

A REVIEW OF THE 1993 EEP ANNUAL REPORTS

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During 1993 twelve European Endangered Species Programmes (EEPs) were added to the 82 which already existed: new EEPs were set up for Cuban boa (*Epicrates angulifer*), white-tailed sea eagle (*Haliaeetus albicilla*), red-tailed amazon (*Amazona brasiliensis*), Buffon's macaw (*Ara ambigua*), kowari (*Dasyuroides burnei*), golden-headed lion tamarin (*Leontopithecus rosalia chrysomelas*), fossa (*Cryptoprocta ferox*), Asian golden cat (*Felis temminckii*), Amur leopard (*Panthera pardus orientalis*), African elephant (*Loxodonta africana*), Hartmann's mountain zebra (*Equus zebra hartmannae*) and banteng (*Bos javanicus*).

The majority of species coordinators sent in their 1993 Annual Reports before the 11th EEP Conference in Alphen aan den Rijn in June 1994, while a further eight reports arrived at the EEP office later in 1994, making a total of 79 reports received. These 79 mark an increase of almost 20% over last year's 66 reports.

The coordinators of Cuban boa, red-tailed amazon, Buffon's macaw, Asian golden cat and Amur leopard EEPs were still collecting data and registering participants, while the reporting on heloderms, cotton-top tamarin, emperor tamarin, pileated gibbon, clouded leopard and Asian wild asses was, in most cases temporarily, suspended for various reasons.

Many EEPs are confronting problems with either small founder populations, unsatisfactory reproduction, high juvenile mortality or unresolved taxonomic issues, but more than half (54%) of the programmes are nevertheless doing well. The EEP populations of another third (33%) of the species are more or less stable. For many of these species actions were taken during 1993 to increase the reproductive potential of the population. Serious problems which may lead to the demise of the European population occur in 7.5% of the programmes, although at this moment the situation is extremely worrying only for tree kangaroos, douc langur and gaur. Banteng, white rhinoceros, okapi, gelada, common crowned pigeon and palm cockatoo will also need considerable attention over the next few years.

The **Humboldt penguin** EEP was started in 1992 and included 899 birds in 55 institutions on 31 December 1993, up from 842 on 1 January 1993. The data gathered so far is mostly from 1991 onwards, and it appears that the population shows a steady increase; approximately 75% of the birds are captive-born. Problems in this EEP are an exceptionally high percentage of unsexed birds (74%) and a still relatively high juvenile mortality (23.8% in 1993).

The second largest EEP, after the Humboldt penguin, is that of the **waldraap ibis**, with 661 birds and 40 participants at the end of 1993. No

less than 90 chicks hatched, but as quite a large number of birds left the EEP the population grew very little during the year. Small numbers of birds have been released in the Italian Alps, so far with little success, although valuable experience has been gained. One of the major problems appears to be that the captive waldraaps are all descendants of Moroccan birds, which are not migratory. The original Central and Eastern European population was in all likelihood migratory, like the (former) Turkish population.

Five of the nine **European black vultures** which hatched in 1993 were successfully reared. Two of these were made available to the reintroduction project in the French Cévennes. The other three will remain in the EEP, to be paired up with 1992, or possibly 1994, chicks. The total number of birds in the programme now stands at 167. Five new institutions joined the EEP, including zoos in Russia (Novosibirsk) and the Ukraine (Kiev). European animal brokers appear to be active in the former Soviet republics and are attempting to buy vultures there – birds which may subsequently be lost to coordinated programmes.

Reproduction of the **bearded vulture** was better than that of the European black vulture: from a total of 98 birds in 29 institutions, 17 hatchings were reported, of which 15 survived. Nine birds were released in the Alps, nine adult birds died and two birds came into the EEP, so there were 97 birds at the end of 1993. The Vienna Breeding Unit holds more than a third of all bearded vultures in the EEP.

