

# H.O.R.N.



Volume 2, Issue 3

*Help Our Rhinos Now*

Spring 1992

**The Official Newsletter of the Ngare Sergoi Support Group**

## Lewa Downs Conservation Report 1992

By Andy Lodge

**I**n January of this year, I was at Lewa Downs as part of a National Geographic T.V. wildlife special, focusing on my work with Kenya wildlife and the conservation effort being made at Lewa. This special will be aired sometime in early 1993 and is entitled *Keepers*. I hope this special will help bring attention to the outstanding work being done by all the people involved with Lewa Downs, both in Kenya and in North America. This special includes all the projects currently going on at Lewa, such as the giraffe move, the Ngare Ndare Forest Project and the release of three de-horned rhinos from the Ngare Sergoi Rhino Sanctuary onto Lewa Downs.

The giraffe relocation is progressing smoothly. To date, 127 giraffe have been relocated to game parks such as Samburu, where in past years poaching took a heavy toll on these animals. By moving the giraffe we are already seeing improvement in some of the foliage on Lewa.

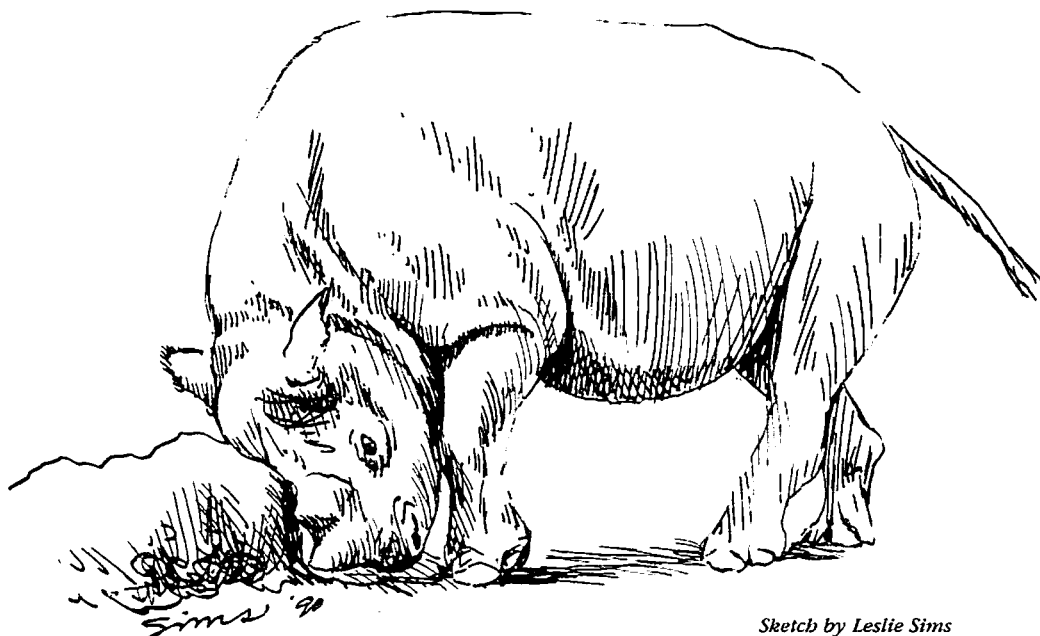
The monies raised this year will be used to fence in the rest of Lewa. When finished, there will be 215 square kilometers of protected area for wildlife. These 215 square kilometers include the Ngare Sergoi Rhino Sanctuary, the Ngare Ndare Forest, and all of Lewa Downs.

After some setbacks last year involving the black rhinos, we are back

on track with two births and two more of our females are pregnant. In talking with Dr. Esmond Bradley Martin, he informed me that in the last four years the Kenya black rhino population has grown by 5% and it is estimated there are now around 400 black rhinos in the country. Four hundred may not seem like many considering there were 20,000 in 1960, but at least the poaching seems to be pretty well under control at present.

The Ngare Ndare Forest fence is complete and was officially dedicated in early April. This is a high profile

project and everyone has high hopes for its success. Everyone involved—from the Lewa conservation team to the Kenya government to the local farmers—send their sincere thanks to the American Association of Zoo Keepers and the Ngare Sergoi Support Group for making the Forest Project a reality. We hope that we will continue to have the backing of AAZK and concerned people throughout North America so we can continue our work to save these magnificent animals for future generations. Again thank you all so very much. ■



Sketch by Leslie Sims

# Plight of the Peatlands

By Missy Betcher

**A**n Irish farmer gathering fuel . . . the romantic allure of the British moors . . . a Key deer jumping through the reeds—what do these images have in common? They all refer to peatlands, and they are all in danger of disappearing.

