

ICWA

LETTERS

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Institute of Current World Affairs

The Crane-Rogers Foundation
Four West Wheelock Street
Hanover, New Hampshire 03755 U.S.A.

JGW-4 SOUTH AFRICA

James Workman is a Donors' Fellow of the Institute studying the use, misuse, accretion and depletion of fresh-water supplies in southern Africa.

He only knew his hands were shaking and as he walked away from the car it was almost impossible for him to make his legs move. They were stiff in the thighs, but he could feel the muscles fluttering. He raised the rifle, sighted on the junction of the head and shoulders and pulled the trigger. Nothing happened though he pulled until he thought his finger would break. Then he knew he had the safety on.

—Ernest Hemingway, "The Short Happy Life of Francis Macomber"

Rules of the Game: Rifles, Rhino and Access to Water

By James G. Workman

SABIE SANDS GAME RESERVE, South Africa—I am standing on the banks of the bone-dry Manyaleti River loading four rounds of brass monolithic solids into the magazine of a customized .458 Lott rifle. I press them against the spring then slide the bolt forward, locking it down with a clack. The standard Lott allows for both more velocity and large-caliber bullets like these, which can, if absolutely necessary, penetrate the thick hides and skulls to stop a charging hippo, rhino, croc or elephant in its tracks. But large-bore rifles grow heavy carried six hours a day on foot. To reduce excess weight the barrel has been shortened.

"What's the drawback?" I ask its owner, instructor Bruce Lawson.

"You lose accuracy beyond fifty meters," he says.

"Um, with dangerous game around don't you want all the accuracy you can get?"

"Not really. You'd better not use it unless something gets closer than five meters."

"Oh."

Such is the brinkmanship required of today's game ranger / safari guide: bring clients near the untamed beasts, but not too damn near. A slip risks more than people or animals; it risks the foremost job creator in southern Africa. In a region plagued by drought, famine, corruption, inflation, recession and risk-averse investors, ecotourism is not just the only industry showing growth. It's booming. The safari experience — viewing wild and dangerous game in their natural habitat — is the continent's most competitive global export, Africa's answer to the microchip. It trades at \$270 - \$1,700 per



"Mfaze Ngala" lionesses, Panthera leo, need water to digest meat

person per day, generating 162,000 new jobs a year, mostly among poor rural populations.

That's if brinkmanship works, letting nature do its thing inside a vast electric fence. But like a microchip factory, a safari reserve depends on the confluence of four volatile 'streams' flowing from outside its fence: water, consumer cash, investor confidence and skilled labor. Without replenishing tributaries, the intricate African web of life collapses. Without satisfied customers, their foreign and urban currency flow dries up. Unless upstream residents — poor, rich, black, white — see a return on their support as indirect beneficiaries, their energies turn elsewhere, toward guns, snares, dams, saws or bulldozers. And unless the ranger creates close encounters with leopard, lion, buffalo, elephant, and rhino — without triggering a fight-or-flight response by these "Big Five" species (or by his clients) — the system unravels.

The vital heart of this nation's dangerous-game safari industry is the greater Kruger Park, with hundreds

