

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 Watanabe (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)