unknown number of cubs) recorded in LZ, and 8 adults (4 males and 4 females) and 1 litter of 3 cubs recorded in ZT. More detailed survey results will be completed and reported in our final report at end of the year.

Additional information of interest recorded so far in our 2020 survey as follows:

1. Photographs of a 14-year old male tiger "Yasha" (the oldest and longest continuously monitored male Amur tiger) with an injured tail (Figure 2). In 2019, after Yasha was displaced from his territory by a younger male, he injuries his tail (perhaps in a fight with another tiger which illustrates the dangers faced by tigers without territories). Photographs revealed that the end of his tail was first constricted, and then fell off after several weeks, leaving a shortened tail (Figures 2-4).

Figure 2. Adult male tiger "Yasha" with a normal tail in 2019.

Figure 3. Adult male tiger "Yasha" with a wound on the end of his tail in December 2019. This photo shows bone and dead skin at the end of his tail.

Figure 4. Adult male tiger "Yasha" with a short tail recorded in January 2020 after the wounded tail tip fell off sometime between December and January during our survey period.

2. Survival of 2 cubs in 15-year old tigresses' (Sabrina) 5th litter ("Sabrina" is the oldest recorded territorial female Amur tiger) to 1 year of age (figure 5); photo taken on 16 June 2020.

Figure 5 a, b, and c. Mother tiger Sabrina (above) and two 1-year old cubs (middle and bottom photos) visiting a scent marking tree in Lazovsky Reserve on 16 June 2020.

3. Mother tiger "Anna" with 3 cubs recorded both in unprotected areas and Zov Tigra National Park in winter 2020 (at 6-month old) and in August (at 1 year of age). Anna was born in 2014 in LZ and this is her 3rd litter (Figure 6).

