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Elephant Bibliography

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This Elephant Bibliography is brought to you for free and open access by the Open Access Journals at DigitalCommons@WayneState. It has been accepted for inclusion in Elephant by an authorized editor of DigitalCommons@WayneState.
With the publication of this issue we have on file references for the past 66 years. Because of technical problems and lack of time, we are publishing only references for 1980-1986; the rest (1920-1979) will appear at a later date. The references listed below were retrieved from different sources: Recent Literature of Mammalogy (published by the American Society of Mammalogists), Computer Bibliographic Search Services (CBSS, the same used in previous issues), books in our office, EIG questionnaires, publications and other literature crossing the editors' desks. This Bibliography does not include any references listed in the Bibliographies of previous issues of Elephant. A total of 430 new references has been added in this issue. All references were compiled on a computer using a special program developed by Gary King; the efforts of the King family have been invaluable.

The references retrieved from the computer search may have been slightly altered. These alterations may be in the author's own title, hyphenation and word segmentation or translation into English of foreign titles. For complete explanation for such changes, see the following references: 1) Bibliographic Retrieval Services System Reference Manual and Database Search Guides, New York, page 3 in looseleaf section "BIOSIS Previews" (10 pp.); and 2) BIOSIS, 1981, Search Guide: BIOSIS Previews edition, BioScience Information Service, Philadelphia, page D4 in looseleaf section "Instruction and General Information" (24 pp). Since many of our references have been taken from lists of references, and we may not have seen the originals, there may be mistakes. If you become aware of any, please inform us.

The vast majority of the references are about extant species of elephants, as well as other Elephantidae and Pleistocene proboscideans. Reference on earlier proboscideans are also included. Extinct proboscideans are designated by an asterisk (*). In the references taken from the computer and books, the word "elephant" may or may not be a part of the title even though elephants are mentioned one way or another in the articles. We thought it would be better to leave these references in, as someone is bound to make use of them. Readers are requested to send in any annotated references (theirs or others') of publications dealing with elephants. (A section in the Questionnaire at the back of this issue is supplied for readers' publications.) Please list them in the bibliographies form used below. Readers may help by collecting and annotating references; see examples in Volume 1, Number 4, page 260.

NOTE: Complete names of most abbreviations listed in these references and previous issues of Elephant can be found in any of the following sources:
- Chemical Abstracts Service Source Index (CASSI)
- Serial Sources for the BIOSIS (BioScience Information Services) Data Base, provided with Biological Abstracts
- World List of Scientific Periodicals.

Following are the initials and corresponding names of persons who have contributed annotations to this set of references or sources of references. Not all individuals listed below are members of the Bibliography Staff (see complete list on Editorial Board and Reviewers page of this issue):
A system of categorizing references to assist readers in locating material was added with the previous issue and has been continued here. For more detailed information, see pages 259-261 in Volume 1, Number 4. Code letters used in categorizing will appear in four columns in the lefthand margin to the right of the reference number of each item as given below.

Categories listed in the 1st column:

E = Elephas
L = Loxodonta
B = Both Elephas and Loxodonta

* = extinct/fossil proboscideans
+ = extinct and living taxa
U = unknown or not given

Categories listed in the 2nd and 3rd columns:

a = anatomy (including histology, cytology)
b = behavior
c = conservation and management
d = diseases and injuries
e = ecology
f = folklore
g = general
h = history (incl'g archaeology)
i = ivory and tusks
j = ecology and behavior
k = culling, controlling, cropping, and capturing methods
l = longevity (including mortality)
m = measurements (physical and censusing)
n = nutrition and/or growth

Categories listed in the 4th column:

C = Captive and domestic
W = Wild

B = Both statuses
U = Unknown

Readers, please note that because of computerized alphabetization, the order of references may not follow a chronological and conventional pattern.

"At present, 17 orders and approximately 40 families have been identified. Rhinoceros and mastodon groups are the most numerous; the latter is the most important fossil population from the Spanish Miocene (Middle Orleanian)." (E/BC).

"In the 1800's anyone who was anyone owned a pool table, complete with hand-crafted ivory billiard balls. This meant trouble for African elephants..." "In 1863, John Wesley and Isaiah Hyatt invented celluloid, the first plastic. Since then, scientists have developed countless polymers that have replaced ivory in most applications." (E/SSL).

"For fairly accurate prediction of the body weights of the elephants, the formula devised on the basis of chest girth and neck girth measurements can be safely used..." "to determine their nutritional requirements..." (E/BC).


About 50 years ago the Water and Forest Service estimated a population of 80,000 - 100,000 elephants in the Central African Republic. Today the population is estimated below 15,000 (maybe 10,000) (SSL).

"Operation Windfall" returns money to rural people from an annual ivory auction of culled elephants in an effort to discourage poaching (SSL).

Japan, the world's largest purchaser of ivory, appears to be undergoing a change in public attitude (E/SSL).

Dr. Robert Olivier, reporting on new methods of limiting the effect of massive agricultural development on the Asian elephant, was optimistic about its survival (SSL).


1817 LUS W Anonymous. 1983. Briefly... Slaughter in the Kruger National Park. Oryx, 17(April):97. At least 137 elephants were killed between June 1981 and December 1982 by poachers from Mozambique; one of the victims was "Groot Haaktand" or the "Shawu bull"; one of the world's largest bull elephants (E/SSL). See Reference No. 1819.


1820 BC B Anonymous. 1984. Briefly... 85 for CITES. Oryx, 18(July):166. Algeria, Luxembourg, Republic of Trinidad and Tobago join.