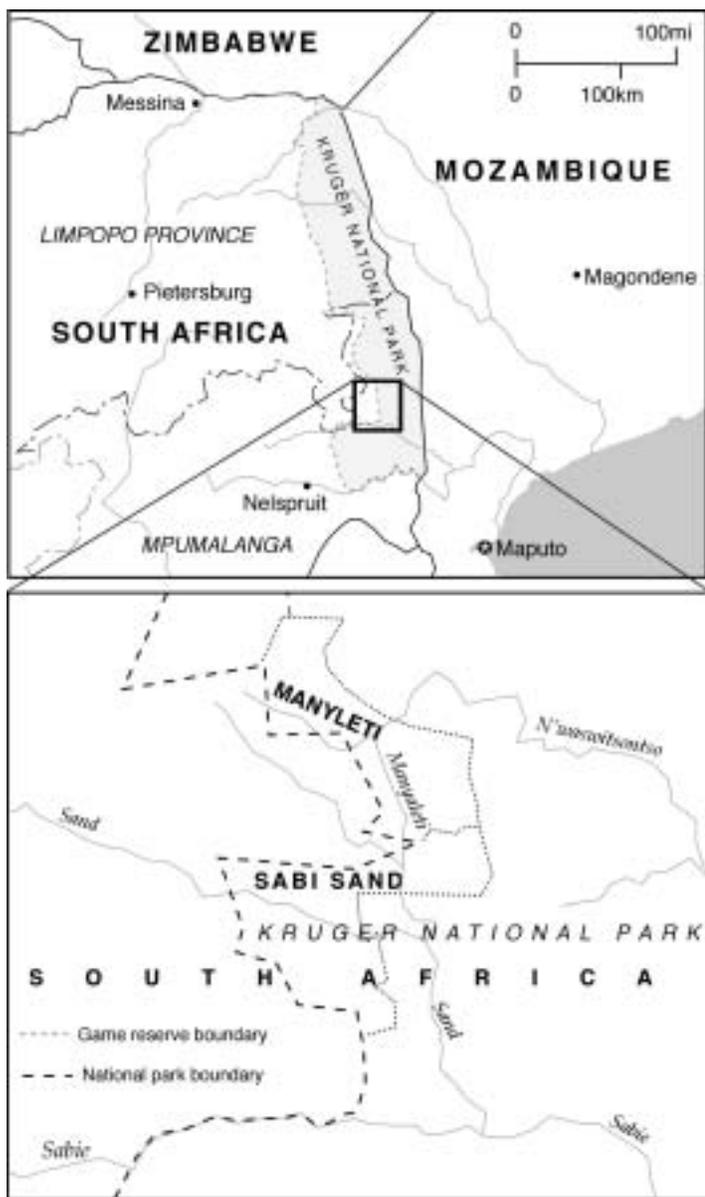
of adjacent private game reserves radiating out and upstream through a network of rivers and tributaries like the Sabie, fed by the Sand, fed in turn by the Manyaleti. It draws 900,000 visitors a year, and the number's growing. The place is unique in that the revenue-generating natural lands, where animals live, lie downstream from unprotected or developed lands, where people live. People depend on tourist-drawing animals for their livelihoods; animals depend on water for their lives. Fates intertwine. With sleeping bag and hurricane lantern, I spent a month camped out on the Manyaleti to understand this trans-boundary, water-dependent economy, joining a dozen other students to learn the 'rules of the game' inside-out (and downstream-up) through the eyes of the safari guide.

The romance of the game ranger is irresistible, akin to the cowboy; park and private lodges in the lower Sabie Sands receive 400 applications per job opening. And like the cowboy, the romance quickly wears thin. Paid \$200 a month plus room and board in exchange for 14 uncomfortable hours a day—without weekends—waiting hand and foot on abrasive, loud, nervous Western tourists in dangerous territory rain or shine, the average guide lasts four months. Which leaves a skilled labor shortage. No reliable guides to find game means no returning customers means no community benefits means no incentive to conserve water, animals, wood, fish or upstream habitat. The integrated tourist economy spirals down until, literally: game over.

Thus was born Ecotraining, this practical, month-long immersion program to weed out or prepare us wannabes for careers in the bush. By the end of this crash course in naturalism you know 75 different species of native trees and grasses, but also some 125 distinct species of birds, insects, reptiles and mammals who use them. You know how and why and most importantly *where* each interacts dynamically with the landscape, with each other, with man and, for my own interests, with water. You also know whether you're addicted or have confidence to meet nature on its own terms, albeit backed up by this .458 Lott, which reminds me how...

Macomber opened the breech of his rifle and saw he had metal-cased bullets, shut the bolt and put the rifle on safety. He saw his hand was trembling.

