

## Zoos' Help for a Rare Monkey

Clyde A. Hill

The lion-tailed macaque of southern India is in danger; even in 1963 there were probably fewer than a thousand in the wild. But zoos have found them easy to obtain, and a survey this year showed 79 in US zoos. The author, who is Associate Curator of Mammals at San Diego Zoo, having visited India and seen how precarious was the monkey's situation in the wild, proposed that AAZPA (American Association of Zoological Parks and Aquariums) should consider starting a captive breeding project using animals already in American zoos. In September 1970 AAZPA agreed to do this and also placed restrictions on imports of the macaque by its members. The author is chairman of the committee that is running the project, and appeals for European and other zoos to take part.

The lion-tailed macaque, or wanderoo monkey, *Macaca silenus* has never been common. Most curators of primate collections in America and Europe have not realised this, probably because it is readily obtainable from animal dealers. Its range is confined to the southern third of India, generally in the Western Ghats – a strip of forested hills parallel to the coastline – where it appears to be localised to certain areas in evergreen forests at 2000 feet and above. Sugiyama (1968) estimated, after field trips in 1961, 1962 and 1963, that the wild population was less than 1000 individuals and could become extinct. In a more recent survey, by the Bombay Natural History Society, contributors variously described it as 'very rare', 'rare', 'comparatively rare', 'uncommon', 'sparingly distributed', and 'needs serious consideration'.

When I visited the Bombay Natural History Museum in January 1968, the Curator of Mammals, J. C. Daniel, who has been interested in the macaque for a number of years, told me of the forest devastation in its range. From Bombay I went on to Bangalore and then drove a thousand miles through the Western Ghats to the southern tip of India. What I saw confirmed the devastation Daniel had described, and also that the re-forestation projects consisted primarily of eucalyptus and acacia. The expansion of the tea plantations was only too evident, and sawmills were everywhere; the commonest large vehicles on the road were heavy log-laden trucks supplying them. The animal sanctuaries in the region of Bandipur, Mudumalai and especially Periyar, were practically disaster areas, abounding with squatters and homesteaders, where poaching was not concealed. Talks with gamekeepers and forestry officials indicated that *M. silenus* was getting very hard to find. The Nilgiri langur, too, was hard-pressed, but I saw a number of them and believe their plight is not as severe as that of the macaques. Poaching was so common in Periyar that in midday I saw eight

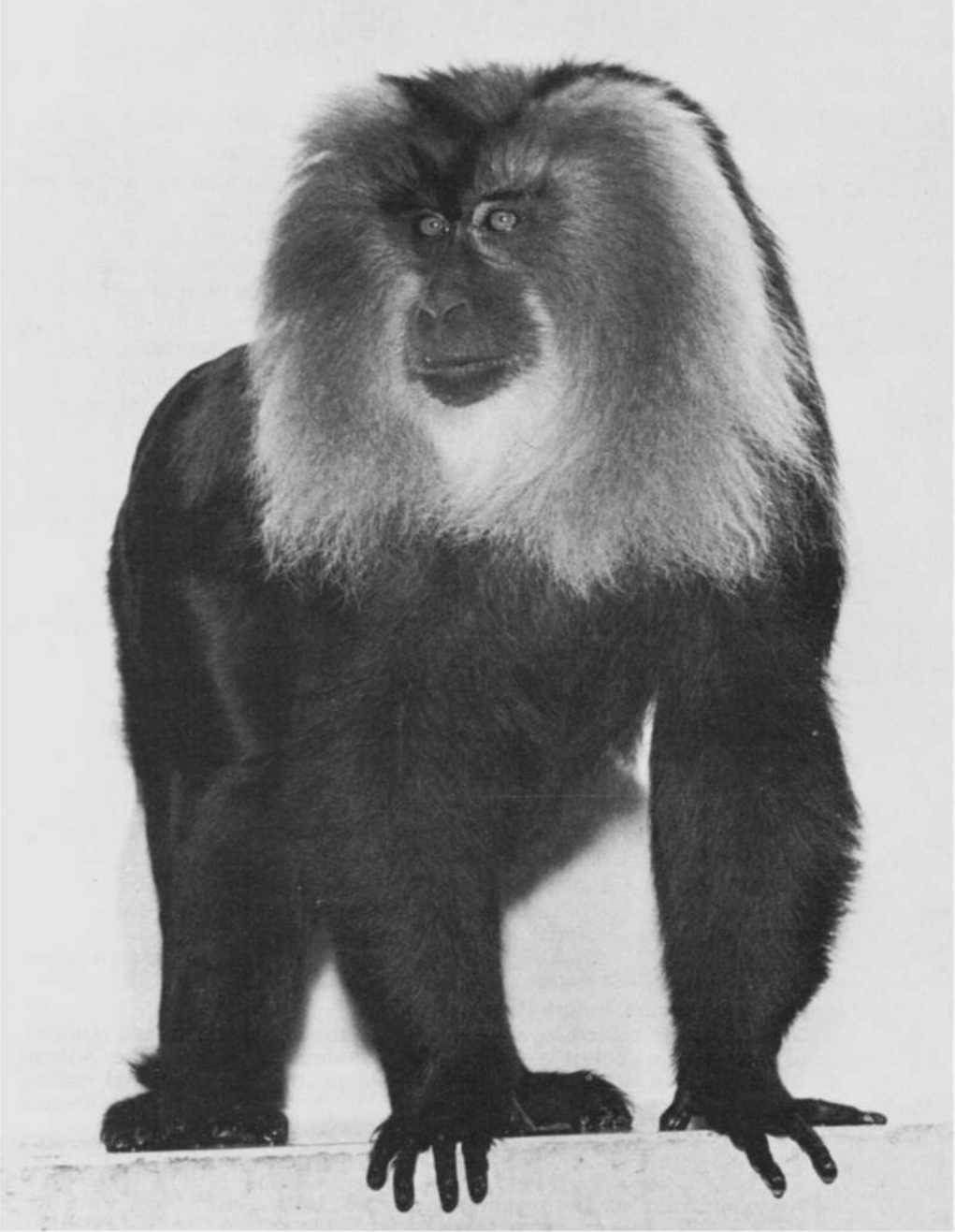
poachers' fires (used to drive game into pitfalls), all within the sanctuary. In 1969, when I again visited India, the situation had not improved; it had become worse.

