TIGER TRACKS

Newsletter of the Siberian Tiger Project ™

SUMMER 1998

VOLUME V *"Using science, through international cooperation, to save the tiger of the snow"* ISSUE II

IN THIS ISSUE...

1998; "The Year of the Tiger"

MISSION STATEMENT

The Hornocker Wildlife Institute, Inc. was founded by Maurice Hornocker to stimulate curiosity about the natural world and its complexity; to provide a direct, straight-forward framework in which to satisfy that curiosity through observation and learning; to create an understanding of man's place in the world's fragile ecological structure and his responsibility to it.

EXPANDING CONSERVATION EFFORTS

Although a substantial amount of information is known about the number of Amur leopards and Siberian tigers roaming the forests of the Russian Far East, virtually nothing is known about those populations in the continuation of their range within the areas of China bordering the Russian Far East. In an attempt to complete the ecological picture for these endangered cats, more information needs to be known about their existence in China.

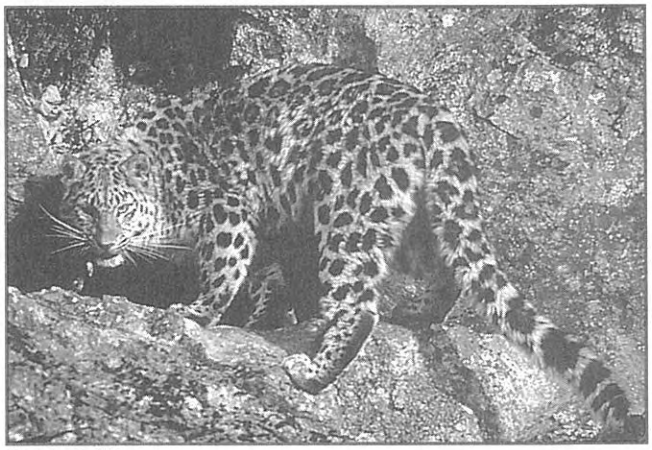

Photo by: Y. Shibnev

For more than two years, the Siberian Tiger Project has been negotiating with Chinese officials, trying to get permission to conduct a survey of the forests of Jilin Province, in northeast China, to better determine if leopards and tigers still exist in that area. In March, 1998, after numerous failed attempts, an international team of scientists, including Siberian Tiger Project regional biologist Dale Miquelle, finally traveled to northeastern China to conduct the long awaited survey.

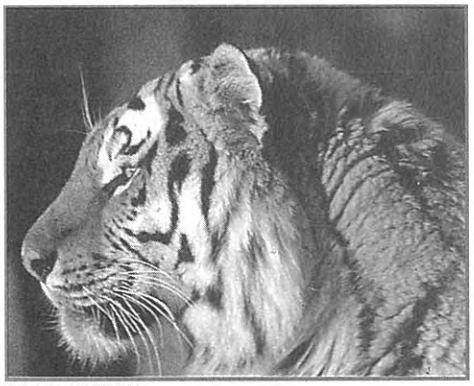

Photo by: H. Quigley

For three weeks, the investigating biologists hiked the forests of eastern China searching for any sign of either of these endangered cats. After extensive questioning of local villagers and Forest Service employees about recent observations of tigers and leopards (including depredations, tracks, or visual observations), 32 survey routes were determined, and a total of 250 kilometers were surveyed by the investigators.

The results of the survey indicated that only 4–6 tigers and 4–7 leopards may have been present in Jilin Province during the 1997–98 winter, with the majority of tigers and leopards recorded close to the Russian border. However, no repeated observations of tigers and leopards were noted, suggesting that there may be no resident animals in Jilin Province, and that all recorded observations may have been of transient animals that passed through the region, but did not remain. The only exception to this generalization may be along the Russian border, where there may be a few individuals of both tigers and leopards that maintain territories that include both countries.

The primary reason for such a low density of tigers and leopards appears to be due to a low density of prey populations. Tracks of red deer (elk) were found on only a few occasions, wild boar tracks were found only in areas where tigers have not been reported for many years,

Continued on page 2

"In wilderness is the preservation of the world."

Henry David Thoreau

Continued from page 1

and Sika deer were comon only along the Russian border.

The population estimates of tigers and leopards in China are dangerously low, but there is reason for optimism. The Chinese are interested in establishing resident, breeding populations of both cat species. In addition, there are extensive tracts of forested land in eastern China that are well managed by the Ministry of Forests, and retain the capacity to harbor good populations of prey, as well as tigers and leopards. Additionally, there appears to be a sincere desire on the part of the Chinese Wildlife Animal Protection Society and the Ministry of Forestry, to assist in the recovery of tiger and leopard populations.

