

IRF Programs – Quarter Report April to June 2016

Sumatran Rhino Sanctuary YABI - Way Kambas National Park, Indonesia

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BADAK SUMATERA - SUMATRAN RHINO (*Dicerorhinus sumatrensis*)

SRS Program Results April to June 2016:

1. **Rhino health** – All Rhinos are in good condition. Andalas and Ratu has hoof problem on May 2016. Harapan has eye problem on April 2016.
2. **Reproduction Program**
 - a. Ratu delivering a healthy female calf on 12 of May 2016 at 5.40 am.
 - b. Full breeding process between Andalas and Rosa did not resulting any pregnancy
 - c. Breeding between Andalas and Bina did not success yet.
3. **Other** – Dr. Zulfi Arsan and Rhino keeper Mr. Giyono tasked to Kalimantan in order to helping treating a Sumatran Rhinoceros that captured and has snare wound on the hindleg.

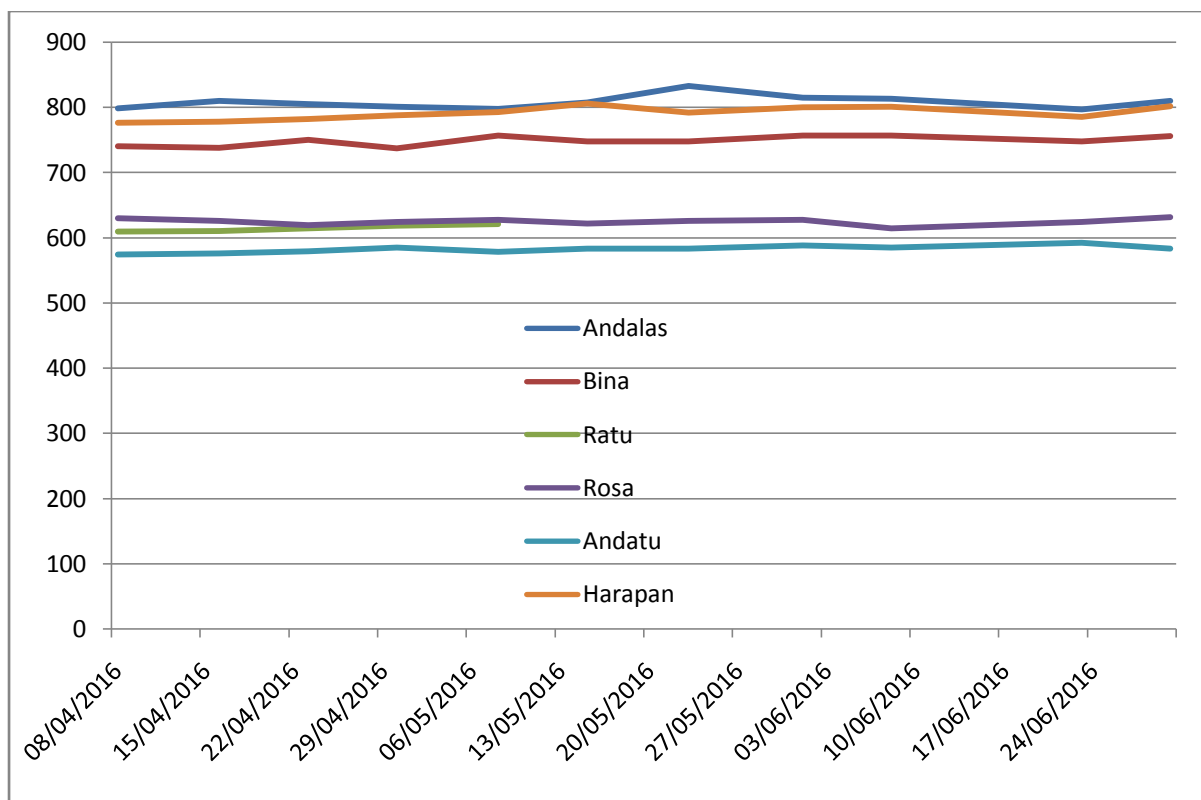


Table. All Rhino Weight on April – June 2016. Ratu's weight before parturition.

