

NEWSLETTER



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KAMOL
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**INSIDE:
A TALE
OF
TWENTY
LEAF
MONKEYS**

Leaf-monkey
mother and child
by Kamol Komolphalin

MASSIVE SHIPMENT MORTALITY OF TREE-SHREWS

IPPL has learned that there has been appalling mortality among Tree-shrews *Tupaia glis* shipped from Thailand to the United States. The Thai dealership involved was the Siam Zoo and the U.S. importer was the Primate Imports Company of New York.

Most of the Tree-shrews were intended for use in the Psychology Departments of Duke University, Durham, North Carolina, and Vanderbilt University, Nashville, Tennessee.

Among the shipments were:

* 9 February 1978: 100 shipped, 56 dead on arrival, 24 more dead within 2 weeks of importation; 10 survivors were sold to Duke University and 10 to Vanderbilt University.

* 17 March 1978: 200 shipped, 190 dead on arrival; the ten survivors were shipped to Duke University.

* 20 March 1978: 100 shipped, 92 dead on arrival, 2 more dead within a week; 1 survivor was sold to Sloan-Kettering Hospital, New York; the fate of the other five survivors is unknown to IPPL.

* 28 February 1979: 200 shipped, 161 dead on arrival, 12 more dead within a week; the 27 survivors were sold to Duke University.

The Government of Thailand is investigating this situation at the request of the International Primate Protection League. Although importation of shipments with a "substantial ratio" of dead and dying animals is a violation of U.S. law and subjects the airline and dealers concerned to prosecution, no action was taken against those responsible for these shipments by U.S. authorities.



Tree-shrew

U.S. GOVERNMENT ENTERS "MONKEY BUSINESS"

IPPL has learned that primates imported to the United States from Peru through a National Institutes of Health-Pan American Health Organization project in Peru have been re-exported to laboratories in the Soviet Union, Japan, and the Federal Republic of Germany at a declared value of between \$150-175 (U.S.). The monkeys were shipped to the United States from Peru under a contract which has already cost U.S. taxpayers hundreds of thousands of dollars, making the real cost of each Peruvian monkey re-exported from the U.S. between \$1,000-2,000.

The re-exported shipments included:

* 25 October 1979: 5 Moustached tamarins *Saguinus mystax* shipped to Dr. D. Drozdov. Oblast 14278, Moscow, U.S.S.R.

* 25 October 1979: 5 Moustached tamarins and 22 Brown-headed tamarins *Saguinus fuscicollis* shipped to the Max

Pettenkofer Institute, Munich, Federal Republic of Germany.

* 8 November 1979: 36 Brown-headed tamarins shipped to the Max Pettenkofer Institute, Munich, Federal Republic of Germany.

* 12 November 1979: 30 Squirrel monkeys *Saimiri sciureus* shipped to Prof. R. Hassler, Postfach 7104, Frankfurt, Federal Republic of Germany.

* 4 December 1979: 20 Moustached tamarins shipped to Dr. T. Nomura, Kawasaki, Kanagawa, Japan.

IPPL is investigating this situation further as it appears that U.S. taxpayers may be subsidizing the sale of monkeys to third-world country laboratories at a fraction of their acquisition cost in terms of contract expenditure per animal exported from Peru.

MAHALE MOUNTAINS NATIONAL PARK PROPOSAL

Mahale: Study for the Proposed Mahale Mountains National Park. Final Report. May 1980. Japan International Cooperation Agency. Japan.

This report was prepared by a study team headed by Dr. J. Itani, of Kyoto University, under the auspices of the Japan International Cooperation Agency (JICA) in response to a request from the Government of the United Republic of Tanzania to the Government of Japan for technical cooperation in the establishment of the Mahale Mountains National Park in the Kigoma Region of Tanzania. The park will be the eleventh national park to be established in Tanzania, the first being the Serengeti National Park, and will be the only national park in Tanzania mainly dedicated to the protection of chimpanzees in their natural habitat open to visitors on hiking excursions. The goals of the park will include: nature conservation and field management, permanent environmental study and field management, and tourism.

Studies on the social structure and ecology of chimpanzees *Pan troglodytes schweinfurthii* have been conducted in the Mahale Mountains by Japanese primatologists for approximately 20 years. A summary of the results of these studies is contained in the report. Other primates in the Mahale Mountains include the following: lesser galago *Galago senegalensis*, greater galago *Galago crassicaudatus*, blue monkey *Cercopithecus mitis*, red-tailed monkey *Cercopithecus ascanius*, savannah monkey *Cercopithecus aethiops*, yellow baboon *Papio cynocephalus*, Angolan Colobus *Colobus angolensis*, and red colobus *Colobus badius*.

Readers are requested to write the following Japanese officials, urging financial support for the creation of this most important national park.

The Prime Minister 2-3 Nagata Chiyoda-Ku Tokyo, JAPAN

Minister of Finance 3-1 Kasumigaseki Chiyoda-Ku Tokyo, JAPAN

Minister of Foreign Affairs 2-2 Kasumigaseki Chiyoda-Ku Tokyo, JAPAN

A TALE OF TWENTY LEAF-MONKEYS

Twenty leaf-monkeys (langurs) were shipped to the United States from Indonesia in January 1978. When they arrived in New York, four were found dead in their shipping crates.

AND THEN THERE WERE SIXTEEN.

The leaf-monkeys were transferred to another aircraft for the two-hour flight to Minneapolis, Minnesota, U.S.A. Four more were dead on arrival.

AND THEN THERE WERE TWELVE.

Within one week of their arrival at the Minneapolis Zoo, four more leaf-monkeys had died.

AND THEN THERE WERE EIGHT.

Within the second week, four more died.

AND THEN THERE WERE FOUR.

By the end of the third week, two more had died.

AND THEN THERE WERE TWO.

One week later, another leaf-monkey died.

AND THEN THERE WAS ONE.

On 7 March 1978, the lone survivor died by drowning in her water bucket.

AND THEN THERE WERE NONE.

On learning about this shipment, the International Primate Protection League contacted the Minnesota Zoological Society, which had obtained the animals, asking for further details. Most zoos try to hush up this kind of incident. However, the Associate Director for Biological Programs at the Minnesota Zoo (Mr. Hugh B. House) informed IPPL that the monkeys (Silver leaf monkeys *Prestbytis cristata*) had been obtained from the Indonesian animal trafficker, Charles Darsono, who deals in primates under the name of C.V. Primates. Mr. House informed IPPL that,

believing that leaf monkeys can do well in captivity if pains are taken in accommodating them to a captive life, we made particular efforts to obtain special handling for a group of animals. I believe that the agreement was ignored by the supplier. . .the animals were. . .shipped with no special care.