The **white-tailed sea eagle** did exceptionally poorly in 1993, with only one chick reared successfully at Moscow Zoo. This is a new EEP and so far 35 institutions have joined, many of which are in Eastern Europe and in the former Soviet republics. Of the 99 birds in the EEP on 31 December 1993, approximately 50% are wild-caught. With an increasing number of reintroduction programmes being planned or initiated, e.g. in Ireland, Israel, the Czech Republic, Austria and the Netherlands, the demand for captive-bred birds is due to increase over the coming years, so the main aim of this EEP will be to set up more compatible pairs in a breeding situation during 1995.

A shortage of unrelated males and a number of over-represented lines are still the main problems in the **red-crowned crane** EEP. The total number of birds in the programme increased during 1993 from 136 in 41 institutions to 145 in 45 institutions. Nine chicks were raised successfully at six institutions.

The **white-naped crane** did slightly better than the red-crowned, with 30 hatchings of which 24 were reared successfully. On 31 December 1993 a total of 120 birds were kept by 36 participating institutions.

Among the **crowned pigeons** only the population of Scheepmaker's crowned pigeon showed a significant increase during 1993, from 55 to 60 birds. The numbers of common and Victoria crowned pigeons decreased very slightly to 77 and 118 birds respectively; reproduction in common crowned pigeon was particularly poor, with only four surviving chicks. Better news was that for the first time crowned pigeon eggs were successfully hatched in foster crowned pigeons' nests. The chicks did not

cheetah, and was an improvement over last year's 32.3%. One wild-caught female was imported into the EEP and six animals left the programme. There were 220 snow leopards in the EEP population at the end of 1993.

At the end of 1993 there were 292 **cheetahs** in 62 EEP-participating institutions, which represents 80% of the total European captive population of 364 animals. Ten new institutions joined during 1993 and the population increased by 54 animals. Survival rate of the newborn was even better in the cheetah than in the snow leopard: juvenile mortality amounted to a mere 15%. Despite these positive figures, a large number of potential founders are not breeding or have never bred and are now too old, and certain lines are over-represented. The genetic make-up of the EEP sub-population needs to be improved.

Considering the number of animals kept by participating zoos, reproduction in the EEP population of the **Asian elephant** is deplorable. Of the 195 females at the start of 1993, only four produced offspring, two of which survived. It is clear that the number of institutions with breeding bulls needs to be increased if this species is to be maintained successfully in European zoos. Already the population declined by six animals during 1993. A species commission was formed during the year and the first meeting took place at the Alphen conference.

The European Elephant Group's 1992 survey identified a total of 289 **African elephants** in European zoos and circuses. The new EEP for this species has so far been able to gather 27 members, which together held 20.91 animals at the end of the year, less than half of the European captive population. There were no births during 1993. This EEP will face problems similar to those of the Asian elephant EEP.

The third largest EEP is that of the **Przewalski's horse**, which numbered 559 animals at the end of 1993. Six institutions joined the EEP, making a total of 67 participants. Of the 106 births, 61 survived. A number of exchanges have been planned for 1994 and all zoos will be asked to limit breeding or stop it altogether, at least temporarily. The situation regarding reintroductions in China and Mongolia is being closely monitored by the EEP.

A few stallion transfers have been proposed for the **Somali wild ass** to avoid further inbreeding. Otherwise the species did not do too badly during 1993, with five births, all surviving, and no mortality. The EEP population grew by 7.5% to 43 animals.

The 38 institutions participating in the **Grevy's zebra** EEP together held 172 animals at the end of 1993, a slight decrease from the 178 at the beginning of the year. Reproduction was reasonable with 18 surviving young, but exports exceeded imports by seven and there were 17 adult deaths. For an ungulate species, neonatal mortality appears to be rather high in Grevy's zebra.

Hartmann's mountain zebra did better in that respect, with all nine young surviving. The total population of this new EEP species numbered 54 at the end of 1993. More institutions are needed to hold the expanding population of this species, which is now being kept by only eight zoos.

The curse of the **Malayan tapir** EEP is a shortage of males. Nevertheless, for the first time in several years, the population increased due to three surviving young and the importation of four animals from outside the EEP. There were 40 Malayan tapirs in Europe at the end of 1993.

