

IRF Programs – Quarter Report October to December 2016

Sumatran Rhino Sanctuary YABI - Way Kambas National Park, Indonesia

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BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis*)

SRS Program Results October to December 2016:

1. Rhino Health

- a. In October Rosa has diarrhoea and treated until she's cured.

2. Reproduction Program

- a. Breeding between Andalas and Rosa: had bred but still did not resulting to pregnancy
- b. Breeding between Andalas and Bina did not success yet.

3. Rhino Care

- a. Ratu and Delilah released into larger enclosure in December 2016

4. Other

- a. Attempts on collecting semen from two males at SRS (Andalas and Harapan) conducted in November 2016, with results that both male have good semen quality, but could not be preserved due to urine contamination
- b. Dr. Zulfi Arsan did a presentation titled "Pregnancy and Birth of Second Sumatra Rhinoceros in Sumatran Rhino Sanctuary" on The 15th

International Elephant and Rhino Conservation and Research Symposium
in Singapore, November 2016

Rhino Health Update

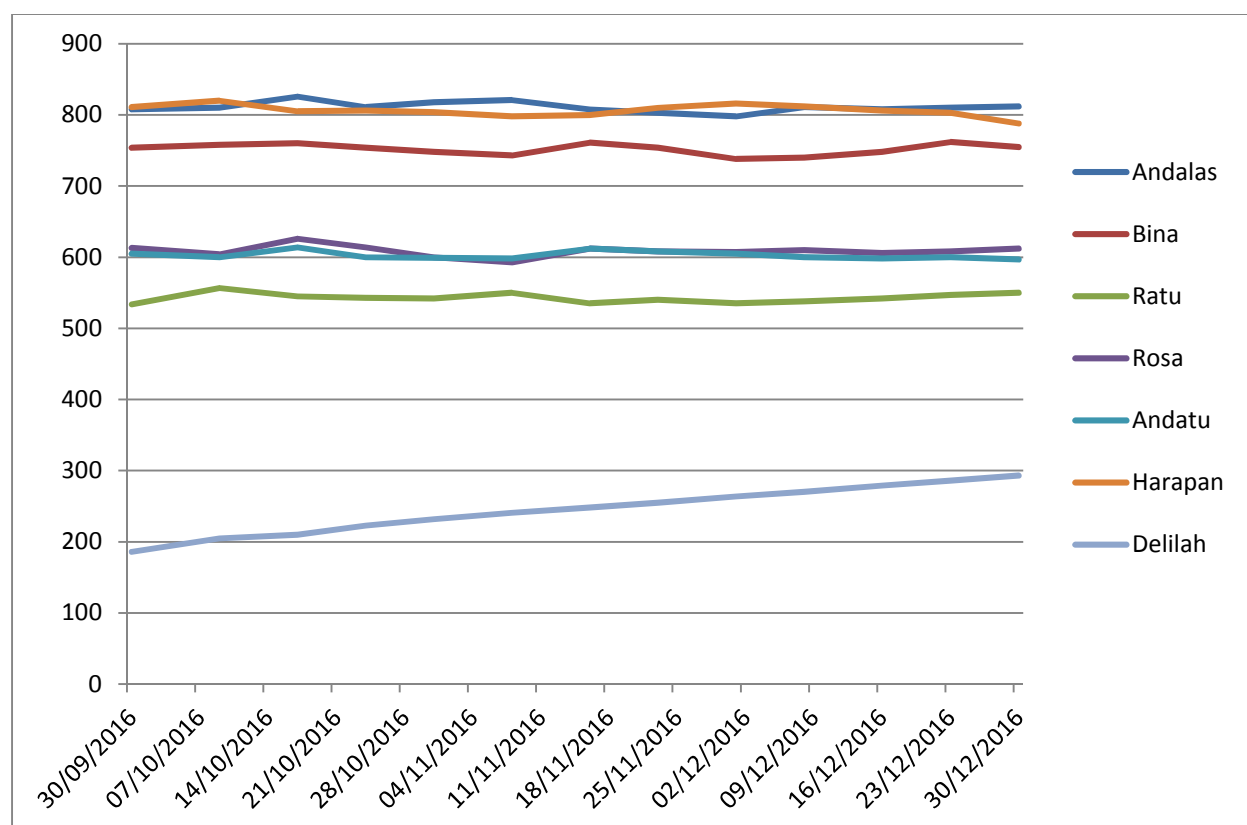


Table. All Rhino Weight on October – December 2016. All rhinos shows stable body weight

Regular health monitoring, daily physical check, monthly blood check and weekly fecal check were conducted. Their body temperature ranged from 36.6° C – 37.4° C. Rosa has diarrhoea on early October 2016, received treatment with antibiotics and cured.

Specific Rhino Update

Andalas (Male, 15 Years Old)



Picture. Andalas in central area on November 2016

Andalashas no problem in this period, his body temperature ranged between 36.6 – 37.2°C. His activity such wallowing, browsing and walking are normal. His bodyweight is around 798-821 kilograms. His wallowing duration prolonged after being introduced or mating with female.

Bina (Female, 33 Years Old)

Bina activity and health are normal in this period. Her body temperature ranged from 36,6 to 37,0°C. Her eyes are hyper-sensitive to sunlight exposure and will develop cloudy eyes and usually it could be cured with treatment of ZnSo4 spray on affected eye.



Picture. Bina in the central area.

Rosa (Female, 15 Years Old)

Rosa's normal condition shows average bodyweight about 640 kg, her body temperature ranged from 36,5-37,4 °C. She actively browsing and exploring in her enclosure. And she also spends 3-4 hours for wallowing.



Picture. Rosa in her enclosure during normal condition.