The Minnesota Zoo has kindly supplied IPPL with copies of the autopsy reports on the dead monkeys in the hope that other zoos will learn from its experience. The zoo has no plans to import further leaf-monkeys and the space the animals would have occupied is now home to a group of Celebes macaques, none acquired from the wild.

Among the terms recurring in the autopsy reports are: "emaciated," "void of any adipose tissue reserves," "nutritional atrophy," "no fat," "depressed," "underfed to the point of emaciation," "muscles are atrophied," "very poor condition," "underfleshed," and "unloaded in a comatose condition." It is noted that, "the entire group was characterized by malnutrition conformation." Most of the monkeys were described as showing "protuberances of the ilium and ischium as well as the dorsal and traverse process of the vertebrae." In other words, as the veterinarian for the zoo informed Dr. Shirley McGreal, Co-Chairwoman of IPPL, in the course of her visit to the facility, the leaf-monkeys were "nothing but skin and bone." One monkey was found in her cage "recumbent, barely breathing, acutely ill," about 48 hours prior to death. Her condition was described as "acute shock, appears dehydrated, poor shallow respiration, temperature 88 degrees F (31 degrees C)." The langur's condition deteriorated, and soon she was "chewing fingers to the bone" without any "apparent pain perception."

Charles Darsono, the dealer who shipped these monkeys, is a close friend and supplier of primates to Dr. Orvil Smith, Director of the Washington Regional Primate Center, Seattle, Washington, U. S. A. On 11 January 1978, Darsono shipped ten

Silver leaf-monkeys to the Washington Center. Two were dead on arrival. Five more died within one month of arrival. Dr. Smith has failed to answer an IPPL enquiry about the number of animals surviving, if any, and the purpose of the shipment.

IPPL considers this kind of primate shipment to be outrageous. It is not only a senseless waste of life but causes immense suffering to the animals shipped. IPPL has sent all relevant documents to Indonesian authorities with a request that they either ban export of leaf-monkeys or regulate animal dealers more strictly.

In spite of the agonizing deaths of the twenty monkeys, it appears that Darsono made money from the shipment. The Minnesota Zoo paid half the agreed price for the animals.

IPPL requests all members to find the time to send letters of protest about this shipment to:

His Excellency President Soeharto
Istna Merdeka
Jakarta Pusat, Indonesia

and:

Dr. Emil Salim
Minister of the Environment
Jalan Merdeka Barat No. 15, 3rd floor
Jakarta Pusat, Indonesia

Be sure to enclose details of the incident, and to place appropriate air mail postage (31 cents per half-ounce in the United States) on your letters. In addition, members should contact the Indonesian Ambassador in their country of residence.

Pathologist (sign):

Species: Silvered leaf monkey *Prestbytis cristatus*
(common name) (scientific name)

Sex: F Age: Adult Necropsy Date: 2/19/78 ID #: 266

History: Date of death: 2/19/78. This animal was received on 1/31/78 from an original group of 16 from Indonesia. The group was characterized by malnutrition conformation. This animal came in depressed, emaciated, and in generally poor condition. This animal expressed neurological signs (see page 2)

External Appearance:

This animal is in a very malnourished condition.

Thoracic Cavity:

There is approximately 10cc of serosanguineous fluid present in the cavity.

Nasal Passages, Trachea, Bronchi:

Possessed a very mucus type material, a slight amount of foam was present in the bronchi.

Lungs: The right lobules of the lung, diaphragmatic, cardiac, and apical lobes appear to be a greenish color and very spongy in texture. The left lobules of the lungs are a deep red in color, (see page 2)

Cardiovascular System:

Within normal limits.

Abdominal Cavity:

Within normal limits, no evidence of fat reserves and there is approximately 60-80cc of serosanguineous fluid present.

Mouth, Esophagus, Stomach: Within normal limits. Stomach possessed a great amount of liquid present of what appeared to be the remnants of Monkey Chow. no tasty like material was noted.

Large Intestine, Colon:

Ingesta present in the colon was liquid in nature. The material seemed to be a dark reddish brown in color, however, the mucosal of the colon (see p2)

Autopsy report on dead monkey

BELGIUM CONTINUES TO IMPORT SMUGGLED PRIMATES

In spite of a storm of international protest against its serving as a haven for smuggled wildlife, Belgium defiantly persists in importing endangered primates illegally exported from their homelands. In many cases, the primates belong to species normally caught by shooting of the mother to obtain her infant (e.g. gorillas, chimpanzees, gibbons). Recent incidents involve shipments of gorillas and chimpanzees.

The "Belgian Connection" was first uncovered by Dr. Ardith Eudey, Co-Chairwoman of IPPL, who discovered 40 gibbons and 55 macaques on Bangkok Airport in August 1978. The animals were awaiting shipment to the Belgian dealer René Corten. They had been illegally exported from Thailand to Laos and had been loaded at Vientiane Airport, Laos, on a flight to Bangkok, Thailand, where they were to be transferred to a flight leaving for Brussels, Belgium. The events surrounding this shipment were described in detail in the December 1978 *IPPL Newsletter* (available from Headquarters for \$1.50). The primates were presumably distributed to zoos and laboratories in Europe. Although many European countries have joined the Convention on International Trade in Endangered Species (CITES), several do not enforce its provisions strictly, and, in any case, it is relatively easy to smuggle wildlife across Belgium's borders since motor vehicles passing between West European countries are no longer strictly inspected.

In spite of the protest following this incident, Belgium continued to allow its dealers to import smuggled wildlife and refused to join the Convention. After two gorillas had passed through Corten's hands in late 1979, officials from the

Convention Headquarters in Switzerland travelled to Belgium to make representations to the Government. They were informed that ratification had been delayed for "purely constitutional reasons," but that Belgium had issued an interim regulation in August 1979, requiring issuance of import permits for all species listed on the appendices to the Convention.

Now it appears that the Belgian authorities were acting in bad faith when they assured the Convention officials in 1979 that they would tighten controls on the wildlife trade. IPPL has learned that the Ministry of Agriculture subsequently issued Corten a permit to import 600 primates, including 100 chimpanzees. At the time of writing (August 1980), Corten holds 13 chimpanzees and more are on order. Most of the chimpanzees were imported from Zaire, a party to the Convention, and were shipped without Zairean Convention export documents.

