

## STRIPED VICTIM

Zolotoy Rog, # 34, 2009



On 20 April 2009, an adult tigress was hit and injured by a car on the Razdolnaya-Khasan highway in Khasanski Raion, and was found alive but badly wounded by Inspection Tiger staff at about 0700. I, together with my colleague Alexander Rybin, was called to the scene to assist with evaluation, immobilization, and transportation of the tiger. As zoologists working for the Wildlife Conservation Society (WCS), we have examined more than 100 wild tigers, including healthy, diseased, and wounded animals. We arrived at about 10:30 to find the tigress lying on the shoulder of the road, alert, but immobile. Visual examination from about 5 meters away revealed that she had a broken spine, visible through a large open wound on her lower back. She was clearly distressed and probably in considerable pain.

It was clear that the tigress would not survive – a person with such an injury might survive, but only in a wheel chair, which is clearly not an option for a wild tiger. Nonetheless, because the loss of such an endangered animal, especially an adult female, is critical to population survival, it was decided that the tigress should be anesthetized and transported to the veterinary clinic at Primorskaya Agricultural Academy in Ussurisk for expert assessment of her wounds, before deciding her fate.

Unfortunately, we were forced to wait until the appropriate permissions and permits were obtained to immobilize and transport the tiger, forcing us to leave her suffering on the road side until just after noon. Finally, permissions were given and we transported her to Ussurisk, where E. N. Lyubchenko (chief veterinarian of Ussursiki Raion), G.V. Ivanchuk (assistant professor of morphology and physiology department of Primorskaya Agricultural Academy) and I.P. Korotkova (head of veterinary clinic of Primorskaya Agricultural Academy) confirmed our initial assessment that the tigress would have to be euthanized. Again we had to wait for permits to proceed – from Moscow this time – and the tigress lay dying on a table until after 17:00. Fortunately, this time she was fully anesthetized and feeling no pain. Finally, she was given a lethal injection and a post-mortem examination by dedicated veterinarians willing to work through dinner. The tigress was 8-10 years old and in very good physical condition and while she had a nasty laceration above her eye, the only life threatening injury was her broken back.

The tigress was hit by a car as she was crossing a bridge. Blood and hair on the road indicated that she was dragged beneath the vehicle for about 40 meters. The driver left the scene and did not report the incident, leaving the tigress to suffer. Likely the incident was simply an unfortunate accident, but, the loss of one tigress to the population in SW Primorye was a great one. Scientists estimate that there are only 10-12 tigers living in the small area of SW Primorye on the border with China and Korea. These tigers are isolated from the extensive tiger habitat of Sikhote-Alin mountain ecosystem found further north by the Vlad-Khabarovsk highway and associated development from Artyom to Ussurisk. Hence, they are almost totally dependent on local reproduction for population persistence. It is well recognized that adult females are the most important part of any wildlife population because the number of young produced by females is a key determinant of population persistence. This tigress was an experienced mother – her enlarged nipples indicated that she had given birth in the past (but, fortunately, was not currently nursing cubs) and probably more than once. Indeed, at 8-10 years old she was likely a grandmother, but still in her prime and capable of producing several more litters. As tigresses grow older, they become more experienced, and are more successful at raising cubs to adulthood. With only 5 or 6 females in the Southwest population, the loss of an experienced mother was a tragic one that threatens the very persistence of the population.

This incident was one more example of the negative impacts of roads on tigers. In addition to mortality from automobile collisions, roads provide access to poachers; tigers often take advantage of easy walking provided by roads and are usually not afraid of cars at night, making them easy targets for poachers. Also, roads create corridors of development that divide and fragment wildlife populations until the populations become too small to persist. Well-developed road networks are one of the key factors leading to habitat deterioration and increased poaching of tigers across Asia, and in Russia, the pattern is the same. However, roads are clearly a necessary part of society and the road where this tigress was hit provides for economic lifeline for Southwest Primorye.



There are ways to reduce the impacts of roads. Good planning prior to road construction or improvement is key. To help reduce meetings between tigers (and other wildlife) and vehicles, roads may be tunneled through mountains, bridges can be made high and long (tigers often follow rivers), and underpasses or overpasses can be built for wildlife in key movement areas. Also, fences can be built to keep animals off roads and funnel them to areas where they can safely cross over or under the road. These improvements come at no small cost, but will help to ensure the well being of tigers, the forest ecosystems in which they live and on which, ultimately, our health and well being depends.

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<http://www.zrpress.ru/zr/2009/34/17> - article in Russian