...as is mine. The rifle had been a local fixture from the moment I arrived; it took getting used to seeing and trusting it, even in the hands of Lawson. Not every place requires or allows rifles, but we spend most of our time on foot, walking at eye level with the game, following their tracks down and along river beds, alert but vulnerable. The already skittish animals have mood swings and bad days and don't trust a species that has hunted them for millennia. So the rifle offers emergency security. It





"Madoda" high shutter speed photo freezes trembling limbs goes out with us on every walk, every game drive, and remains within reach at the camp where elephants and buffalo crash past us during the day and leopard and hyena step gingerly over our tent strings at night.

Before today I'd held a rifle exactly twice. Once, aged seven, I fired an air gun at a tin can at a shooting gallery. And it hit. Four years later in Oregon I discovered my grandfather's .22 stored and forgotten in a cubby above the stairs leading down into a musty basement where my dad was working with his back to me. I took it down, sighted along the scope, swung it in an arc around the basement, pausing for a moment on my father as an imaginary target (he'd made me mow the lawn or some such outrage), then continued toward the woodpile where I pulled the trigger, pretending it was loaded. It was. The shock left me reluctant to pick up another rifle over the next 23 years.

But today I volunteer readily for several reasons. First, I might well find myself in situations where a rifle was required as a last resort (even gun-control advocates suggested I purchase one while wandering Africa alone). Second, my competitive spirit rose during a contest with the other students as we faced down ferocious paper targets the size of lion brainpans, moving at ranges of 20, 12 and 5 meters. Third, not long after the Oregon incident, I fell under the spell of a Hemingway short story. It in-

involved a soft, clueless, bookish Californian who never says the right thing but tries desperately to measure up to the ethical code of his short, stocky, balding, red-faced and experienced armed guide leading him deep into the African bush until, in a cathartic transformation,

Fear gone like an operation. Something else grew in its place. Main thing a man had. Made him into a man. Women knew it too. No bloody fear.

Right. Well, re-read today, that image of manhood seems embarrassingly dated. But the classic story had long grown deeply ingrained in my image of Wild Africa, right down to the swarming flies, tent flaps, dry wind, blood spoor and night coughing of an old lion. Like Macomber, other students and I often wondered how we might react to a Big Five charge: panic or calm?

Unlike the hunter in the story we loathe the idea of shooting an animal even in self-defense. That marks just one of the changes since Hemingway's Great White Hunter; indeed today's guide is not necessarily great or white or a hunter. Macho turns off customers. 'He' may be a 'she,' like half the class. The white may be a local native like Sylvester, our Shangaan co-instructor, or Siphon, a classmate. The 'hunter' may well be birder, botanist or lifelong vegetarian, like a third of the group.

Even the manly caricature has undergone a reversal; decades ago a fellow might boast how many of the Big Five he had faced down courageously and killed. Now bragging rights belong to our instructors who have never discharged a firearm in nature, period. Not that they wouldn't or hadn't once tried to. While leading clients on foot through the bush Lawson was charged by a bull elephant. He yelled at it. It kept coming. He loudly cham-



Ever-thirsty "Ndlovu", Loxodonta africana, will excavate groundwater

bered a round in the lodge-supplied rifle. Even that noise did not divert it. Within seconds it was seven meters away, bearing down fast, blocking out the horizon, and at five meters while gritting his teeth Lawson pulled the trigger as a last resort and...click! The firing pin malfunctioned. The elephant then skidded, turned and walked off. Lawson walked off the opposite direction, deciding it was time to purchase his own rifle. Months later, when *another* elephant charged he still held back from firing *that* rifle even at five meters when it too turned away.

"Maybe it was giving you a 'mock charge,'" a student suggests.

"I don't believe animals do mock charges. They just change their minds."

"Couldn't you shoot a warning shot over its head?" I ask.

"I don't believe in warning shots."