1822 LWZ W Anonymous. 1984. Briefly... Africa: a famous tusker. Oryx, (April):108–109. Following the death of Shingwedzi, a legendary bull elephant, "all the exceptional bulls in northeast Kruger National Park are now fitted with radiocollars so that if they move into areas along the Mozambique border, where poaching is a danger, they can be driven to safer areas." (E/SSL). See Reference Nos. 1817 and 1819.


1826 ECM W Anonymous. 1984. Briefly... Elephants in trouble. Oryx, 18(October):245. Dr. D.K. Choudhury estimates that 10,000–12,000 elephants (half of north-eastern India’s population) face extermination in the next 10–20 years (SSL).
"Wild Asian elephants are being illegally exported from Burma to Thailand, and possibly to Assam, for domestication. The elephant is protected in Burma...." (E/SSL).


As reported in Oryx 18(3):168, the Kenyan government did not open hunting in general but merely allowed government culling of impala, Grant's and Thompson's gazelles, wildebeeste and zebra which have damaged crop areas (SSL).

A 29,000 hectare game reserve named Tembe Elephant Park has been set up in Tongaland, South Africa. Its forest holds the last surviving wild elephants in Natal (SSL).

In Zambia stiffer penalties are being given to poachers; in 1983 167 arrests were made recovering 190 tusks (SSL).

A WWF/IUCN - supported plan to integrate elephant research and development of park management with local villagers (SHS).

"Reese, writing in The Journal of Zoology, suggests that a defecating elephant, particularly if it is young, is vulnerable to attack by lions, hyenas and crocodiles due to its spread legs and raised tail. Elephant herds move at a speed of 10 mph; any elephant that stopped to defecate would fall behind and be left unprotected." (E/JLP). See Reference No. 2116.

Burma's Nature Conservation and National Parks Project reports that illegally captured elephants are being smuggled into Thailand and possibly India. Poached ivory may also follow these routes. Less than 5,000 elephants survive in the wild in Burma; 6,000 live in captivity (SSL).

Sudan will no longer permit exports of unworked ivory; wildlife forces will be armed to combat poaching (SSL).

IUCN awarded one of its Fred M. Packard International Parks Merit Awards to Niokolo Koba National Park guard Mr. Passe Manneh of Senegal who died in an effort to save elephants from a group of poachers (SSL).
Grant awarded to William Lindsay by the East African Wildlife Society for research on the feeding behavior and ecology of the Amboseli elephants (SSL).

Prior to the ban the Central African Republic had reduced ivory exports in 1984 to about 20 percent of the level in 1982 (SSL).


At least 230 elephants are living in two reserves in Yunnan Province where large-scale tree felling had caused elephants to scatter (SSL). See Reference No. 1841.

The Chinese government has reported an increase in elephant numbers in Xishuang-banna Nature Reserve in Yunnan Province to 200 since the reserve was expanded in 1982 and hunting was banned (SSL). See Reference No. 1840.


Proposals from the International Foundation for the Conservation of Game to stop illegal trade in ivory (FZ).

Honduras became the 88th party to CITES and Hungary the 89th (SSL).

The East African Wildlife Society awarded a grant to Iain Douglas-Hamilton and Holly Dublin to census elephants and buffaloes in the Serengeti-Mara ecosystem to compare to the 1975 count (SSL).

At the Buenos Aires meeting of CITES a resolution establishing a new system for controlling the raw ivory trade was adopted. African countries exporting ivory must set quotas and no imports will be permitted from any country not complying (SSL).

Afghanistan becomes a party nation.

At the fifth meeting (Buenos Aires), parties approved a new ivory export quota system for African ivory, which includes marking all tusks and setting quotas by 1 January 1986 (WWF News) (E/BC).
In 1981 it was estimated that the elephant population in CAR was reduced from 80,000 to 15,000 in ten years. Twice as many dead elephants as live animals were found in an aerial survey of two national parks in June 1985 (WWF, IUCN, UNDP and FAO). The report, written by I. Douglas-Hamilton, J.M. Froment and G. Doungoube, indicated that poaching had increased following the reopening of the ivory trade in December 1981 and was carried out mainly by horsemen from Sudan and Chad with spears and automatic weapons (E/SSL).

Remains of a woolly mammoth were discovered in Northern Ireland by a teacher. Plant and insect debris were recovered and are under study at Ulster Museum where there is much interest since few remains from the Quaternary period have been uncovered (SSL).

The Tokyo Ivory Arts and Crafts Association abandoned an agreement made early in 1985 to control ivory imports. Nonetheless, an ivory importer's group has been established under government guidance, which represents 98% of the total Japanese ivory import trade. This group has been directed to prohibit ivory imports from Burundi and Singapore and to tighten controls on imports and re-exports from and to Zaire, Sudan, Uganda and Chad (SSL).

David Keith Jones raised money from guests at Samburu River Lodge in Samburu/Buffalo Springs National Reserve in Kenya for EAWLS to remove a wire snare from a baby elephant’s head and ears (SSL). See also Reference No. 2016.

Details of an agreement between members of the Tokyo Ivory Arts and Crafts Association and IUCN representative Esmond Bradley Martin. See Reference No. 2062.

Asian Elephant Survival Foundation in Nevada, USA, has set up an elephant sanctuary in Nepal for orphaned calves and old working elephants. Elephant numbers are fewer than 50, due to poaching and deforestation (E/SSL).

The President of the Central African Republic announced a ban on all private collection, import, export or transport of ivory from 1 January 1986 (PZ).
An aerial survey in August 1985 revealed nearly twice as many dead elephants as living ones in Central African Republic (PZ).


