

**SUMATRAN RHINO CONSERVATION CENTRE
DEPARTMENT OF WILDLIFE AND NATIONAL PARKS
SUNGAI DUSUN, SELANGOR
MALAYSIA**

MONTHLY REPORT

OCTOBER 2001

BY

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&

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INTRODUCTION

During the month of October, Ara bred Seputeh twice while he bred Rima once. For the breeding between Ara and Seputeh, the female was bred for two consecutive days on the 17/10/01 and 18/10/01. As for Rima, she was bred only once on the 23/10/01. There was no breeding recorded on the other females especially Mas Merah. While Panjang and Minah still had a low level of progesterone.

The bleeding procedure was carried out as usual, twice weekly. As for the bred females, blood will be collected once a week.

RHINO MANAGEMENT

A) Daily Management

i) Night stall

Daily work

Adam, Shariff and Umor managed the night stalls. Shariff and Umor will clean the night stalls while Adam and other rangers will mix Shah and the two females. Then, he will checked the food supply when it arrived around 9.30 a.m. The browse and fruits were weighed and cleaned before giving to the rhinos. About 40 to 50 kg of browses and 7kg of fruits including papaya, banana and sweet potatoes were given daily. The rhinos were also given horse pellet about 1.5kg every morning. On Monday and Thursday, Adam will help the veterinarian to collect the blood from all females.

The rhinos

The rhinos were let out first before cleaning the night stalls. After cleaning, the browses were put in the feed trough and the rhinos were let in for their morning meal. The drinking water was changed daily and stress vet (multi-mineral powder) was mixed inside it. Daily observation was made and recorded in the workbook for each rhino. The rhinos were fed twice daily: 9.00 a.m. and 3.00 p.m.

ii) Ten acres enclosure

Daily Work

Mohd Noor inspects the electric fencing every morning. The fencing was cleaned from any foreign objects such as spider web, dried leaves or creepers to avoid short circuit. Voltmeter was used to ensure that the voltage of the fencing is about 7.0 kV. They will also inspect the fencing for any damages.

During the inspection, the ranger will look for the rhino inside the enclosure and call the rhino for their morning meal. The rhino was confined in the quarter acre first before putting their browse in the feeding trough. The amount given was about 100kg for each rhino per day.

B) Breeding Program

i) Breeding Introduction

Seputeh was expected to come into estrus on 17/10/01 and blood sample was sent to UPM on 16/10/01 for confirmation. However, the rhinos were mixed early and no breeding was observed. The female seems not ready and try to avoid the male. The rhinos were separated after 25 minutes when the male started to be aggressive. The next morning, the rhinos were paired again and the male kept trailing the female and seven mountings were observed without any intromission. After 40 minutes, intromission occurred and lasted for about 30 minutes. The next morning (18/10/01), the rhinos were paired again. Two intromissions occurred and the first lasted for about 12 minutes. The second one occurred on the fourth mounting and lasted for 32 minutes.

As for Rima, she was mixed with Ara starting from 22/10/01. However the female showed no interest but the male kept trailing her. The female vocalized and tried to walk away from the male. Both rhinos were separated after 30 minutes to avoid fighting. The next morning (23/10/01), the rhinos were paired again and breeding occurred after 30 minutes of mixing. The male trailed the female as soon as the rhinos were mixed. After ten minutes, the first mounting was recorded and intromission occurred during the fifth mounting and lasted for about 30 minutes. The next day, both rhinos were mixed again but no interests were observed between the rhinos. Later, they were separated after 30 minutes.

As for Minah and Panjang, they were left alone from any breeding activities at the moment.

ii) Bleeding Program

a) Blood Collection

The bleeding was still carried out twice weekly. As for the bred females, the blood was collected once a week. The blood procedure was summarized in Table 1.

b) Progesterone Hormone Profile

The latest blood result was attached below. Based on the result, it was noted that

iii) Ultrasound

An ultrasound (Aloka 500) was received early of the month from the USA. It was a donated by Dr. Robin Radcliffe from the Fossil Rim. Ultrasound was conducted at the end of the month on the females especially Mas Merah to confirm her estrus cycle. She was scanned starting from 29/10/01 until 31/10/01. Later, all the females will be scanned on regular basis.

On 29/10 and 30/10, Mas Merah was scanned and a follicle sized about 10mm was observed on her right ovary. A lot of small follicles were observed on her left ovary. On 31/10, the sized of the follicle increase to 12mm.

B) HEALTH STATUS

Generally, all rhinos are in the good condition. Minah's antibiotic treatment has been completed and sample has been sent for CBC and urine analysis.

