GOODBYE OLGA

Dale Miquelle and John Goodrich.

Two scientists pay their last tribute to a Siberian tiger they have known and studied for 13 years.

February 11, 1992:

"I have just been added to that small list of people in the world who can say that they have been roared at by a tiger. I was doing my best to creep silently through the shallow snow when that earth-shattering roar pierced the silence of the frozen early morning. This was the first time I heard a Siberian tiger roar, and my response, knowing this animal was less then 40 yards away, was complete paralysis. I, supposedly the intrepid biologist, stood frozen in fear, feeling much like the proverbial trapped rat - nowhere to hide, and no possible way to run away if she decided to attack. But while she may have very much wanted to pounce on me, she couldn't, for she was caught in a snare we had set yesterday close to the remains of a red deer she had been feeding on.

"I moved closer, and finally caught sight of what appeared to be the largest tiger I ever imagined. (I sheepishly recall this fact, as she turned out to be a petite, one-year-old female.) She was glaring, half crouched, probably filled with both the fear of being so close to people, and, now that we had crossed that invisible line into her personal space, the anger that could bring her to attack in self-defense. Indeed, I was intended to be the bait, or diversion. At approximately right angles to me, about the same distance from the tigress, Howard Quigley was already hidden in the bushes. The tigress presented a broadside target to Howard while she focused on me, and Howard placed two tranquilizer darts into her shoulder. Under that cold February sun we worked quickly: body measurements were taken, body condition assessed, blood and tissue collected, and finally, placement of the vital radiocollar around her neck that would send signals to us, indicating her location. Later, in the fading light and from a safe distance, we watched this tigress, whom we had already named Olga, recover and stagger back into the forest to join her mother, now with a gleaming white collar. The sense of satisfaction and accomplishment was indescribable. Our first tiger was radio collared!" (Dale Miquelle)

Thus started the Siberian Tiger Project - a joint effort by American and Russian scientists from the Wildlife Conservation Society (WCS) in New York and the Sikhote-Alin Reserve (and elsewhere) in Terney - to study, understand, and save this elusive animal which remains only in the Russian Far East. And thus started a 13-year relationship between one tiger and a whole community of people. For us, it marked the beginning of our attempts to understand the ecology and conservation needs of one animal, and through her, all tigers. We have been privileged to follow Olga, from when she was a one-year-old cub, through adulthood, and into the elderly stages of her life. Olga was the first, and Olga was the longest, and so much of what we have learned and accomplished is so closely tied to Olga. She was the icon and the symbol of hope. And though she never understood it (and probably often thought the opposite), we were her best friends. For 13 years we followed her movements, her successes, and her failures. Although biologists are supposed to be neutral observers, we were anything but - always rooting for her and her offspring. We were her greatest admirers, and tried hard to be her protectors. For 13 years we imagined, and then tried to implement measures that would save her from all those threats bearing down on her and her kind by our fellow humans. And though we did our best, it was not enough. On 14 January 2005, Olga met with a poacher's bullet. After 13 years, we let her down.

Our work, based in the Sikhote-Alin Reserve in the Russian Far East, is simple to describe, but incredibly difficult to do: find out what tigers need to survive, and then do whatever is necessary to make sure they do indeed survive. Our guiding principle is that wise management is dependent on good information. So we seek to understand the basic needs of tigers in their northernmost haunts, and then try to devise conservation plans that provide for those needs.

Olga was the first study animal of our project, and the first Siberian tiger ever radiocollared. And although we had a long, rich relationship, this was not a relationship of long and intimate interactions, but rather of "snippets" - short, and often intense, encounters - mixed with long, sometimes tedious stretches of "watching from afar" - the often frustrating work of biologists listening to little beeps on a radio, looking at tracks and other sign left in snow and mud, and from that trying to piece together what this animal was doing, where it was going, and what it could possibly have been thinking. It was our task to take these snippets and bits of information, and weave them into a tapestry of understanding of the life and ecology of this animal.

Here are a sampling of these "snippets," of each of our interactions with Olga (with our initials to indicate who made the observations), and a bit of what we have learned from her. These are our memories of a tiger, and this is the story of the people her life affected.

May 15th 1992.

