CHAPTER 22

Large Mammals in Peninsular Malaysia

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Abstract

Peninsular Malaysia is undergoing a tremendous economic and land development which results in the tropical rain forest environment being changed drastically. Since the extinction rate of many wildlife species in Malaysia is high, emphasis should be given to save and conserve these species in order to reduce their tragic extinction. At present, although laws appear satisfactory to curb losses from poaching and trade in wildlife, the effects of habitat loss have proved to be more disastrous than any other known cause of mortality in the past. The approach to the problem has changed from an emphasis on law enforcement to a combination of natural resource planning which includes plans of other development agencies, research and management, extension programs, and the establishment of national parks and wildlife reserves. The research and management techniques of wild life include habitat manipulation and improvement, stocking and captive breeding.

Introduction

Many factors affect wildlife populations in Malaysia. Lowland areas of Peninsular Malaysia are undergoing land and economic development for agriculture, industry and urbanisation which results in the ecology of wildlife species and their habitats being drastically changed and disturbed. These vast and rapid changes have destroyed much of the fauna and benefited only a few species. Therefore, there is a need to manage existing wildlife and habitats to maintain, protect, preserve and propagate wildlife species. Hunting caused the extinction of the Javan rhinoceros, *Rhinoceros sondaicus* in Peninsular Malaysia – the last animal was shot in 1932.

Wildlife management in Malaysia aims to increase populations of rare and endangered species, stabilize certain populations, while decreasing populations of overabundant or harmful wildlife for the best overall interest of Malaysia. The stability, increase or decline of an animal population depends basically on the extent and availability of habitat, the interaction within natural communities of living organisms, the carrying capacity and critical limiting factors that interact between habitat and population levels.

The Department of Wildlife and National Parks (DWNP), Malaysia has been applying techniques of wildlife management that conform to the above principles. The techniques are research, habitat manipulation and improvement, stocking, protection through law enforcement, preservation and captive breeding programme.

After Malaysia's independence from the Britain, there was rapid land development to improve the standard of living and the economic betterment of the country. A massive loss and destruction of wildlife habitats occurred as a result of the development for new settlements, urbanisation, agriculture, industry, forestry and other natural resources utilization. Wildlife reserves were continuously degazetted from 8000 sq. km in 1940 to 6700 sq. km in 1968 (Stevens, 1968; Marshall, 1973). Now forest land for the preservation and protection of wildlife amounts to less than five percent of Peninsular Malaysia's land area. Forty-eight percent, about 6.4 million ha, of forest lands were cleared or will be developed for agri-

culture. Wildlife habitats are decreasing and animal populations are drastically affected. With this, public concern and awareness for wildlife conservation in Malaysia has evolved. The Protection of Wildlife Act No. 76 was passed in 1972 and later amended in 1976 and 1988. The National Parks Act was passed in 1980.

Wildlife Management

Conservation agencies in Malaysia, such as DWNP, are geared towards creating, protecting and preserving parks, wildlife reserves and sanctuaries, managing and conserving endangered species and economically important wildlife species in an effort to conserve the wild flora and fauna. In the present context, the government's priority is to develop the country through agriculture and industry for economic returns. It is also of great concern to the government that wildlife numbers are depleted. This conflict is intense because forest resources are limited for development. Conservation programmes although limited are provided with funds aimed at solving these problems.

The modern approach to the wildlife management aims for habitat manipulation of refuges and captive breeding.

The small number of endangered wildlife and game species prompted DWNP to carry out species management programmes that in the long run would replenish wild populations. Captive breeding has concentrated on the seladang or gaur *(Bos gaurus)*, Sumatran rhinoceros *(Dicerorhinus sumatrensis)*, serow *(Capricornis sumatraensis)*, river terrapin *(Batagur baska)* and sambar deer *(Cervus unicolor)*.

However, success in the conservation of wildlife species, especially for endangered species largely depends on leadership and public understanding of the role of wildlife as a component of the environment.

Seladang

Research, was initiated in the mid1960s (Weigum, 1970) and has continued with the aim of collecting ecological information for management purposes. Population estimates range from 700 animals in 1965 by DWNP, 350 (Stevens, 1968), 400 (Khan, 1973) and 472 individuals in 1981 (Ebil, 1981). The latest population estimates is a minimum of 600 animals with sizeable populations distributed in Ulu Lepar and Taman Negara. Pahang; Sungai Siput and Grik, Perak; and Gua Musang, Kelantan. This includes more than 100 seladang recently discovered in Ulu Perak. With this vital data on its status, distribution and ecology, the DWNP has proceeded in an *ex-situ* conservation programme of captive management at Krau Game Reserve, Pahang. From the capture of a pair of young seladang in Ulu Lepar in 1980, captive management has expanded to founder population to three males and a female. To date six calves (two males and four females) have been born. Injection of new blood is needed to maintain the genetic diversity of this founder population. The seladang capture work is now being concentrated at Ulu Lepar, Gua Musang and Grik. Law enforcement also has been intensified to check illegal killing of the species throughout the country.