C) FEEDING

No changes were made for the feeding program. The browses and produces were supplied by the contractor, which deliver them around 9.30 a.m. daily. The feed was checked to ensure their quantity and quality upon receiving them. They were cleaned and weighed before giving to the rhinos. The rhinos were given about 40 kg of browses, 3 kg of concentrates and 7 kg of fruits daily.

Table 1: Blood Collection from the Rhinos, October 2001

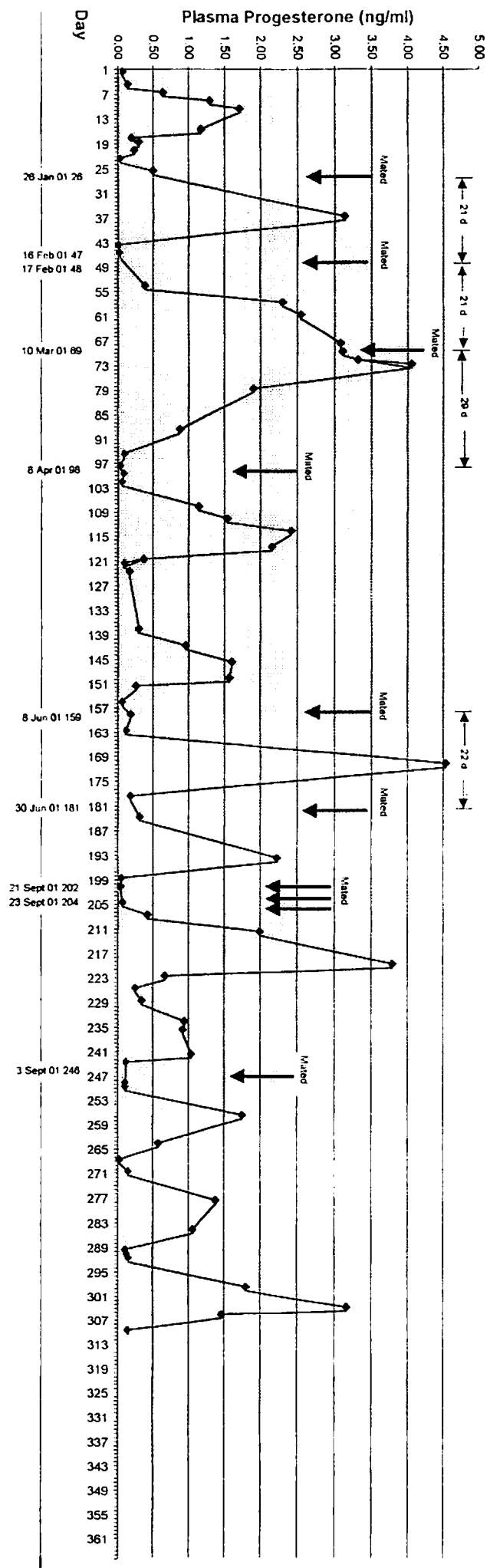
Date	Rhino ID	Area taken	Remarks
02/10/01	Minah Rima Mas Merah Panjang Ara Shah	Tail Tail Tail Tail Tail Tail	Samples were taken from these females for P4 analysis. Blood was taken from the males for testosterone analysis.
04/10/01	Minah Seputeh Rima Panjang Mas Merah Ara Shah	Tail Tail Tail Tail Tail Tail Tail	Get blood samples from all females. The rhinos seem very cooperative. Blood was taken from the males for testosterone analysis
08/10/01	Rima Minah Mas Merah Panjang Ara Shah	Tail Tail Tail Tail Tail Tail	Blood was taken for the P4 and testosterone analysis
11/10/01	Minah Rima Seputeh Panjang Mas Merah Ara Shah	Tail Tail Tail Tail Tail Tail Tail	Samples were taken from all rhinos for P4 and testosterone analysis.
16/10/01	Seputeh Mas Merah Panjang Minah Ara Shah	Tail Tail Tail Tail Tail Tail	Get samples via tail from all females except Rima.
17/10/01	Seputeh	Tail	
18/10/01	Minah Mas Merah Panjang Rima Seputeh Ara Shah	Tail Tail Tail Tail Tail Tail Tail	Blood was taken for the P4 and testosterone analysis

Date	Rhino ID	Area taken	Remarks
22/10/01	Minah Rima Mas Merah Panjang Ara Shah	Tail Tail Tail Tail Tail	Samples were taken from these females for P4 analysis. Blood was taken from the males for testosterone analysis.
25/10/01	Minah Seputeh Rima Panjang Mas Merah Ara Shah	Tail Tail Tail Tail Tail Tail	Get blood samples from all females. The rhinos seem very cooperative. Blood was taken from the males for testosterone analysis
29/10/01	Rima Minah Mas Merah Panjang Ara Shah	Tail Tail Tail Tail Tail	Blood was taken for the P4 and testosterone analysis
30/10/01	Seputeh	Tail	