The investigators reported numerous recommendations to assist the Chinese in achieving their goals. Recommendations include securing an ecological corridor of protected lands that will link Russia, China, and North Korea, impose a management regime to protect prey populations and habitat for tigers and leopards, develop a state-sponsored compensation program for tiger/leopard depredations on cattle and all livestock, and develop an environmental education program for villages close to the management zones, just to name a few.

This coming winter (1998-1999) we will be conducting a similar census in Heilongjiang Province, west of Jilin Province. This will give us a complete picture of tiger and leopard distributions in northeast China, and allow us to begin conservation planning for the area. If all goes well, we will even be able to visit North Korea in the next year or so. We will keep you posted!

FOOD HABITS

Notes from the Field

Did you know that a tiger can eat over 30 pounds of meat in one day? They can and do, but not every day. Tigers actually lead a life of "feast or famine." They may eat a big bull elk (about 175 pounds of meat) in 5 days, and then not eat again for more than a week. One interesting part of our job on the Siberian Tiger Project is investigating what and how much food tigers eat. When one of the radio-collared tigers stops and stays in one place for more than a day, we know they probably have made a kill. Once the radio-signals indicate the tiger has left an area, we hike in to search for the remains of the tiger's kill. From inspecting those areas, we have found that Siberian tigers eat mostly Manchurian elk and Russian wild boar, but they occasionally eat other animals like roe deer or badgers. One unusual adult male tiger eats mostly bears, at least that's all we've ever found at his kill sites, or in his scats (feces)! Our studies have confirmed that on average, a Siberian tiger will eat two or three large animals each month, consuming every eatable part of the animal, leaving behind only skin, bones, and stomach.

Why is this information important? Because, in order to save the tiger, we have to ensure that they have enough to eat. That means, learning how much food they eat, and protecting their food source,

elk and wild boar. But, tigers share the elk and boar with other predators in the forest, including lynx, wolves, bears, and even humans. In fact, hunting boar and elk is culturally important for many people in the Russian Far East. The information that we are collecting on tiger food habits is being used in management plans that will ensure that there are enough elk and boar for all of the predators in the forest, tigers as well as humans. We are also using it in our education programs to show that tigers are good hunters, killing only what they need to eat, and eating what they kill.

TIGER UPDATES

OLGA: In March, Olga was fitted with her fourth radio-collar since her original capture in 1992. She was very thin on this 1998 capture, probably the result of raising three young cubs during this past difficult winter. There was little snow last winter, so elk and deer populations remained in the higher elevations, and did not congregate in lower areas, like Olga's home range. In addition, the wild boar population decreased substantially last winter, and poaching has taken a heavy toll on elk populations within Olga's territory. Although thin, Olga is still very healthy, and will probably fatten up quickly with the arrival of spring.

NATASHA: Natasha's activities have been very interesting lately. In early spring, she made a two-day foray into an area where biologists had never found her before, deep in Katerina's former home range. A few weeks later, she returned to that same area, and killed an elk. Since that time, Natasha has not returned to her former territory, and it seems that she has taken over about half of Katerina's former territory. To date, it is unclear why she has done this.

TONYA: Mary Ivanna's daughter Tonya seems to have settled into Mary Ivanna's former territory, where she spends most of her time. Curiously though, one day in early spring, Tonya suddenly left her home range, traveled 20 kilometers to the north, spent a short time, then just as suddenly returned to her own territory where she has remained. Tonya spends a lot of her time in an area of her territory that was burned by a forest fire ten years ago. Burned areas are good habitat for ungulates (deer and elk), and this area has a large density of elk, making hunting easier for Tonya.

MISHA: Misha was recaptured briefly in spring to change his failing radio-collar. Like Olga, Misha was quite thin, weighing only 375 pounds instead of the 445 pounds he weighed when first joining the study in 1995. He also had broken three of his canines during the past 2-1/2 years. Despite his weight, biologists agreed that Misha did not appear unhealthy, and expect him to regain his weight during the summer months.

NADIA: Nadia traveled far and wide this past winter, twice wandering more than 12 kilometers outside of her home range. Most likely she was searching for prey during the mild winter. Like Olga, Nadia's home range is located outside the protected areas of the Reserve, so poaching of deer, elk, and wild boar are a significant problem in reducing the number of prey animals she has available to her. We are very concerned about the poaching problem, and are working together with the local hunting society to erect a guarded gate on the main road through Nadia's home range. The gate will go in this summer, and the hope is that it will reduce poaching.

EMMA: We believe that Emma is Natasha's daughter, but will not know for sure until genetic analyses of her blood are complete. Since she first joined the Project in November, 1997, Emma has moved into and taken over about half of Katerina's former territory. Like Katerina, Emma has become one of our most closely monitored tigers. Biologists have often located her radio signal together with Geny's, and believe that they mated in late winter, but at approximately 20 months old, Emma is probably still too young to produce a litter of cubs. Nonetheless, biologists are keeping a close eye on her movements.