IPPL members are requested to send letters of protest about Belgium's continued smuggling activities to the Ambassador of Belgium, Belgian Embassy, Washington D.C., or to the Belgian Embassy in their country of residence. Letters of protest may also be addressed to His Majesty King Baudouin of Belgium, Cabinet du Roi, Bruxelles, Belgium.

Members wishing to make a direct protest to René Corten, whose activities have brought death to unknown numbers of gorilla, chimpanzee, and gibbon mothers and babies and many other primates, may send a letter (U.S. air mail postage 31 cents per half-ounce) or postcard (U.S. air mail postage 25 cents) to Rene Corten, Zoopark Corten, Paddekens 1, B-3180, Westerlo, Belgium. Let Corten know how you feel!

PRIMATE STEERING COMMITTEE OFFICIAL OPPOSES ANTI-SMUGGLING RESOLUTION

Dr. Benjamin Blood, formerly Executive Director of and now a consultant to the U.S. Interagency Primate Steering Committee, was the ONLY person attending the International Primatological Society (IPS) conference held in Florence in July 1980 to oppose a resolution condemning the primate smuggling activities of Belgium, Spain, and Austria (see "Belgium Continues to Import Smuggled Primates," this page). The U.S. Interagency Primate Steering Committee was established to "steer" primates from reluctant habitat countries to U.S. laboratories.

The resolution in question, offered by Dr. Ardith Eudey, Co-Chairwoman of IPPL, and Dr. Steven Gartlan, Vice-President for Conservation of IPS, reads as follows:

The membership of the International Primatological Society congratulates the Government of Italy on having recently ratified, and thus become a party to, the Convention on

International Trade in Endangered Species (CITES), and urges the Governments of Austria, Belgium, and Spain to take similar action, in view of the continued smuggling of primates through these countries. Furthermore, it urges all other countries to ratify this Convention,

Dr. Blood spoke vigorously against the proposed resolution, stating that it was "unfair" to criticize the countries concerned. It is suspected that many of the chimpanzees, gibbons, gorillas, stump-tail macaques and other primates smuggled into Belgium are being sold illegally to laboratories in other European countries.

Dr. Blood's implied defense of primate smuggling did not discourage the IPS membership from voting overwhelmingly in favor of the resolution - with only one person voting "No" - Dr. Blood.

STUDENT MEMBERSHIP DUES TO RISE

Due to the increased cost of all IPPL operations, including production and mailing of the *Newsletter*, it is impossible for IPPL to continue offering membership dues of \$5.00 (U.S.) per year to students. Accordingly, student dues have been raised to \$7.00 (U.S.). Current student members may renew at the old rate of \$5.00 till 31 December 1980.

The regular membership fee will remain at \$10.00. However, members who can afford to do so are strongly encouraged to upgrade their memberships to the Patron (\$100.00) or Sustaining Member (\$25.00) category.

THE BEACH CHIMP TRADE IN SPAIN

by Dick Van Hoorn

Excited and happy, Yudy has been waiting for this day. 10,000 tourists are expected to fly to the Canary Islands to spend Christmas in the sun.

For Yudy this means big business. Yudy is a beach photographer in Tenerife and owns an irresistible "sales argument." Alive, sweet, a baby chimpanzee, dressed like a human being and who clings to the person posing for his/her photograph by Yudy. A touching scene, such a sweet little "man-monkey," sitting on the knees of a happy tourist! "Click, just a moment sir!" That same night the snapshots are delivered to the hotel, 5 Guilders each. One such photographer admitted that his two baby chimps had earned him enough money to buy two chalets and a Mercedes Benz!

SMUGGLING

Unfortunately there are many colleagues of Yudy's who have discovered the money-making potential of a baby chimp. Unfortunately also, the tourists do not realise that they are co-operating unwittingly when they allow themselves to be photographed. Reliable surveys have shown that there are more than 200 baby chimps being used by beach photographers in the Canary Islands and on the Spanish Mediterranean coast. The baby chimps have to be replaced regularly by constant smuggling from West Africa to Spain, where the animals can be imported legally since Spain is not a signatory to the Convention on International Trade in Endangered Species, which prohibits commercial trade in endangered species such as chimpanzees.

To maintain the supply of baby chimps, many have to die at the time of capture or during transportation. For every baby chimp delivered alive at its destination, from six to ten other chimps have to die. In the course of capture of a baby chimp, the mother and other adult chimps who try to protect her are shot.

Many of the captured babies die en route.

THE SACRIFICE

It is not only the misery of the young animal involved which has to be considered in this photographic trade but the more important aspect of the overall terrible loss of chimps involved. To maintain the yearly supply of young chimps something like 1,000 and probably even more are killed every year to supply this branch of the tourist industry.

Two years ago Dr. Jacques de Smidt, Professor of Botany at Utrecht University, discovered that there were a number of photographers with baby chimps in the Canary Islands. This business proved to be very profitable and, in the following two years, the trade grew enormously and is still growing.

The following are only some examples. At Playa de Americas and Puerto de la Cruz in Tenerife and Gran Canaria alone **no less than 50 baby chimps have been counted**. The story is the same everywhere, on the Costa Brava (e.g. Lloret de Mar), on the Costa Blanca (e.g. Benidorm and Altea), on the Costa del Sol (e.g. Torremolinas and Malaga.)

CRITICAL

It is thus obvious that there must be many places on the Spanish coast where young chimps are being exploited and which have not yet been reported by observers. The total number is certainly more than 200, which means that at least 1,000 chimps have been killed to supply the two hundred.

Dr. Jan van Hooff, lecturer in the science of animal behaviour at Utrecht University, who was part of the investigating team, states that the situation is really critical thanks to the holiday snap-shot industry. In his view there are three serious aspects to be considered:



(1) **The danger to public health**

The chimpanzees used by the photographers have physical contact with the tourists or sit on the tables where food and drinks are being served. During transportation and captivity these chimpanzees can and do contract a number of diseases which are transmissible to humans, such as dysentery and hepatitis, although the animals may show no symptoms themselves.

(2) **The danger to the species**

Apart from the massacre of the wild chimps referred to earlier, the chimps used by the photographers could never breed because of the undermining of their health and their psychological disorientation. These two factors spell total ruin to the species.

(3) **What happens to the poor "little man"?**

The baby chimps being used by the photographers are doomed to an early death. They are psychologically disoriented due to the lack of maternal care so essential to their welfare. This explains their pathetic tenderness towards anyone who shows them sympathy and kindness (i.e. the tourists), to the great joy of the photographer who capitalises on the ignorance of the tourists who are naturally moved by this demonstration of affection.