"Oh."

And if he had to shoot an elephant even in self-defense? Lawson says he would likely resign from guiding, demoralized and ashamed. "The goal is to never get in that position where you would need to. It is a sign of your failure, your fault, not the animal's. You're a visitor here voluntarily, on their turf and their terms. They have no choice. You do."

So you must neither surprise them nor let them surprise you. With thick bushes, tall grass, steep banks, no fences and unleashed critters, your only choice is to 'read' the language of the terrain, from mineral soil up through grass, trees, herbivores and their carnivores.

I discover how magma cooled underground forms light, alkaline, grain crystals that easily drain water, leaching nutrients from poor soil (sourveld) and allowing only large-leaf trees like bushwillow and hardy, barely palatable grasses to generate their own food. These attract browsers like impala, bushbuck, duiker and their main predator, leopard. Then I see where lava cooled above ground and so eroded onto a floodplain down into fine, dark, basaltic soil (sweetveld) that retains water, traps nutrients and allows a profusion of grasses and nitrogen-fixing, small-leafed legume trees like acacia. These attract grazers like buffalo, zebra, wildebeest and their predator, lion. I find seep lines (marked by wild sage, silver cluster-leaf, weeping wattle, herringbone and gum grass) and in streams (wild date palm, phragmites, sorghum, or jackalberry) where trapped or flowing water determines still more unique plants, herbivores that devour them, and predators that dine on *them*.

The governing force in all this, of course, is water. Access to water largely determines the evolutionary shape and behavior of what you will see, how much will reproduce, where you will find it, how fresh its spoor (tracks and



"Ingwe" the leopard, *Panthera pardus*, gets enough water from kills (dung) is, when it will drink, why and how often.

By understanding how water moves across, through, under and up from the ground we increase the odds of finding what foreign tourists pay big bucks to see. Then we can interpret what is happening. The four essential 'streams' flow together. I learn when Cape buffalo love water to drink and wallow in, and why they will most likely be found in a nearby swamp called Rampan during the heat of the day. Odds are they will then graze (ideally on guinea grass, their nutritious equivalent to ice cream) their way between our tents, *en route* to a spot downwind in an open grassy airstrip where they can better smell lion and defend each other at night, moving back down in the morning. A timeless migration. Indeed, after the course I re-read:

The buffalo that he was after stayed in the daytime in a thick swamp where it was impossible to get a shot, but in the night they fed out into an open stretch of country and if he could come between them and their swamp with the car, Macomber would have a good chance at one in the open.

In Hemingway's Africa those swamps and wetlands and rivers were plentiful. Old timers here recall how the Manyaleti once flowed most of the year. No longer. Now

it flows a few weeks, if that, and the region is heading into its dry winter season, with an irregular El Niño dry period approaching. So I am keen to discover how animal species behave in the face of water scarcity, stress, drought, or flood — all made more unreliable by human species both upstream and down. What might we learn from animals' use of water that could apply to ourselves or on their behalf?

As we manipulate and divert flows, some transboundary water lessons disturb me. For the first time come reports that: African wild dogs stressed by man-exacerbated floods chase humans. Water-deprived lions prey on adult elephants. Self-regulated humid-termite mounds are vacated by plummeting water tables. Male zebra kick baby wildebeest to death around one shriveling water hole. Elephants abandon and crush a baby elephant near another. None of that is normal.