LUBA: Luba remained in Natasha's home range until March when she unexpectedly traveled about 60 kilometers to the north, into a rugged mountainous area. Shortly thereafter, her radio-signal disappeared and we have been unable to find her since. Luba is a young tiger, so is likely still searching for her own home range. We believe she has continued moving to the north. Rugged country, and the great distance from the study area, make it difficult to find a radio signal, never-the-less, we continue our searches, flying further and further each time we look for her. She may return to the area where she was raised (like Tonya), or she may continue her search and we may never know her fate, but we will keep you posted.

ANNA GERDA: Radio-collared May 15, 1998, Anna Gerda is the latest tiger to join the study. Weighing in at 240 pounds, she is a healthy, young tigress. Although Anna Gerda is estimated to be 3 1/2 years old, she has not produced any cubs to date. At the time of printing this newsletter, it was too soon to know very much about Anna Gerda's movements. She was radio-collared in the Nevedemka area of the Reserve, but we don't yet know if that is her home territory, or whether she even has a home territory of her own yet. She may still be searching for one, like Luba (see above). We will keep you posted.

MEMORIALS: *Losses and gains in populations are normal and natural, even in human populations. Wild animals live a very hard life, especially those like the tiger who are under such stress. This is all part of the ebb and flow of life. Over the seven years of this project, we have had our share of both losses and gains. We have documented more than nine litters, yielding twenty new tigers; and we have lost tigers, too. Poachers have killed some tigers, like Monya, while others, like Mary Ivanna, Katerina, and Kouza, we still don't know the fate of. But, through our continued efforts, and by working together, we hope to influence and reduce the losses, and secure the gains.*

ПОГОВОРИМ ПО РУССКИ

(Poh-goh-voh-ream Poh Rooske - *Let's speak some Russian*)

КОНЕЧНО (Koh-neesh-nah) – Russian word for ***of course.***

ПОЧЕМУ (pah-cheah-moo) – Russian word for ***why.***

ГОЛОДЕН (go-lah-dyen) – Russian word for ***hungry.***

A PRAYER FOR KOUZA

By Chris Oster (sponsor)

I close my eyes and see your face,
Your majestic beauty and your grace.

I think about you night and day,
I hope you've not become the poachers prey.

I pray you've found a new place to roam,
One that is safe for you to call home.

Tiger Alert!

The losses and gains in any population are natural. Over the years of this study, tigers have been lost to a number of causes, and new tigers have been added. With this newsletter, we have added a number of new tigers, and alerted you to some of those losses. If the tiger you sponsored is one that has died, you may choose a new tiger. Please fill out the coupon and send it to the address below.

Check one box to choose a new tiger if your sponsorship tiger has died or is missing and fill in name of tiger you are replacing.

- ☐ **OLGA** _____
- ☐ **TONYA** _____
- ☐ **NATASHIA** _____
- ☐ **EMMA** _____
- ☐ **GENY** _____
- ☐ **LUBA** _____
- ☐ **MISHA** _____
- ☐ **ANNA GERDA** _____
- ☐ **NADIA** _____

Please fill in name of tiger you are replacing.

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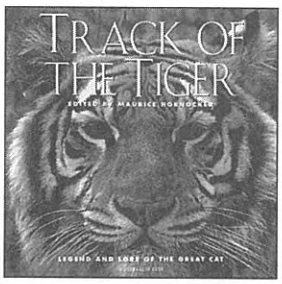

❑ I want a copy of Tracks of the Tiger, edited by Dr. Maurice Hornocker.

– Copy signed by Dr. Hornocker $50.00, plus $7.50 shipping and handling per copy.

– Unsigned copies $30.00, plus $7.50 shipping and handling per copy.

Please make checks payable to the HWI and mail to:
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TIGER TRACKS

Newsletter of the Siberian Tiger Project ™

FALL 1998

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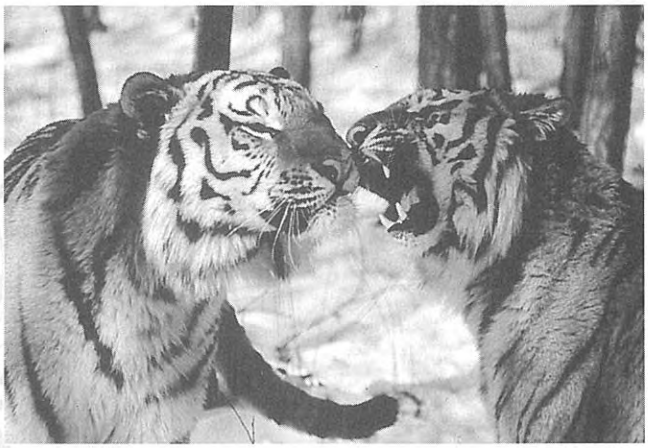
SIBERIAN TIGERS; *LONG-TERM PROTECTION*



All photos courtesy of HWI.