An elephant calf died in western Damaraland, Republic of South Africa, when its herd was being driven towards an American television crew by a helicopter. The calf was shot after it fell and broke its leg. The local population had shown an increase for the first time in 15 years (SSL). See also Reference No. 2092.

Pope John Paul was given an elephant tusk with his name carved on it by Cameroon (JLP).

An Indonesian newspaper has reported that the government has decided to reduce the wild elephant population by allowing exportation (LAW).


Includes elephants and 15 other groups of mammals. "With brain weight scales to body weight, the differences among brain weights are less than those among body weight." "Interspecific scaling of mammalian brain sizes is isometric with the organisms' abilities to support the energy cost of the brain." (E/BC).


Includes Elephas maximus, E. hysudricus, and other animals (E/BC).

Descriptions of previously described and new species of internal parasites in elephants (E/BC).
theory of domestication and origin of breeds. Z. Tierz.
Zuechtungsbiol., 100(1):55-75.
Primitive man (dating back as far as approximately 300 B.C.)
dared to approach and handle a captive, dangerous animal. "There
was no evidence in the available literature that elephant
catching had influenced the genetic makeup of wild stocks." (E/FZ).
Workshop held at Kansas City, Missouri, October 14-16, 1983, 121
pp.
1868 LleW Barnes, R.F.W. 1982. A note on elephant mortality in Ruaha
1869 LbeW Barnes, R.F.W. 1982. Elephant feeding behavior in Ruaha National
"In the wet season elephants ate mainly grass while in the dry
season they ate mainly wood browse... Browsing bulls tended to
move from plant to plant less frequently than did cows." (E/BC).
1870 LrbW Barnes, R.F.W. 1982. Mate searching behavior of elephant,
Loxodonta africana, bulls in a semi-arid environment. Animal
Behavior, 30(4):1217-1223.
1871 LecW Barnes, R.F.W. 1983. Effects of elephant browsing on woodlands in
a Tanzanian national park: measurements, models and management.
Tree densities vary with the number of elephant; culling is
discussed (E/BC).
1873 LgcW Barnes, R.F.W. 1983. The elephant Loxodonta africana problem
127-148.
Elephant over-population resulted in the arguments for and
against six management options: "providing artificial water
supplies, improved fire control, reducing human pressures,
culling, noninterference and poaching." (E/BC).
Encyclopedia of Mammals:2 (David W. Macdonald, ed.). George
Well written and illustrated (JS).
1875 LmwW Barnes, R.F.W., and Iain Douglas-Hamilton. 1982. The numbers and
distribution patterns of large mammals in the Ruaha-Rungwa area
"The 31,500 km² census zone carried one of the largest
elephant populations in Africa, an estimated 43,685 + 9254
elephants..." (E/BC).
1876 BopC Bartnicki, David E., Hiroshi Mizukami, and Alejo E. Romero-Herrera.
1983. Interaction of "ligands with the distal glutamine in
The most significant finding with regard to elephant myoglobin is
that it reacts eight times stronger with carbon monoxide (CO)
then other myoglobins. This means that elephants housed close to
expressways, where emission of CO from motor vehicles is greatest, would probably be affected by the toxic gas more than other animals would.  


1881 LucW Bell, R.H.V. 1984. Untitled letter to the editor. Swara, 7(1):40. Concerning elephant poaching in Malawi, the elephant population has been estimated at 700 to 1,000 which is a slight decline. In Kasungu National Park poaching in the North and West caused compressing of elephants into the east and central areas. Since January 1982 elephant poaching has declined. Elephant mortality in 1983 due to crop-protection shooting fell to half (8) of that of 1982 (E/SSL).


1883 Lb W Berg, Judith K. 1983. Vocalizations and associated behaviors of the African elephant (Loxodonta africana) in captivity. Z. Tierpsychol., 63(1):63-79. This study was conducted at the San Diego Wild Animal Park, California, U.S.A. The eight female African elephants (Peaches, Sabu, Mandavu, Sharpie, Hatari, Wankie, Deeteema and Bisi) and one male African elephant (Chico) emitted 10 distinct vocalizations which are associated with 11 behavior categories. Vocalizations were of two types: (1) Low sounds (18-28 hz) - Growl, Rolling growl, Snort, Roar, and (2) High sounds (357-570 hz) - Trumpet, Trumpet phrase, Bark, Gruff cry, Cry (JS).

1884 EcmW Blower, John. 1985. Conservation priorities in Burma. Oryx, 19(2):79-85. Issuance of hunting licenses in Burma has been suspended since 1958. An average of about 120 elephants is taken annually by the State Timber Corporation for work. Other animals are smuggled into Thailand and sold. Elephants are present in Alaungdaw Kathapa National Park, Lampi National Park, Pakchan Nature
Reserve and especially Tamanythi Nature Reserve (SSL).


1890 LopC Braunitzer, Gerhard, Anton Stangl, Barbara Schrank, Claus Krombach, and Henning Weisner. 1984. The primary structure of the haemoglobin of the African elephant (Loxodonta africana, Proboscidea): Asparagine in position 2 of the beta-chain. Hoppe-Seyler’s Z. Physiol. Chem., 365:743-749. African elephant, Asian elephant, and llama have only 5 binding sites for polyphosphate. This chemical property enables these species to function relatively well in high altitudes where the oxygen density is low. The authors concluded that their "... biochemical and physiological data imply that Hannibal’s enterprise was facilitated by the distinctive respiratory function of elephant hemoglobin." There were four amino acid substitution differences between the sequences of the two elephant species; these substitutions were neutral and therefore did not affect the physiological functions (JS). See also Reference No. 1891.