LACK OF KNOWLEDGE

The tragic reality is that the baby chimps are treated badly by the photographers because of their lack of knowledge of what is needed or proper. For example, dressing them up in human clothes, contrary to all their natural instincts and, worse, crushing their poor little feet, which are totally unadapted for the purpose, into human shoes. I observed in Tenerife, one poor little chimp in a bar with a woman. It had completely lost its hair (making the dear little thing "more human") whereas the truth was that it had pulled all its hair out itself as an indication of disorientation, fear and near madness.

FURTHER TRAGEDY

Some tourists, more observant than others, note that there really is an air of sadness about these baby chimps. They think that "At least if I have my photograph taken it will help ensure that it has enough to eat." It does nothing of the kind. The chimp is doomed to die shortly and all the photograph does is to ensure further destruction of mothers and children to keep up the supply of baby chimps.

The writer Simon Carmiggelt has, on the cover of his most recent book, "The Rest of your Life," a picture of himself, taken in Tenerife with a young chimpanzee. When Dr. de Smidt explained to him the tragedy behind this picture, Carmiggelt exclaimed "I hope something can be done to stop this. The photographer who took my picture treated the chimp in an almost brutal manner. It appears that he had only had it for two days and had only just started up in business."

INFORMATION

The World Wildlife Fund of The Netherlands has investigated this critical situation and formed the opinion that, in the first place, they have to establish the extent of this exploitation of nature, after which they can start to act. The World Wildlife Fund would like to hear from tourists about where and how many photographers are operating in the Canary Islands and the Spanish Mediterranean beaches. Information should be sent to "WERELD NATUUR FONDS - NEDERLAND, POSTBUS 7, ZEIST, NETHERLANDS." The World Wildlife Fund of Holland will study the problem with the International Union for the Conservation of Nature (The Washington Convention) in Switzerland.

FOLDERS

According to the Director of the World Wildlife Fund, the possibility is being studied of the Dutch tour operators handing to each tourist going to Spain a leaflet pointing out the terrible abuse of natural resources by the beach photographers.

It is hoped that this action will be followed in all countries sending tourists to Spain and thus make an end to the "tragedy behind the happy holiday snap."

But how many more times will those cameras click and how many more chimps will be sacrificed before the cry goes up "it is too late, if only we had known the truth"?

NOTE: IPPL member Peggy Templer, who lives in Spain, is leading a campaign to end the beach chimpanzee racket. She comments, "Unnaturally and grotesquely dressed in human clothes, with their poor little feet crushed into shoes, they are touted round the beaches, restaurants, and night clubs, till the tourists are all in bed, which is often four or five in the morning. The more alcohol consumed, the better. The weary little chimp is passed from one client to another. The ignorant tourists do not realize that the tender affection the baby animal shows is caused by its craving for sympathy and reassurance to replace the lack of mother-love and care." Ms. Templer encourages people visiting Spain not to have their picture taken with chimps. On their return home, she recommends that they send a letter of protest to the Spanish Embassy in the capital city of their country of residence.

THANKS!

Janis Carter and Stella Brewer, of the Chimpanzee Rehabilitation Project in The Gambia, West Africa, wish to express their gratitude to all those IPPL members and friends who have made donations to the IPPL Chimpanzee Fund. Over \$3,000 was donated for the project by members in Spain, Canada, the United Kingdom and the United States.

However, \$3,000 doesn't go very far these days in caring for a family of over 20 chimpanzees. More contributions are urgently needed. Have you made a contribution yet? If not, please send a cheque made out to the "Chimpanzee Fund" to IPPL, P.O. Drawer X, Summerville, SC 29483, U.S.A. or IPPL, Regent Arcade House 19-25 Argyll Street, London W1V 2DU, England.

BOOK REVIEW

by Egbert Pfeiffer

Dr. Pfeiffer is Professor of Zoology at the University of Montana.

WARFARE IN A FRAGILE WORLD: MILITARY IMPACT ON THE HUMAN ENVIRONMENT by Arthur Westing. Stockholm International Peace Research Institute. Pages 1-249, 1980, Taylor and Francis Ltd. London.

This book is much more than is implied by its title, which suggests it is limited to warfare and its impact on the human environment. In fact, it contains much information about the basic ecological effects of human activities, both in peace and war. It is, therefore, a must for every ecologist and environmental activist, as well as for those concerned about the threat of present and future wars. It should be absolutely required reading for all the world's military leaders.

The author, Dr. Arthur Westing, is eminently qualified to write this book. He knew war first hand as an artillery officer during the Korean War, and he has studied war as a scientist from the environmental point of view in many trips to Indochina during the Second Indochina War ("Vietnam War"). He was Director of the American Association for the Advancement of Science's Herbicides Assessment Commission and in that capacity learned a very great deal from first hand observations about the effects of warfare in the tropical regions.

The book begins with a comprehensive review of the basic components of the global ecosystem. Next is a brief classification of the different types of wars; interstate, intrastate (civil), and colonial wars. The author points out that only two major wars have occurred so far during this century, but there have been many minor colonial wars and large numbers of civil wars. All types have been very destructive of the environment. There are long and information-packed tables giving basic data on the major wars of the 20th century, as well as the ecologically disruptive wars beginning with the Persian-Scythian War of 512 B.C. and ending with the Kampuchean (Cambodian) insurrections of 1975 to 1977. These tables are depressing evidence of man's inhumanity to man and nature.

Further tables in Chapter 1 give data on the major features of the globe such as how much is land, how much is ocean, how much is northern, how much is southern, how much is ice-covered, how much is ice-free. There are tables dealing with percent of population in various land masses of the globe, regional population densities, annual growth rates, global biomass and productivity in land and ocean. Some unusual data are presented such as the distribution of the major urban centers of the world, distribution *per capita* of national wealth and land resources, distribution of the national armies of the world and where the armed forces of the world are presently located. It is disturbing to learn that modern wars are becoming more and more destructive to the environment. Thus, the ratio of combat deaths in WWII, the Korean War, and Indochina War II was 15:2:1 while U.S. munitions expenditures per enemy soldier killed were 1:6:18.