Since the Third Malaysia Development Plan, 1976 to 1980, DWNP has conducted an active *in-situ* conservation programme of habitat manipulation and improvement for seladang in Taman Negara and in wildlife reserves. Seladang habitats are manipulated, improved and maintained by creating grazing pastures, browsing and cover areas in secondary successional forest surrounding pastures, water-holes and salt-licks.

Elephant

There are about 927 elephants (DWNP, 1990). Khan (1985) estimated about 800–1000 elephants, whereas Oliver (1978) had estimated the elephant population was about 3000. The primary habitat for elephants is lowland dipterocarp forest including a sufficient size of secondary forest. Now, only about 40% of this primary habitat is left. There is a conflict between elephant and agriculture as vast tracts of forest are replaced by monocultures of oil palm and rubber. This results in elephant depredation of agricultural crops which has cost the Malaysian government approximately M$250 million from its agricultural schemes. State DWNP elephant control units have been

continuously driving away raiding elephants from agriculture areas and rural villages. Elephants are controlled by electric fences in government land schemes and large private plantations. DWNP initiated the use of electric fences by constructing the first two experimental electric fences in the country. Their effectiveness thus demonstrated, electric fences have now been adopted as a standard measure by the agricultural sector in areas with elephants in adjacent forest. Electric fences cannot be used where the remnant forest patches are too small to support elephants in the area. In these circumstances the problem elephants are captured and translocated to permanent forest areas such as forest reserves, wildlife reserves and Taman Negara. The translocation of elephants has been very successful with 230 elephants successfully captured and translocated, and another 186 elephants are in the process of translocation to the new areas.

Deer

Species of deer are among the favorite animals for hunting by local people and they are being poached at all time. This has caused a decrease in their populations. DWNP has taken steps to conserve deer by introducing a hunting season and implementing specifications of takings of these animals. Captive breeding has been carried out with the development of a deer farm in Sungkai Wildlife Reserve, Perak at Gua Musang, and at Jenderak Seladang, Pahang. By the end of June 1990, the captive herd at Sungkai numbered 106 sambar deer, Jenderak Selatan has a total of 74 and Gua Musang 62 deer. Stocks are increasing and in future they will be released back into the wild. Research is being done on many aspects of improving the deer population, especially on their breeding biology.

Tiger

The total number of tigers is about 400 animals. Present conservation strategies are mainly concentrated on preventing tigers attacking livestock. The main problem facing this species is conflict with village folk. Old or wounded tigers turn to livestock as an easy kill. The attitude of people living near forest is another problem that the DWNP has to deal with. Semi-wild domestic animals are left to stray most of the time. If such a situation cannot be avoided, the tiger is darted and sent to Zoo Melaka. Habitat loss is also quite serious. Management includes monitoring the population and its distribution, law enforcement and captive breeding of problem animals.

Sumatran rhinoceros

The current population of Sumatran rhinoceros in Peninsular Malaysia is about 40–60 animals, i.e. it has stabilized below 100 individuals (Mohd-Tajuddin *et al.*, 1989). This animal is attractive to poachers particularly for their horns which are used for medical purposes. However, the situation is under control. Management of Sumatran rhinoceros includes *in-situ* and *ex-situ* conservation programmes. The present effort to save the species is to capture as many as possible using the pitfall method.

Serow

The status of serow is not yet available as the survey on this species is not completed but its population in Peninsular Malaysia is decreasing. Serows typically inhabit steep limestone hills, quartz ridges and hill dipterocarp forest. Contributing factors to their decrease are habitat disturbance through quarrying and logging activities, and poaching. Oil obtained by boiling the head or other parts of the body is believed to be useful as an ointment for arthritis.

Currently, capture operation is conducted for the purpose of a captive breeding programme. The Sixth Malaysia Plan, 1990 to 1995, proposes three captive breeding projects at the Sungkai Wildlife Reserve, Gua Musang and Bukit Wang, Perlis.

Other Large Mammals

Conservation of other large mammals, such as the tapir *(Tapirus indicus)*, Malayan honey-bear *(Helarctos malayanus)* and primates is enforced by DWNP under Wildlife Protection Act.

Conclusions

The DWNP is actively managing threatened wildlife so there is a good prospect of conserving these species in Peninsular Malaysia. A network of a national park, wildlife reserves and sanctuaries exist to provide habitats for wildlife and these areas account for about five per cent of the total land area of Peninsular Malaysia. The DWNP is also continuously trying to create more national park and reserves as the most effective step to conserve wildlife from extinction. Other important aspects of wildlife conservation that DWNP is actively carrying out are conservation education, enforcement of the Wildlife Act, research and management.

The task of conserving wildlife in Malaysia is very challenging. New strategies have to be developed periodically to achieve the goals and objectives of wildlife conservation within the structure and framework of economics and land development, natural resource utilization, urbanisation and industrialisation.

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