

several popular books and for 36 years had a weekly Nature Notes column in a newspaper. A minor but unusual – indeed, probably unique – claim to fame was that he was once bitten by a Tasmanian wolf (*Thylacinus cynocephalus*) which he was photographing.

Professor Lord Zuckerman, 1904–1993

Solly Zuckerman's work in a zoo context was only one facet of the career of a man who has been described as 'the most influential scientific adviser of the post-war years'; but London Zoo was one of his first loves, and he took an active interest in its affairs to the end of his life. Zuckerman's long association with the Zoological Society of London began in 1928, when he was appointed Anatomical Research Fellow; his years in this post saw the research which resulted in his well-known first book, *The Social Life of Monkeys and Apes* (1934). At that time, the Society's research facilities consisted of the modest Prosectorium (built in 1908) and three small rooms in the Bird House: today's extensive veterinary department and research laboratories could not have been achieved without Zuckerman's commitment and his success in obtaining the support of large foundations. His skill as a facilitator and fund-raiser was chiefly exercised during his years as Secretary to the Z.S.L., from 1955 to 1977.

When Zuckerman took office the Society's affairs were at a low ebb. Apart from the buildings designed by Lubetkin in the 1930s, there had been no new major building work for 25 years, the Society's constitutional and administrative framework had changed little since the 19th century, and its financial resources were very limited. Zuckerman tackled all these problems with unremitting enthusiasm, energy and determination. In particular, he personally undertook the responsibility of securing financial backing, and succeeded in raising many millions of pounds towards the cost of a redevelopment programme. The buildings which London Zoo acquired during this period include the Cotton Terraces, the Northern (Snowdon) Aviary, the Elephant and Rhino Pavilion, the Charles Clore Pavilion for Mammals, the Michael Sobell Pavilions for Apes and Monkeys, and the New Lion Terraces. In all, over half the zoo was rebuilt and over three-quarters of the mammals were re-housed. There were concurrent developments 'behind the scenes' including the veterinary and research facilities referred to above.

At the same time Zuckerman was promoting innovations which were to be of far-reaching benefit to the zoo world in general, such as the beginning of the Society's still-flourishing series of Symposia. Even more important was the launching of the *International Zoo Yearbook*. In his introduction to the first volume, Zuckerman explained that the idea for this grew out of his efforts to find information for use in planning the reconstruction of London Zoo, and his realisation that such information was not easy to find in published records. The now indispensable volumes of the *Yearbook* may well prove to be Solly Zuckerman's most enduring memorial.

THE 1992 EEP ANNUAL REPORT

BY KOEN BROUWER

This summary of the status of current EEP breeding programmes is based on 65 EEP 1992 Annual Reports received prior to the EEP Annual Meeting in Salzburg, June 1993. The preliminary reports of EEPs initiated in 1992, such as for Humboldt penguin, pink pigeon, golden conure (*Aratinga guarouba*), lilacine amazon (*Amazona autumnalis lilacina*), Moluccan cockatoo, pygmy slow loris, black lemur, Sulawesi crested macaque, African hunting dog, European mink and cheetah were also received.

The **Humboldt penguin** EEP was established in 1992. So far, data has been collected on some 850 birds – of which approximately 500 are unsexed – distributed amongst 57 collections. Another problem is that many birds are not individually marked.



Great Indian hornbill at Birdpark Avifauna, Alphen a/d Rijn, The Netherlands, one of the few European collections where this species is regularly bred. (Photo: Koen Brouwer)

In the new EEP programme for **cheetah**, 238 animals kept by 49 institutions have been registered to date. This represents 73% of the total European population. A total of 41 cubs were born during 1992 in 14 litters at ten zoos. A quite high cub mortality of 34% was recorded. Adult cheetah mortality and the export of 11 cheetahs outside of the EEP region balanced the number of surviving births and consequently the population increased only slightly. Some 60 wild-caught cheetahs who are within their breeding lifespan but not yet breeding must be placed in breeding situations.

Forty-four institutions keeping a total of 110 **Sumatran tigers** were participating in this EEP at the end of 1992, while births exceeded deaths by 15 during the year. Difficulties in finding homes for cubs have continued, although several zoos have indicated that they would like to join the EEP, and a few collections need partners for their single tigers. Participating institutions are advised to prevent breeding from closely related partners and to keep the number of cubs born per pair, especially in over-represented lineages, limited to a manageable level.