Following the introductory chapter just described, the book discusses the 6 major regions of the world; temperate, tropical, desert, arctic, islands, and oceans. Each region is treated in the same fashion. There is a brief introduction describing the major features of the region, then a section on environment, followed by a section on use which is subdivided into civil and military, and a section on abuse, civil and military. For instance, the chapter on the temperate regions deals with effects of the military on woody vegetation and agricultural crops, on wildlife and on man and on recovery of war-disrupted regions. It is horrifying to read of the destruction of the environment, food, crops, etc. during some of the Indian wars and during the Civil War. Having observed the effects of crop destruction in Viet Nam, I was shocked to learn that this has been standard practice of the U.S. Army for over 100 years. Westing quotes a U.S. National Park Service historian



Coastal mangrove forest sprayed several years previously Photo-Westing

stating: "Nevertheless, whenever the army succeeded in capturing a village, the food stores along with all other contents were invariably put to the torch. The best known crop destruction was in the Navajo Wars of 1860-63. Some of the Arizona Apache groups grew corn which the army burned whenever found."

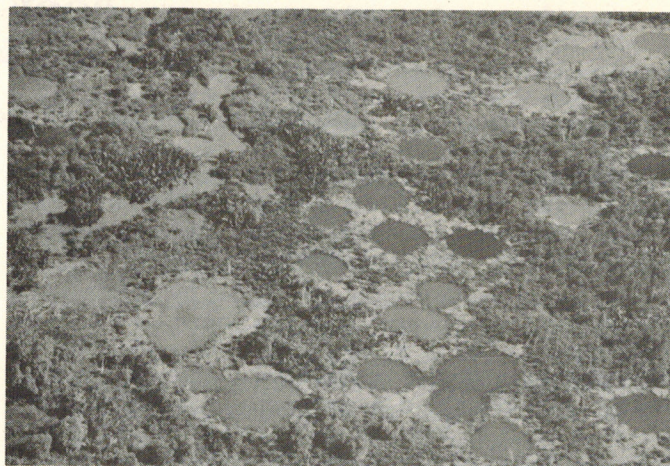
Chapter 3 dealing with warfare in tropical regions is of particular interest to this reviewer. As a biologist, I made several trips to Indochina during the Second Indochinese War to study the effects of U.S. weapon systems on Indochina ecosystems. Westing has done a remarkably thorough job of documenting what happened to the Indochina ecosystems during the U.S. intervention there. He bases a considerable portion of his descriptions on his own observations but also extensively documents what happened by reference to many other authors, including much work published in official U.S. reports. He points out that the tropical regions are the richest in living things of all regions. Furthermore, many tropical species are restricted to the treetops in what are called triple canopy forests. Animals such as the most colorful of all primates, the Douc Langur *Pygathrix nemaeus* and the Indochina Gibbon *Hylobates concolor* are particularly susceptible to techniques, such as herbicidal attacks, that affect treetops most severely. It can be expected that because of the magnitude of the defoliation program carried out by the U.S. Air Force in South Viet Nam and in Cambodia, treetop fauna suffered greatly. It is possible that the Indochina Gibbon and Douc Langur are on the verge of extinction. Another animal that suffered heavily from warfare and is now close to extinction is the Kouprey, a species of wild cow limited to the Indochina peninsula. It is of particular interest because it is thought to be the ancestor of modern domestic cattle.

Westing describes at some length the U.S. crop destruction program carried out for almost 10 years in Indochina. He cites official sources that are devastating to this program. For instance, "In one study commissioned by the U.S. Department of Defense it was concluded that for the one ton of rice denied to the Viet Cong about 550 civilians would have to be deprived of their food." This report concludes that the effect of the crop destruction program on the enemy military forces was insignificant at best. And yet this program was continued long after U.S. officials knew it was ineffective against soldiers of the

other side. It must, therefore, be concluded that there were other reasons for carrying on the crop destruction program. Westing alludes to these, again citing official reports. The primary purpose appears to have been to force civilians not under physical control of the U.S. forces into refugee camps. I can personally verify, through interviews with refugees, that this was a common result of the crop destruction program.

In the last chapter there is a very valuable summary of treaties and other legal restraints on environmental disruption currently in force. Whether these restraints would be maintained in the event of major wars is, of course, unknown. Westing ends with a grim warning: "However, it is equally possible that man, with his nuclear and other modern military capabilities, will one day perpetrate some rash hostile environmental manipulation which will at one and the same time demonstrate his mastery over nature and put a lasting end to war on Earth - leaving perhaps a handful of survivors to reap the grim harvest of a global Carthaginian peace. It remains to be seen whether or not man will come to his senses in time."

Warfare in a Fragile World is distributed in the United States by Crane, Russak, & Co., 3 East 44th St., New York, N.Y. 10017, \$27.50 postage paid, and in the United Kingdom by Taylor & Francis, 10-14 Macklin Street, London WC2B 5NF, for £9 sterling.



Bomb-crater field in lowland forest

IPPL UNCOVERS USE OF PRIMATES IN CHEMICAL WARFARE EXPERIMENTS

IPPL has learned that the United States Army has used hundreds of Rhesus and Crab-eating macaques imported from India, Indonesia, Malaysia, and the Philippines, in testing of chemical warfare agents.

The animals have been used at the Chemical Systems Laboratory, U.S. Army Armament Research and Development Command, Edgewood Area, Aberdeen Proving Grounds, Aberdeen, Maryland. Monkeys have been used in testing of chemical agents because they are Man's closest living relatives: in this way, they have become the first victims of World War III.

In April 1980, IPPL requested from the Base Commander documents pertaining to the studies at Aberdeen. A few documents were received after four months of delay. These included two experimental protocols, purchase orders for large numbers of monkeys, and autopsy reports on monkeys killed at Aberdeen between 3 July 1979 and 30 April 1980. No final reports on experiments were provided. Peer review reports and documents showing the cost of the experiments were said not to exist.

Chemical warfare agents such as mustard-gases and cyanide were used in World War I, but their use was abandoned due to the extreme suffering they caused.

Several primate traffickers, including the Primate Imports Company of New York, apparently feel no scruples about selling monkeys for this particularly cruel type of experiment. Among several orders placed with Primate Imports by the Chemical Systems Laboratory were:

- *September 1976: 6 Rhesus monkeys *Macaca mulatta*
- *February 1976: 80 Crab-eating macaques *Macaca fascicularis*
- *November 1976: 80 Crab-eating macaques
- *August 1976: 5 Squirrel monkeys *Saimiri sciureus*

The Chemical Systems Laboratory signed a contract with Primate Imports for more than 700 Crab-eating macaques in 1976. Details of more recent purchase orders were not provided to IPPL.

Two categories of chemical agents have been tested at the Chemical Systems Laboratory: incapacitants, ("knockdown

agents"), designed to incapacitate but not kill military personnel and/or civilians, and lethal agents such as SOMAN (GD), an organophosphate.