"Yesterday Zhenya (Evgeny Smirnov, biologist at Sikhote-Alin Reserve and our primary cooperator) and I arrived at Upolnomochennyi cabin, at the northern edge of the reserve. From her radio signal, we know that Olga is on the hillside to the west of us. With a half hour until darkness, hidden by alders in the broken meadow a few hundred yards away, a red deer "barked," warning that danger was near. The deer called for a few minutes, and then became strangely silent. Forty minutes later, I heard a tiger vocalization that was new to me: a short moan that started out low and ended up on a higher note: Aawooooo. At first I was not even sure what this sound was, but climbing to the roof of the cabin and scanning the meadow with my binoculars, I glimpsed a tiger, leaving the area where the red deer had been calling. We listened to Olga's mother, as she threaded up the hillside, calling in search of her daughter. After an hour, she became silent, and we followed the radio signal from Olga's collar back down to the meadow, no doubt with Mom in the lead. We took shifts, monitoring her signals through the night. At daybreak, Olga, and presumably her mother, moved back to the top of the hillside. Under cloudy skies we walked out into the meadow, still wet with morning dew, and located the remains of a young red deer stag, antlers in velvet, with the entire hindquarters missing - about 40 kg of meat. Mom was still providing for her baby.

"This evening, I walked up to a bluff providing a view of the meadow, and with binoculars immediately located Olga's mother, about 500 yards away, and about 100 yards from the kill. I wondered if our presence at the kill earlier in the day was bothering her, but she seemed anything but disturbed. She rolls over, sits up and looks lazily about, and then collapses back onto the ground again. A man on horseback comes down the trail and crosses the meadow, about 300 yards from the tiger. I watch both from my vantage point. The man and horse are completely unaware of the tiger, and the tiger, though clearly sensing the intruders, appears completely uninterested.

"Finally, Olga steps out of the brush where she has been resting. Mom and cub approach each other and greet, noses touching briefly, and then fall to the ground, gently batting each other with their forepaws. I see the white collar on the newly arrived cat - clear evidence that Olga and her mother are still together. The greeting is short. After one minute, Olga gets up and

walks to the remains of the red deer, pouncing on it as if practicing for the day when she will make the kill herself. With that pounce, she disappears into the tall grass for another meal.

"With the morning clouds cleared off, it is a lovely evening: to the west a beautiful sun is setting, behind me waves from the Sea of Japan are crashing into Upolnomochennyi Beach as a near-full moon rises behind a Russian crabbing trawler drifting lazily offshore. Here I am, I thought, with the privilege of watching a tigress and her cub Olga, doing what tigers have done for thousands and thousands of years. I have been cut off from family and friends for 4 months, and culturally and linguistically isolated (as I still can only manage few words of Russian). I am incredibly lonely. But I asked myself, 'Is there anything else you'd rather be doing right now?' I couldn't think of a thing." (DM)

Olga was about 15 months old when the above passage was written. That single event told us something about food consumption rates of tigers and about interactions between mothers and young. We still had no idea at what age Siberian tiger cubs leave their mother, but assumed that sometime in the near future Olga would be off on her own. What would she do? Would she disperse to some faraway land, where we wouldn't be able to follow her? Or would she remain nearby? And when would it happen? For the next 4 months, we spent most of our time unsuccessfully trying to capture Olga's mother, and following Olga's movements.

August 23rd, 1992.

"We have been following Olga on foot for 11 days. The plan is to follow her until a kill is made, and then set snares, in the hopes that we can capture and radio-collar Olga's mom. We carry not only personal supplies, but all the equipment needed for a capture, i.e., our packs are not light. At Upolnomochennyi I was charged by a bear as we investigated a kill he had usurped from Olga. (Fortunately, he veered off at the last moment.) We are all exhausted after all-night watches to monitor Olga's movements, and trudging, on some days late into the night, to keep up with her. We saw a tiger at that first kill, but she was so far away, we were not sure if it was Olga or her mother. Now 10 miles south, Olga appears to be on another kill. On the 20th with the last light of day, Zhenya, Dima [Dimitri Pikunov, a well-known Russian tiger biologist who worked on the project in the early years] and I watched Olga for 10 minutes as she rambled over the beach just north of here, perhaps looking for a bit of something eatable tossed up by the waves. She was apparently alone that day. The three of us have since been engaged in rancorous debate as to whether Olga is independent of her mother, making our efforts a senseless attempt to catch a mother that is not here. But the continuous quarrelling is really just a way to kill time as we wait for Olga's next move because even if they weren't together on the 20th, there's a chance they could have hooked up to share this kill.

Finally, Olga walks off a bit from where we think the kill is, and we move in to search, fanning out, but not too far apart, as the recent bear-encounter is still fresh in our minds. Eventually Zhenya Smirnov finds matted-down vegetation where the tigress dragged her prey to cover, and we quickly track down the kill. Another male roe deer. This one is only half-eaten, even though it has been dead at least 2 days. I ask Dima and Zhenya how much meat they think has been eaten. Zhenya says 20 kilograms, Dima says no more than 15 kilograms, and I estimate about 30 pounds (about 14 kg). With so little eaten, it is clear that only one tiger has been present. There are no tracks to be found in the litter of the summer forest, but we all agree that only Olga is here. There is no sense in setting snares for her Mom. I collect the jaw of the deer for age determination (understanding what sex and age classes of prey tigers kill helps us understand what impact tigers have on their prey populations), Dima collects the antlers (which are a valuable aphrodisiac in Traditional Chinese medicine), and Zhenya wants to collect some meat. I argue with him, partly on scientific grounds (we want to know how often tigers kill based on energetic needs, and removing meat creates a bias), but more on moral grounds (the tiger made the kill, was the successful hunter, and deserves the rewards of her effort). Zhenya

grudgingly agrees. Olga gets the rest of this roe deer to herself." (DM)