The EEP population of **Amur tigers** has dropped for the second year running, to 224 (90.134) animals in 76 institutions. The export of more than 30 tigers outside of the EEP region contributed significantly to this decline.

There were 14 (6.8) **Persian leopards** born in 1992, of whom ten survived. Only two adult deaths occurred and 12 (8.4) leopards were exchanged amongst EEP participants in the same period. Seven British Isles zoos also joined the EEP in 1992.

A European studbook for the **Californian sealion** will be published by Ouwehands Zoo, Rhenen, the Netherlands, in July 1993. Preliminary observations indicate a decline of 3–4% a year in this population; however, data for 1992 and 1993 are required to determine whether these observations reflect a continuous trend.

The **Asian elephant** EEP population consisted of 42.187 elephants in 80 zoos at the end of 1992. Three (2.1) calves were born and two (0.2) adults died in 1992. Demographic calculations demonstrate that the European population is decreasing and very few elephants will be left in this region in 20 years if reproduction does not increase significantly. The number of bull elephants (four) that are producing offspring is also very low and likewise needs to be expanded. One of the major tasks of the coordinator and his to-be-elected species committee will be to develop a long-term breeding strategy and to establish minimum requirements for the husbandry and management of Asian elephants in European zoos.

The number of **Przewalski's horses** in the EEP has continued to increase, reaching 618 (266.352) by the end of 1992. Almost 70 participants produced 113 offspring, of whom 85% survived the first year. Breeding recommendations, stallion and mare exchanges have been provided for 1993. All offspring born in 1992 should be sent to all-male or all-female groups.

The EEP **kulan** population decreased considerably in 1992 from 89 to 80 (20.60). Seven non-juvenile deaths, the exportation of eight (4.4) animals outside of the EEP region, and only four births caused this decline.

The slight increase of the **Somali wild ass** EEP population in 1991 to 44 animals was followed by a decrease in 1992 to 40, mainly because of the exportation of six animals – of whom four were stallions – out of the EEP programme. On a positive note, two zoos joined the programme, and exchanges of stallions between four other holders were announced.

The **onager** population increased by three animals to 44 (14.30) in 1992 despite four adult deaths and the exportation of two males outside of the EEP programme. As stated last year, finding suitable spaces for this endangered subspecies is a priority.

The number of institutions participating in the **Grevy's zebra** EEP increased by six from 32 to 38. Unfortunately the management of males is proving to be quite difficult. Two groups can be distinguished: (1) Young males who are likely to be required as future breeders and need to be temporarily kept in bachelor groups to reach physical and social maturity, and (2) Young and old males not required for breeding, having produced sufficient offspring or being from over-represented lines. Solutions for these groups, especially the second group, need to be found and this will be discussed at the Grevy's zebra meeting.

The **Malayan tapir** EEP population continued to decline for the third year in a row, and consisted of 35 animals at the end of 1992. Only a single still-born calf was produced in 1992, whereas a pair of adults died and a male was sent out of the region.

Two female **Indian rhinoceros** were successfully reared in 1992, creating a balanced sex-ratio of 16.16 in the EEP population. Nevertheless four institutions still keep single males, and arrangements are being made to pair up these rhinos.

Three female **black rhinoceros** were born and successfully reared in 1992 contributing to the continuing growth of this EEP population to 55 (21.34) animals. Participation of the British Isles' black rhinos also increased the EEP population. Two zoos, Leipzig and Krefeld, are expected to receive rhinos from the EEP population in 1993.

As in 1991, the EEP **babirusa** population expanded by six animals, from 60 to 66. Two new institutions, Marwell and Munich, joined the EEP, bringing the total number of participating institutions to 16.

The EEP **pygmy hippo** population decreased slightly in 1992, from 113 to 106 (44.62), due to the exportation of 4.6 animals out of the EEP programme, as well as the death of seven adult animals. This species has bred so well over the last few years – ten were successfully reared in 1992 – that placement of surplus animals has become a problem. Consequently, surplus animals are all too often sold to dealers or institutions 'unworthy of handling these animals', as the coordinator states in her 1992 annual report.