One of the "knockdown agents" tested at the Laboratory was a product coded as CS-4640, a "benzimidazole derivative." Although it had passed tests on lower animals, the product was found to be fatal to primates, and, hence, presumably, to Man. It killed the monkeys by causing "respiratory depression." In addition, it had a "narrow margin of safety." This would be a problem in warfare because of the impossibility of administering carefully-selected dosages of chemical warfare agents to forces in the field and civilian populations. Therefore, the Chemical Systems Laboratory personnel decided to try out on monkeys a new chemical, which carried the code name EA-5696. EA-5696 is a pain killer related to morphine, which interferes with nerve-muscle coordination by making animals incapable of righting themselves when upside-down. Experimenters decided to test the product on monkeys before testing it on lower animals, because the tests of CS-4640 on lower animals had produced very different results from the tests on primates. Therefore, using primates early in the course of evaluating EA-5696, would "avoid wasted effort and money." (The experimenters do not appear concerned with sparing animals needless suffering).

Results of this project were not provided to IPPL in response to our request.

Other projects at the Chemical Systems Laboratory involved exposure of animals to chemical warfare agents (especially compounds such as nerve gases), for the purpose of evaluating lethal doses and trying out antidotes. The School of Aerospace Medicine, Brooks Air Force Base, San Antonio, Texas, has experimented with antidotes to chemical warfare agents, but denies exposing any animals to the actual agents. According to an undated Chemical Systems Laboratory protocol provided to IPPL, 48 crab-eating macaques were to be used in a test of the candidate antidote TAB (atropine is the antidote currently favored). The monkeys were to be divided into 8 groups of 6 animals. Differing doses of TAB would be administered intramuscularly and the animals observed till death or recovery.

In another experiment, the efficacy of TAB and atropine were to be compared for the treatment of primates poisoned with SOMAN (GD), a refractory anti-cholinesterase compound. According to the researchers, "previous preliminary studies of the efficacy of TAB and atropine in Rhesus monkeys poisoned with GD showed no appreciable differences in survival rates when compared with control untreated animals." However, "survival time was prolonged in the treated animals." The author of the undated protocol (name not provided) stated that, in this first experiment, administration of the antidote was delayed till the onset of symptoms (2.5-3.5 minutes). In the new experiment, treatment would begin at one minute post-exposure. According to the writer, such a time-lapse would approximate a "combat situation," in which, "detection alarms will warn of attack within 30 seconds and troops will be able to mask and protect themselves within an additional 30 seconds." Military personnel could then observe themselves for symptoms and self-administer the needed injection to ensure survival. (This might appear to be an optimistic scenario to some readers). The protocol notes that the two methods of entry of SOMAN into the body are a) inhalation and b) percutaneous (absorption through the skin). However, "inhalation studies *per se* are difficult to perform and experimental variance can be large because of variance in breathing patterns and inability to quantify the dose." Therefore, intramuscular doses were selected for the experiment. Eighteen monkeys were to be used for each dose level of SOMAN administered. Six would get no therapy at all, six would receive atropine, and six TAB. The "protective index" for each therapy would be determined. After exposure, and intramuscular administration of the antidote, the monkeys would be "totally restrained" in a "Rothberg restraining device" for 4 hours. Any survivors would be released to cages, and any still alive after one week would be killed for collection of tissues and cerebrospinal fluid. The results of this experiment were not provided to IPPL.

In addition, IPPL received autopsy reports on many of the monkeys killed at the Chemical Systems Laboratory (those sent to the Aberdeen Biomedical Laboratory for autopsy), during the period 3 July 1979 to 30 April 1980. Most of the monkeys had been killed in "Project Cyanide" and in tests of an agent coded as HS-6. Details of these experiments were not provided to IPPL. Further information is being sought and, if available, will appear in a future Newsletter.

TROPHY HUNTING OF PRIMATES

Most people expect big-game hunters to limit their attention to animals such as antelope, elephant, and other large mammals. However, IPPL has learned through study of U.S. importation records that some hunters find time to "bag" primates, especially baboons. The importation forms studied are limited to those filed by taxidermists, as trophies brought in as part of a hunter's personal baggage need not be declared.

Among the primates imported in 1979 were the following:

*a skin described as a "hamadryas baboon" was imported from Zambia (where the species does not exist). The hunter's address was listed as Charles Marten, 3748 Kepa St., Honolulu, Hawaii, U.S.A.

*1 baboon skull and 1 baboon skin were imported from South West Africa for Harold Embury by Artcraft Taxidermists, 4320 Victory, Van Nuys, California.

*2 baboon skulls were imported from South West Africa by Jonas Brothers, Taxidermists, Denver, Colorado, for hunters F. Huntington, H. Blythe, R. Pereria, and William Knight.

*1 baboon skin and 1 skull were imported from Botswana by Jack Atcheson, 3210 Ottawa, Butte, Montana.

*1 baboon skull was imported from South West Africa by Robert Werner of Cosmos, Minnesota. The skull was seized by

IPPL is deeply concerned at the destruction of primates in chemical warfare and other military experimentation. Similar experimentation is known to have been performed at Porton Down in the United Kingdom.

Use of chemical warfare agents is in theory regulated by several treaties:

1) the Hague Declaration concerning asphyxiating gases, 1899. By this declaration, the parties, which include China, France, the United Kingdom, and the U.S.S.R., agreed to abstain from the use of projectiles, the sole object of which is the diffusion of asphyxiating or deleterious gases.

2) the Hague Convention respecting the laws and customs of war on land, 1907. The parties, which include China, France, the U.K., the U.S.A., and the U.S.S.R. agreed not to use poison or poisoned weapons.

3) the Geneva Protocol of 1925. The 96 parties to this treaty, including China, France, the U.K., the U.S.A. and the U.S.S.R., undertook not to use asphyxiating, poisonous, or other gases in warfare, or any device or liquid with similar effects. (Source, Westing, "Warfare in a Fragile World," 1980).

Although the existence of these treaties reflects a noble desire on the part of humanity to exercise self-discipline in expressing its hostilities, it is possible that such civilized restraints would be inoperative in any future large-scale war. IPPL takes the position that monkeys are part of the heritage of all mankind and that they should under no circumstances be used to develop weapons that serve no constructive purpose at all. In addition, the same reasons which have so far limited the use of chemical agents in human warfare should prevail and prevent their use on Man's closest relatives: the agents are undeniably inhumane and cause extreme suffering to all living creatures exposed to them.

