



Tigris Foundation

Purchasing land
And create a safe haven for
Amur leopards

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Introduction

This paper discusses the possibility of buying a deer farm in Amur leopard and tiger habitat. The paper covers the activities that can be developed on a farm and the potential conservation benefits of such a project.

Background : Amur leopard and deer farms

Approximately 40 Amur leopards remain in the wild in Southwest Primorye in the Russian Far East near Vladivostok. The Amur leopard is one of 8 subspecies of leopards. Its long winter coat, fluffy tail and long legs (probably an adaptation to walking through snow) make it a strikingly beautiful animal.

SW Primorye is also home to a small but growing population of Amur tigers (the latest estimate is 20 tigers). This population is separated from the main population of approximately 400 tigers further north in Primorski and Khabarovski Krai in Russia.

There are several deer farms in SW Primorye where sika deer are raised for their antler velvet which is sold to Chinese businessmen. The velvet is used as an ingredient in traditional Chinese medicines. The domestic deer at the farms have become an important additional food source for Amur leopards and Siberian tigers, because sufficient natural prey is not always available. Food shortage can occur due various factors, including poaching and exceptional snowfall. Another development that reduced natural prey availability is that winter migration of roe deer from neighboring China to Russia has stopped, mainly due to a collapse of the roe deer population in China.

Especially female Amur leopards with cubs frequently kill deer at farms. Population monitoring results show that female leopards with cubs can often be found in the vicinity of deer farms. This indicates that the farms play an important role in the reproduction of Amur leopards.

Tigris Foundation and its partner Phoenix Fund from Vladivostok provide compensation payments when deer and other livestock is killed at farms. Since 1999 we made payments for more than more than 40 deer, 2 horses, a cow, 3 rabbits and 2 dogs. All deer and one horse were killed at deer farms. Since the start of the compensation program no attempts by deer farm staff to try to kill leopards or tigers have been uncovered.

Unfortunately deer farming is declining rapidly. Many deer farms in SW Primorye have closed down recently and the number of deer at the remaining farms has fallen from 10,000 to below 3,000.

Possibilities for purchasing a farm

It is possible to purchase one of the remaining deer farms and recently an especially good opportunity has presented itself. One of the two farms most frequently visited by leopards recently closed down. This farm borders on the leopard reserve Kedrovaia Pad. The owner of the farm moved his deer to enclosures close to the sea in an area almost never visited by leopards and tigers. All fences and buildings were left in tact on the abandoned farm. The total size is approximately 25 square kilometers. The farm consists of hills and valleys covered with forests and meadows.

Activities and conservation benefits

Various conservation activities can be developed at a deer farm. I provide a short discussion of the activities and their potential conservation benefits.

Food source and "Safe Haven"

The deer farms in SW Primorye are closing down one by one. Purchase of a farm allows us to continue the deer farm activities at this farm, and in doing so we secure a valuable food source for leopards and tigers that would otherwise be lost. When we own a farm, we will be able to arrange effective protection and guarantee the safety of tigers and leopards that visit our farm.

An impulse to deer farming

Sika deer farms are successful elsewhere in Russia (for instance in the Altai) and in New Zealand. The causes of the decline of deer farming in SW Primorye have not been sufficiently studied, but it is certain that poor management plays an important role. The farms would probably be profitable if modern husbandry and business practices were introduced.

The management of the deer farms is relatively old and has not changed since communist times. They lack the skills and mentality to operate successfully in a market environment, and as a result the farms poorly weathered the transition after the collapse of the Soviet system. One of the main problems is that the farms have not been able to establish direct trade relations with the markets in China and South Korea. The farmers sell their product (antler velvet) at low prices to Chinese middlemen. Income would increase if the farms would operate united (instead of making deals with middlemen individually), if they access the foreign markets directly (by-passing middlemen) and if they would produce consumer goods from the velvet, such as antler wines (instead of producing only raw material).

The conservation community can assist in this process by arranging involvement of experts with the needed husbandry and business knowledge and skills. If successful, we can cause a ripple effect that will put a halt to the decline of deer farming in SW Primorye. This would mean we not only secure a food source at our own farm, but also at the other farms in the region.

However, in order to have sufficient credibility when we invite farmers to participate in this process, we will need to be involved and have a stake in deer farming ourselves.

Eco-tourism

A middle-class that can afford modest holidays is developing rapidly in this part of Russia. As a result the tourist branch has grown substantially in recent years. SW Primorye is a favorite tourist destination for citizens from the two largest cities in Primorye; Vladivostok and Ussurisk. There are many tourist resorts in SW Primorye and all are fully booked during spring, summer and early autumn.

Deer farms offer excellent opportunities for development of a popular tourist resort. The investments needed in tourist facilities are relatively modest. Simple cabins, a small shop, a Russian-style sauna in combination with fresh air and an opportunity to see deer in a beautiful park-like landscape will be sufficient to attract substantial numbers of tourists.