One of the main goals of the Hornocker Wildlife Institute's *Siberian Tiger Project* is to utilize the information gathered from our radio-telemetry field study to design and implement a conservation plan for Siberian, or Amur, tigers. Recent survey results in Russia estimate the wild Siberian tiger population at 350 individuals, with their present range encompassing two provinces, or *Krais*, Primorye and Khabarovski. Eighty percent of the tiger habitat lies in Primorye province, with twenty percent in Khabarovski.

In 1994, after two years of compiling field ecology information about Siberian tigers, HWI was able to develop a plan for long-term protection of the tiger and its forest home. Our *Habitat Protection Plan for Amur Tiger Conservation* proposed a core network of protected areas, and strict management of non-protected lands as well. The Plan proposed setting aside a corridor of protected land stretching from north to south, within the tiger's present range, allowing tigers access to other tigers, range-wide.

In 1994, HWI and Russian scientists traveled to Moscow to present the *Habitat Protection Plan* to the Russian government. Finally, on August 7, 1995, Prime Minister Chernomyrdin signed decree no. 795 of the Government of the Russian Federation 'for conservation of the Amur tiger and other rare and endangered species of wild fauna and flora in the territories of Primorye and Khabarovski Provinces'. This decree called for, among other things, the development of a national strategy for tiger conservation in the Russian Federation, which included anti-poaching, environmental education, and the implementation of our *Habitat Protection Plan.*

But, signing a decree and actually implementing conservation efforts are two very different things. Although the Russian people are aware of their tigers, and are in favor of trying to protect them, there is no money to do so. The economic instability in Russia

Continued on page 2

"We do not accept as destiny that the world will lose the Siberian tiger – the wildest creature on earth. We have made that promise to our children."

-Maurice Hornocker

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Regional Coordinator

Yevgeny Smirnov
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Kathy S. Quigley
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John Goodrich
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Igor Nikalaev
Russian Research Associate

Bart O. Schleyer
Research Associate

The Siberian Tiger Project is partially funded by private donations, and by grants from the National Geographic Society, Exxon's *Save The Tiger Fund* at the National Fish & Wildlife Foundation and the Wildlife Conservation Society. The Siberian Tiger Project is a registered trademark of the Hornocker Wildlife Institute.

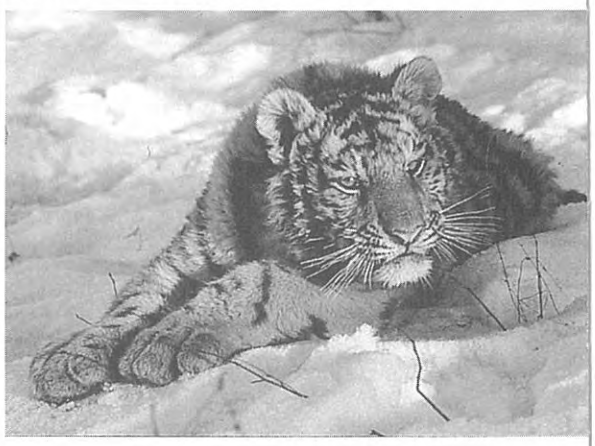
Our internet address is:
http://www.uidaho.edu/rsrch/hwi

See the new website for newsletters at: http://www.friendsoftheforest.org

Continued from page 1

makes it impossible for the Russian government to allocate the nine million dollars estimated to implement the *Habitat Protection Plan*. This sounds like a lot of money to all of us in the Siberian Tiger Project who are always pursuing money to keep our effort alive. But, where else in the world could you have the potential to set conservation priorities for an area the size of South Carolina, to secure the future of one of the most magnificent wild creatures on earth?

It may take a long time, but we at the Hornocker Wildlife Institute are dedicated to implementing the conservation efforts. We are moving forward, taking small steps for now, working on many fronts, hand-in-hand with our Russian colleagues and friends, to ensure that tigers have a safe future in the wilds of the Russian Far East. We will also continue to make the international community aware to the Siberian tiger's plight, with the hope that the money needed to implement the *Habitat Protection Plan* will be raised.