Based on the utilitarian principle, "if it pays, it stays" ecotourism may pave its own watery roads to hell. Good intentions lead to decisions that 'since animals are drawn to water where guests can easily see them we should dam and pump more water in more places so more tourists can see more animals.' Perhaps. But with the profusion of artificial water holes in the late 1960s, no place in Kruger was left untrammelled by these booming grazers that denuded grass everywhere, exposing all nests and newborns. Among other distortions, the sable went nearly extinct. Artificially pumping up from deep aquifers disrupts timeless seasonal migrations, and confuses an animal's sense of food security, since ordinarily water means grass; in drought years, thousands of eland and red hartebeest trekked confidently to artificial waterholes, only to die of starvation because there was no grass. Elsewhere, wildebeest died of thirst, trapped against fences, smelling water in the distance. Diverting or fording water also breeds erosion, which may be worse than poaching: rare animals can come back; but lost soil is gone forever. Gradually, bravely, reluctantly, private reserves and parks have begun to drain and remove some of these artificial water holes and roads, exchanging short-term cash flow for long-term stability. Where they do, fewer but wilder animals work harder for natural water while fewer people must work harder for natural photos.

As animals work harder for water, their adaptations astound me. In drought, 'pure carnivores' like cheetah will eat tsama melon to get the water locked inside; 'pure insectivores' like yellow mongoose will eat succulents. Tree rats urinate on their nests to maintain the humidity level. Jackals and monkeys lick fog settled on leaves and grass. Certain dune beetles collect morning mist on hind legs. Herbivores feed at night when relative humidity rises and water is

more concentrated in leaves and grasses; even dead grass increases 30 percent of weight in water at night.

Humans aren't the first to use 'divining rods' to dig for water in arid regions. In dry river beds like this Manyaleti, zebra and especially elephants show they can sense — from the smell, vegetation, taste, or feel of soil moisture — where to find water closest to the surface (the flip side is they may also tear up leaky underground water pipes or sewerage). Scooping with a trunk, an elephant may create a deep, narrow hole exclusive to other snorkel-sipping elephants. Or with its feet it may scrape open a ditch, drink its daily 50-200 liters, then move on, allowing other thirsty animals to slake their thirst.

"Could I have a drink of water?" Macomber asked. Wilson spoke to the older gun-bearer, who wore a canteen on his belt, and the man unbuckled it, unscrewed the top and handed it to Macomber, who took it - noticing how heavy it seemed and how and shoddy the felt covering was in his hand.

Lifting the rifle I notice (despite hundreds of movies with casual gunfire) how heavy it seems and how oily, smelly, burning hot and unreliable it feels in my hand. Lawson checks the rifle and my form, nods, then looks me in the eye.

"Ready?"

"I think so."

"Start at the far target, then middle, then close, then moving. In that order."

"Okay."

"When I say, 'Go,' the stopwatch starts and you can start shooting."

A hole in the black circle is worth 10 points, the sur-



"Nkombe" a post-wallow white rhino, Ceratotherium simum

rounding white paper is five, the mounted box two and zero for a miss. My left elbow is bent at the correct angle, like Jell-o. I try to bring it under control and concentrate on the targets.

Lawson steps back. "Go."

I chamber a round, bring stock to shoulder, squint to fit the front sight needle into the back sight 'V,' then exhale slowly, finger on the trigger.

We have been taught the warning signs of the nine deadliest game, and I imagine the first target to be a lion: tail flickering, eyes wide, ears back, paws in, then pouncing at me with teeth bared. Days earlier, while I was seated on a safari-vehicle hood, exposed in the tracker's seat, frozen in place, a lioness gazed up balefully, walked inches from my feet, then licked her companion. A week before that a pride feeding on a buffalo kill with faces covered in blood paused only to walk to a nearby pond. A lions' vulnerability — its need to drink while feeding — lets hyenas and leopards (which get their water from their prey) poach from its kill. When it comes time to squeeze the trigger my imagination fails and the target becomes paper again. The kick from the rifle's butt almost knocks me on my own, leaving a weeklong bruise. But I slide back the bolt, extract the body, chamber another round...

and Macomber fell forward onto his feet, slammed his bolt forward and fired as far forward as he could aim into the galloping, rounded black back, aimed and shot again, then again, then again.