U.S. readers wishing to protest this inhumane killing of monkeys should contact their representatives (House Office Building, Washington, D.C. 20215) and Senators (Senate Office Building, Washington, D.C. 20250). Overseas members may contact the U.S. Ambassador in the capital city of their country of residence.

the U.S. Fish and Wildlife Service as it was not named in the lengthy list of trophies named on the export permit granted to Mr. Werner by South West African wildlife authorities.

*1 baboon skull was imported from Botswana by William E. Duggan of Newcastle, Wyoming.

*1 baboon skull was imported from Botswana by Dr. J. Wheeler c/o Conroe Taxidermy, Conroe, Texas. This skull was seized, along with 2 elephant teeth.

*1 baboon skin and skull were imported from Botswana by Ralph V. Sluys, Box 1693, Great Falls, Montana.

*a "dried skin" of a "Preuss" monkey" was imported by Frank Eigner of Portland, Oregon from the Cameroun.

All the shipments containing baboon "trophies" contained large numbers of other "trophies," such as elephant, wildebeest, hartebeest, zebra, and buffalo.

All primates are now threatened with extinction. In this context, IPPL considers it deplorable that people should wish to kill primates for pleasure. Killing a baboon would be extremely simple and such a "trophy" hardly a credit to the hunter. It is also unfortunate that some countries should tolerate this kind of activity.

ISLAND MONKEYS IN DANGER

Over two thousand Rhesus monkeys living on two low-lying islands off the coast of Florida, U.S.A. are in danger of being killed in a hurricane. The recent passage of Hurricane Allen across the Caribbean Sea has reminded the world of the devastation that a hurricane can bring. Yet, although the two monkey breeding islands (Loggerhead Key, also known as Key Lois, and Raccoon Key) are in a hurricane zone, a recent visitor to Loggerhead Key has informed IPPL that, "the shelters there would offer no shelter at all."

The Charles River Company, which operates the two breeding projects, is the world's largest trafficker in laboratory animals. Headquartered in Wilmington, Massachusetts, U.S.A., the company has branches in France, Italy, Canada, and Japan, and also traffics in wild-caught primates through the Primate Imports Company of New York, which it owns.

In 1972, with the supply of wild-caught Rhesus monkeys dwindling, the Charles River Company, assisted by U.S. government funds, established a breeding colony of Rhesus monkeys on Loggerhead Key. A breeding stock of approximately 1,500 animals was projected for the colony, with poor breeders and many of the offspring to be sold for experimentation.

U.S. government funding was received through contract No. N01-RR-62137, between the Division of Research Resources, National Institutes of Health, and the Charles River Company. As of 1977, over \$400,000 of taxpayers' money had been provided to the company for the project. However, all profits from the sale of monkeys went to the company.

IPPL has sought further information on this contract from the National Institutes of Health, using the Freedom of Information Act. In July 1979, after several months of stalling, the government provided 80 pages of documents. Twenty of these pages were completely blank. Thirty-six more contained extensive deletions. The withheld information was denied on the grounds that it was "privileged financial information" or constituted "trade secrets." Among the "secrets" were: the project budget, the number of monkeys on Loggerhead Key, the amount of food consumed by the monkeys, the number of births, the number of monkeys sold, the price obtained for the monkeys, the map of the island, the marine map of the area, the list of mammals on the island, the lists of plants and birds, details of health and quarantine procedures, details of "sheltering devices," and details of trapping techniques.

The Florida Keys are extremely fragile ecologically. Florida conservation groups have expressed concern at the potential damage the presence of large numbers of monkeys might have on

the islands and their native fauna and flora. Many of the islands are wholly or partly under water at high tide in normal weather conditions. A major hurricane could cause all the monkeys to be swept into the sea. George Pucak, Director of Veterinary Services for the Charles River Company, has indicated his awareness of this threat to the monkeys. In a letter dated 4 January 1978 to the NIH Project Officer, he stated:

The main concern of the entire operation continues to be a major tropical storm. We have experienced severe winds and rains, but have not gone through a hurricane. In honesty, I hope we don't.

As far as IPPL can determine from the project documents, the only "shelter" on the islands consists of trees, several ¼ acre open top compounds, two cyclone fenced enclosed compounds, and an enclosure with individual cages for monkeys awaiting shipment. In addition, there are a boardwalk, a storage shed, a dock, and a water storage tank. (Loggerhead Key has no fresh water and it must be shipped in, another potential problem in a hurricane).

Dr. Shirley McGreal, Co-Chairwoman of IPPL, contacted Mr. Bob Berglund, U.S. Secretary of Agriculture on 2 April 1980, to express IPPL's concern at the lack of shelter for the monkeys.

She pointed out that the Animal Welfare Act requires operators of outdoor primate facilities to provide animals with shelter from inclement weather and that the Charles River Company should be required to provide proper hurricane shelters for the monkeys or to prepare evacuation plans and facilities on the mainland for use in the event of a hurricane. In his reply dated 30 April 1980, Mr. Berglund confirmed that the Animal Welfare Act does indeed require that animals housed outside be protected from bad weather. However, he noted that, "there are trees on the Florida islands, as well as housing structures. . . It is not certain that these structures can be expected to withstand a hurricane." During the Congress of the International Primatological Society held in July 1980 in Florence, Italy, Dr. McGreal asked Dr. Joe Held of the Division of Research Resources, NIH, (the funding agency), about the danger the monkeys would face in a hurricane. Dr. Held replied that the trees would serve as protection. Within weeks of Held's statement, Hurricane Allen was uprooting trees on many Caribbean islands with its high-velocity winds (up to 180 miles an hour). Fortunately, Hurricane Allen missed the Florida Keys, but it is inevitable that, one day, a hurricane will strike Loggerhead and Raccoon Keys.

THE GORILLA AND ITS SURVIVAL IN GABON

by Don Cousins

Gabon is the classic home of the western lowland gorilla *Gorilla g. gorilla*. It has a total land surface of some 267,000 square Km, of which approximately 200,000 square Km are rain-forest. The country is home for about 50 ethnic groups. The entire human population is only just over one million, a third belonging to the Fang group, while other large groups include the Bakota, Bakete, Seke, Bakele, Eschira, Vili, Okande, Adouma, M'Bete, Bansangui, Mitsogho, Bandjabi, and Babinga pygmies. Most of the people in the country live by hunting or fishing, and this means, of course, that all fauna is considered protein on the hoof, and nothing is spared from the pot. It is true that Fang hunters in the north of the country will not eat chimpanzee flesh, considering the ape to be too close to man (a surprising attitude for ex-cannibals), but this belief is by no means universal and chimpanzees, like gorillas, are eagerly hunted, killed and eaten.