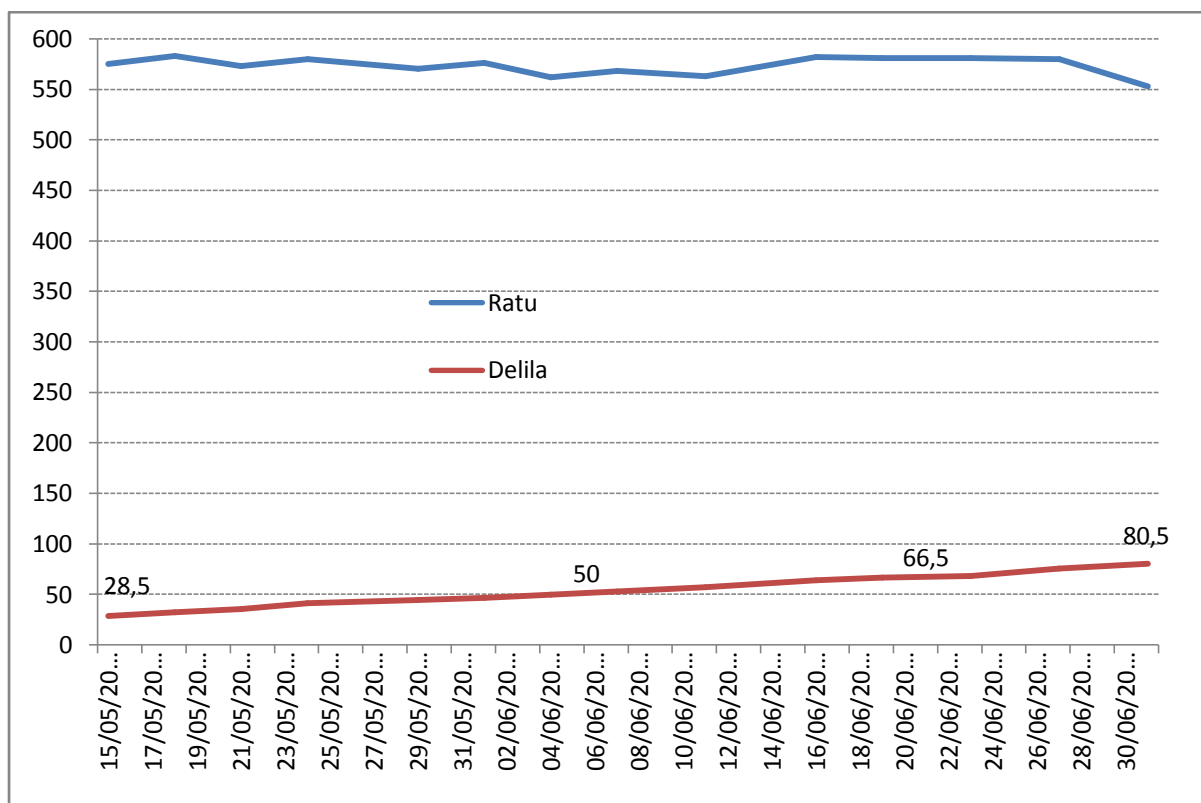


Table. Ratu's body weight after parturition and new calf bodyweight

Rhino Health Update.

Regular health monitoring, daily physical check, monthly blood check and weekly fecal check were conducted. Their body temperature is ranged from 36.5° C – 37.4° C. In April 2016, Harapan has recurrences eye problems from the infection on the left eye on March 2016. On May 2016 Andalas has hoof cracked on his left hind leg that causing lameness. Blood parasite check shows negative results.

Andalas (Male, 14 Years Old)

Andalas is in good condition in this period. His body temperature ranged between 36.7 – 37.2 °C. On 2nd of May 2016, he was observed to have lameness on his left hindleg, it was assumed that he has slipped his leg. Meloxicam oral was given to cure the symptom of lameness, and two weeks later it was observed that this hoof has horizontal crack, and treated with hoof dressing.