1892 LzW Bright, Michael. 1984. Meet Mokele-mbembe. BBC Wildlife, 2(12):596-601. In 1985 a second expedition of zoologists will explore a swamp region of the People’s Republic of the Congo for a giant semi-aquatic reptile. In the early 1900s a big game hunter for Carl Hagenbeck (Hamburg Zoo) saw the ‘river elephant,’ which had long red hair, in eastern Liberia while searching for pygmy hippopotamuses (SSL).


1898 Canby, Thomas Y. 1984. El Nino’s ill wind. Nat. Geogr. Magazine, 165(2):144-183. (See also: cover page and page 140). El Nino (a climatic event, named for "a local current called El Nino, for the Christ child, affecting the coasts of Peru and Ecuador at Christmastime.") had a global effect causing floods, fires, and starvations resulting in loss of human and animal lives. In Southern Africa, Botswana’s Chobe National Park elephants "made docile by thirst" are watered by park staff. (One such elephant,"Baby Huey", is pictured on page 180.) Park personnel also dig waterholes for the animals, including elephants. The situation in Kruger National Park was summarized by Chief Warden Dr. U. de V. Pienaar: "We accept drought as a natural culling mechanism....It helps keep herds at levels the habitat can support, by weeding out the sick and the old - survival of the fittest." (JS).


1901 Cater, Nick. 1985. CAR hunting ban. BBC Wildlife, 3(3):148. The Central African Republic has banned elephant hunting after two years of increased controls on ivory smuggling. The CAR has been a major exporter of ivory and tusks from Sudan and Zaire as well as its own (SSL).

1902 Cater, Nick. 1985. Ivory X-rays. BBC Wildlife, 3(7):348. Wildlife experts in Malawi are developing a technique using X-ray bombardment to identify areas from which ivory originates (SSL).


In the northern area of Tsavo East (Kenya) large elephant herds drink at Aruba dam (JGE).


"Foregut digestion and fermentation were most evident in rhinoceros, while elephants possessed greater cecal-colonic digestion." (E/BC).

Overview of the interdependence between browsing mammals and acacias (including elephants) (LAW).

Comments on the derivation of the name "Jumbo" in an article on "Jumbo" the elephant and in two letters on the subject (SSL). See Reference Nos. 1948, 1956, 1967, and 2106.


Includes *Mammuthus meridionalis* (Nesti) (E/BC).


In contrast to a commonly held belief, tooth replacement in manatees is different from that in elephants; manatee teeth are continuously replaced, and elephants are limited to 6 sets (JS).

Proboscidea and Desmostylia are closer to each other than either is to Sirenia (JS). See, however, Reference Nos. 2147 and 2170.


A response to Ian Parker and Mohammed Amin's book, Ivory Crisis (BC).

"Contrary to popular belief, the decline in woodland during the 1960s cannot be unequivocally attributed to tree destruction by elephants; fires also played a part." (E/SSL).

A response to Cardona's paper on the validity of several hypotheses on the extinction of mammoths (NES). See Reference No. 1899.


A comprehensive account of elephants' natural history. Light reading of up-to-date data on all aspects of elephant biology, interlaced with the author's field work and personal experiences. Humorous at times. I found the section "A possible explanation of tree felling" (Chapter 9) very interesting. The chapter on the ancestry of elephants may be a bit "heavier" reading than the rest of the book; this is also a topic which is not the author's forte. On the whole, this book is an invaluable addition to the field of elephantologists (JS).


"In this paper, areas earmarked for wildlife sanctuaries have been mentioned and some measures for the protection and propagation of wildlife in Bangladesh have also been recommended." Elephants are listed under Threatened Animals and Birds in Bangladesh (SSL). See Reference No. 1952.


A taphonomic analysis of several late Pleistocene mastodon skeletons excavated in southern Michigan provides compelling evidence of mastodon butchery. The additional determinations of the season of death of butchered mastodons relate to a view of Paleo-Indians as hunters who might have contributed to Pleistocene extinctions (JS).


"All butchered animals that have been analyzed died in the late fall, and all non-butchered animals died toward the end of winter or in earliest spring." (E/SSL).


"This book is dedicated to Dr. Richard M. Laws in recognition of his outstanding work on the biology (and especially the population biology) of large mammals. Dr. Laws' productive and pioneering career has included work on a wide range of largest of the large mammals [elephant], in both marine and terrestrial environments. His interests and efforts have varied and included all elements of the spectrum from basic biological work to comprehensive ecosystem studies." Chapters 2, 3, 15, 19, and 23 include research on elephants. See References Nos. 1888, 1918, 1944, 1979, and 2039. The following Reference Nos. in previous issues of Elephant pertain to Laws' works: 36, 285-288, 534, 676-684, 833, and 1345.


1952 Em W Gittins, S. P., and A. W. Akonda. 1982. What survives in Bangladesh? Tigerpaper, 9(4):5-11. A survey in 1980 indicates that 282-348 elephants were reported from 8 areas; in 7 of the 8 areas they were rarely seen (SSL). See Reference No. 1938.

1953 *hwU Gladkih, Mikhail I., Ninelj L. Kornietz and Olga Soffer. 1984. Mammoth-bone dwellings on the Russian plain. Scientific American, 251(5):164-170, 175, and 194. 15,000 years ago hunting-and-gathering bands built complex, permanent structures on the steppe between the Dneiper River and its tributaries on the central Russian plain. Bones used were ribs, long bones, skulls, scapulae, tusks, mandibles, vertebrae, and pelves; skins were probably stretched over wooden frames for roofs. Note: on page 168, the bones labelled as scapulae appear to be pelves (SSL).