Olga did not lead us to her mother, as we had hoped, but we learned a lot in the process. She appeared to be independent of her mother at approximately 18 months of age, much earlier than Bengal tigers (a trend that we have since confirmed with other young tigers), but was staying in her natal home range. In some large carnivore species, it has been shown that mothers often relinquish a portion of their home range to their female offspring. The young females have an advantage because they already know the area well - they know where the good hunting is, where good rest sites are, and what areas to avoid. All this knowledge increases the chances of survival for the daughter, and thereby increases the chances that she will soon have young of her own. By surrendering a portion of her home range, a mother may compromise her own welfare, but increases the chances of passing on her own genes through her daughter. And that is the measure of success in nature.

Such was the case with Olga and her mom. We have now witnessed this pattern repeatedly among other radio-collared tigresses and their female cubs over the years, but Olga and her mom first demonstrated to us home range inheritance on the maternal side of the family for Siberian tigers. From now on, Olga was on her own, making a go of living her life just north of the town of Terney where we have based our research program.

April 2, 1994:

"For some time now, Bart and I have been thinking crazy thoughts [Bart Schleyer arrived on our project in the summer of 1993], and now we are putting those thoughts into action. We are on our way to re-capture Olga. The battery in her collar is getting old, but we have had no luck in our attempts to catch her again in snares - once was enough for her. When the idea, 'Why not try to dart her from a helicopter?' first arose, it seemed preposterous. A variety of animal species have been captured from helicopters, but such work is always performed by top notch, highly maneuverable helicopters in open areas - tundras, savannahs, or deserts, where trees don't hamper the view, and where you can get right on top of an animal. No one, to our knowledge, had ever tried to dart an animal through the thick canopy of a temperate forest. And surely no one has ever darted an animal out of the back of this behemoth MI-8 Russian antique helicopter that we are flying in. When we started out this morning I was thinking, 'we must be out of our minds.'

"Fortunately, we have a pilot as crazy as us. Evgeny Irkin, a relative of Smirnov's, is a big fan of tigers, and ready to try anything. So we set out over the rolling hills of Olga's home range, and soon pick up her signal. With headphones on to hear her fading signal over the din of the helicopter, I direct Irkin, who navigates the helicopter as close to Olga as the tree-tops allow, while Bart, perched at an open hatch, readies the dart gun. Two days earlier Bart practiced firing darts into a cardboard box as we hovered above the airstrip in Terney, so he knew something about how the wild winds coming off the helicopter blades could push those flimsy darts around. Still, shooting a cardboard box on the open run-way was a far cry from darting a tiger moving beneath a forest canopy. Nonetheless, quite miraculously Bart hits Olga with a dart on his third try. Unfortunately, we need two darts of drug to tranquilize her sufficiently. Olga keeps moving, with us in hot pursuit, but Bart has no opportunity to get a second shot. And then Olga does something that tigers are not supposed to do. She jumps up into a larch tree, and climbs to the very top limbs, where, perched more than 60 feet above the ground, with tail madly twitching, she snarls at that annoying flying monster, with what appears to be high hopes of swatting it right out of the sky. Bart launched dart after dart at her while she was relatively vulnerable and close in the treetops, but the wild winds caused by the blades made these attempts fruitless. Eventually she came down out of the tree. By this time I was in the back of the helicopter, adding drug to darts as fast as I could, and preparing them for each of Bart's next

attempt. Finally a dart found its mark, but enough time had elapsed that we didn't know how immobilized Olga would be. Hooking into a tiny cable, we took turns jumping out of the helicopter, and were lowered down, scared to death to be dangling so high up, but more scared about what might meet us on the ground.

"Fortunately, the drugs had taken their toll, and we conducted a rather typical capture protocol once we located her. By the time we were getting picked up it was afternoon, and as we circled above the capture site, Olga was already struggling through the snow, still woozy from the effects of the drugs, but healthy, and with a brand new collar. We had at least another 3 years to study her." (DM)

This one event was a turning point in our project, because, by devising a way to change collars on tigers, we extended the amount of time any single animal could be studied. We would no longer be limited by battery life in our studies. We could follow Olga, and others, indefinitely, to their deaths, and find out about all those parameters which are crucial to conservation, but short-term studies can't answer: How often do tigers give birth in the wild? How many cubs can a female give birth to in a lifetime? What is the reproductive lifespan of a female? How long can males retain their territories against intruders? And what are the primary causes of mortality for Siberian tigers? Olga provided us answers to many of these questions and more.