An advantage of the location of the abandoned farm is that it is conveniently located close to the main road in SW Primorye and is easy to reach by car from the cities Vladivostok and Ussurisk.

Environmental center, rehabilitaion facility and research station

An environmental education center can be established at a farm. Such a center is needed anyway in SW Primorye, and a deer farm would offer an excellent location.

Most citizens of SW Primorye are not aware that the Amur leopard is confined to this small area and that only 40 leopards survive. Most citizens elsewhere in Primorye do not even know Amur leopards exists. The environmental center can play a key role in increasing the awareness of both the local population and people from Vladivostok and Ussurisk that visit the region in large numbers.

The center can include a small museum with panoramas and stuffed animals (including leopards and tigers) and a room for presentations and showing nature documentaries to visitors.

There are very few other attractions for tourists in SW Primorye and therefore we can expect that the ecological center will attract large numbers of visitors.

We can build a rehabilitation facility where we can take care of wounded animals and release them when they have recovered. Each winter a few endangered black vultures and the occasional eagle need to be fed or cured from diseases, and an enclosure could be built for this purpose. It is even possible to house Amur leopards in an enclosure at the farm. A considerable number of leopards in European zoos are not used in the Amur leopard breeding program, so there is no shortage of leopards that can be used for this purpose.

The deer farm can also form a base camp for researchers working in SW Primorye, such as the biologists involved in habitat analysis, snow track counts and camera-trap monitoring.

Site for releases of captive bred leopards into wild

Reintroduction of leopards bred in captivity is being considered. Reintroduction will probably take place in an area north of the remaining population where the leopard became extinct about 30 years ago. This area does not connect with the leopard habitat in SW Primorye (a newly established population will therefore not mix with the existing population).

The remaining population in SW Primorye has been stable for at least 30 years. However, if the population declines or if it becomes apparent that it suffers from inbreeding, it may become advisable to also release captive-bred leopards into the present population ("restocking"). A deer farm would offer an excellent location for breeding leopards and releasing them into the wild.

NTFP production and experiments with reforestation

Small plantations for the production of Non-Timber-Forest-Products (NTFPs) in semi-wild conditions can be established on the farm (e.g. for growing mushrooms, berries and medicinal plants such as ginseng).

Each year substantial tracts of forest burn in SW Primorye. As a result large forested areas have been transformed into treeless grasslands that are unsuitable for leopards and tigers. Deer farms consist of both grassland and forests. Part of the grasslands can be used to experiment with different methods of re-forestation.

How much will it cost?

It is of course impossible to determine on forehand how much the purchase of a farm will cost. The costs will depend on the particular farm we try to buy and on the outcome of the negotiations.

The purchase of the land, fences and buildings will only be a small part of the total investments needed if we develop all activities described earlier. The budget I present is limited to initial investments in two core activities at the farm: deer farming and tourism. I expect the farm and tourism activities will produce a positive cash flow about 2 years after the investments have been made.

It is possible to purchase the abandoned farm, without engaging in deer farming and other business activities such as tourism. This would very much reduce the investment costs, but would still produce considerable conservation benefits: by purchasing the farm we will prevent development of activities on the farm grounds that will form a threat to leopards, tigers and biodiversity in general. After the purchase we may choose to simply “give the land back to nature” or we may develop deer farming and tourism at a later stage, when additional funds have become available.

A sponsor interested in the project does not need to provide the total budget for all components of the project. When we have managed to secure sufficient initial funds to purchase a farm, it will become much easier to find additional sponsors for the development of the various farming, tourism and conservation activities.

Estimate of investments needed

- Purchase of farm land, buildings and fences: \$90,000
- Deer (800 x \$100): \$80,000
- Vehicles and other farming equipment: \$50,000
- Electricity and telephone: \$10,000
- Tourist facilities (office/shop, 6 cabins for 6 guests, sauna): \$150,000

TOTAL: \$380,000

A few final words...

Buying farm land in SW Primorye is an excellent conservation investment as a result of the current low value of land in this part of Russia. Although expanding the total size of protected areas is important, fencing off sufficient land for Amur leopards and tigers to ensure their future within protected areas alone is not an option. The living space required by these predators is simply too large. The future of these big cats will therefore depend on the willingness of people to share the forests with them. We can only achieve a long-term co-existence if we find forms of sustainable, multiple land-use that meet the needs of local communities, yet insure basic needs of leopards and tigers.

If we implement the business components of our project, we can prove that economic development, the creation of new jobs and improved conservation can go hand-in-hand.

Our “eco-farm” will help to convince local authorities and business that conservation is not always about fencing off nature from economic development. The project will then improve our relations relations with local authorities and business. This is essential, because without the support of authorities and business, conservationists will fail to secure a long-term future for Amur leopards and tigers.