Fires in Tiger Territory

Forest fires, ignited by lightening strikes, were raging out of control in the Russian Far East in early summer. By May, 1998, they had already consumed more than 10,000 acres of pristine forest within tiger range, both inside the Sikhote-Alin Biosphere Reserve and beyond it's protective boundaries. No money was available for the Russians to fight the fires, so Anatoli Astafiev, director the Sikhote-Alin Biosphere Reserve, sent out an urgent plea for help to the world community. Money was needed to hire bulldozers to clear fire breaks, and to hire helicopters to drop water on the fires to douse them.

Forest fires can be beneficial to a forest and its inhabitants in a number of ways. They can clear the forest of dead, diseased, or decaying trees, increase the harvest of some important seeds and nuts - essential foods for boar-and they can increase the amount of grasses and young forbs available for prey species like deer and elk.

But in this case, because the tigers are so critically endangered, the fear was over the loss of their critical habitat, and displacement of prey species tigers need to survive.

The fires are all out now, and the international community did respond to the pleas for help. In total, the fires burned approximately 1000 square miles. The fires did not impact the HWI Project tigers specifically, but it cannot be determined what damage the fire has done to the rest of the fragile Siberian tiger population in the Russian Far East.

Did You Know? A small set of bones, called the hyoid apparatus, is found in the throat of all cats. The purpose of these bones is to support the larynx, and to help hold the base of the tongue. What is interesting about the hyoid apparatus is that, in the large cats (such as tigers, lions, leopards, and jaguars), part of it remains cartilaginous throughout their life; and it is believed that this structure is what makes it possible for them to roar. In the smaller cats (mountain lions, bobcats, cheetahs, etc), the hyoid apparatus becomes boney, not allowing them to roar, but purr! – something the large cats can do only when they exhale.

TIGER UPDATES

OLGA: We are very sad to report that recently one of Olga's cubs - a male - was killed when he tried to attack a forest guard at a cabin within the Sikhote-Alin Reserve. The cub was very thin, and a necropsy (an autopsy of a non-human animal) revealed that the cub had a very large umbilical hernia, a condition he was likely born with. The cub's intestines were caught in the hernia, inhibiting his ability to digest food, leading to starvation and, most likely, the cub's unusual behavior. A week after the cub's death, biologists found tracks along a muddy road that confirmed Olga and her other two cubs were alive and well.

NATASHA: Natasha continues to use the southwestern half of the home territory formerly used by Katerina. From time to time, she also visits her own old home territory, but only for a day or two at a time. Project scientists expected to see some sign of a new litter of cubs from Natasha in May or June, but so far have had no evidence that she has given birth. Natasha's next litter will be her third, and Project scientists are monitoring her closely.

GENY: Geny now has two tigresses wandering his home territory, Natasha, who has taken over half of Katerina's former range, and Emma, who has taken over the other half. Using radio-telemetry, Project scientists have located Geny with each of these tigresses about once every month. Geny will most likely mate with both tigresses, although Emma is not yet of breeding age.

TONYA: Tonya continues to use her mother, Mary Ivanna's, former home range. At three years old, Tonya is now sexually mature, so Project scientists are watching closely for her to show any signs that she has produced a litter of cubs. The age at which wild tigers give birth to their first litter is very important for determining reproductive rates of wild tigers. It is also a crucial piece of information necessary for developing a long-term conservation plan for tigers.

MISHA: Misha has rather unusual tastes for a tiger. Most Siberian tigers eat primarily elk and wild boar, but Misha's favorite prey is bear. In two and one-half years of tracking him, over 80% of Misha's kills found by Project biologists, have been bears! Most surprising is that two of the bears Misha killed were adult female brown bears, each weighing nearly as much as he does. Bears are the most powerful and dangerous wild animal Misha could choose to eat, but he doesn't seem to have much trouble.

NADIA: After wandering far and wide during winter and spring, Nadia seems to have settled back into her usual home territory. Recently, a severe storm washed out all the bridges on the road that runs through the center of her territory, so human disturbance, and the threat of poaching in the area have decreased. Unfortunately, this also makes it very difficult for Project biologists to track Nadia from the ground. Instead, biologist have to rely largely on aerial surveys to track her movements.

EMMA: Emma seems to have settled into the northeastern half of Katerina's former home territory, and thus, is now Natasha's neighbor. The fact that Natasha and Emma have divided Katerina's territory is unusual, though, since now both tigers are living in territories that are one-half the size of a normal, female tiger, home range. It also means that there are half as many deer, elk, and wild boar to feed on as prey. So far though, the arrangement has lasted six months, and both tigers seem respectful of each other's territorial boundaries.

LUBA: Luba remained in Natasha's home territory until March 1998, when she unexpectedly traveled about 60 kilometers to the north, into a rugged mountainous area. Shortly thereafter, her radio-signal disappeared, and Project biologists have been unable to find her since. Unusually cloudy weather this summer has prevented extensive aerial searches from a helicopter. However, we are hopeful that the weather, typically calm and clear in late summer and fall, will cooperate, and extensive searches can resume. We may never know her fate, but we will continue to search, and will keep you posted.