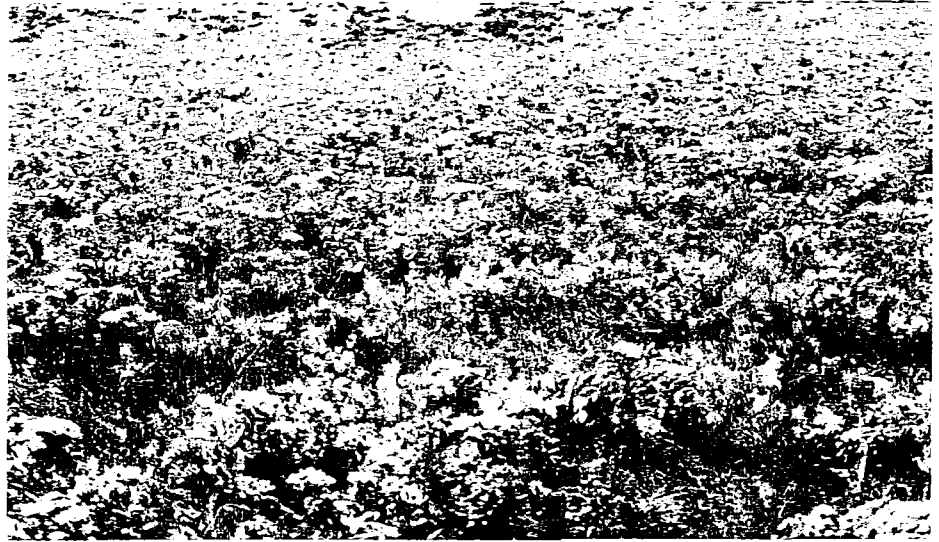
There are three types of peatlands. Primary peatlands, such as the Everglades were formed in a depression. Secondary peatlands were also formed in a basin, but their limits go beyond the boundaries of the basin. And, tertiary peatlands were formed above ground water levels, on a perched water table. The Irish bogs, both blanket and domed, are examples of tertiary peatlands.

For the most part, peatlands are found in the northern hemisphere. A general characteristic is the presence of Sphagnum moss. This is a springy, fibrous plant that can hold many times its weight in water. It is a living blanket of moss that builds on itself—often to a depth of 20 feet.

Most Americans know of the ongoing struggle involving America's wetlands. The media is currently filled with stories of the battles between conservationists and politicians and developers. But few people know that the struggle to save the peatlands is not limited to the United States. The disappearance of the world's peatlands is, in reality, an international crisis which effects every country that contains peatlands. In 1987 the Nature Conservancy Council in Great Britain said that the loss of peatlands was the most massive single loss of important wildlife habitat since World War II.

By definition, peat is incompletely decomposed plant and animal remains which accumulate under extremely wet conditions. In general, peat accumulates at the rate of 20 to 80 centimeters per 1000 years. Some argue that because peat does accumulate it is a renewable resource. This may technically be true. But by looking at the facts it becomes apparent that in reality, peat is nonrenewable. The world resource of peat is approximately 230 million hectares. Renewal rates differ from area to area and often fluctuate within one area. Once disturbed or cut, peat regenerates at a slower rate. And even if all the world's peat was regenerating at its maximum rate, the contemporary rate of exploitation is far greater than the rate of replacement. In Ireland, which has depended on peat for fuel for hundreds of years, experts believe that if something is not done immediately, all the peat resources will be gone by the end of this century.

Ireland is an excellent example of how modern methods of exploitation are making the destruction of peatlands into a rapid and catastrophic process. Over the past centuries, each farmer had a small piece of land that he could cut for



*Peatlands as bountiful ecosystems in the Irish Bogs . . .*

winter fuel. Small harvesting of peat allowed for the peat to regenerate. However, the peat is now harvested commercially by a process called *milling*. Huge machines remove the first inch of the peat deposit. The peat is disturbed and turned by rotating drums on the machinery fitted with wire pins. The aerated peat is allowed to dry for 2 to 3 days before it is harvested. A vacuum operated machine is used to suck up the peat. Then the next layer is milled, and the process continues.

Milling is not limited to Ireland, however. The Soviet Union also mills peat. And, to a lesser extent, so does Canada. In Canada the majority of peat is located in vertical faces on hills and is harvested hydraulically. Water, under very high pressure, is used to "wash" the peat loose from the hills.