These capture events did more than change collars: they also changed the dynamics of our research team. The sense of camaraderie that was built during these episodes is a type that probably can only be matched with soldiers at war. It didn't matter that we were an odd assortment of Russians and Americans - we were working together, risking our lives hovering a few feet above the treetops, jumping out of a hulking Russian helicopter on a thin cable, and facing a potentially deadly animal down on the ground. The need for trust and faith in the person next to you was essential and even though in the early days we barely understood each other's language, we had to stick together. The "iron curtain" of yesteryear had no chance to separate us after a single capture event. We were brothers.

August 1994.

"Olga is now over 3 years old, a full-grown adult tigress, and we believe, a mother. The last three times I have flown in search of her over the past month, she has been holed up in one small drainage, always in nearly the exact same location. After first scouting out the situation, Bart, Zhenya, and I head out there with a National Geographic film crew in tow. The idea is simple: wait for Olga to leave, as she must, to go hunting, and we quickly slip into the site, find her den, confirm that she has had cubs, determine how many and what sex, and slip out before Olga comes back. We will also film the one-month old wild Siberian tiger cub (or cubs) something that's never been done before. We set up camp along an old logging road, about 300 yards from the den site, and council the film crew on patience, as it may take a few days. In reality, we have no idea how long Olga might fast while she cares for her young. After three days, the director is antsy. He's paying a couple thousand dollars a day in salaries and is used to shouting "Action!" and getting results, but nothing is happening. After 5 days he's Hollywoodsian apoplectic, and trying to coerce us to go in there and scare off Olga, surely a suicidal idea. We recount the mantra of patience again, but are losing patience with him. Tensions are high. Finally, on the evening of the 6^{th} day, hunger beckons and Olga moves off. It's already dark by the time her signal becomes faint enough for Bart, Zhenya and I to head off into the brush, following the beams of our flashlights in search of her den. Tracks and trails are everywhere, but we find no cubs in the pitch darkness. After more than an hour of stumbling around in the dark, we walk back to road, where the director is nearly out of his mind with

anxiety. Maybe having more bodies will help in our search, so the six of us move single file back towards the site. Just as we reach the vicinity to begin our search, the soundman falls, cursing, into a hole adjacent to a fallen tree. When I shine my flashlight into that blackness, two green eyes glare back at me. From the opposite side of the downed tree, I crawl under the roots and dig out Dasha, a beautiful, angry, and frightened month-old cub. What a privilege, to hold Olga's first-born!" (DM)

We know that Dasha (named for the daughter of Kolya Reebin, one of our co-workers) survived at least until she was 13 months old, but since we were unable to collar her, her fate remains a mystery to us. This was just the first of many litters for Olga. Over the 13 years we knew her, Olga gave birth six times, to no less than 13 cubs. Of those, we know that six cubs survived until they were old enough to move off on their own. Though none are collared, we are sure that some of Olga's sons and daughters are carrying on in her absence.

Terney, a ramshackle village on the coast of the Sea of Japan, is the headquarters of Sikhote-Alin Reserve, and where we live. Like small towns around the world, one of the favorite past times is gossiping about neighbors. After 70 years of closed borders and cold war with the U.S., to have American neighbors - now that is something to gossip about. We would return from one of these outings, and Zhenya Smirnov or Kolya Reebin would mention the results to someone, and seemingly immediately, the entire town was talking about it. It was more effective than the internet. We sometimes even encouraged this networking because it spread the word about Olga, who quickly became a well-known member of the Terney community. People would stop us on the street and ask how Olga was doing. She became a local hero of sorts. Before Olga, tigers were largely an unknown and dangerous part of the local environment. Now, suddenly, one of these animals had a name, and a personality. At least some of our neighbors were seeing tigers in a whole new light - the object of study by these strange Americans, and the object of interest from around the world. Journalists were arriving to ask questions about tigers, film crews were roaming the streets of Terney, trying to capture not only footage of the beast, but also the character of the people living amidst the tigers. Terney was suddenly "on the map." This new-found interest in a remote village in the Russian Far East did not bring much economic relief from the chaos of the post-perestroika era (which many had perhaps hoped for), but it did bring a new-found pride for many residents - they had something that was of interest to the rest of the world. In small-town mentality, that counts for a lot.