At University of California at Los Angeles Ronald K. Siegel's "most extensive work has been with elephants - one of at least 28 species that appear to gravitate toward alcohol." Preliminary observations suggest that environmental stress may be an important variable in the self-administration of alcohol in natural habitats (E/SSL).


An unique, introspective work - truly an investigation, including open discussion and reflection on the significance of this untrained behavior in "Siri", an Asian female elephant at Burnet Park Zoo, Liverpool, New York (SSL).


In response to Mentis's comments in the previous issue, Hall-Martin states that it is "the natural processes within the elephant population and protection from hunting that have produced the big tuskers" (SSL). See Reference Nos. 1939, 2071, and 2080.


"Although mastodons appear to have been tolerant of several environments, the presence of a furry undercoat suggests an adaptation to a semi-aquatic habitat." (E/VLT).


The Lauge/Ferguson site confirms the existence of an active bone butchering tool industry by Clovis hunters (E/SSL).


Includes dental formulae for Stegodon, Palaeoloxodon naumanni, Elephas, and Loxodontia (E/JS).


Elephants in Sumatra were herded out of a forest two years ago; a village was erected; and farming was started. By January elephants were returning daily to wreak havoc on the area. The government will try to drive the elephants back to their reserve (SSL).

"Serum concentration of P4 (progesterone) fell dramatically before parturition, consistent with a role for this steroid in the regulation of gestational length. Male urine testing behavior was clearly cyclical, and maximal interest during the interluteal period was followed by a rapid decrease with the onset of P4 secretion." (E/BC). See Reference No. 2111.

Alterations in climate resulted in vegetational changes during the Holocene with the arrival of Paleo-Indians and the extinction
of mastodon and horse." (E/BC).


1993 LprW Hodges, J. K., C. Henderson, and A.S. McNeilly. 1983. Circulating estrogen concentrations during pregnancy in the African elephant Loxodonta africana. J. Reprod. Fertil., 67 (1):121-128. "Total estradiol-17.beta concentrations were significantly elevated during pregnancy (P<0.01) and, despite considerable individual variation (193-1428 pg/ml), were consistently higher than non-pregnant values after 6 mos. of gestation." (E/BC).


Two populations of elephants of two different home-ranges were compared with regard to their group-size-frequency distribution, random aggregations, dependence on dry grass, adult sex ratio, and seasonality in the birth of elephant calves. "The need to carry out similar studies over long periods of time is stressed." (JS).

"Two sites, having two different elephant populations with non-overlapping home ranges, were selected for studies on elephant and woody plant relationships." (E/BC).


"This thesis is a collection of separate articles, each illustrating a different aspect of elephant ecology in the Brachystegia biome of Southern Central Africa. Of all megaherbivores the elephant is the most important animal in African Wildlife Management..." (E/SSL).


This is a summary of the 36-page report. "...the deteriorating situation of elephants and rhinos is closely linked with our economic problems." (E/SSL). See Reference No. 2009 for full report.

2013 EgW Jackson, Peter. 1986. Running out of room. Internat. Wildl., 16(5):4-11. Elephants still play important roles in ceremonies; ironically however, in parts where elephant habitats have been dwindling, they have become a menace, raid crops and kill people. The estimated wild elephant population in Asia is between 30,000 and 40,000, broken down as follows: India 19,505-25,371; Burma 8,400-11,400; Thailand 7,419-9,209; Indonesia 2,800-4,800; Sri Lanka 2,700-3,200; Malaysia 1,296-2,796; Bangladesh 270-340; China 230; Nepal 45; Kampuchea, Laos, and Vietnam all unknown (JKB).


2016 LucW Jones, David Keith. 1985. Horizons: Kenya: Samburu/Buffalo Springs National Reserve. Swara, 8(1):19. During the drought in East Africa, snaring has increased and a baby elephant was seen with a wire snare around its head and ears (SSL). See also Reference No. 1852.


million yrs. long) is "one of the most extensive faunal records in the African Neogene." (E/BC).

Includes species of the following families: Elephantidae, Bovidae, Cervidae, Suidae, Canidae, Felidae, Hyaenidae, and Ursidae (E/BC).


Asian elephants are now isolated in small pockets of Chittagong, Cox’s Bazar and Hill Tracts Divisions; the population may not exceed 200. Another 50 or so wander in the border forests (SSL).


Statistical treatment of data from many studies; for elephants the author used Burne’s data (1943) to derive a mean gestation period of 626 days (SSL). See Reference No. 1728 in Elephant, 2(1):224.


In experiments few tree seedlings planted in elephant feces germinated and no seedlings were observed in boli of various ages in the forest, unlike observations in other parts of East Africa (SSL).

The beetle is camouflaged by its resemblance to coarse elephant dung particles both by its shape and color (E/BC).

Based on a translation by Erik J. Friis of the original work published in Swedish in 1981, this volume is a collection of essays on the Ice Age (SSL).

A note on two calves (from San Diego Zoo) born at the Wild Animal Park, San Diego, California, written a year after they were sent to Guangzha Zoo, People's Republic of China (JKB).

"...both Laws' and Sikes' age-estimation techniques for African elephants give useful measures of the stage of molar progression, although both have certain intrinsic difficulties. Laws' age estimation technique has gained most general use probably because it requires only a rapid, superficial, inspection of the Jaw."
(E/SSL).


An elephant hunt portrayed in Stone Age paintings on cave walls (FZ).

"Less easy to cope with are the large and heavily armed gangs of commercial poachers from the province of Darfur in the north, who, mounted on camels, have been slaughtering huge numbers of elephants for their ivory in Bahr-el-Ghazal in the south, where there have been several skirmishes with ill-equipped government forces." (E/SSL).