Gabon must import most of its meat, which makes it an expensive commodity in the country. There are at present relatively small stocks of farm animals (pigs, sheep, goats, and cattle), as livestock raising and breeding are bedevilled with problems, endemic diseases being not the least of these. Plans have been laid for the creation of livestock ranches in the savannah areas of Nyanga or the upper Ogooué, which will include industrial livestock breeding and slaughter houses with refrigerated storage facilities. However, until Gabon can overcome all the problems involved in livestock husbandry in an equatorial climate, her indigenous wildlife will continue to be the only source of protein for many of the people in the country. One eventual solution might be to farm certain game animals from other parts of Africa.

This region of Africa has a history rich in colourful characters from the past, including Du Chaillu, Mary Kingsley, Sir Richard Burton, Winwood Reade, Trader Horn, and, of course, Dr. Albert Schweitzer. It is also rich in natural wealth, with minerals such as manganese, uranium, gold, copper, zinc, phosphate, nickel, iron and lead, as well as diamond deposits. There is also natural gas and mainland and offshore oil deposits. The vast areas of timber are another source of wealth, but although the country is rich, most of the people in the rural areas are desperately poor.

It is vital that concrete measures for the conservation of gorillas and other forest fauna be undertaken and enforced as soon as possible. The interior is fast being opened up, and the inland forests exploited to a considerable extent. Utilization of timber and mineral deposits in the hinterland is being greatly enhanced by the construction of the Trans-Gabon railway, which was undertaken in 1974 and is scheduled for completion in 1982. The first section, which runs from Booué in the interior to Owendo on the coast - a stretch of 332 Km - has already been completed. This is to be followed by the Booué to Belinga section, a length of 229 Km, and finally by the track from Booué to Franceville, the longest section at 375 Km. These tracks will be wide-gauge, and, when completed, will effectively cut the country right in two, running from north to south, with a branch to the west, and following the course of the Ogooué, the major river of the country. The completion of each stage will herald the exploitation of thousands of hectares of forest land, which in turn will have a detrimental effect on the wildlife in these areas. Apart from the destruction of natural habitat, many of the forest animals, including gorillas, will be killed to feed the labourers working on the railway construction. This has certainly occurred during road construction in Gabon. When Dr. W. Gewalt was in the Franceville area in the latter part of the 1960's, he discovered that gorillas were killed to feed the labourers building a road in the area.

Although man has hunted the gorilla for food and in reprisal for plantation destruction, the traditional weapons were primitive enough to allow many gorillas to survive, while the secondary forest man helped to create were very beneficial to the apes. The increase in human populations and the introduction of firearms have upset this balance drastically and have set the odds firmly against the gorilla. Added to this was the hunting of these primates by Europeans, and the organized capturing expeditions. Agents of international animal dealers offered attractive rewards for live infant gorillas, and with this incentive local hunters concentrated on hunting these anthropoids.

Populations of gorillas, revolving as they do around secondary forests, could benefit from selected logging, but the danger is that too much of the rain-forests could be cleared of timber, and at a too rapid rate. Equally damaging is the killing of all forest fauna by the labourers, settlers, and hunters that logging brings. It would be almost impossible to persuade these people not to kill gorillas unless some alternative source of protein were readily available. It might prove advisable, therefore, to establish

protected areas in relatively remote areas with low human populations and where logging and its attendant armies of labourers and hunters would be prohibited. The area south of Booué, known locally as the "Region of the Bees", was once uninhabited by man, and gorillas are known to live in the area. Some logging has taken place in recent years but this could be curtailed and the whole area made a protected zone. Gorillas have also been reported to be fairly abundant around Belinga and Mekambo in the northeast and also in Mayumbe in the south. All these areas might be considered for gorilla sanctuaries, with a view to eventual national park status for some of them.

At present there are four national parks and about five game reserves in Gabon. The title "game reserve" is misleading, however, as in Gabon most, if not all, of these reserves have hunting zones where the killing of animals is permitted. Perhaps the best known protected area in Gabon is the Okanda National Park (190,000 ha.), which lies south of the Ogooué river between N'Djole and Booué. This park is bordered on the north by the Lope Wildlife Reserve, and in the south is contiguous with the Offoué Nature Reserve (150,000 ha.). These three areas are bounded on the east by the Offoué river, and the Okanda and Offoué regions are said to be rich in gorillas. Other protected areas (at least on paper) where gorillas are known to exist are the Petit Loango National Park (40,000 ha.) on the coast, north of Sette-Cama; the Moukolaba National Park (100,000 ha.) in the south of the country, near Tchibanga; the Mt. Fouari and Mt. Kouari reserves in the extreme south; the Ipassa reserve (15,000 ha.) in the northeast, near Makokou; and the Iguela reserve on the coast. There is also the Wongua-Wongué National Park (82,760 ha.) on the coast, near Port Gentil, but there are conflicting reports as to the existence of gorillas in this area.

The continuing trade in wild-caught gorillas was brought home to the British public in 1979, when one of the cases publicized was that of the plight of a tiny female gorilla named "Toto", aged only about ten weeks. This pathetic little ape was "legally" exported from Cameroon by the Austrian animal dealer Heini Demmer and shuttled across the world to Japan. The Japanese zoo in Shizuoka City claimed that it had ordered a one-year-old female gorilla as a companion for a three-year-old male already in the zoo, but instead a baby that had not even been weaned had been sent by the dealer. It is far beyond the time for a total embargo to be introduced on the exportation and importation of wild apes. There are over 500 gorillas in the world's zoos alone and if zoos cannot achieve a state of self-sufficiency with this population they will certainly not accomplish it by continual exploitation of wild animals and will succeed only in depleting wild populations even further.

Although it would be over-optimistic to hope for total protection for the gorilla throughout the forest regions, substantial conservation measures could be achieved if firearms were strictly controlled in these areas, and if suitable zones were made over as gorilla sanctuaries and protected; and finally, if the exportation of gorillas were totally prohibited.

WHERE THERE'S A WILL

Members making wills are requested to consider making a bequest, large or small, to the International Primate Protection League.

The needs of primates for protection will continue long after any of us living today have left the scene. Any bequest made to the International Primate Protection League will be used on activities aimed at ensuring the survival of primate species and protecting individual primates from mistreatment at human hands.

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