January 1995

"Last week, Sergei Martynenko, a friend who farms and hunts in the Shiryokaya Valley in the core of Olga's home range, told me, 'You know, not long ago I was out in the forest hunting, and suddenly I saw Olga up ahead. I instinctively put up my rifle. There she was, clearly in my sights, and it would have been no problem to do her in. But then I thought, 'What the heck, I know you, and I know her, and she hasn't caused me any problems. I decided we could all live in peace together.' And I thought to myself, 'One Russian, one American, and one tiger. If that combination can find a way to live together, indeed, there is hope in this world."'(DM)

10 October 1996

"We set out a week ago to try to capture Olga's one-year-old cubs by setting snares on kills, the same way Dale tried to capture her mother. We located Olga at sunrise, in the same forest stand as yesterday, suggesting she's on a kill (tigers generally either eat or move). By the time we haul all of our capture equipment several miles above Martynenko's farm along Shiryokaya Creek, it's 4 p.m. We'll have little time to set traps before dark. Ravens calling a

few hundred yards away confirm there is a kill. We walk towards her signal, yelling "OllIgaaaa!" on and off to scare her away while we are still at a safe distance. Three crows fly up just 20 yards ahead, but her signal remains inactive and not so strong as to suggest she's close. Convinced that our yelling would have pushed her off, Kolya Reebin steps up on a log and suddenly, the beeping of her collar starts pounding out of the receiver, indicating she's close - too close. A deafening roar fills the air and the brush begins to shake. Striped-orange fur flashes and we brace ourselves, pepper sprays and flares (harmless defenses against such charges) ready to divert the charging tiger we are sure is going to burst out of the brush. But Olga was just voicing her displeasure at being so rudely awakened from such a sound sleep. We watch as moving brush and continuous growling indicate that Olga and her cubs are moving around us and away. When they are about 40 meters away and to our left, the growling stops and all becomes quiet. Kolya again starts walking towards the kill and Olga lets out another growl, but then moves further off. We go to the kill while Olga stays near, as indicated by her strong radio signal, but we hear no more growls. As we arrive at the kill, we see one of the cubs moving towards Olga from the opposite side of the kill. Her family is intact, and Olga's signal quickly fades as she moves away. The kill is a red deer calf, and they've already consumed the whole thing, so we decide not to set snares, assuming they will not return. Olga had been sleeping just on the other side of a steep rocky creek embankment, which apparently muffled her signal and probably our yelling." (JG)

We never managed to capture any of Olga's cubs despite tremendous efforts - she was just too smart and kept them out of harm's way (she excelled where her mother failed). Surely, this cautiousness was what kept her from poacher's bullets for so long. In thirteen years of following her, aside from captures, collectively we only saw her five times for a total observation period of less than fifteen minutes.

8 January 1997

"As Olga's signal faded, indicating that she was leaving the hilltop where she spent the night, I trudged upwards on snowshoes to see what she had been doing. Mostly I was interested to learn if her two cubs were still with her, or if they had already set off on their own. I found two sets of tracks only 200 yards from the cabin. I bent to measure the width of the large pad of the front paw imprinted on the snow- the first, at 9.2 cm wide was most likely Olga's, while the other, at 10.8 cm, belonged to her son. He was 15 months old, and both his feet and body were already bigger than Mom's. Missing were the tracks of Olga's daughter. I moved on and as I crested the hilltop I froze in my tracks. There, not 30 yards away, was a tiger curled up and sound asleep under a larch tree. Olga had apparently left her son behind while she went off hunting. I watched for 10 minutes, heart pounding, as I fought the impulse to move a few steps forward where I would have a clear view for a photograph, but I would have to move through the very brush that was obscuring the tiger and the noise would almost certainly awake him. Reluctantly, I turned and quietly slipped away (better to let sleeping tigers lie), following the ridgeline 500 yards to the edge of a cliff overlooking the Sea of Japan. The view was stunning jagged snow-covered cliffs jutted 500 feet out of the sea. Three goral (a rare, goat-like ungulate), alarmed by my presence, ran deftly across a cliff face, sending down cascades of snow in their wake. In a small basin below, 5 sika deer stags browsed peacefully, unaware of my presence. I watched until they drifted back into the forest and then I myself retreated back to the cabin where I would spend the night. As I removed my snowshoes, I looked back up towards the ridge I'd just come off of and spotted a tiger, silhouetted against the evening sky, walking down the ridgeline, clearly following my snowshoe trail. When he reached the cliff, he sat at its edge in the last patch of sun where I had sat less than an hour earlier. I watched through my binoculars until it was too dark to see him anymore and I wondered. Did he feel the same sense

of awe that I felt as I sat on that cliff? Did he see beauty in that view and did it comfort and quiet his soul, as it did mine? Or was this just a good vantage point from which to watch for potential prey while soaking up the last warmth offered by the setting sun? Probably the latter, but I nonetheless felt a sense of connectedness that we could both derive some peace of mind from that very same spot on this earth.