The second target at ten meters I imagine to be a ram-paging, two-ton hippopotamus. While not one of the Big Five, hippo is by far Africa's deadliest mammal. This 'water horse' naturally finds safety, coolness, weight support — and, uniquely, a childbirth medium — in water. Around water it is fiercely territorial, but feeds on land at night. As dense human settlements expand along rivers, unsuspecting women or children take the easiest path down to the river to gather water or wash in morning or dusk. They spook a departing or returning hippo, which either flattens them or cuts them in half with a single bite. The archetypal bully, it yawns to show its tusks and teeth and size, jet-sprays its dung before charging, or simply attacks. The biggest male seizes the deepest part of a river for himself; so as the stream level drops he forces smaller hippos off in search of water elsewhere, causing more animal-human water conflicts. I try to imagine the open mouth rushing at me, closing in as I squeeze the trigger.

My body absorbs the kick better this time, and I reload. The third target is five meters away, right in front of me, and I try to make it a charging bull elephant. This takes no imagination; we have had several charge us in recent weeks, spurring much discussion. Our Shangaan poacher-turned-tracker-turned-instructor, Sylvester, spoke calmly to an unruly bull to gentle him, earning the nickname, The Elephant Whisperer. When he went home

on leave, a visiting instructor from Zimbabwe took his place and on his second day led the other half of the group to see a bull elephant, which charged without warning. Our half was returning to camp, just around the bend and heard the trumpet. Then the rifle shot. Lawson cursed. We radioed. The visiting instructor had fired over its head, turning it, and the traumatized elephant was not seen again. Yet I can see it in my mind, so instead make the target a Nile crocodile, which crosses dark water like a falcon crosses thin air. It will come close, lock on, sink underwater and come out at maximum speed, pulling you under in a death twirl. The last thing you might hear is a slight splash. "There's a reason why it's survived since the dinosaurs," Lawson said earlier. "It is the perfect water-borne eating machine."

"That's it," said Wilson. "Worst one can do is kill you. How does it go? Shakespeare. 'By my troth, I care not; a man can die but once, we owe God a death and let it go which way it will, he that die this year is quit for the next'."

So I fire, setting off a runner pulling the last target on a string. I try to chamber a round, but the rifle jams. I realize I have not cleared the previous case and doing so takes another few seconds. I turn with the rifle against my cheek. The moving target is nearly upon me. I imagine it to be a rhino, ears locked on me like radars, kicking up dust and charging straight with head down and horns at me. The black, or hook-lipped rhino is meant to be more aggressive than the square-lipped or white rhino, but both will drive people up trees. Both are also extremely rare and as I study these relics from an earlier age the more I admire their tenacity, endurance and relationship with water.

Rhinos don't sweat. They don't have huge ears to cool blood vessels as do elephants. So they are the pioneer pachyderm trailblazers, crashing through brush once a day to drink, wallow and cool down, never trundling more than 3 kilometers from water. To conserve energy, other species (including humans) will then use their fresh paths. Starting with the earliest African settlers, we turn rhino tracks into trails, into dirt roads, into paved asphalt.

Like hippo, a rhino is territorial and will scent- and dung-mark its boundaries, patrolling the area as it feeds, intolerantly possessive of its food and its female; the bigger, healthier one will drive off the subordinate. Yet unlike hippos, rhino are not possessive of water. They must frequently cross each other's territory for water to drink or wallow, taking turns. These territories can lie so tight-knit together that retreat is blocked by a second or third territory. If they fought every time they went to drink the species would quickly have driven itself extinct long before the arrival of horn-seeking poachers. So they developed a ritual where two will touch horns, measure each other up, then step back. The one seeking water will adopt a subordinate posture, temporarily asking permission, and the other will invariably grant him access to and fro. Re-



'Nyati' the heavily water-dependent Cape Buffalo, Syncerus caffer

calling this courtly behavior I am again incapable of shooting at a rhino like those I have been studying in the bush, and so instead morph the moving target into that..

mouth tight closed, blood dripping, massive head straight out, coming in a charge, his little pig eyes bloodshot... huge bulk almost on him and his rifle almost level with the on-coming head, nose out; and he could see the little wicked eyes and the head started to lower

with my heart pumping adrenaline I finally squeeze the trigger.