Picture. Drs. Zulfi Arsan, Scott Citino and Benn Bryant examining Andalas' left hind leg on post traumatic hoof crack along with keeper, Ali Sudrajat.

Bina (Female, 33 Years Old)

Bina has eye hyper-sensitivity to sunlight exposure and it's happened oftenly in this period. Treatment with ZnSo₄ spray on affected eye will cure this problem. Her activity and health are normal. Body temperature ranged from 36,7 to 37,1 °C.



Picture. Bina

Ratu (Female, 15 Years Old)

Ratu's condition is good and her activities were normal. On April 2016 oral progesteron is still given to maintain her pregnancy and it was stopped on the 460th day of pregnancy. Her activities is normal she oftenly sleep on the ground, but wallowing also part of her activities. And she was placed in maternity Boma since 1st May 2016 and her activity observed to has increasing intensity of walking, reduced appetite and food intake, distinctively "climbing" behaviour closer to her due date. Her body temperature ranged from 36,8 –37,4 °C.



Picture 5. Ratu in maternity boma three days before parturition

Rosa (Female, 15 Years Old)

Rosa's condition is good and her daily activities also show normal behavior. She is actively exploring her enclosure and browsing. Three to Four hours of wallowing is part of her activity during daylight, and also same duration during night time. Her Blood results shows normal range and body temperature ranged from 36,4-37,0°C.



Picture. Rosa

Andatu (Male, 3 Years)

Andatu has good and normal behavior. He is actively exploring and foraging in his enclosure. He has no serious health problem. Blood collection results shows normal range. His body condition is good and his body temperature 36,6 - 37,3°C.



Picture. Andatu in his enclosure

Harapan (Male, 9 years old)

In this period Harapan observed to gain more weight and averagely has 800 kilograms. His activity also observed to be comfortable to live in the forest and browse food on the trees in his forest. He is also observed to do urine spraying in his enclosure. On 10 April 2016 he has eye infection which is re occurred from the infection that happened on March 2016. Application of antibiotic eye ointment, autologous serum and ZnSo₄ cured this infection.



Picture. Dr. Arsan apply fluorescein test on Harapan infected eye.