The author has been developing predictions based on short-term data and simple mathematical models for possible outcomes to the disturbances acting on Amboseli National Park (SSL).

"On what basis do managers decide whether or not a population of elephants should be culled and how valid can this decision be in the present state of our knowledge?... It is clear that the issues surrounding elephant culling are complex and often reflect contradictory viewpoints." (E/JS).


In 1982 Sudan became the single largest exporter of ivory in Africa. The average tusk weight imported into Hong Kong has declined drastically, yet large numbers of animals are being killed, perhaps indiscriminately. Phil Snyder estimates that 10,000 to 20,000 are being slaughtered in south Sudan each year (SSL).


Well illustrated. Discusses the differences between the ivories of elephant species, availability, and anatomical structure. On p. 17 dental formula should be I 1/0 C 0/0 dpm 3/3 M 3/3, not I 1/0 C 0/0 P 0/0 M 3/3 (JS).


Madden, Cary T., and Frank C. Whitmore, Jr. 1983. Tertiary vertebrate faunas of Arabian Peninsula. Abstracts of the 96th Annual Meeting of The Geological Society of America, Indianapolis, Vol. 15, No. 6, p. 633. Stegotetrabelodon grandincisivum (family Elephantidae) and Gomphotherium sp. (family Gomphotheriidae) are the only two proboscideans mentioned in this abstract (JS).


A new genus and species by J. J. Jaeger: Numidotherium koholense, whose evolutionary relationships within the Proboscidea is interpreted as a sister-group to clade of Elephantidae and Deinotheriidae, or a sister-group to Deinotheriidae and the resultant branch is a sister to Elephantidae. In either case, Moeritherium is the earliest offshoot of the Proboscidea in Text-fig. 16 (JS).

Mariappa, D. 1986. Anatomy and histology of the Indian elephant. Indira Publishing House, Oak Park, Michigan, 209 pp. The introduction includes incorrect and/or misleading statements (e.g., elephants and horses are closely related, "the elephants have six digits indicating hexadactyl ancestry", and the "pronounced development of upper incisors found in elephants is shared by rodents...") and inconsistencies with the text, e.g., sternum with four parts (page xii), with one part (page 3), and with two parts (page 17). The text, on leafing through it, seems to be professionally prepared but needs to be read carefully. A review will appear in the next issue of Elephant (JS).


appearance of the Panamanian land bridge." (E/JS).

"Elephants in East Africa would not be poached for their tusks if there was no market for the ivory. A recent study of this market in Hong Kong and Japan provides hope that ivory traders might be willing to accept a reduction in imports." Price of a kilogram of uncarved ivory was US $39.23 in 1982, down from US $65.42 in 1978 (SSL).


"During pregnancy, progestrone levels were significantly higher than in non-pregnant females with maximum levels occurring at mid-pregnancy (9-12 mo.)." In addition, "prolactin levels increased dramatically during pregnancy." This "increase in plasma/serum levels of prolactin can be used to diagnose pregnancy in the elephant." (E/BC).

First comparison of the physical characteristics and the diet of the dung of extinct mammoths from North America with those of Siberia and northern China (SSL).


The author contests "the big tusker craze" in which 'freaks' are worshipped and selected rather than allowing an "abnormal character" to exist in usual statistical numbers (SSL). See
Reference Nos. 1939, 1975 and 2080.

2072 **LjmW** Mercer, Graham. 1983. Mikumi National Park. Swara, 6(2):31-33. This park lies 180 miles west of Dar es Salaam (Tanzania). "The elephants in Mikumi are thriving; it is not unusual to see two hundred or more in a day." In 1980 Tanzania's wild elephant population was estimated to be 316,300, the second largest in Africa. The largest wild population was that of Zaire, 371,700 elephants. (After I. Douglas-Hamilton, see National Geographic Magazine, 158(5):579) (JS).


Comparing bones of Mammuthus primigenius (Blumenbach, 1799) to Elephas falconeri (Busk, 1868) and discussing adaptation to specific environment (E/BC).


A comment on M.T. Mentis's article in Vol. 36, No. 1 on the tuskers of East Africa, with substantial support for "normalcy" of these giants (SSL). See Reference Nos. 1939, 1975, and 2071.


2085 BcgC Moy, Susan. 1985. Communication: Problems and Solutions. Pp. 42-55, in Proceedings of the Fifth Annual Elephant Workshop, New Orleans, Louisiana, November 29-December 1, 1984, 113 pp. To attempt to have a smooth elephant program, it is important for all the people who work with elephants to listen well to others' statements of problems and to learn to approach people with your statements of problems (E/SSL).


2092 LjcW Owen-Smith, G. 1986. The Kaokoveld, South West Africa/Namibia’s threatened wilderness. Afr. Wildl., 40(3):cover, and 104-107, 109, 111, 113-115. "In 1970, desert-dwelling elephants probably totalled between 300 and 400 animals; by 1982, illegal hunting had reduced their number to fewer than 70." "...for the first time in fifteen years, the numbers of elephants and black rhinoceros in this spectacular and fascinating region had increased." (E/JS). See Reference Nos. 1858 and 2198.

Description of the excavation of a mammoth by Dennis Stanford and Gary Haynes, of the Smithsonian Institution, in Marlboro, Maryland. Radiocarbon date: 20,070 + 265 years (SSL).


The authors found that the number of African elephants involved in the ivory trade is much less than has been suggested -"50,000 to 100,000" a year. Their figures show that in 1976 54,675 elephants had been killed/died and 37,482 elephants in 1980." (JS).