Rifle empty, I set it down on cloth spread over dry grass. We check the targets and discover I somehow put three holes in the black and one on white. Thirty-five. The highest score, matched only by Lawson. "Nice shooting," he says. Outwardly I affect aw-shucks modesty, but inside I am soon immersed in a Walter Mitty daydream of myself transformed into a natural-born game ranger when someone calls out the time: "Twenty eight point seven seconds." That's 13 seconds over the rest of the class's average, 16 seconds longer than Lawson. My clients would by now have been mauled or eaten, with the first vultures already circling. With adjusted score drooping below mediocrity, I crash back to earth.

"All this means nothing if we can't get a grip on hu-

man changes and needs beyond the fence," Lawson reminds us. It is no longer enough to display Hemingway's 'grace under pressure' in the face of dangerous game charging along fenced-off rivers. The real pressures lies upstream in the Sabie-Sand River basin, where in the past century the human population has grown from a few hundred to (after eradication of tsetse fly and the sleeping sickness it carries) 383,000 in 1998. In eight years it will reach 509,000.

Unchecked, that thirsty, hungry population may lower aquifers, degrade habitat feeding goats and scavengers, cut healthy trees for fuel, foul water supplies, overfish, dam or pump for irrigation. Even the stable tribal communities that

support and benefit from ecotourism must now suddenly compete, often at gunpoint, with a flood of newcomers, refugees crossing borders or leaving the big cities to hunt and gather wood and sand and bushmeat and fish and, inevitably, water.

Hence the Catch-22 of safari ecotourism: jobseekers swarm like bees to its economic honeypot, depleting the source of its job growth. This pressure cannot be released by a rifle or resolved inside the fence by knowing animal behavior. It requires a new brinkmanship of social ecology, perhaps applying 'rules of the game' upstream among our own species. To wit: rhino are not bright, graceful or altruistic. They are as instinctively, irascibly territorial as humans, if not more so. They display large horns the way we display large-caliber rifles. Still, they must be on to something that has allowed them to endure over the millennia: by replacing self-destructive aggression over water with its own unwritten code of confrontation, they share access reciprocally, reduce needless casualties, and conserve their energies for gentle and productive tasks like sleeping and eating. Like our Lott .458, they restrain their horns except as a last resort.

Course over. Time to depart. I cross through the electric-fence gate to learn if humans upstream can use the rhino example, living where rhino once lived, walking over well-worn paths to water they made, then left behind for us to follow. □

INSTITUTE OF CURRENT WORLD AFFAIRS

Fellows and their Activities

Wendy Call (May 2000 - 2002) • MEXICO

A "Healthy Societies" Fellow, Wendy is spending two years in Mexico's Isthmus of Tehuantepec, immersed in contradictory trends: an attempt to industrialize and "develop" land along a proposed Caribbean-to-Pacific containerized railway, and the desire of indigenous peoples to preserve their way of life and some of Mexico's last remaining old-growth forests. With a B.A. in Biology from Oberlin, Wendy has worked as a communications coordinator for Grassroots International and national campaign director for Infact, a corporate accountability organization.

Martha Farmelo (April 2001- 2003) • ARGENTINA

A Georgetown graduate (major: psychology; minor, Spanish) with a Master's in Public Affairs from the Woodrow Wilson School at Princeton, Martha is the Institute's Suzanne Ecke McColl Fellow studying gender issues in Argentina. Married to an Argentine economist and mother of a small son, she is focusing on both genders, which is immensely important in a land of Italo/Latino machismo. Martha has been involved with Latin America all her professional life, having worked with Catholic Relief Services and the Inter-American Development Bank in Costa Rica, with Human Rights Watch in Ecuador and the Inter-American Foundation in El Salvador, Uruguay and at the UN World Conference on Women in Beijing.