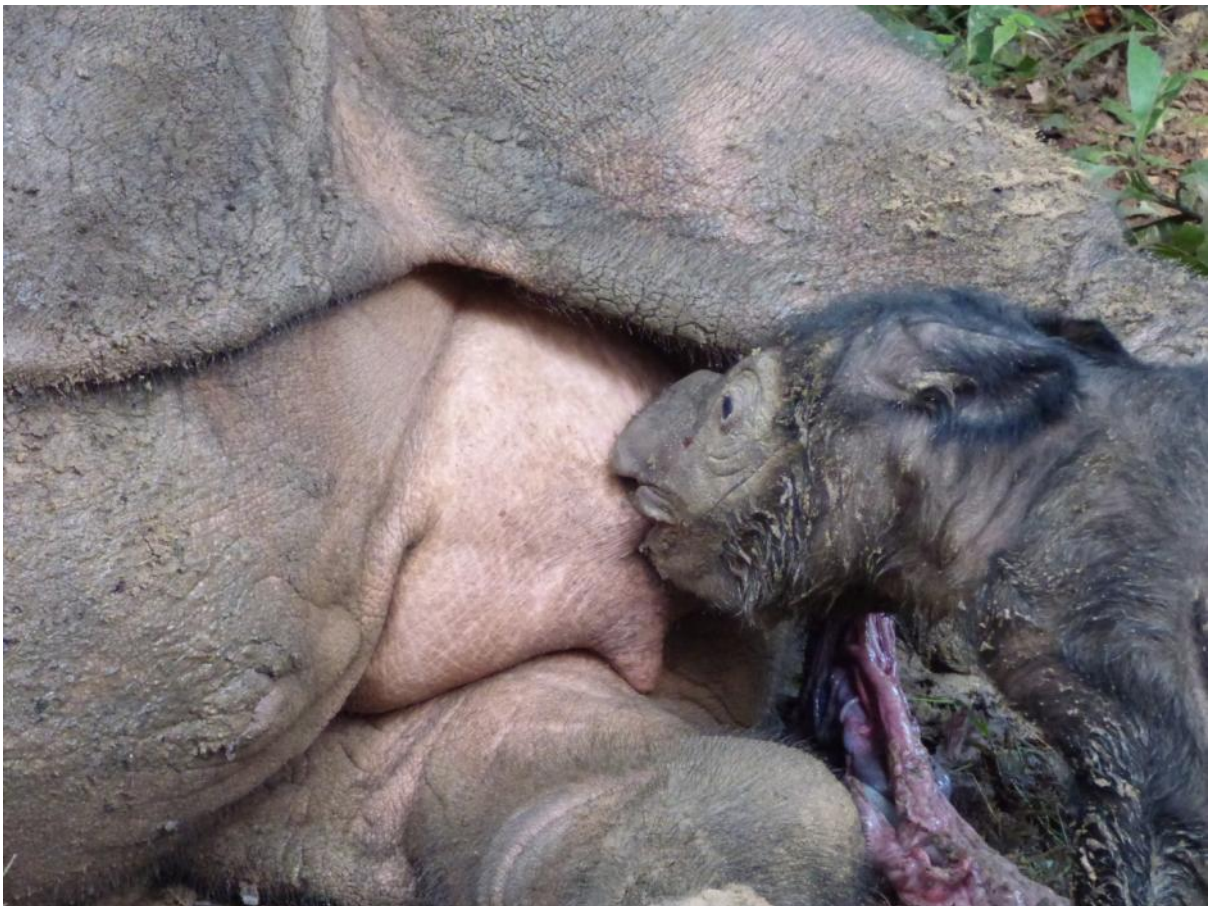
Picture. Harapan eye three weeks after treatment.

Reproduction Program

Ratu's Calving

Ratu is delivering a female calf on 12th of May 2016 with 477 days of pregnancy duration. On day 460 the synthetic progesterone hormone was stopped. She was placed on maternity boma on 1st of April 2016 for close observation and birth preparation. Her walking activities observed increased, and she also observed to put her front leg high on a tree, it seems like she try to push the calf on the way of birth with gravity helps. This activities observed to be increased few days close to her birth time. On 12th of May 2016 at 3.00 am, she was observed to have contraction and went to place of birth that she prepared 12 hours earlier by spraying urine and drops some boli of dung surrounding the place of birth. At 4.00 am the first break of amnionic liquid come and she keeps pushing the calf out then followed by protruding of amnionic sac at 5.05 am. And at 5.31 am the rear leg of the calf protrude, and it was noticed at that time that she has posterior presentation of calving. The calf come out at 5.40 am and start to breath one minute later. The calf began to walk at 6.45 am and start to milk at 7.40 am. The amnionic sac and umbilical cord was drop off at 8.30 am, then processed to collect fibroblast sample.







Picture. Susie Ellis, Ph.D., IRF Director processing fibroblast sample.



Picture. Ratu and calf in the wallow on June 2016

Post Parturition Complication

On 17th of May 2016 it was observed that Ratu got infestation by Botfly larvae on her Vagina and she was observed to scratch her vulva in the wallow and on sand one day earlier. On 18th of May treatment was given by manual removal of the larvae and application of betadine spray and antibiotic and levertrans ointment to the wound. The wound 4 cm diameter, and completely healed within two weeks after treatment and leave no scar. The infestation assume to be happened on 14th of May 2016, when Ratu observed not wallowing since she was calving and the vulva relaxed post parturition.



Ratu also observed to have lameness on her left hindfoot on 25th of May 2016 and treated with topical Diclofenac ointment on affected foot. It was later observed that she has horizontal cracked on her medial hoof of the left hind foot.