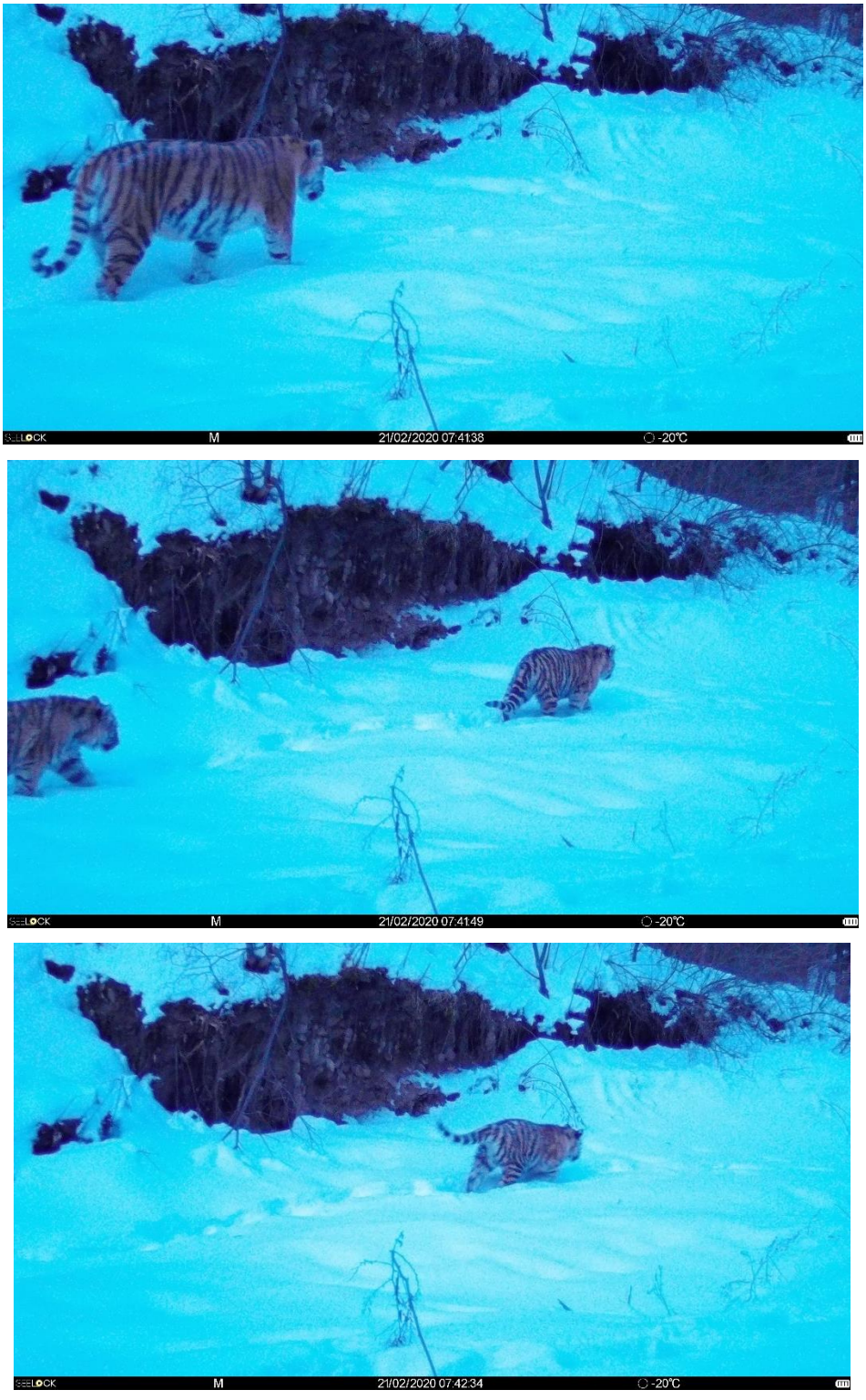


Figure 6 a, b, and c. Mother tiger Anna (above) and three 6-month old cubs (middle and bottom photos) photographed 21 February 2020.

Objective 2 Reinforce the Spatial Monitoring and Reporting Tool (SMART) approach to enforce anti-poaching, including the use of SMART software, rapid response teams, and Forest Eyes Initiative, which uses camera trap technology to monitor illegal human trespassing in protected areas.

We continued to collaborate with the UALZZT Director and WCS to implement SMART in the protected areas (beginning our 11th year), providing funds for Ranger per diems and a computer Database Specialist who is responsible for SMART data management and monthly reporting. From February - August, we held two meetings with head Rangers and the PA director to discuss SMART patrol progress; one prior to the COVID19 pandemic social distancing restriction (February), and one after restrictions were being lifted (August). During our August meeting we followed social distancing guidelines including maintaining 2-meters distance between participants and mask wearing (Figure 8).

The UALZZT SMART Database Manager produced 6 monthly SMART reports and 1 quarterly reports that were used to adapt strategic anti-poaching management. From February – June 2020, seven patrol groups (totalling 46 Rangers) recorded 15 illegal actions on PAs which resulted in written citations including the Rapid Response Teams (RRT) successful apprehension of Lichen collectors. A newly immerging threat, lichen collecting is not regulated, but collectors were given citations for illegal trespassing onto LZ. To enhance ant-poaching patrols, we worked with UALZZT to ensure that 5 poacher cams were set in areas to increase detection of illegal activity in PAs (Figure 9). Comparing 2019 to 2020, the quality of patrols conducted in February – May increased, for example with Ranger patrolling more days per month in 2020 (Figure 9).

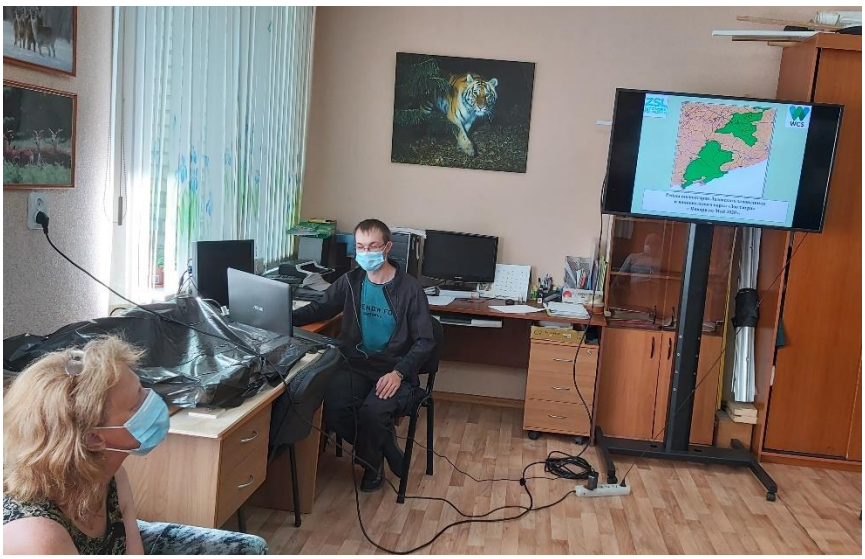


Figure 8. A meeting with ZSL, WCS, PA directors to discuss SMART patrol progress. Held during the COVID19 pandemic, participants took necessary precautions to avoid possible virus spread.