That night I got up every two hours to listen for Olga's signal. At 4:30 a.m., I walked out into a crisp clear night with stars so bright I felt as though I could reach up and touch them. I stood for a few minutes taking in the silence, broken only by a Ural owl calling in the distance. Turning on the receiver I was surprised by the flat "thwack, thwack..." of a signal coming from a collar very nearby. It was Olga and she was right there, somewhere, in the darkness, watching me. Nervously, I backed up to the door and stood, peering into the darkness. I would see her only if she decided to show herself, which she did not. After a few minutes, her signal became active and faded as she moved away. The next morning I found her tracks and those of her son 40 yards from the cabin. I back-tracked them 100 yards further and found the remains of a roe deer they had consumed during the night. Tracks of the chase and kill were clear in the fresh deep snow. After a very short stalk, Olga burst out of the brush and in 10 great bounds covering 50 yards, she ran down and killed the deer. Her tracks during that final rush were deep holes in the snow with drifts plowed up as 280 pounds of tiger landed in 3 feet of snow and then exploded back up again. A bloody trail showed where Olga dragged the deer into dense cover. After securing her kill, she walked to the top of the hill to collect her son, and together they completely devoured the deer in one sitting. I followed their tracks as they visited the remains of a wild boar they had consumed three days ago and finally went back up to the hilltop, walking in my snowshoe tracks from the day before. They carefully stepped exactly where my feet had landed (i.e., where the snow was packed the most and therefore easiest to walk on), making the tracks appear as if tigers were walking through the forest with snowshoes on.

Olga and her son had moved off to the north. I carefully searched the hilltop where they had spent the past few days and found the remains of another roe deer they had consumed. In five days, they consumed one adult wild boar and two roe deer. Olga had done all the work, leaving her inexperienced son on the hilltop while she went off hunting. Later that winter, we would find the tracks of Olga's daughter, who, for some reason, was off on her own, missing the feast of the past few days." (JG)

17 March 2002

"Today, 10 years, one month and 6 days after her initial capture, we recaptured Olga for the fifth time. I was scared to death - not by the tree trunks that often seemed only a few feet from the helicopter's rotor, not by the odd gust of wind that nearly pushed us into the hillside, and not by Olga's glare as I was lowered on a cable like a worm on a hook to the ground only 30 yards away from her - but by the thought of losing Olga. At eleven years old, she's no youngster. What if the stress of the capture and anesthesia was just too much for her? We went into the capture with strict rules - if Bart doesn't get a dart in her within ten minutes, we back off and try another day. If she seems particularly stressed, afraid, or winded, we quit. If we have even the slightest inkling that something might not be right, we go home. Indeed, this is the fourth attempt for her this year. The first time she disappeared under the canopy of a conifer forest, the other two times she simply never gave us a chance to shoot a dart into her. After being darted from a helicopter four times previously, she knows well how to avoid our darts and often hides her rear end - our target - under logs or brush piles, while leaving her head exposed. (Inexperienced tigers often do just the opposite.) One moment I thought we were being too cautious, and the next was scared to death we weren't being careful enough. But today we got lucky - she presented a shot, and Bart's darts flew true. We anesthetized her lightly, just enough to change her collar and get out of the way. In the end, she was fine - fat, and in good physical

condition, but, at 11-years-old, she's showing some signs of age - sagging skin, very light fur, and protruding bones. Olga has become an icon in her own right, the poster girl for tiger conservation in Russia. Holding her head on my lap as I changed her collar, I apologized for our intrusion into her life. But the occasional strife we have caused her (changing collars about once every 3 years) is not in vain. Indeed, largely due to our activities here we are hopeful that nearly her entire home range will soon be a legally protected area and she will be able to live out her old age and raise her last cubs among high prey densities and with little fear of poacher's bullets. With new battery technology, this collar should last until she's 16 years old, which is longer than what we think wild Siberian tigers survive in the wild. This should be the last time anyone has the chance to hold this magnificent head, and I'm honored that I get to be the one." (JG)

