Project 1518 Javan Rhinoceros - Ujung Kulon Reserve

WWF GRANT 1979 - $27,742

For previous report see Yearbooks 1977-78 p. 94; 1978-79 p. 77

The Ujung Kulon Nature Reserve, covering about 400 km^2 in the westernmost tip of Java, is the last remaining known habitat of the Javan rhinoceros. When WWF/IUCN experts started to work in the Reserve 10 years ago, the number of rhinoceros had declined to between 20 and 30 individuals. Since 1967 the population has been monitored continuously and has doubled, consisting now of about 50 animals. A study of the migration pattern and home ranges of the Javan rhino was carried out in 1979 to help provide a basis for scientific management of this endangered species.

The IUCN Survival Service Commission Asian Rhino Specialist Group in its action proposals for the Javan rhinoceros has recommended continuation of the monitoring of the rhino population in Ujung Kulon, with special emphasis on the analysis of signs of population pressure.

It expressed its concern about planned development in Ujung Kulon and stressed the importance of an effective guard system in the Reserve. The Asian Rhino Specialist Group felt that tourism, provided it were limited and conservation minded, would not endanger the Reserve and its rhino population, if well-trained tourist guides were used.

A survey was suggested for a suitable area for the establishment of a second population unit of the Javan rhino, outside Java, preferably in Sumatra, when the Ujung Kulon population showed signs of emigrating out of the present range. Mr Hartmann Ammann, who carried out a study of the home range and movement patterns of the Javan rhino in Ujung Kulon from December 1978 to May 1979, was able to establish home ranges for two males and one female. In addition the home ranges of a further male and of a female with a young calf were partly established. The sizes of the home ranges have not been calculated yet, but it was found that the home ranges of males were larger (about 1 1/2 to three times) than of the female; that the home range of one male overlaps those of several females partially or completely; and that the home ranges of males overlap but apparently only marginally, while those of females seem to overlap extensively.

The distance moved by a rhino in 24 hours normally lay between one and three kilometres, but occasionally longer

distances were noted. Even very young calves appear capable of wandering considerable distances.

In one case a female and a calf moved about six kilometres in one night.

Dr Ammann reported that mating in the Javan rhinoceros is a prolonged process. From the time a male picks up the scent of a female in heat and starts following her, to the moment when the two animals part, up to a week may pass. No evidence has yet been found on how much of this time the two rhinos spend in contact with one another or of the interactions that take place between them.

Knowledge of the daily distances moved by rhinos will permit a better interpretation of census results. Highly interesting is the fact that rhinos can stay in a small area of their home range for several days. Mr. Ammann suggests that it is quite possible that a certain number of rhinos are not counted on the census and the census results should be viewed as a low estimate.

Project 1649 Endau Rompin - Sumatran Rhinoceros

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The Sumatran rhinoceros population in the Endau-Rompin area is the largest remaining in Malaysia, with an estimated total of 10 animals. An area of 900 km^2 within the Endau-Rompin region has been proposed as a National Park and 490 km^2 of it has already been approved as a Wildlife Santuary by the Johore State Government. The approved area includes about 55% of the rhino habitat occupied at present. Efforts to conserve the Sumatran rhino in Malaysia are concentrated in Endau-Rompin where a study sponsored by WWF/IUCN is being carried out.

Determining the abundance of large terrestrial mammals in the tropical rain forest is very difficult. The thick vegetation, heavy rainfall, high humidity and rough topography do not allow for the use of standard census methods. The animals cannot be observed or trapped and only indirect evidence of an animal's presence in the form of tracks in the soil can be used as the basis for a census method.