ANNA GERDA: Anna Gerda, the newest tiger to join the study, was first radio-collared May 15, 1998. It is still too early to know for sure, but it seems that Anna Gerda may have secured her own home range. She spends her time in an area paralleling the upper Djigitofsky River, along the southern border of the Sikhote-Alin Reserve. About one-half of her territory lies within the protected area of the Reserve, but the other half does not. Part of her range also lies within Misha's home territory. There are typically a lot of bears in Anna Gerda's home territory, and recently a large brown bear usurped a wild boar that Anna Gerda had killed.

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ПОГОВОРИМ ПО РУССКИ

(Poh-goh-voh-ream Poh Rooske) – *LET'S SPEAK SOME RUSSIAN*

ЗОЛОТОЙ (zole-a-toy) – Russian word for *GOLD.*
ı autumn, the leaves of the deciduous trees turn colors, blanketing the forest with beautiful red and gold.

РУБЛЬ (roo-bull) – Russian word for *RUBLE*, (Russian currency.)
resently, one U.S. dollar will buy about 9.50 rubles.

ОСЕНЬ (Oh-syen) – Russian word for *FALL* or *AUTUMN.*
ıutumn is the most beautiful time of the year in the Russian Far East.

TIGERS OF SIBERIA

By Lindsay McGuire, age: 13

Russia so far away.
Wise creatures,
with gentle eyes.
Forever I will love the tiger.

Become a Member of the Hornocker Wildlife Institute

Sponsor or member?

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As a Hornocker Wildlife Institute member, you demonstrate your commitment and concern for tigers, as well as the many other species HWI scientists are studying. With your annual membership, you will receive quarterly updates, highlighting HWI wildlife studies, bringing you closer to the young biologists in the field, giving you greater insights into animal ecology, and making you part of our science and conservation efforts. Institute projects include black bears in the U.S., Himalayan and brown bears in the Russian Far East, cougars in Yellowstone National Park, Amur leopards in the Russian Far East, and cranes and other migratory birds in North America.

Yes, for one year, I want to become a member of the Hornocker Wildlife Institute, Inc., a nonprofit organization. My tax-deductible donation is enclosed. Please make checks payable to HWI: P.O. Box 3246, Moscow, Idaho 83843.

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Newsletter of the Siberian Tiger Project ™

TIGER TRACKS

SPRING 1998

VOLUME V ISSUE I

"Using science, through international cooperation, to save the tiger of the snow"

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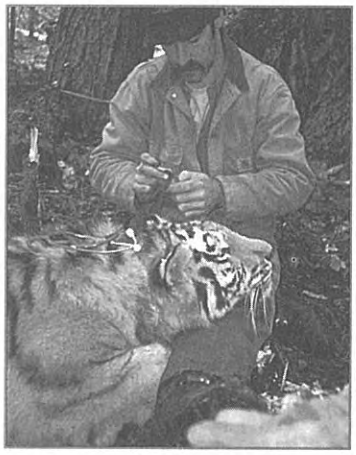
LOSSES AND GAINES IN STUDY TIGERS

For those of you who have been long-time sponsors, you are familiar with the unfortunate loss of some of our study animals. Kouza is a good example. Once he left the study area, as young males will do, we simply couldn't keep up with him. Hours and hours were spent in airplanes and helicopters searching for his signal, without result. And, now there is no signal from Mary Ivanna, or from Katerina (Katia). Although there is a good chance that Kouza is getting along fine somewhere to the south, Mary Ivanna and Katia may not have been so fortunate. They had well-defined territories, or home ranges, where we could find them without too much searching. But, no signals have appeared in those areas, and even the snow is devoid of their tracks.

Dr. Hornocker and Russian biologists with sedated tiger.

In the study of wildlife, one of the most important pieces of information we can obtain is "cause of mortality", or how animals die. Defining this part of tiger life is one of the primary reasons the Siberian Tiger Project is still running. Due to the long life of tigers, we must observe them for many years to get this information. The frustrating part about Mary Ivanna and Katia is that we may never know how they died. If they were killed by a poacher, perhaps police will confiscate the marked skin and call us. All we can do now is put out the word so that authorities are aware of the loss.



Biologist Jack Whitman with sedated tiger.

We have now "lost" nine tigers we had previously caught and radio-collared. We know that two of those were poached and one died naturally, but the rest are "unknowns". Now that the technology exists, we hope to replace our normal radio-collar transmitters with transmitters that can be tracked from a satellite. This should give us several locations on each animal, every day, and provide large amounts of very important data, including a better idea of how animals are dying.

