Founded in 1895 as the New York Zoological Society
The Global Meat Trade is Highly Concentrated

Source: Center for Global Food Issues
World Meat Consumption:
1983-2020

Source: IFPRI, “Livestock to 2020: The Next Food Revolution”

FAO Annual Data. Total meat consumption for 1983 and 1993 are three-year moving averages. 2020 projections come from IFPRI's global model, IMPACT.
Economic Impact of Selected Infectious Diseases

- **Foot & Mouth, UK**: $30bn
- **SARS**: China, Hong Kong, Singapore, Canada, $50bn+
- **Avian Flu, Asia**: US, Canada $10bn
- **BSE, US**: $1.5bn
- **Lyme disease, US**: $2.5bn
- **BSE, UK**: $10-13bn
- **Foot & Mouth, Taiwan**: $5-8bn
- **Swine Flu, Netherlands**: $2.3bn
- **Nipah, Malaysia**: $350-400m
- **BSE, Japan**: $1.5bn
- **Avian Flu, EU**: $500m

Figures are estimates and are presented as relative size. See table for more details.
<table>
<thead>
<tr>
<th>Infectious Disease</th>
<th>Brucellosis</th>
<th>Canine Parvovirus</th>
<th>Chagas</th>
<th>Distemper</th>
<th>Foot and Mouth Disease</th>
<th>Leishmaniasis</th>
<th>Leptospirosis</th>
<th>Rabies</th>
<th>Scabies</th>
<th>Toxoplasmosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affects Wildlife</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Affects Domestic Animals</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Affects Humans Directly</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>Affects Human Livelihoods Indirectly</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
</tbody>
</table>
Assessment & Monitoring

- Rockhopper Penguins
- Imperial Cormorants
- Kelp Gulls

Bar chart showing data for ROCKHOPPER PENGUINS, IMPERIAL CORMORANTS, and KELP GULLS.
2003  31 strandings
2004  13 strandings
2005  46 strandings
Gorilla and Guerrilla Health
Gorilla and Human Health
Salmonella

Viral Diarrhea

Polio

Colds

Flu

Measles

Tuberculosis

> 100 Others

Humans

Apes
Capacity building
Regional Field Laboratories

Parasitology
Sample processing
Exploring on-site
Ebola diagnostics
Training/capacity-building
Community health support
Hands-on work

Health examinations
Serology - Positives

Herpes Simplex 1
Epstein Barr
Rubella
Hepatitis A
Hepatitis B (sAb)
Treponema

Data suggest animals have already been exposed and have some immunity following exposure.
Serology - Negatives

Polio
Measles
Ebola
Dengue Fever
Monkey Pox
Reovirus
Parvovirus

Data suggest animals have **NOT** been exposed and have **NO** immunity
Disease outbreak Investigations & Post-mortem exams
Multiple Ebola Virus Transmission Events and Rapid Decline of Central African Wildlife

On-site diagnostics

RAPID (rt-PCR)
ABICAP

EIA Corp.
Science Apps Int. Corp.
Idaho Tech., Inc.
KSU Nat. Ag. Biosec. Ctr
R.K.I.
2,000,000,000 Lbs / Year
(Central Africa)
Ebola outbreak in Mbomo and Kéllé districts, December 2002 to April 2003, Congo (143 cases, 128 deaths).

Gorilla gorilla
Pan troglodytes
Cephalophus

3/25 medical staff infected

Brazzaville
( WHO-AFRO )
Guiding Policy

AHEAD: Animal Health for the Environment And Development
Conservation and Development Interventions at the Wildlife/Livestock Interface
Implications for Wildlife, Livestock and Human Health

Edited and compiled by Steven A. Ososky
Associate Editors: Sarah Cleveland, William B. Kareh, Michael D. Kock, Philip J. Nyhus, Lisa Starr and Angela Yang

Occasional Paper of the IUCN Species Survival Commission No. 30

www.WCS-AHEAD.org
Is SARS from outer space?

By Lauren Compton

CNN

Friday, May 23, 2003

LONDON, England (CNN) –

The SARS virus might have originated in outer space, according to a scientist in Britain.

In a letter to The Lancet medical journal, professor Chandra Wickramasinghe of Cardiff University suggests the virus was introduced to Earth on a comet or meteorite.
70,000 birds, 276 species sold in one Thai market over 25 weekends

R. A. Cook / WCS
GIVE FREEDOM TO THE BIRDS
GOOD LUCK AND HAPPINESS
WILL BE WITH YOU ALWAYS
90 B.
The Global Wildlife Trade is Still Poorly Characterized