Although every country that contains peatland exploits it to some extent, the quantity of peatland in a country bears no relation to the degree of exploitation. The U.S.S.R. and Canada combined contain 80% of the world's peat resources. Yet (so far) Canada's resources have not been overly exploited. But this is only because the remoteness of Canada's peatlands has delayed their exploitation.

The U.S. ranks fourth on the list of nations with the largest peat resources. Great Britain is sixth and Ireland is near the bottom of the list, at number 15. Yet, when it comes to exploitation, or percent of the world harvest, the numbers take a dramatic turn. The U.S.S.R. is first with 95%. Ireland is second with 2%. Although there is a huge difference between 95 and 2 percent, Ireland's 2% is proportionately greater when one considers that Ireland's total peat resource is 172,000 hectares compared to the U.S.S.R.'s 71,500,000. In terms of exploitation the U.S. is fourth with .29%, Canada eighth with .13% and Great Britain comes in at number 12, combined with others at .16%.

Why are peatlands being exploited and why should they be saved?

Although peat is no longer being used on a large scale as a household heating fuel, it is still being used as an energy resource. Both the U.S.S.R. and Ireland harvest peat and use it to fuel electric power stations. In countries where peat is

easily extracted, industries will often use it as their fuel of choice.

In some countries, peatlands are being drained to make way for other uses. By 1980, 90% of Finland's peatlands (which comprise 40% of the country) had been drained and planted. Over 65% of Poland's peatlands have been drained and turned into pastureland. In Great Britain, the peatlands are being drained so that trees can be planted. Over the centuries, Great Britain has destroyed most of its forests. The partial destruction of the peatlands is seen as a way to regenerate the forests. And, in the United States, peatlands are falling victim to increased urbanization. The primary use

conclusive studies about what happens to the carbon dioxide when the peat is burned.

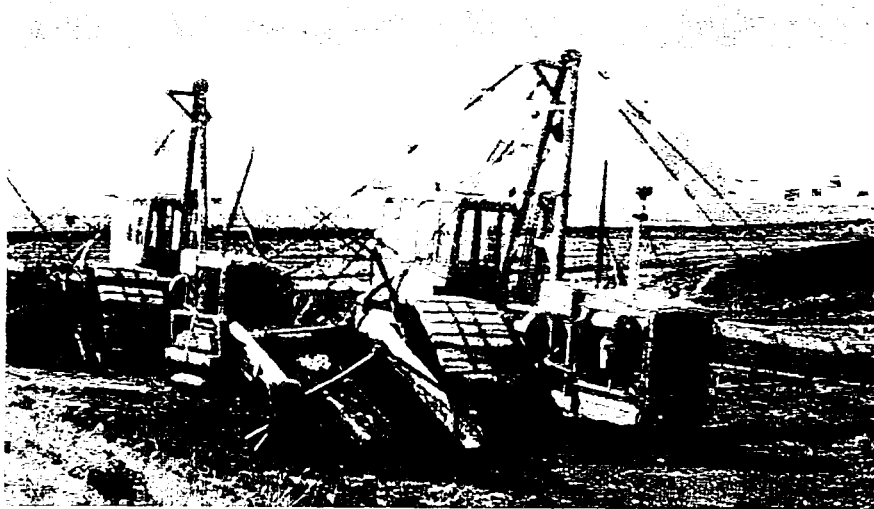
Draining and milling of peatlands also raises several problems. Because peatlands act as natural sponges, once the peat is gone flooding will often occur. Gully erosion is another consequence. The fish that inhabit peatland lakes are often effected as the entire watercourse and its composition is changed.

There are also numerous concerns associated with draining peatlands to plant trees. Advocates say it is being done on only part of the peatlands so that both can be sustained in harmony. Critics contend that the forest canopy

intercepts the rainfall which will effect the surrounding peatlands. It is a high level of water that sustains the unique floral composition of these lands. In addition, peatlands are the home to many insects, small mammals, and birds. In particular, it is feared that many of the birds who nest in the peatlands because there are no trees will either try to find new nesting grounds or will fall victim to new species which will come to inhabit the forests. In England, two-thirds of the greenshanks, one-third of the dunlins, and a vast majority of the golden plover nest in the peatlands. By intervening, the entire ecological balance could be upset.