"There was a good inverse correlation between potential species lifespan and the specific cytochrome P-448 content of cultured fibroblasts." (E/BC).


"Calls at frequencies below the range of human hearing (14 to 24 hz) were recorded from two groups of captive Asian elephants..." "Elephants are the first terrestrial mammals reported to produce infrasound. These calls may be important in the coordination of behavior in thick vegetation or among separated groups of elephants." (E/JS).


"The effects of the combination of low elephant densities and high giraffe densities prevalent in the Serengeti produce a dynamic system in which the woodland structure oscillates between mature canopy and open regeneration-grassland phases." (E/BC).
2104 Lc W Pitman, Dick. 1984. Utility and sorrow. BBC Wildl., 2(2):76-81. "To some, the elephant is an object of priceless beauty; to others, $2,000 on the hoof." "The answer is not to deride the emotion itself, but to mix it with information - and to turn it from what may be a superficial, passing thing into a philosophical framework for the future of wildlife based on overriding universal values." (E/SSL).


2113 LjnW Redmond, Ian. 1982. The salt mining elephants of Mount Elgon. Wildlife, 24(8):288-293. These are the only elephants known to actively dig for salt underground. Redmond believes that generations of elephants have gradually excavated the large caves over thousands of years. Mount Elgon is on the border between Kenya and Uganda (JS). See Reference Nos. 2112 and 2114.


2116 LjpW Rees, P.S. 1983. Synchronization of defaecation in the African elephant (Loxodonta africana). J. Zool., 201(4):581-585. Synchronization of defaecation in elephants may have developed to avoid predators by maintaining integrity of the herd as "it would be advantageous for individuals only to defecate when the herd is not moving." (JS).


2119 BovB Romero-Herrera, Alejo E., Morris Goodman, Howard Dene, David E. Bartnicki, and Hiroshi Mizukami. 1981. An exceptional amino acid replacement on the distal side of the iron atom in proboscidean myoglobin. J. Mol. Evol., 17:140-147. Myoglobins of Loxodonta africana and Elephas maximus are different from myoglobins of most other mammals in having at position 64=87 amino acid Glutamine (Gln) instead of amino acid Histidine (His). The two elephants differ from each other in that at position 129 L. africana has amino acid Alanine (Ala) whereas E. maximus has amino acid Glycine (Gln). (JS). See article by Mizukami and Bartnicki in Elephant, 2(2).


2123 EmcW Santiapillai, Charles, and Hayani Suprahman. 1985. Habitat management in Way Kambas Game Reserve with reference to the elephant population (WWF/IUCN Project 3133 - No. 2). Tigerpaper, 12(1):21-27. The Way Kambas Game Reserve is situated in the southeastern part of Sumatra and is one of the largest reserves in Indonesia. The number of elephants in southern Sumatra is estimated to be between 110 and 130; within the Reserve it is about 40-50. Enhancement of the plant species which elephants prefer plus meeting other habitat needs would enable the Reserve to carry elephants at optimum density (E/SSL).


Sarker, Sohrab Uddin, and Noor Jahan Sarker. 1984. Mammals of Bangladesh - their status, distribution and habitat. Tigerpaper, 11(1):8-13. The authors have prepared a list of observed mammals, mentioning their status, distribution and habitat. Asian elephants were found (in forest habitat) "fairly common" in Chittagong, Chittagong Hill Tracts, Sylhet, and Mymensingh (SSL).


Sayer, Jeffrey. 1983. Nature conservation priorities in Laos. Tigerpaper, 10(3):10-14. Author discusses his findings during six weeks in 1983 when he surveyed Laos on behalf of FAO Regional Office for Asia and the Pacific (Food and Agriculture Organization of the United Nations) to assist in starting a nature conservation and national parks program. Elephants occur in Vientiane Province and Sayabouri Province near the Mekong River. Domesticated elephants are used in Sayabouri (500 in timber industry) and in Champassak in the south and in Vientiane and Luang Prabang Provinces. The author states that Olivier's 1978 figure of 932 for the captive elephant population "would seem to be of the right order of magnitude." (SSL).


"...the non-ruminant ungulate equids, tapirs, rhinoceros and elephants absorb a larger proportion of dietary Ca than ruminants do." (E/FDR).


Elephants are returning in large and easily frightened herds, many from Zaire (SSL).
Bull elephants raid salt stores at Treetops in Kenya. (SSL).


Proboscidea is a sister-group to Sirenia and Desmostylia (extinct); the latter ones are closer to each other than either of them is to Proboscidea (JLP). See, however, Reference Nos. 1928 and 2170.


Only the senior author has been credited because it is impractical to list all 76 co-authors on this paper; see * in the list of participants, Appendix I, page 77 (BC).

Report on work by Daniel Fisher and Paul L. Koch in determining the time of death of mastodons, as given at the annual meeting of the Geological Society of America (SSL). See Reference Nos. 1940 - 1942.


2160 LihW Stiles, Daniel. 1984. Book review: Ivory Crisis by Ian Parker and Mohammed Amin. Swara, 7(1):37. "Few people would even contemplate assaulting such bastions of conservation as IUCN and WWF (attack the pandas?), and most would consider defending elephant hunters, ivory buyers and workers as a conservationist suicide mission . . . . The ultimate solution to saving the African elephant and other wildlife is the establishment of a stable and economically secure Africa where poaching is no longer necessary..." (E/JS). See Reference No. 2098.


Elephas shigensis zone after Kamei and Setoguchi (1970)." (E/BC).