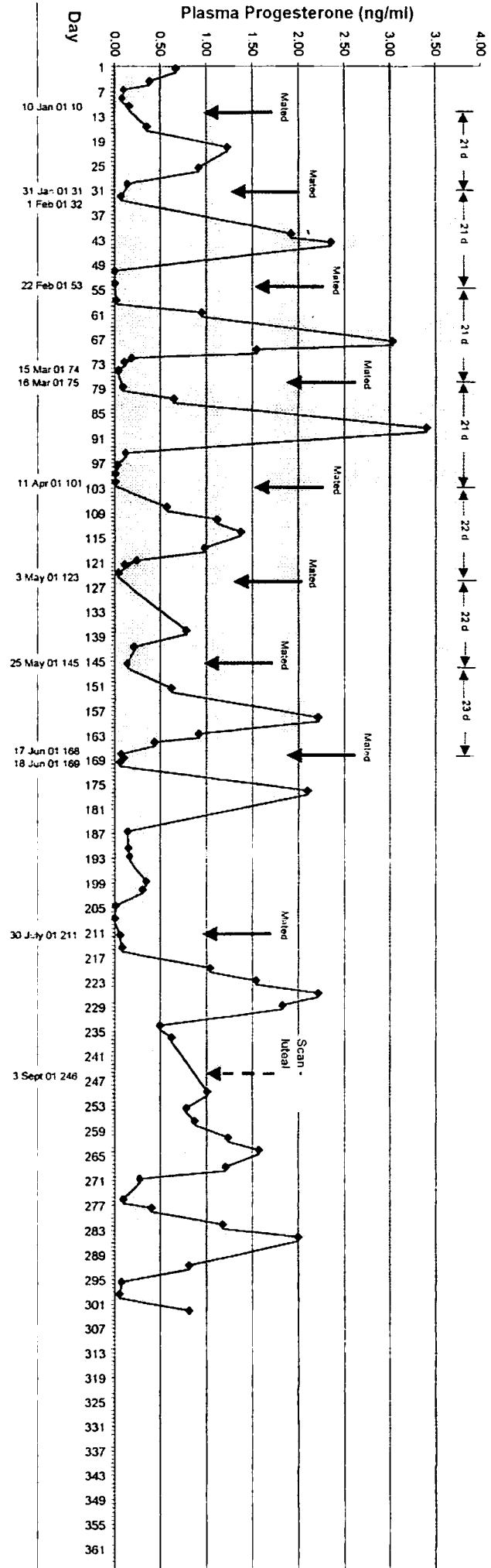
Table 2: Ultrasound Procedure on the females, October 2001

Date	Female (s)	Observation
29/10/01	Mas Merah	The cervix, uterine body, the right and left horn looked normal. There were small follicles observed at the right ovary but a follicle sized about 10mm was located at the left ovary.
30/10/01	Mas Merah	The cervix, uterine body and right horn looked normal. Multi small follicles were observed at the right ovary and a 10mm ovary was observed at the left ovary.
3/9/01	Mas Merah	The cervix and uterine body looked normal. Small follicles were observed at the right ovary and a 12mm follicle observed at the left ovary.

