

THE 1991 EEP ANNUAL REPORTS

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The following analysis was prepared for presentation at the 1992 Annual EEP Conference in Edinburgh. The results are based on the 58 annual reports that the EEP Executive Office received before the conference.

The European Endangered Species Programme (EEP) started with 19 breeding programmes in 1985. Currently there are 67 EEPs: four of these were initiated in 1991 — palm cockatoo (*Probosciger aterrimus*), great Indian hornbill (*Buceros bicornis*), rat kangaroo (*Bettongia penicillata*) and Asian elephant (*Elephas maximus*). More than 4,000 animals in total are managed in the EEPs for which we received reports. The number of animals in these EEPs ranged from 12 sloth bears (*Melursus ursinus*) to approximately 500 Przewalski horses (*Equus przewalskii*). There are approximately 300 institutions and/or private breeders currently participating in at least one EEP. Ten zoos are actively involved in more than 15 EEPs. Twenty-five European countries and another 11 non-European countries are represented in the EEP network. German zoos represent the largest group of EEP participants.

EEP populations increased slightly in 1991 for the majority of species. However, many species are in need of intensive captive management if they are to be saved in the European region. Many coordinators have indicated that they have problems finding institutions interested in participating in their EEP programme. Some 50% of the EEPs have less than 15 participants.

A large number of coordinators reported on research projects involving their EEP species. These studies involved research on behaviour, nutrition and reproduction. A number of coordinators also indicated an interest in conservation programmes regarding their EEP species.

It seems that we have achieved a great deal in the space of eight years; many programmes and their coordinators are on the right track. However, it seems that a number of programmes and/or their coordinators are desperately in need of support. The EEP Executive Office will definitely attempt to assist these coordinators and their EEPs in the years to come.

Heloderms: Breeding results were only achieved by London and Glasgow in 1991, resulting in a slight increase in the population size of the gila monster (*Heloderma suspectum*) to 44 animals. No breeding success was recorded in the population of 28 beaded lizards (*H. horridum*). This is one of the few programmes in which not a single death was recorded. As a large number of the heloderms are unsexed the EEP coordinator initiated a project on sexing heloderms with the use of an ultrasound scanner.

Photographic records should be kept of each animal for individual identification and to determine subspecies.

European black vulture: The number of institutions participating in this programme grew to 50. However, many zoos in France and the former Soviet Union are still not participating in the EEP. The main management problem is the low rate of reproduction — many eggs are laid but the majority break or are infertile. Another problem is the fact that most birds are in both the EEP and the European Black Vulture Foundation programme. The EEP is trying to build up a long-term stable captive population, while the European Black Vulture Foundation's main priority is restocking Mallorca and other areas with young captive-born vultures. These two objectives obviously conflict, as few young will be available for reintroduction in the future if the aging captive population is not injected with 'young blood'.

Congo peafowl: The population declined by 11% to 86 birds during 1991, a trend that has been ongoing for some years now. The main reason for this decline is the extremely low breeding success and high adult, particularly female, mortality. Fifty per cent of hatchings in 1991 took place at Amsterdam Zoo. Several recommendations to improve the general situation were discussed at the species committee meeting in Jersey in June 1991 and will be carried out in the forthcoming breeding season. A number of the surplus males will be sent to new locations for educational purposes, and so that institutions can gain experience with this species.

White-naped crane: There are currently some 75 birds in the EEP. Despite a large number of hatchings, population size remained stable due to high mortality and export of birds outside the EEP. Federation zoos of Britain and Ireland are not yet included in the EEP.

Red-crowned crane: The population grew in 1991, and some 130 red-crowned cranes were living in 38 European institutions as of 31st December 1991. Twenty-nine cranes were hatched at eight sites and 21 of these survived the first 30 days. The coordinator is currently carrying out various analyses of the European population in preparation for the Population and Habitat Viability Analysis to be held in Calgary in August 1992.

Crowned pigeon: The major problem with management of these three species involves reproduction. Incubation and parent-rearing are frequently unsuccessful and reliable hand-rearing techniques are still in development. The *Goura cristata* population dropped by six birds to 70, the *G. victoria* population increased by two birds to 83 and the *G. scheepmakeri* population increased by three birds to 30. However, a number of crowned pigeons in Europe are not registered within the EEP and illegal import should be better regulated.

Palm cockatoo: This EEP was initiated in 1991 and the coordinator is still collecting data. However, a preliminary report shows that currently some 70 palm cockatoos are in the EEP. Almost a third of these birds are

20 institutions joined or indicated interest in joining the EEP. The coordinator mentions in his annual report that it is difficult to establish contact with a number of institutions holding this species.