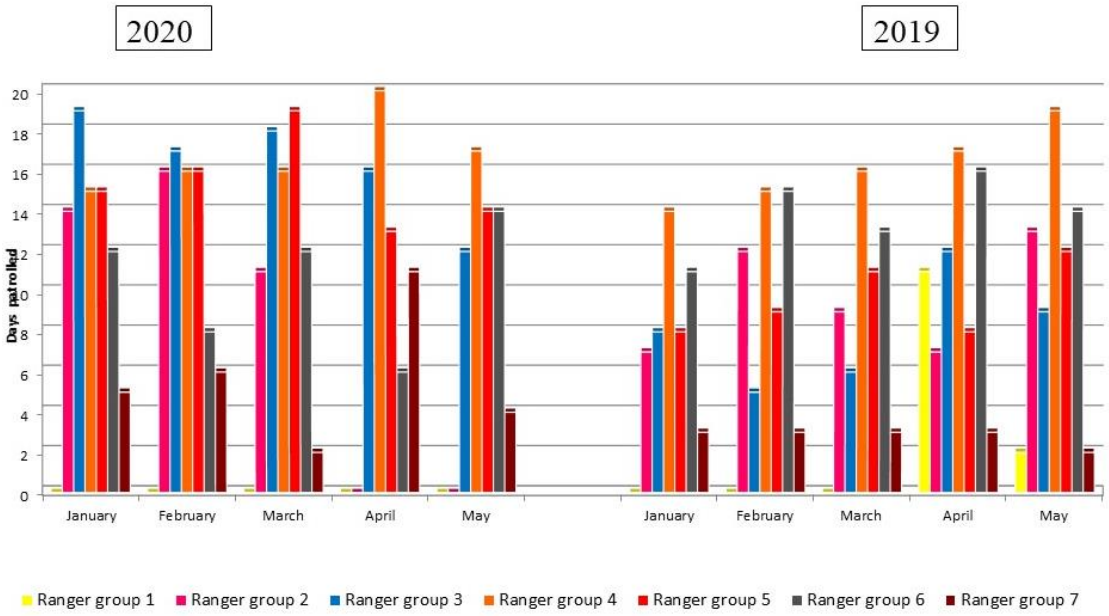


Figure 9. A comparison of days patrols in each month (January – May) by each of seven patrol groups (totalling 46 Rangers) in 2019 versus 2020.

Figure 9. Lichens collected to sell in the Chinese black market.

Objective 3. Build conservation and wildlife health capacity within Far Eastern Russia by monitoring disease threats, training veterinary students and contributing veterinary expertise for tiger and leopard rehabilitation at TRNCO tiger centre or with other government authorities to minimize the threat of disease and aid in rehabilitations to wild tigers under care and future reintroduced leopards.

In February to mid- April, we continued to work with veterinary students attending Primorsky State Agriculture Academy (PSAA) Wildlife Diagnostic Centre until it closed to onsite learning due to COVID19 pandemic. Due to the resulting economic situation it is unclear if the Centre will reopen but we will continue to monitor the situation. Project Vet Misha Goncharuk worked with TRNCO to preform health checks on an orphaned tiger cub captured near a village not far from Lazo and brought to the centre for rehabilitation, as well as helping transfer sika deer to the centre to feed tigers, a red deer calf with broken leg, and a lynx who was captured from a tree in a local persons front yard. We were unable to conduct wildlife health monitoring in Spring due to travel restrictions and we used the time instead to organize and prepare for future wildlife disease publications.

Figure 10. ZSL project vet in the process of immobilizing a captive sika deer so that it can be transferred to TRNCO to feed orphaned tiger cubs and teach them to hunt.

Figure 12. Eurasian Lynx in a local Lazo person's front yard tree, chased there by dogs. The lynx is an unusual pale colour but healthy. He was captured by TRNCO, kept for observation for 1 week before released back to the wild away from town.

Objective 4. Continue public outreach and communication efforts, both through events at local schools nurturing an appreciation for tigers and support for their conservation; and developing publications on long-term tiger population monitoring since 2007.

Due to COVID19 pandemic and resulting school closures, we have been unable to hold any local school events and we are still unclear if schools will open after September, but we are monitoring the situation closely. Also, due to ZSL staff furloughs of Dr. Raj Amin, who we usually work closely with on data preparation, we have not submitted any tiger article for publication yet, but we are working towards that goal for the remainder of the grant period.

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)

The main obstacle of success that has slowed our progress so far in 2020 is the COVID-19 pandemic and associated travel and social restrictions which resulted in 1) slow recovery of field data (camera traps and tiger photographs) and data analyses, 2) closure of the PSAA wildlife disease diagnostic centre, and 3) school closures. We remain confident that work will continue as the pandemic lockdown eases especially with a new vaccine available soon in Russia. We see no reason to change the budget and we are working hard to complete the work by end of the budget period.

Budget: The budget is on target and being spent as planned.

Media: There has been no media yet this year.

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