Calf Development

Ratu's calf is a female, and the weight was measured on 3 days old, and her weight is 28,5 kg, based on the weight data that collected, she gain 1 kilogram per day and estimated she has 25 kg of weight when she was born. First urinating happened on 24 hours after birth, and the first fecal drop happened on 6 days old, with 5 boli of meconium. On the first week, her nursing happened 22 to 24 times a day, and less frequent when she got bigger and on the end of June only 12 to 16 times per day. By palpation it was observed that her first tooth erupted on 7 days old, and it was first premolar (P1) and followed by P2 the day after and P3 two days later and she started to chew at two weeks old. Her length is 104 cm and the tail length is 31 cm. Body heigth is 57 cm.



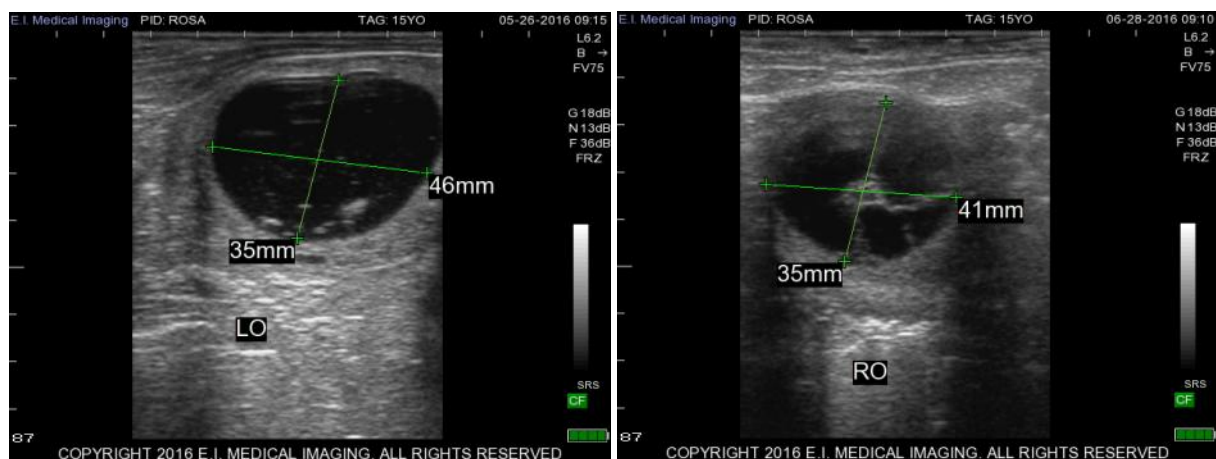
Picture. Ratu's calf in June 2016

Rosa

In this period Rosa has two succesfull copulation with Andalas, but both are not resulting with follicle ovulation and pregnancy. On 14th of May copulation happened for 15 minutes but her follicle did not ovulate, and on 29th of June she has same condition too, ended with no ovulation and no pregnancy. Both follicle was enlarged to form Haemorrhagic follicle.



Picture. Andalas and Rosa on May 2016



Picture. Rosa's follicle oftenly enlarged to form haemorrhagic follicle. Left in May and right in June 2016.

Bina

Bina was introduced one time in this period on 13 to 15 of June 2016, but did not put them together since they are not give respond to each other, and to avoiding fighting, they were separated.

Other

Dr. Zulfi Arsan and Mr. Giyono tasked to Kalimantan

On 30 of March 2016 SRS staff, Dr. Zulfi Arsan and rhino keeper Mr. Giyono leaving to Kalimantan to join team to treat and save a Sumatran Rhinoceros that has severe snare wound on her left hind leg. Both arrived on the site on evening of 31st of March 2016, with the condition of the rhino already dropped, signed by lack of appetite and blood in the stool. Treatment is given including to put infusion drip, but it could not save the rhino. And she died at the dawn on the 5th of May 2016.

On post mortem examination it was revealed that the rhino has severe health condition related to prolonged wound from the snare on the leg, which bring her to low condition, and it was getting worse when she was in the boma for the treatment.





Picture. Activities in Kalimantan in order to save the sumatran rhino