Sumatran tiger: Of the 53 European institutions listed as holding Sumatran tigers in 1991, 35 have so far signed the EEP participation form. The population size has grown by seven animals in the last year. Many collections hold brother/sister pairs or other related combinations, and several exchanges have been recommended. New potential founders are sought, and two animals from Kuala Lumpur will hopefully be imported in the near future. Recommendations have also been provided to increase the representation of certain founders in Europe.

Amur/Siberian tiger: This programme was revitalized last year. Requests to participate were sent out to 123 zoological gardens in Europe in 1991. So far 81 positive responses have been received. The strong representation of zoos from the former Soviet Union is encouraging. Mortality and departure of animals outside of the EEP nevertheless caused a slight decrease of the population (246 to 237) in 1991. Currently there are 9.14 wild-caught Amur tigers in the EEP.

Clouded leopard: According to the coordinator, the European population of less than 50 animals is not sustainable in its present state. Introduction of new animals from outside the EEP is being investigated in order to improve the situation. The SSP region decided some time ago not to send surplus animals to Europe as these animals were from over-represented lines in North America. Discussions with the new SSP coordinator to investigate the possibility of changing this policy are being carried out. Further research is proposed regarding the serious problem of incompatibility in clouded leopards.

Snow leopard: The number of cubs born in 1991 totalled 34, of which ten (29.4%) died. Non-juvenile mortality totalled ten, and as a result the European population increased by 11.5% to 184 animals. Tallin and Kaunas, two Baltic zoos, joined the EEP in 1991, thereby bringing a number of thus far unrepresented lines into the EEP. The total number of facilities keeping snow leopards in Europe increased by seven to a total of 55. Of these 46 (83.6%) have joined the EEP.

Persian leopard: The number of leopards born in 1991 was 2.2.1. At least 3.2.1 animals died in the same year; however, not all zoos had yet sent the coordinator their 1991 results. The coordinator was glad to report that seven UK zoos have joined the EEP in 1992.

Asian elephant: This is one of the four new EEPs started in 1991, and the coordinator has so far collected data on 41.171 living elephants in 76 zoos. Most of the animals in the European population are over 20 years of age, and if breeding success is not improved significantly this important zoo species will be lost to Europe. Having said this, it is nice to report that at least five Asian elephants have been born over the last few months and more are to come.

Przewalski horse: The number of animals in this EEP passed 500 in 1991. Almost one hundred horses were born and a few major collections joined the programme. The coordinator's primary problem is to avoid exceeding the projected carrying capacity, and the annual report includes a listing of institutions that should terminate breeding for at least one year. Fertility control measures are also listed. Information on important exchanges is also provided. Furthermore, after many years of preparation the reintroduction of Przewalski horses in Mongolia should soon be accomplished. Captive husbandry guidelines were recently published and reflect the dedication of the coordinator, her colleagues and her species committee.

Kulan: The kulan population remained more or less stable in Europe, births and non-juvenile mortality keeping each other in balance. However, data for 1991 from five of the 18 participating zoos had not yet been received by the coordinator when he submitted his annual report.

Somali wild ass: The EEP population increased by three to 44 animals in eight institutions.

Onager: The onager population declined by a few animals in 1991 due to the export of a number of animals outside of the EEP. Finding suitable spaces for this subspecies is obviously a problem.

Grevy's zebra: The number of institutions participating in the EEP increased from 26 to 32, holding the majority of Grevy's zebras kept in Europe. Through analysis of the population it has been determined that several stallions from over-represented lines should be exchanged for genetically more important zebras currently not in a breeding situation. There are also several young males that present an accommodation problem, and a facility to house bachelor males is needed.

Malayan tapir: Only three (2.1) births occurred in 1991 (Munich, Nürnberg and Mulhouse). Unfortunately four females died during the year, causing a slight population decline to 40 animals. Exchanges all occurred within the EEP region, and one female was imported from outside the EEP.

Indian rhinoceros: Only one female was born in 1991 and a pair of animals were sold outside of the EEP region, leaving 17.14 rhinos in Europe. Four institutions currently keep single males, so females are urgently needed. The coordinator reminds the participating zoos that factors important for good husbandry are a balanced diet, a good keeper/animal relationship and an appropriate environment. Diversity of the environment is especially important for the animals.