The EEP population of the **black rhinoceros** remained stable at 54 animals during 1993. One of the three births survived and one female was exported out of the EEP, to Whipsnade, which has since joined with a pair formed by the Chester female and a London male. All the zoos but one have at least a pair now. Naples owns 1.2 animals and still has not joined the programme. Frankfurt is the only zoo keeping *Diceros bicornis minor*; all others are *D. b. michaeli*.

Two surviving offspring, two deaths and the importation of a single **Indian rhinoceros** from Nepal into the EEP caused the population of this species to increase by one to 33 animals during 1993. A temporary gap in the coordination of this species meant that no information save the studbook data was supplied.

The European **white rhinoceros** population has many problems, but two very important ones are slow reproduction and the fact that more than 50% of the founders have not contributed to the captive gene pool and are now probably too old for breeding. It is crucial that many of the remaining white rhinos, still 171 animals altogether, are brought into breeding groups, a more natural situation for this species. There were two births during 1993 and no deaths, but four animals left the EEP while only one came into the programme, resulting in a net decrease of the population during the year.

The **babirusa** EEP again showed steady growth during 1993, with 16 births of which 11 survived and low mortality. There are now 18 participants who together hold 71 animals: new participants were Barcelona Zoo and Thrigby Hall Wildlife Gardens (Great Yarmouth, U.K.). New blood is still urgently needed.

As with the Indian rhino, the coordination of the **pygmy hippopotamus** EEP is temporarily suspended. Studbook data show that there were 12 births within the EEP population. Ten of these survived. The total population rose by eight to 114 animals. The sex ratio shifted towards a surplus of females.

Slow but steady growth also characterized the **vicuna** EEP. There were 103 animals present in 28 institutions at the end of 1993, up from 99. Dresden Zoo agreed to set up a bachelor herd and received males from Zürich, Cologne and Frankfurt. The majority of participants now have vicunas in a breeding situation.

Six new zoos were found interested in keeping **lesser Malayan mouse-deer**, increasing the total number of participants to 18. Together they held 69 animals at the end of 1993, a slight increase over 1992. The founder population is very small and new blood will need to be acquired.

There were 42 **Persian fallow deer** in the EEP at the end of 1993, one more than at the beginning of the year. New participants are needed, and transfers are planned between the EEP and private owners in the U.K., as well as with the Hai-Bar Reserve in Israel. The coordinator praised the

The number rapidly grew after 1975, reaching 5,073 in 1985, and 5,415 in the following year, nearly doubling the figures of the early 1980s. A total of approximately 40,000 has been harvested in the last two decades. According to Sugiyama (1986), the recent annual harvest clearly exceeds natural population increase. In the absence of a comprehensive national counter-measure, the harvest is still on the increase.¹ It has been said that lately more than 6,000 animals are being harvested annually.²

The situation has reached a point at which there is concern about extinction of local populations² or even of the species¹. The macaque troops that encroach on human-inhabited areas may constitute the main part of local populations. One wonders about the status of individuals who are left in the old, deteriorating habitats. The difficulty in Japanese macaque conservation stems from the fact that areas most suitable for human habitation also happen to be the most suitable for this species.³

Methods for harvesting Japanese macaques include capture of an entire troop in an enclosure after a period of providing food, capture of individuals by live traps, and culling by gun. The capture of entire troops can possibly solve a local human-macaque conflict. The other methods, if carried out on a large scale, could bring about similar results.²

Analyses were made of harvested animals in selected localities, focusing on such subjects as sex and age compositions. It is estimated that in these study areas, roughly 10% of the population is harvested annually. At this time, no assessment can be made concerning the overall effect of harvest on a national level. However, the study also revealed the serious impact of harvesting on wild populations. The current haphazard approach to harvesting, without assess-

ment of its effect on the population, should be corrected.²

Measures for dealing with macaques as agricultural pests must be considered a part of wildlife management and conservation policy. In order to establish a better relationship between wildlife and humans, and to put the brake on local extinctions of the species, the current approach to harvesting must be examined immediately. Until such time as assessment of the effect of harvesting on wild populations is established, a moratorium should be instituted.²

This report has been excerpted and translated by Ken Kawata, Belle Isle Zoo, from the following Japanese articles, to which references in the text refer (English titles are taken directly from the publications):

(1) Katsuko Hashiba (1989): Population estimation of Japanese macaques for conservation. *Primate Res.* Vol. 5, pp. 22-35.