In the beginning of October 2016 she has diarrhoea, shows weakness, lack of appetite and her skin looks dry. From a closer examination, blood results and samples examination she was diagnosed has bacterial infection, probably due to ingestion of the bacteria, but no source of cause could be determined. She was treated immediately, and regime of her treatment consisting:

- Trimetoprim-Sulfametoxazole that given twice a day as antibiotics agent
- Attapulgate that given once a day as intestinal protectant and endotoxin adsorbent
- Water with salts to maintain and correct her hydration status

After five days of treatment, her condition is recovered and she gaining her appetite back, and she is back to active again. Soft fecal material still could be observed until two weeks, and back to normal again afterward.



Picture. Rosa receiving oral treatment in her wallow



Picture. Rosa after 4 days of treatment

Andatu (Male, 4 Years)



Picture. Andatu in his enclosure

Andatu did not have health problem in this period. He also shows good behaviour and activities of wallowing, browsing and exploring his enclosure. His wallowing duration is about 3 hours. His blood result shows no problem, and his body temperature ranged from 36,6-37,1°C. His Bodyweight is around 600 kilogram.

Harapan (Male, 9 years old)

Harapan has no problem in this period. His body weight around 800 kilograms. He shows good behaviour and actively exploring in the forest. And his wallowing time is about 1-2 hours during day light. He still tends to come and stay close to his stall many times, especially when people or keeper are doing their activities in the stall. Blood result shows normal range. His body temperature is ranged from 36,7-37,2°C. He performs urine sprays many times per day.



Picture. Harapan in his stall

Ratu (Female, 15 Years old) and Delilah (Female, 7 months old)



Picture. Ratu and Delilah are Wallowing

Ratu and Delilah are in their good condition in this period. They were no longer observed fo 24 hours, and only attended by the keepers during daytime. They are being released into their larger enclosure on December 2016, and they both actively exploring, foraging and wallowing also playing with each other, and Delilah sometimes also running around in the area. Delilah now only nursing about 5-6 times during daytime. In the begining of October her bodyweight measured 186 kg and in the end of December 2016 her bodyweighth is 293kg, While ratu maintaining her body weight on 534-545 kg. Delilah's body temperature ranged from 36,6-37,0°C, while Ratu has 36,7-37,2 °C. Blood samples still can be collected from Delilah shows normal range and attempts to get blood from Ratu still programmed.



Picture. Delilah in November 2016



Picture. Ratu in December 2016



Picture. Ratu and Delilah released into larger area in December 2016

Reproduction Program

Rosa

In this period Rosa has been introduced to Andalus four times with two successful copulation, but these copulation did not followed by Rosa's ovulation, and did not resulting to any pregnancy.



Picture. Rosa's good follicle before breeding



Picture. Andalus and Rosa on December 2016

Bina

Bina introduced to Andalus from 30 October to 1 November 2016, they were put together since their good response to each other. There were no aggressivity shown, but no copulation happened.



Picture. Bina and Andalus on 1st of November 2016



Picture. Bina's follicle on 30th of October 2016

Semen Collection

On 11 and 12 of October 2016 attempts on collecting semen from Andalan and Harapan in SRS has been conducted. Previous semen collection happened in 2011 and 2013 which were collected from Andalas. In 2016 programme, the procedure were implemented to Andalas and Harapan, which are both proven to be already sexually matured.

The Veterinary team consisting: Drs. Zulfi Arsan (SRS), Benn Bryant (Taronga), Terri Roth (CREW) Jesye Wojtusik (CREW). Mr. Sumadi Hasmaran (SRS Manager) who acted as operator to the electro ejaculator box, Mr. Widodo Ramono (YABI Executive Director) as general advisor and responsible for the whole procedure, and rhino keepers from SRS. Also attending and helping the procedure: Dr. Sugeng Dwi Hastono representing IVMA Lampung and ASLIQEWAN (Indonesian Wildlife Vets Assoc.) who were invited to attend the procedure for sharing knowledge.

The procedure were taking place on 11th of November 2016 to collect semen of Andalas by electro ejaculator. Procedure begun at 8.00 am, with anaesthesia using combination of Detomidine, Butorphanol, Midazolam and Ketamine. The electro ejaculator begun after Andalas fully anaesthetized. And the after 1 hour attempting to collect semen by various level of voltage and stimulation, the team collected 75ml of seminal fluid that contains low number of sperm that cannot be preserved and stored. It was summarized that a complete ejaculation did not achieved during this procedure.

On 12th of November 2016, the same procedure applied on Harapan with same drug combination used for anaesthesia. After 52 minutes of procedure to collect semen from Harapan, team could collect 47ml of clear seminal fluid that contains very low number of motile sperms and amounts of urine that contains higher concentration of sperm. Both samples have poor quality to be preserved and stored. It can be summarized that this procedure could not get good sample for cryopreservation,

and by the examination of the ejaculates, it can be stated that Harapan has good quality of sperm and potentially could become a good breeding male.



Picture. Team meeting before procedure



Picture. Electro ejaculator box test.



Picture. Equipment preparation.



Picture. Semen collection procedure to Andalus.



Picture. Semen collection procedure to Harapan

Other

The 15th Elephant And Rhino Symposium

On 14-18 of November 2016 Dr. Zulfi Arsan attended The 15th Elephant and Rhino Conservation and Research Symposium in Singapore Zoo. This Symposium attended by many Elephant and Rhino conservationist and researchers from whole five continents. In this Symposium Dr. Zulfi Arsan performed presentation titled **“The Pregnancy and Birth of Second Sumatran Rhinoceros Calf in Sumatran Rhino Sanctuary – Indonesia”**. The presentation received many good appreciations from many participants.



Picture. Dr. Zulfi Arsan give presentation in the Symposium



Picture. Symposium participants

■ End of Report