"...cladistic analysis of the characters of the skull shows that the genus Moeritherium is more related to elephants than to any other living subungulate group." Fig. 13 (p. 118) depicts Proboscidea and Sirenia closer to each other than either is to Desmostyli (extinct). See, however, Reference Nos. 1928 and 2147 (E/JS).


"The earliest known African Neogene Elephantidae is described."
"A new genus is erected for the species: Eozygodon morotoensis (Pickford and Tassy gen. et comb. Mov. Zygolophodon morotoensis). This taxon is the sister group of other Mammutidae." (E/BC).
An account of the legendary elephant hunter who is purported to have killed 1,000 bulls during his five years of hunting (1902-1907). It is said that he often killed ten bulls a day and in one day killed nineteen. In the short time of five years he made enough money from ivory to retire as a wealthy estate owner in Scotland (JLP).

Includes: Gomphotherium (Tetralophodon) longirostre and Dinotherium giganteum (BC).

"A thornbush wilderness in East Africa may have been created by prehistoric bands of ivory hunters." Using archaeological excavation, ethnohistorical data and computer simulation, the author found evidence that hunter-gatherers in East Africa may have become involved in the ivory trade around the fifteenth century. Overhunting of the elephants may have released the grassland to encroachment of bush which dominated the area until this century (SSL).

"...inflating its lungs for buoyancy while the other placed his front feet on the leader's back and paddled. Every hour or forty-five minutes the exhausted animals would change places." (E/SSL). See also "Swimming Marathon" under ELEPHANT NOTES AND NEWS in this issue [Elephant, 2(2)].

"For several kms around the park headquarters the area is quite well protected and contains good populations of ... elephant Elephas maximus which are seen occasionally by visitors."


Tremain, Ruthven. 1982. The animals’ who’s who. Charles Scribner’s Sons, New York, xv + 335 pp. Biographies of over 1,000 animals of renown from diverse areas of life and letters, 19 elephants including: Babar, Bandoola, Dali, Dumbo, Hathi, Jumbo (1), Jumbo (2), Kala Nag, Lucy, and Nalagiri (SSI).


Van Hoven, W., R. A. Prins, and A. Lankhort. 1981. Fermentative digestion in the African elephant. S. Afr. J. Wildl. Res., 11:78-86. "...There is a microbial fermentation of sugars, starch and protein from the food in different compartments in the gastrointestinal tract, with most activity occurring in the caecum and colon." Length of intestinal tract including stomach and caecum, 27 m. Volume of intestinal tract + stomach + caecum = 555 + 60 liters. pH of stomach <2.0, other parts of intestinal tract pH = 6.52 to 7.78 (E/JS).

bones, fragments of muscles and fat, and intestines containing grassy mass remained preserved." (E/BC).


2198 LwcW Viljoen, Philip J. 1982. The distribution and population of the larger mammals in Kaokoland, South West Africa/Namibia. Cimbebasia, ser. A, 7(5):5-33. "Based on aerial and ground surveys 36 species, including Loxodonta africana, were identified." The environment and animals should be regarded with the highest conservation priority (E/FDR). See Reference Nos. 2092 and 2199.

2199 LjmW Viljoen, Philip J. 1982. The ecology of the desert-dwelling elephants, black rhinoceroses and giraffes of western Kaokoland and Damaraland, South-West Africa: a progress report. Quagga, 2:14-15. The subtitle is more appropriate than the main title, for this is a short progress report rather than an article on "The ecology...". "...active research is concentrated on the elephant population, but data is gathered on both giraffe and black rhinoceros populations as these animals are encountered. At the time of writing there were 70 elephants (of which only 7 were bulls; 32 elephants had died, of which 30 were shot illegally; the giraffes' number remained stable." 6 rhinos are known to have been shot and 4 previously unknown rhinos have been encountered (JS). See Reference No. 2198.


Thirty-seven color photographs and approximately 200 black and white photographs by author of animals and man across South Africa as progress "has begun to do away with the creatures with whom he shared it" (SSL).


The chapter on elephants (pages 56-59) includes a number of statements drawn from sources not mentioned in the "Selected Source Material" or from the author's vivid imagination. For example: "He (the male elephant) also spends a lot of time sniffing her toe nails, for some reason. Who are we to say what is sexy for elephants?" I found such quotations plus descriptions to be inaccurate, misleading and generally anthropomorphic, despite the fact that the author makes it clear in the introductory chapter that he permits himself to anthropomorphize sometimes, "just for the fun" (JS).


"Calculations on the daily caloric requirements of the sauropod Brachiosaurus, adjusted for digestibility and the energetic cost of free-living, were compared with caloric density of Late Jurassic food plants and the feeding rates of an elephant and a giraffe." (E/BC).


About exhibit "Fifty Years of Babar."


"A Kenyan ecologist updates the conservation picture for elephants and rhinos." (E/SSL).
2213 LcwW Western, David. 1986. An African odyssey to save the elephant. Discover, 7(10):56-58, 60, 62, 64, 66, 68-70. "In a daredevil junket to determine how many of the pachyderms remain hidden in the rain forest, the author solves an old mystery and produces a bold survival plan." (E/JS).


2216 *e U Whitehead, Donald R., S.T. Jackson, M.C. Sheehan, and B.W. Leyden. 1982. Late glacial vegetation associated with caribou and mastodon in central Indiana. Quaternary Research, 17(2):241-257. "Recent reconstructions of late-glacial and early post glacial vegetational changes provide a context for understanding the disappearance of mastodons. The dramatic and rapid restriction of boreal forests along the retreating ice margin from 11,000-9,000 years B.C. may have caused a substantial reduction of mastodon populations." (E/SSL).