(2) Shin-ichi Hayama, Haruhisa Inagaki, Ryuzo Torii and Hideo Nigi (1991): How does the pest control impact to the wild population of Japanese monkeys? *Primate Res.* Vol. 7, pp. 87-95.

(3) Kunio Wataniabe (1991): Recent problems of conservation of Japanese macaques. *Primate Res.* Vol. 7, pp. 53-54.

Elephants and Rhinos in Sumatra

An international expedition to Way Kambas National Park in south-east Sumatra recently completed a survey of elephants in the Park. Because elephants are difficult to see in rain-forest, their dung was studied, the density of dung piles, dung decay rate and elephant defecation rate allowing the population size to be estimated. Preliminary calculations indicate that there are between 250 and 300 elephants in the park - twice

as many as originally expected. Sumatra has a problem with elephants leaving the forest to raid crops, and studies such as this one are essential in formulating management plans to solve this problem, as well as to ensure the long-term survival of the species.

During the elephant survey, information was also collected on the distribution of the park's Sumatran rhinos, and the second phase of the project, to determine the size and structure of the rhino population, began in April this year. On an earlier expedition in 1993, the size of the rhino footprints seen suggested that the individuals recorded were sub-adults, indicating that the population in Way Kambas, though small, is a healthy and potentially growing one. The rhinos in Way Kambas probably have the brightest prospects of any population in Sumatra, and possibly in South-east Asia, so their conservation is of the utmost importance.

Abridged from Katherine Gotto in *World Birdwatch* Vol. 17, No. 2 (June 1995)

Philippine Mammal Births

Seven significant births occurred earlier this year at the Lambunao field station on Panay, the Philippines, which is operated by the West Visayas State University and supported by Melbourne Zoo. Of major importance was the birth of five young from two female Visayan warty pigs (*Sus cebifrons*), the first ever pure-bred captive births - a significant threat to the species is hybridisation with feral pigs. Two did not survive, but the others are thriving under their mother's care.

Two Philippine spotted deer (*Cervus alfredi*) were also born at the station. One was still-born, but the other is growing well. This brings the World

Herd to 47 (25.21.1) animals, a 350% increase from April 1990, when the Philippine Spotted Deer Conservation Program was established.

Chris B. Banks in *ARAZPA Newsletter* No. 20 (June 1995)

Reintroducing Storks to Japan

The last free-living oriental white stork (*Ciconia boyciana*) in Japan was removed from the wild in 1971 to join a captive-breeding programme, whose first success occurred in 1988 at Tama Zoo, Tokyo. [See *I.Z.N.* 41/6, pp. 23-26.] Since that time the Japanese captive population has been steadily increasing: the species bred in four Japanese zoos in 1994. One of the birds removed from the wild in Japan during the 1960s bred successfully for the first time in 1994 at the Toyooka White Stork Breeding Centre, and second-generation captive-bred chicks were also produced at the same facility in 1994 for the first time in Japan.

Following an international forum held in Toyooka in June 1994, at which the idea of reintroducing the species to the wild was discussed, some 90 local people who currently share ownership of the proposed reintroduction site agreed to make their lands available for the project. A visitor centre, veterinary and breeding facilities, and predator-proof 'soft-release' enclosures will be built on site. Suitability of the site, similar in landscape to the storks' last breeding location in Toyooka, will be enhanced by placement of additional nesting and perching structures and a series of fish ponds for feeding.

Catherine King, Chair of the EEP Ciconiform TAG, and Koen Brouwer, Co-chairman, Storks, Ibises and Spoonbills Specialist Group, in *Reintroduction News* No. 10 (May 1995)