For years peatlands were relatively safe from man's interference. They were waterlogged, they could not sustain growth well,

and the temperature and humidity fluctuated. But numerous plants and animals adapted and formed a unique ecosystem. Now, with all of his technological advancements, man has found a way to change and use the peatlands. A lot of them are already lost or are in danger. We are well aware of the



*"Visited" by peat-cutting machines . . .*

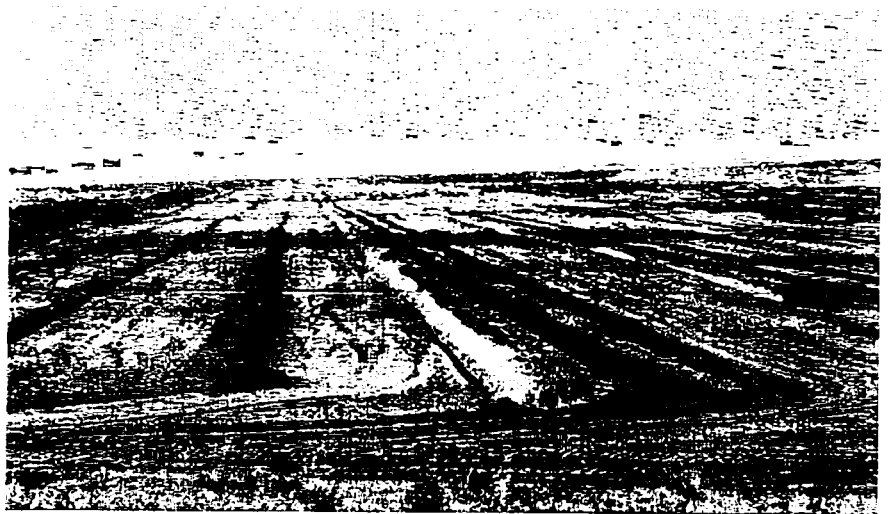
of peat is, of course, in horticulture and agriculture. Peat has a high energy content for small plants and its fibrous and spongy composition gives it a high water holding capacity.

Finally, peat is used by the chemical industry. Its chemical structure gives peat a high power of cation retention.

Why should the peatlands be saved?

Peatlands are a viable, unique ecosystem of which scientists admit their knowledge is limited. Peatlands have their own structure which makes them worthy of study. And, especially for those interested in the history and development of modern plant and animal communities, the peatlands are a wonderful record. We do know that there are 140 bog "provinces" in the world, and that their greatest diversity is in their floral makeup. Flora and fauna differ from peatland to peatland, but each contains numerous unique species, either unique to that particular bog, bog province, or to peatlands in general. It is known that one bog has 34 separate floral species. And, as in other situations, it is not known what properties these species may contain. For example, Sphagnum moss was used during World War II in field hospitals for its antiseptic properties.

Scientists do not know what effect large-scale burning of peat will do to the biosphere. Some speculate that it will speed-up the greenhouse effect. It is known that peat captures and stores carbon dioxide, but there have been no



*They become vast wastelands.*

*Photos by Missy Betcher*

situation in our country and can hopefully save our peatlands. But we can not lose sight that all the world's peatlands are in danger and that something must be done soon before they are all lost. A balance between economic and conservation needs must be found now in order to preserve the genetic diversity of the peatlands. ■

# Children's Column

By: Missy Betcher

**D**id you know there are over 500 endangered (in danger of becoming extinct) and threatened (likely to become endangered) species in the United States? It is a sad but true fact. This includes plants, mammals, fish, birds, and rep-

tiles. Following is an alphabet with information about a few of these creatures. Why not pick one (or two or three) that strikes your curiosity. Find out more about it: go to the library and read about that "letter," do a school report on it,

look for it at the zoo, ask your local natural resources department about it, find out about its habitat at a natural history museum. Most important find out about our endangered species and how you can help save them.