On the other side of the ledger in the study of wildlife populations, documentation of births, or additions, to a population is equally important. We have now documented nine litters born during the six-year life of the Siberian Tiger Project; this year – *The Year of the Tiger* – we hope to document two more. These litters account for more than twenty new tigers and require a tremendous effort from the field crew to confirm and then follow. However, it is never-before obtained information on a tiger population. We have now had a radio-collar on a tiger longer than any other project in the world–the tiger is Olga, Tiger 01. She was a young tigress when we caught her,

Continued on page 2

"The winds lie still; earth's color now returns;
The yellow sunshine spills upon the grass,
And all the shining green leaves tremble,
Like figures on stained glass."

Boris Pasternak

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The Siberian Tiger Project is funded partially by grants from the National Geographic Society, Exxon's *Save The Tiger Fund* at the National Fish & Wildlife Foundation, Wildlife Conservation Society, and private donations. The Siberian Tiger Project is a registered trademark of the Hornocker Wildlife Institute.

Our internet address is:
http://www.uidaho.edu/rsrch/hwi

Continued from page 1

still travelling with her mother. Now, she is t[illegible] by three new cubs of her third litter. Mary Ivanna also produced three litters while [illegible] tracked her, and Katia one. This is the sort of information that saves endangered species, that keeps the project going, and that brings the world's attention to the plight of tigers.

The losses and gains in a population are natural, even in human populations. But the losses are always harder. For the field crew who follows every movement – sometimes every step in the snow – and for those of you who wait every three months to find out what your sponsored tiger is doing, the loss runs deep. Wild animals live a very hard life, especially those like the tiger who are under such stress. This is all part of the ebb and flow of life. But, by working together, we hope to influence and reduce the losses – now that we know more about them – and secure the gains. In the coming months we will attempt to keep you more informed on the entire study population so that you have a more expanded view of tiger life. *Thank you for your continued support.*

Photo courtesy of HWI

NOTES FROM THE FIELD

A Sad Story

Many of you have followed closely the life of Katerina(Katia) and her first cub, especially those of you who adopted Katia. In August 1995, Katia was in estrus for the first time. She walked the road for several days calling for a male tiger, and on the fourth day Geny arrived. They spent a day together conceiving Katia's first cub, born at the end of November 1995.

We followed this young tigress and her cub closely over the next two years. In January 1996, we found the first kill to which Katia brought her cub; and, in April we watched the two of them playing on a snowy hillside. By August, we knew that the cub was a female, and in September, we saw her again when we nearly ran into her while searching a dirt road for her tracks. The youngster spent most of the following winter wandering the coastline where prey was unusually abundant. This gave her a good start on her independent life.

While Geny, Katia, and their daughter live in a beautiful and wild area, their lives are not immune to the effects of modernization. On October 13, 1997, we were grieved to find a young female tiger that had been hit and killed by a truck on the road that runs through the Sikhote-Alin Reserve. We are not certain of her identity, but believe she was Katia's daughter.

Katia's daughter taught us a great deal about tiger reproduction, and what young female tigers need to survive. The tragedy of her death caused biologists from the Siberian Tiger Project, and concerned citizens of Terney, to band together and begin a project erecting signs along the road through the Reserve, designating speed limits and asking drivers to yield to wildlife.

This sad story is just one example of why roads present a serious problem for tigers, as well as other wildlife species throughout the world. What can you do to alleviate this problem in your area? Drive less, be attentive, slow down, and express your disapproval at the construction of new roads through wild areas.

TIGER UPDATES

OLGA: To our delight, in late winter of 1997, we found Olga's tracks in the snow, together with the tracks of three cubs! The tracks, or *pugmarks,* measured approximately 6.0 centimeters across the pad, indicating that the cubs were about 4 1/2 months old. Olga once again is using the same small area of her home territory, where she successfully raised her previous litter of three cubs two years ago.

NATASHA: For months in the fall of 1997, biologists tried unsuccessfully to capture Natasha's three cubs. By late November, there had been no sign of the cubs, and temperatures were getting too cold to continue trapping efforts. But, at the end of November, biologists caught and radio-collared two young tigresses; most likely Natasha's cubs. The cubs have not been located with Natasha since they were radio-collared, so we will not know if they are her cubs until genetic analysis have been competed.

MARY IVANNA: Despite extensive searches, biologists still have not heard Mary Ivanna's signal since last May, and have not found tracks in the snow to indicate she is alive. Sadly, we believe that she has been poached, but we will probably never know for sure. Mary Ivanna's daughter, Tonya, seems to have settled into her mother's home territory. The vacancy left by Mary Ivanna's disappearance has actually greatly increased Tonya's chances of survival, since it is now unnecessary for her to disperse, and search for a territory of her own. Dispersal into a new area is a difficult and dangerous time for young animals.