Curt Gabrielson (December 2000 - 2002) • EAST TIMOR

With a Missouri farm background and an MIT degree in physics, Curt is spending two years in East Timor, watching the new nation create an education system of its own out of the ashes of the Indonesian system. Since finishing MIT in 1993, Curt has focused on delivering inexpensive and culturally relevant hands-on science education to minority and low-income students. Based at the Teacher Institute of the Exploratorium in San Francisco, he has worked with youth and teachers in Beijing, Tibet, and the Mexican agricultural town of Watsonville, California.

Peter Keller (March 2000 - 2002) • CHILE

Public affairs officer at Redwood National Park and a park planner at Yosemite National Park before his fellowship, Peter holds a B.S. in Recreation Resource Management from the University of Montana and a Masters in Environmental Law from the Vermont Law School. As a John Miller Musser Memorial Forest & Society Fellow, he is spending two years in Chile and Argentina comparing the operations of parks and forest reserves controlled by the Chilean and Argentine governments to those controlled by private persons and non-governmental organizations.

Leena Khan (April 2001-2003) • PAKISTAN

A U.S. lawyer previously focused on immigration law, Leena is looking at the wide-ranging strategies adopted by the women's movement in Pakistan, starting from the earliest days in the nationalist struggle for independence, to present. She is exploring the myths and realities of women living under Muslim laws in Pakistan through women's experiences of identity, religion, law and customs, and the implications on activism. Born in Pakistan and immersed in Persian and Urdu literature by her grandfather, she was raised in the States and holds a B.A. from North Carolina State University and a J.D. from the University of San Diego.

Andrew D. Rice (May 2002 - 2004) • UGANDA

A former staff writer for the *New York Observer* and a reporter for the *Philadelphia Inquirer* and the Washington Bureau of *Newsday*, Andrew will be spending two years in Uganda, watching, waiting and reporting the possibility that the much-anticipated "African Renaissance" might begin with the administration of President Yoweri Museveni. Andrew won a B.A. in Government from Georgetown (minor: Theology) in 1997 after having spent a semester at Charles University in Prague, where he served as an intern for *Velvet* magazine and later traveled, experienced and wrote about the conflict in the Balkans.

James G. Workman (January 2002 - 2004) • SOUTH AFRICA

A policy strategist on national restoration initiatives for Interior Secretary Bruce Babbitt from 1998 to 2000, Jamie is an ICWA Donors' Fellow looking at southern African nations (South Africa, Botswana, Mozambique, Zambia and, maybe, Zimbabwe) through their utilization and conservation of fresh-water supplies. A Yale graduate (History; 1990) who spent his junior year at Oxford, Jamie won a journalism fellowship at the Poynter Institute for Media Studies and wrote for the *New Republic* and *Washington Business Journal* before his six years with Babbitt. Since then he has served as a Senior Advisor for the World Commission on Dams in Cape Town, South Africa.

ICWA Letters (ISSN 1083-429X) are published by the Institute of Current World Affairs Inc., a 501(c)(3) exempt operating foundation incorporated in New York State with offices located at 4 West Wheelock Street, Hanover, NH 03755. The letters are provided free of charge to members of ICWA and are available to libraries and professional researchers by subscription.

Phone: (603) 643-5548
E-Mail: ICWA@valley.net
Fax: (603) 643-9599
Web Site: www.icwa.org

Executive Director: Peter Bird Martin
Program Assistant: Brent Jacobson
Publications Manager: Ellen Kozak

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Author: Workman, James G
Title: ICWA Letters - Sub-Saharan Africa
ISSN: 1083-429X
Imprint: Institute of Current World Affairs, Hanover, NH
Material Type: Serial
Language: English
Frequency: Monthly
Other Regions: East Asia;Mideast/North Africa; South Asia; Europe/Russia; The Americas

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