In January, 1969 I proposed to the Conservation Committee of AAZPA that *M. silenus* be considered for a captive breeding project similar to that for the golden marmoset. The President favoured such a project and agreed that my information should be coordinated with that of the IUCN so that the species could be entered in the Red Data Book. In April, 1970, in order to determine the number of lion-tailed macaques held by member zoos, AAZPA published a questionnaire in its Newsletter. Virtually every zoo in North America is an AAZPA member, and, as the response to the questionnaire was good, results showed 57 adults and 22 juveniles in North American zoos, with the sex ratio approximately even. It also showed that captive breeding had been anything but spectacular. A more critical examination of zoo records would probably reveal that births do not equal deaths, and imports are needed to keep up or expand the present population. Analysis of diets showed that zoos usually fed them on much the same diet as rhesus monkeys, pig-tailed macaques or baboons, whereas their natural diet is more langur-like, with a substantial amount of leaf buds from evergreen trees; the addition of browse to the zoo diets seems indicated. There was also evidence that psychological factors needed more attention. In several primate colonies some species of primates refuse to breed with cage mates with whom they have been living since infancy; an exchange of males often leads to a situation in which breeding can take place in both groups. One theory is that this is an inherent mechanism to prevent the breeding of brothers to sisters and other close relatives and thus keep the gene pool open. If this is true of *M. silenus* then it might be wise to switch mates in non-breeding groups.

### **Put on the Blacklist**

At AAZPA's annual convention in September 1970, the Board of Directors put the lion-tailed macaque on their Blacklist with a Priority Two basis, along with the orang utan and the Galapagos tortoise; this means that imports are allowed but only when regulated by AAZPA. (Priority One prohibits members from importing or trafficking in certain species, which include the monkey-eating eagle, and the Javan and Sumatran rhinoceroses.) The Directors also ordered that a studbook be maintained on this macaque and this task was given to Marvin L. Jones. WAPT (the Wild Animal Propagation Trust), an incorporated organisation whose membership is primarily composed of AAZPA members, agreed to administer this project, and a committee was appointed, of which the writer is chairman. This committee is following the lines of WAPT's golden marmoset captive breeding project which has been under way for several years.

A captive-breeding project for the lion-tailed macaque should have



LION-TAILED MACAQUE *San Diego Zoo*

good potential. There is enough breeding stock in North America right now to warrant success without further imports from the wild. Diet modification along with a few basic animal husbandry techniques should improve the situation a great deal. Furthermore, the mere fact that captive specimens are no longer in small isolated groups but are part of a larger, coordinated aggregation should increase their productivity considerably and get them on a self-perpetuating basis. It is hoped that European collections will become involved in this project as well as other zoos around the world. Please address comments, suggestions or information on this species to the writer (San Diego Zoo) or the stud book keeper, Marvin L. Jones, c/o Hotel St. Mark, 621 Twelfth and Franklin Street, Oakland, California 94612.

### References

- Daniel, J. C. and Kannan, P. 1967: The Status of the Nilgiri Langur and Lion-tailed Macaque in South India – A Report. Bombay Natural History Society (mimeographed).
- Hill, Clyde, A. 1970: AAZPA Survey of the Lion-tailed Macaque (Wanderoo Monkey) in Captivity. Zoological Society of San Diego, California (mimeographed).
- Sugiyama, Yukimaru 1968: The ecology of the lion-tailed macaque – a pilot study. *J. Bombay Natural History Society*, Vol. 65, No. 2.

## National Parks and Reserves

### First National Park in Portugal

The recently created Peneda Geres National Park is Portugal's first national park in Europe, covering 60,000 hectares in north-east Portugal. Inside the park are several strict reserves for the protection of endangered species, which include the wolf and the Spanish imperial eagle.

### Aldabra Research Station

The first buildings for the Royal Society's biological research station on Aldabra were completed last October and the staff moved in. £2900 was advanced by the FPS/WWF Revolving Fund towards the purchase of a launch for the station.

### Northern Ireland Nature Reserves

Twelve nature reserves were declared by the Northern Ireland Minister of Development last year on the recommendation of the Nature Reserves Committee. These are the country's first national nature reserves. They include five woodlands, three bogs, one freshwater pondage and one geological site.

### National Park Field Study Centre

The first national park field study centre in Britain is to be in the Peak National Park, in Derbyshire, at Loosehill Hall, near Castleford. By 1972 a full range of courses will be available with residential facilities for 60 students.

### Six Million Acres for Wildlife

The creation of a new six-million-acre reserve, the Northern Nullarbor Wildlife Sanctuary, has doubled the area set aside for wildlife conservation in Western Australia.



#### **A NEARLY EXTINCT TIGER**

Footprints of Javan tigers were seen by a Dutch botanist last year in the Meru-General Betiri Reserve in south-east Java, and the Van Tienhoven Foundation in Holland is preparing to send an expert to investigate. This photograph, taken in 1907 and reproduced by courtesy of Mr C.H.J. Maliepaard, shows how in the Javan as in the Sumatran tiger the stripes sometimes become rows of spots.