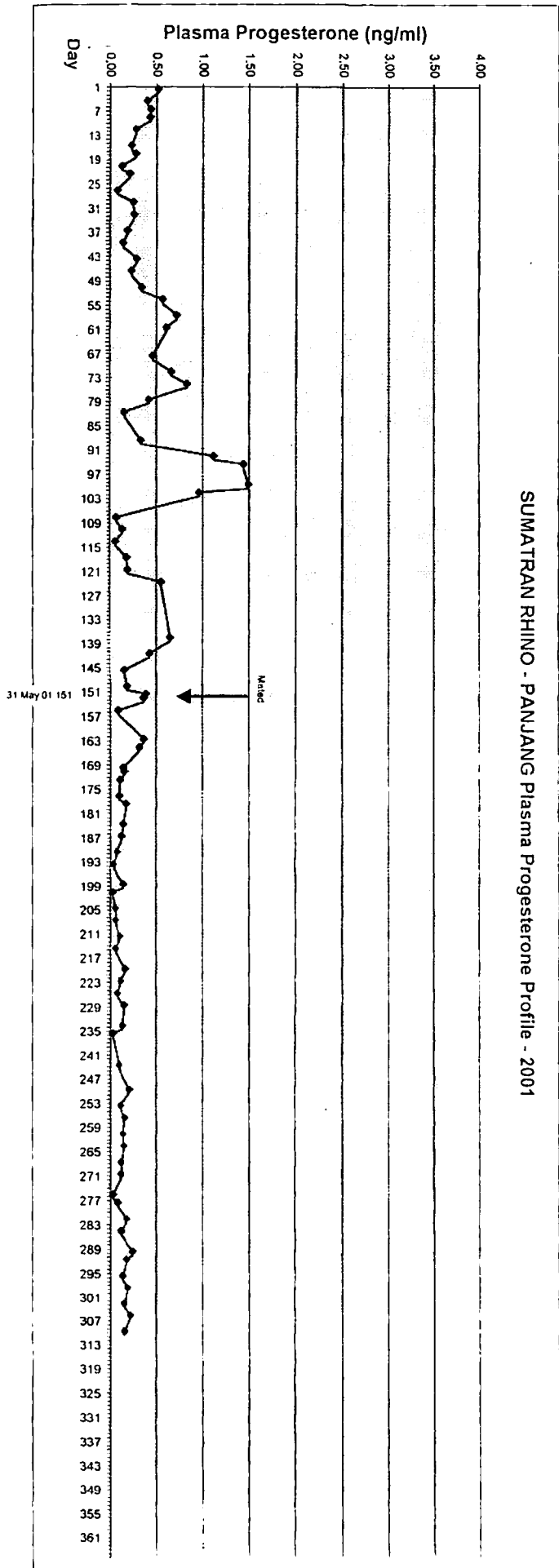
SUMATRAN RHINO - SEPUTIH Plasma Progesterone Profile - 2001



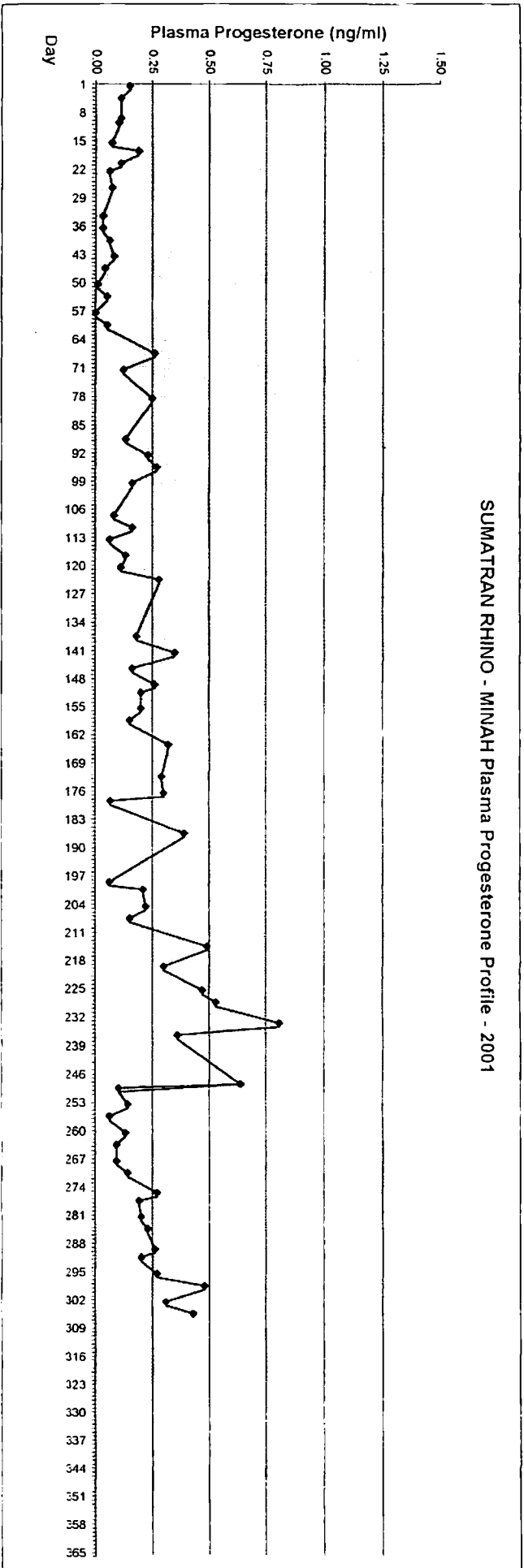
SUMATRAN RHINO - RIMA Plasma Progesterone Profile - 2001



SUMATRAN RHINO - PANJANG Plasma Progesterone Profile - 2001



SUMATRAN RHINO - MINAH Plasma Progesterone Profile - 2001



SUMATRAN RHINO - MAS MERAH Plasma Progesterone Profile - 2001