September 2004

"For over 4 years now, we have been trying to find some form of protection for Olga's home range. Back in 1992, this region was prime winter range for red deer, roe deer, sika deer, and wild boar, and the coastal forests and meadows were filled with prey for Olga and her mom, and later, Olga and her cubs. The habitat is still excellent, but prey is largely gone. Economic stresses of the 1990s, easier access to firearms, and increased roads and vehicles (imported from nearby Japan as part of Russia's new economic boom) have made Olga's home range, so close to Terney, a popular spot for legal and illegal hunting. Realizing that hunters are the key stakeholder in determining the fate of Siberian tigers (from their ranks come the poachers), we have designed a whole conservation program to assist and improve wildlife and hunter management across tiger range. We argue that if we can assist in increasing ungulate numbers, both tigers and hunters benefit, and the potential for conflict will be reduced. In Terney, we have worked with the wildlife manager of the region, Vladimir Velechko, convincing him of the need to close roads, and thereby access, to key habitat. For him, road closures create "quiet zones" where ungulates can increase in numbers and disperse to nearby huntable lands. For tigers, these quiet zones become a kind of oasis, free of human interference, with huntable prey. With our assistance, Velechko successfully closed roads and provided de facto protection to two large basins, but when we pushed for closure of the road into the Tavaizo/Shiryokaya area (the core of Olga's range), there was simply too much resistance. We waited, and then two years ago, we were approached by the county administration, which requested help in better protecting this region. We were delighted and convinced that with local government support, we could make something happen. We quickly obtained a grant to turn this idea into a reality. We built a cabin to house staff that would control access via the road into Tavaizo, initiated ungulate surveys so that we could monitor and measure our success, and engaged local inspectors to patrol the region. Our plans to convert this tract of land into a wildlife refuge were receiving serious attention in the provincial capital of Vladivostok. But local county support withered, a new provincial governor was clearly more interested in development than conservation, arguments started up amongst the land-users, and now, after more than two years of efforts, we realize that nothing will come of these attempts. So frustrating, because, it seemed, we were so close." (DM)

January-March 2005

Roma (a Russian graduate student we have taken on as part of our efforts to train the next generation of Russian biologists and conservations) has just returned from a flight to locate tigers. He casually mentions that he couldn't find Olga this time. It's not uncommon to miss a tiger during a scheduled flight - they occasionally sneak off into a remote corner of their home

range, or simply lay in a location where the signal is blocked. But every time this happens with Olga, we feel the tension. She is our oldest tiger, 14 years now, and while no one knows how long Siberian tigers live in the wild, we know that she is in her later years. When she disappears, we worry.

Roma returns from the flight a week later, with the same news: no Olga. Now there is really cause for concern. Perhaps she has abandoned her home range, something we have not yet seen (but then, Olga has always been the first to show new things), so we send Roma up a third time, but this time with specific instructions - find Olga. He searched extensively across her home range and beyond, but with no results. Sergei Martynenka, our old friend from Shiryokaya, tells us that poachers are everywhere in the forest this winter. New roads (exactly what we had been trying to prevent) built for timber extraction are providing access for the poachers.

Yet, we still hope. Perhaps the collar has failed. Perhaps she will still turn up. We conduct more location flights, but she is absent. In April, we get the worst news yet from Sergei. There is a new tigress around Shiryokaya. Perhaps she already has cubs, perhaps not, but she has been coming dangerously close to his farm. Farmhands saw her calling from the window of their cabin and she was not wearing a collar. Because tigresses are territorial, if a new female is in the area, it can only mean one thing - Olga is gone.

We have seen this pattern too many times before. A tiger seems to just disappear, and we think maybe it has dispersed, or maybe the collar went dead. But in time, news trickles in. It's a small community, and secrets don't exist. "So-and-so says he heard from so-and-so that he killed a tiger with a collar in so-and-so basin." Eventually, someone passes on an ear tag or tattoo number (put on animals specifically for this purpose) that could only be known by someone who had the tiger in their hands, and then the poaching is confirmed. There's no hard evidence that can be used to prosecute, but the word nearly always gets out. Of the 23 animals that have died with collars on during our studies, 17 (74%) of them have been poached. We haven't yet gotten that information about Olga, but unfortunately, we expect that in time, we will.

23 April 2005

"I'm sitting at my computer when the phone rings. It's Smirnov. 'John, I just got a call from the FSB [formerly KGB]. On 14 January, at Tavaizo Pass, a hunter saw two tigers. He tried to kill them both, but only got one, and it was wearing a collar. He burnt the collar and later successfully sold the skin. The information is unofficial and we can't use it, but at least we know something.' I know by heart the date and place of Olga's last radio-location: 11 January 2005, Tavaizo Creek. Hope flickers and dies. I hang up the phone, sit back in my chair, and gaze out my office window. I can see the small knoll where Olga was captured so many years ago and the hill-top where I watched her son sleeping curled up under a larch tree - the way, I hoped, we would find Olga some day far in the future, dead from old age. I'm sick at the thought of her hide hanging on somebody's wall.

"The number of radio-collared animals poached has increased to 18, the percentage poached to 78%. Olga has become a statistic.