KATERINA: In the winter of 1997, biologists were unable to find a signal from Katerina's (Katia's) radio-collar despite intensive ground and aerial searches. Biologists hoped that a playful cub simply chewed her radio-collar to pieces. But, with the snows of winter, biologists searched every corner of Katia's home range, looking for tracks of a tigress and cubs. As late as March now tracks have not been found, and we fear Katia, also, may have been poached; her collar destroyed. We have not given up hope, though, and will continue our efforts to find her.

GENY: Geny has had his hands (paws) full this winter, keeping track of new tigers in his territory. First, a radio-collared young tigress (see Natasha) took up residence in his home range, so Geny spent a lot of time keeping track of her. Then, an uncollared tiger wandered into the same area, and stayed about a week, so Geny had some competition in his endeavors. Then, another female tiger showed up, also for about one week. Geny must have been frantic!

MISHA: Misha was first radio-collared on Halloween, 1995. At 445 pounds, he is the largest tiger in our study. His tracks are always recognizable because of his huge feet; the pads on his front feet measure 12.5 cm! Misha travels through an area larger than any of the other radio-collared tigers, and his range overlaps with at least four females, including Natasha and Nadia.

NADIA: Nadia was first radio-collared December 12, 1997. Estimated at approximately 5 years old, she weighed 280 pounds when she joined the study. Nadia's home territory borders the southern edge of the Sikhote-Alin Reserve, incorporating both protected and unprotected land. Since all of her territory is not within a protected area, data collected from her movements and activities will provide important information on the effects of human disturbances on tigers, especially logging, hunting, trapping, and fishing, which are common activities within her territory.

Can you find the tiger in this photo?

ПОГОВОРИМ ПО РУССКИ

(Poh-goh-voh-ream Poh Rooske - *Let's speak some Russian*)

ЛЮДЕЙ (Lood-yeh) – Russian word for people.

КНИГ (Kuh-neeg) – Russian word for books.

ДОМ (Dohm) – Russian word for home.

FRIENDS OF THE FOREST®

Tiger Alert!

The losses and gains in any population are natural. Over the years of this study, tigers have been lost to a number of causes, and new tigers have been added. With this newsletter, we have added a number of new tigers, and alerted you to some of those losses. If the tiger you sponsored is one that has died, you may choose a new tiger. Please fill out the coupon and send it to the address below.

Check one box to choose a new tiger if your sponsorship tiger has died or is missing.

❑ **MISHA** _____
(Fill in name of tiger you are replacing.)

❑ **NADIA** _____
(Fill in name of tiger you are replacing.)

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THE YEAR OF THE TIGER CONFERENCE

Securing the Tiger's Future

In February 1998, in response to a proposal by the Siberian Tiger Project™ and the Minnesota Zoo, *The Year of the Tiger* Conference took place in Dallas, Texas. Funded by Exxon's Save the Tiger Fund at the Fish and Wildlife Foundation, the goals of the conference were two fold: first, determine the best methods for securing a safe future for tigers, and second, determine conservation tools and processes needed by tiger range countries to accomplish that task.

Given the current situation for tigers – decline or instability of their populations, prey, and habitat across Asia – what are the most important activities required, and what are the best methods to develop specific strategies, conservation tools, and action plans to secure wild tiger populations world wide?

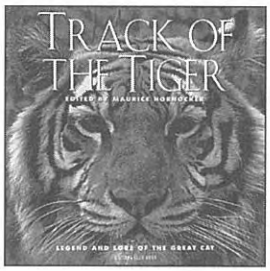
The conference brought together more than one-hundred biologists, politicians, and specialists from around the world, with the common goal of answering and acting on, those questions.

The first day of the conference was devoted to presentations designed to emphasize the main activities in tiger conservation. Representatives from Indonesia, India, Nepal, Vietnam, Mianmar, Malaysia, Thailand, and Russia discussed tiger conservation strategies in their countries, what is working, and what is not. In addition, Drs. Dale Miquelle and Evegeny Smirnov, from the Siberian Tiger Project™, discussed economic and political change in Russia, and its effects on Siberian tiger conservation.

The final two days of the conference were dedicated to specifically addressing the major issues tigers face, including anti-poaching, land use questions, and reserve management.

Yes, I want to help!

I am enclosing a ❑ $20 ❑ $50 $_____ donation to the Siberian Tiger Project™ for their continued efforts to save the Siberian tiger from extinction.



❑ I want a copy of Tracks of the Tiger, edited by Dr. Maurice Hornocker.

– Copy signed by Dr. Hornocker $50.00, plus $7.50 shipping and handling per copy.

– Unsigned copies $30.00, plus $7.50 shipping and handling per copy.

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