Black rhinoceros: 1991 was quite a successful year, with the birth of five (2.3) calves. Only one adult death occurred. Thirty-eight rhinos were kept in the EEP at the end of the year. Hanover received a pair of black rhinos and joined the EEP. The species committee met in Berlin; husbandry guidelines are in preparation and will be published in the

next International Studbook. Research included analyses of hormone levels in faecal matter in cooperation with the Veterinary Faculty of the University of Vienna. British Isles zoos are not yet included in the EEP but were represented at the species meeting in Berlin. Unfortunately not all black rhinos in Europe are included in the EEP population.

Babirusa: The European babirusa population continued to expand in 1991 from 54 to 60. Three new zoos joined the EEP and many exchanges were carried out within the EEP. A number of U.K. zoos are interested in working with this species. A number of research projects are being conducted, including one on nutrition by the Department of Preclinical Veterinary Sciences of the University of Edinburgh.

Pygmy hippo: The pygmy hippo population has bred well over the last few years, to such a degree that it has become a problem to place surplus animals. The population size remained stable in 1991 due to a juvenile mortality of over 50% and the departure of a number of animals out of the EEP. The EEP population consists of 46.67 animals, of which a number of pairs are closely related, according to the coordinator.

Vicuna: During 1991 a record number of 15 births occurred in eight participating zoos, of which 3.7 were reared in four zoos. Many transactions were carried out within the EEP to improve breeding results. With one exception, all the potential breeding groups on the continent now contain at least two females. Finding space for surplus males is becoming more difficult. Several new potential founders are needed for the next generation to avoid inbreeding. Eighty-seven vicunas were kept in 22 institutions on 31st December 1991.

Lesser Malayan mouse deer: No major changes occurred within this EEP in 1991, and the population size remains approximately 55 animals. The much-needed importation of new founders from Asia has not yet taken place.

Persian fallow deer: This population has increased slightly over the last few years, and now stands at 36. The coordinator recommends transfers of young animals to new facilities and the introduction of new animals from Iran into the EEP. Identification of individuals in groups and in large enclosures seems to be a problem, and in groups with more than one male it is sometimes uncertain which animal sired the offspring.

Vietnam/Indochina sika deer: Data is still being collected for this EEP and the new coordinator has received studbook information from only half of the historical and current holders. Last year 5.5 deer were imported from Vietnam and were quarantined in Poznan. These animals will be distributed amongst several European and American zoos and are genetically very important for the European population.

Southern pudu: Mortality and births kept the population size in balance in 1991. Some 60 pudu are kept in continental Europe and Pretoria, South

Africa. Due to veterinary restrictions it has not been able to combine the JMSC (British) programme for pudus with the EEP. The British Isles population is in great need of new animals if it is to remain viable. Three institutions joined the EEP, and the Jardin des Plantes in Paris will receive four males to set up an all-male group.

Okapi: Six okapis were successfully reared in 1991, and only two males died, one of which was the 31-year-old Pablo in Paris. Consequently, the European okapi population grew slightly to 40 animals. Two valuable transactions involving SSP animals coming to Europe are planned.

Giraffe: The reticulated giraffe population in continental Europe expanded by two animals in 1991 to 27.46. Some 85% of the reticulated giraffe population is captive-bred. Unfortunately the coordinator still lacks information on the founder stock and their origin. Last year it was decided to expand this EEP to include all subspecies. The coordinator has contacted some 80 zoos, and so far 47 zoos holding 210 animals have agreed to participate in the EEP. The most common other subspecies is *G. c. rothschildi* with 82 animals. However, at least 15%, and probably more, of the giraffes registered so far are hybrids.

Bongo: The past year was a very successful one for bongo in the EEP, with a growth of 10.5 animals to 36.59. Four new participants were found and received bongos in 1991.

Scimitar-horned oryx: This EEP was transferred to Marwell last year and resumed activity. Data is still being collected, but so far 238 animals in 22 institutions have been registered. Breeding recommendations have been made for the British Isles population, as the coordinator had already managed a regional programme for this species there, and will be prepared for the rest of the region as well.

Gaur: The number of gaurs in this programme increased slightly. This EEP is in urgent need of new participants interested in keeping and breeding gaur. So far only five continental zoos holding 24 gaurs participate.

Musk ox: The European musk ox population grew by five animals during 1991 and now totals 70 (29.39.2) animals. However, breeding results are still poor, and only six of the 15 participating zoos with females have produced offspring. Juvenile mortality is also quite high. Tierpark Lüneburger Heide joined the EEP and will hold an all-male group, as a surplus of males in the programme is causing some problems. Research dealing with the subspecies issue will continue in 1992.