"Over the years many people have asked me, "How much longer will you stay in Russia?" I often answer, "Until Olga dies of old age." Now that answer is untenable. Now Olga is gone, and I have to ask myself, 'Should I stay?' On days like today, swallowed by sadness and frustration, I want nothing more than to pack my bags and go home." (JG)

Perhaps it is stubbornness, perhaps it is stupidity, but instead of leaving, we try to do

more. Olga's death makes us realize more than anything that while we've accomplished much in the past 13 years, there is still much to be done to create a world where Olga's daughter, or grand-daughter, will have the opportunity to die of old age.

For some time now, we have been preaching to the Russian public and any politicians who will listen: "Russian tigers don't die of old age; they die at the hand of poachers." This was largely true, but there was a white lie in our statement, and her name was Olga. Olga had been defying the law of averages for so long we assumed she would die of old age. While we've never been able to keep any other tiger collared and alive for more than six years, Olga was with us for 13 years. She was the exception to the rule. She was our symbol of the tiger's resilience and capacity to live side by side with humans. Since we first radiocollared her in 1992, she lived largely outside of protected areas, in forests heavily used by hunters, and intensively grazed by cattle. But for 14 years, she avoided contact with those hunters and only once turned to livestock as a source of food when trying to feed her hungry cubs. Her perseverance while other tigers were falling victim to poachers' bullets symbolized for us the fight to save the world's last tigers, despite overwhelming odds. It was a privilege to be able to observe her for such a long period, and it's a shame that we could not have followed her longer to witness a more dignified death.

What can stop the poaching? Better laws would help, particularly increased fines and laws that make it easier for inspectors to catch poachers. Right now in order to prove a poacher's guilt, an inspector must catch him in the act of shooting a tiger – finding a tiger carcass in his possession is not enough – and must have 2 witnesses as well.

Concerned people from around the world often want to pour more and more money into anti-poaching efforts. More law enforcement, more forest guards, more conservation officers. But for a number of reasons, results are limited with this approach in Russia. The area over which tigers range is vast (115,000 square miles), and it's simply impossible to blanket it with enforcement officers.

We believe we must change the tradition of poaching and the socio-economic problems that cause it, and that law enforcement alone is insufficient. We need local people to be proud of their natural heritage, and intolerant of those willing to destroy it. Only when local communities refuse to tolerate poaching will it disappear. Engaged in small talk with local hunters on the streets of Terney, we would often get the confession, "I'd shoot a tiger, but not Olga." At the time, we thought, "If we could only imbue every tiger with such character like Olga, the poaching epidemic would end." But obviously, that was not enough. We need hunters to believe that abiding by hunting laws is in their long-term benefit, because by so doing, they protect a resource that is theirs. We need people to respect local resources, and animals themselves. We believe that this is happening, but that this kind of change in mindset also takes time, and requires constant reinforcement.

Just as importantly, we need to find economic incentives for local people to want to save tigers, and the forests in which they reside. If local villagers are hungry or poor, it doesn't matter how much they admire the tiger, it still represents a source of cash from sales to the Asian medicinal markets, where tiger parts are a valuable commodity. We need to put a price, both morally and economically, on live tigers in the wild. Towards that end, we are creating small, local enterprises whose success is dependent on the presence of tigers. We will certify tracts of lands if adequate numbers of tigers are present, and then sell the products of that certified land (non-timber forest products, ecotours, even sport hunting of legal prey), as "Tiger Friendly." We want the world's consumers to invest in tigers by consuming Tiger Friendly products. What we are telling the local people is, "If your land has tigers, we can you help you economically," and what we are telling the western world consumers is "If you value wild places with wild tigers, you can help by buying these products." There is no room for tiger poaching in this environment, because evidence of such leads to revocation of the certification. It's the "let's make a deal" side of conservation.

was our first tiger, and like a first love, she will always be different from the rest. Zhenya Smirnov, who has been our Russian coordinator through this entire period, is looking towards retirement now. Like us, he measured the passage of time in "Olga years." Like us, he talked about wanting the project to last long enough to see Olga die of old age. He had visions of his son Kolya, just a 4-year old boy when we started, carrying on the tiger work for the reserve. Kolya is in college now, but he will not be "Olga-watching" like his father. Unfortunately, we already know the end to her story. We failed Olga - ultimately, the metaphoric and literal bullets came too fast, too often. But we don't yet know the end of the story for tigers. It is still our responsibility to pass on the next generation of Russian tigers to the next generation of Russian people, and to the world. For now, at least, we know that there are a few of Olga's daughters and sons out there, living the same way Olga did, the same way her mother did, and the same way tigers have lived for centuries. Tigers are still making kills at Upolnomochennyi, and skirting the edges of Sergei Martynenko's farmlands. We need to make sure that those traditions continue, and that the tradition of poaching ends. Olga, we'll do our best.

This document was created with Win2PDF available at http://www.win2pdf.com. The unregistered version of Win2PDF is for evaluation or non-commercial use only. This page will not be added after purchasing Win2PDF.