**A** is for American crocodile,  
Nesting by a nuclear power plant.

**B** is for Black Footed Ferret,  
47 now tunnel in the plains.

**C** is for California Condor,  
Two once again fly free.

**D** is for Desert Tortoise,  
"Fun" to use for target practice.

**E** is for Bald Eagle,  
Will our symbol of freedom be saved?

**F** is for Florida Panther,  
Gone from the wild? Gone for good?

**G** is for Grizzly Bear,  
Great God of the Native Americans.

**H** is for Hawaiian Monk Seal,  
Should the beaches be ours or theirs?

**I** is for Indiana Bat,  
An evening meal is 3000 bugs.

**J** is for Jaguarundi,  
"House" cat of the Native Americans.

**K** is for Key Deer,  
Disappearing with the Everglades.

**L** is for Loggerhead Sea Turtle,  
Caught in nets meant for fish.

**M** is for Manatee,  
Motor boats hurt and kill.



Quagga

**N** is for Northern Spotted Owl,  
A battle waged with the logging industry.

**O** is for Ocelot,  
Painted leopards are almost gone.

**P** is for Peregrine Falcon,  
Now lord of the skyscrapers.

**Q** is for Quagga,  
An example of one lost forever.

**R** is for Red Cockaded Woodpecker,  
Houses are now where it had its nest.

**S** is for Sea Otter,  
Fine fur, fit for kings.

**T** is for Timber Wolf,  
Misunderstood canine of the west.

**U** is for Utah Prairie Dog,  
Has the last alarm sounded for their town?

**V** is for Virginia Flying Squirrel,  
Living in holes since the trees are gone.

**W** is for Whooping Crane,  
Raised in the nests of Sandhills.

**X** is for eXtinct,  
How many can be saved?

**Y** is for Yaqui catfish,  
When the river is diverted, where to go?

**Z** is for Zero,  
If there are none, it is too late.

## Some books to help you get started:

Goodman, Billy. *A Kid's Guide to How to Save the Animals*. 1991. (3-5)

Grzimek, Bernard. *Grzimek's Animal Life Encyclopedia*, 1972. (There is a 1990 ed. for the mammal volumes.) (6-12)

Lowe, David, ed. *Official World Wildlife Guide to Endangered Species of North America*, 1990. (4-12)

Permit No. 4890  
Columbus, Ohio



## Dear AAZK & Ngare Sergoi Members,

**W**ow! How can I describe the most exhilarating experience of my life? As a zoo keeper, it is a dream-come-true to conserve wildlife both in captivity and in the wild. Thanks to Andy Lodge and his *Bowling for Rhinos* fund-raiser for filling this dream for me and many others. This terrific sanctuary, with its dedicated professional conservationists and abundant wildlife, became our home for two weeks. No words can truly give the experience justice.

We left my house at 10 a.m. Friday, Feb. 7, and arrived in Nairobi, Kenya, at 2 a.m. Sunday. After a few hours of sleep in the Intercontinental Hotel (thanks Andy!) we woke to a first day of shopping in the Market in Nairobi. Around noon, Ian Craig (owner of Lewa Downs) hosted us to a beautiful, hour-long flight from Nairobi to Lewa Downs in the foothills of Mt. Kenya.

We were able to spend a few nights with each of the project managers and their families. This allowed us the opportunity to see each section of the project and how each part fits together for the same common goal. I believe Ngare Sergoi is successful because of the people who run it. They work together as closely as family. Each makes a living through cattle ranching at Lewa Downs, yet each spent much of their time with the conservation of wildlife. When a security alarm goes off at

the fenceline, everyone pulls together to solve the problem. Peter Jenkins (Maru Park Founder) and Rob Bret (Kenya Wildlife Services) are only two of the many people we met who told us Ngare Sergoi was the best run sanctuary in Kenya. We were seeing the "best of the best" in action!

One of my most thrilling memories was standing next to Anna Merz the "Jane Goodall of Rhinos," as we watched a 4 day old black rhino calf nurse from its mother. Another was standing only a few yards away from four bull elephants who were feeding from a tree that we just watched them knock over. Within our first two hours at Lewa Downs, we saw more animals than we thought we would see our entire stay! It wasn't like a regular safari where you have to stay in a vehicle and watch lions that are bored with people. We walked for hours through Ngare Ndare amongst animals who rarely see humans. I saw at least 50 kinds of birds, bush babies, vervet monkeys, baboon, warthogs, cape buffalo, impalas, gazelles, gerenuks, zebras, waterbucks, kudus, eland, giraffes, elephants, hyraxes, mongoose, leopards, hyenas and lizards galore. We watched herds of 50 elephants as they fed amongst the trees nearby. We even rode horses next to the wildlife and became just another animal to the zebras and gerenuks. Snow covered Mt. Kenya could always be seen in the distance (even in the shower) which made for some outstanding sunsets!

We were able to walk along the fence line and talk with the native farmers whose crops are now safe from elephant raids due to the *Bowling for Rhinos* fence. One elderly woman said this is the first time in 20 years that she won't have to worry about her children starving. She can now "watch the elephants in the sanctuary and admire them for their beauty rather than flee in fright and anger." Before Ngare Sergoi and *Bowling for Rhinos* she never even heard of any farmers receiving and help from money designated to them and can't believe the generosity of Americans from so far away. Because 100% of *Bowling for Rhinos* money goes directly to the sanctuary rather than to administration costs, the natives see the benefits.

It was an incredible feeling sitting outside Ian Craig's veranda as the sun sets, overlooking the entire project knowing that I am helping save it by being a part of AAZK and *Bowling for Rhinos*. It's great to know that we can make a difference when we all pull together.

Missing Africa already,  
Patty Pearthree