



Borneo Rhino Sanctuary (BRS) programme (restricted distribution)

Six-monthly report : covering the period July - December 2013

### **Programme objective**

To prevent the extinction of the Sumatran rhinoceros in Sabah by protecting wild rhinos and by bringing rhinos together in managed breeding facilities

### **Main participating agencies**

Borneo Rhino Alliance (BORA), ITBC/Universiti Malaysia Sabah, Leibniz Institute for Zoo and Wildlife Research (IZW), Sabah Forestry Department (SFD), Sabah Foundation (YS), Sabah Wildlife Department (SWD), Sime Darby Foundation (YSD), WWF-Germany, WWF-Malaysia.

### **Main financing agencies during this quarter**

YSD, WWF-Germany, Sabah Forestry Department

### **Programme description** (following May 2009 and March 2013 Sabah State Cabinet decisions)

- protection and monitoring of wild rhinos in Tabin Wildlife Reserve, TWR (BORA-SWD) and Danum Valley Conservation Area (WWF-Malaysia).
- establishing Borneo Rhinoceros Sanctuary (BRS) breeding facilities inside TWR with additional facilities at Danum Valley.
- bringing isolated remnant rhinos from non-viable situations, into BRS facilities at TWR and Danum Valley.
- establishing a sustainable financing scheme to allow long-term operations of BRS
- appointing a professional company to manage BRS and its rhinos
- develop rhino reproductive laboratory facilities in Sabah
- exchange Sumatran rhino gametes between Sabah and other countries

### **Targets for this period**

All targets incorporate Sabah's follow-up to Sumatran Rhino Crisis Summit (SRCS).

(1) Pursue collaboration with Indonesia (not formally part of the original BRS programme, but essential due to the need for global collaboration to achieve the BRS objective ). (2) Conduct second artificial insemination (AI) attempt on Puntung. (3) Present argumentation and secure wider public support for loan of rhinos to institutions outside Sabah, and obtain agreement with Sabah/ IZW/ Cincinnati Zoo on collaboration. (4) Female rhino captured in Danum Valley. (5) Locate additional rhino for capture. (6) Improve rhino facilities.

## Activities achieved during this period

Collaboration with Indonesia (1) (a) Hosted by Ministry of Forestry Indonesia, IUCN convened the 1st Asian Rhino Range States meeting in Bandar Lampung, Indonesia, 2-3 October; SWD represented Government of Sabah, supported by BORA, along with Department of Wildlife & National Parks Peninsular Malaysia (Perhilitan) for Government of Malaysia at national level; a Declaration was signed by representatives of all governments present (Bhutan, India, Indonesia, Nepal and Sabah / Malaysia). (b) Through the keen interest and good offices of Tun Musa Hitam (Chair, YSD Council) and Dr Emil Salim (Chair of the Advisory Council to the President of Indonesia), meetings were held in Jakarta 5 and 6 December involving YSD, BORA (for Sabah) and Minister of Forestry Indonesia, with a view to arranging for an agreement to be made on collaboration of Sumatran rhino, between Indonesia and Malaysia, at the annual meeting of the leaders of the two nations in Jakarta, 19 December. Malaysia was ready to sign a memorandum of understanding or joint statement, but Indonesia was unable to do so. (c) the idea of BORA involvement in camera trapping in Way Kambas National Park (TNWK) was abandoned, and discussion opened on involvement instead through camera trapping work in the Kutai Barat rhino area. (d) WWF-Malaysia staff Dr K Yoganand represented Sabah at a stakeholder workshop held at TNWK (26-27 September) which agreed on camera trapping protocols and data analysis.

Rhino reproductive work (1) Routine monitoring of Punting's irregular reproductive cycling continued with a combination of frequent ultrasound examination (a new high resolution machine has been ordered but not yet received) and serum progesterone levels. (2) Only one, unsuccessful, natural mating attempt was done during this period, 29 October, using a breeding chute (the first time in 2013 that Punting was receptive physiologically and behaviourally, and in a position for natural mating; see pictures below). Tam seemed initially not to know what to do; the breeding chute was subsequently modified to encourage Tam to mount from behind and not to be distracted to the chute sides. (3) Due to limitations in Punting's cycling, and other work commitments, the IZW team was not able to pursue actions with Sabah during this reporting period. (4) Discussion continued with Cincinnati Zoo on exchange of Tam and Harapan.

Secure public support for loan of rhinos between institutions A discussion forum of 13 Sabah-based NGOs and 2 government-linked bodies was held on 15 July in Kota Kinabalu, on options for Sabah rhinos. The four main options presented were : Tam goes on loan to Cincinnati Zoo; wait until a fertile female is caught from Danum Valley as a mate for Tam; loaning both Tam and Punting to Leipzig Zoo, where advanced reproductive technologies could be applied more readily by the IZW team; or loan Tam to the Sumatran Rhino Sanctuary in Indonesia. The Forum consensus was that Tam should be loaned to Cincinnati Zoo as a mate for Suci, if a fertile female rhino has not been successfully captured in Sabah by July 2014. A "Sabah position paper" was prepared, based on the Forum. A Cabinet paper based on position paper was drafted. A press conference on the issue was called by Datuk Seri Masidi Manjun, Minister of Tourism, Culture and Environment of Sabah (20 August), and a media release text was distributed.

Danum Valley rhino capture Following a helicopter recce survey (6 July) to ensure rhino trap materials could be brought in by air without need to cut trees, trap materials were heli-lifted into the centre of Danum Valley on 23 & 24 July, and two rhino traps were constructed from 25-30 July, one next to a wallow and the other on the targeted female's nearby main pathway. Twice-daily manual monitoring of the traps by a team of minimally four men based at a camp 1.5 km away in a different water catchment continued through this period. The targetted female rhino walked to within about 100 metres of one of the traps on 30 October. The following day, a WWF-Malaysia camera obtained an image of a rhino, believed to be the same one, about 2 km to the west. By end of this reporting period, the only other sign of rhino in Danum Valley was some poor images from a WWF-Malaysia camera, about 10 km to the east of the rhino traps, in early August. One rhino trap collapsed on 23 December, due to heavy rain and erosion.

Rhinos in other areas After approximately 15,000 camera trap nights over the period July 2012 – December 2013, with cameras deployed in areas where rhinos were active from 1980s to 2007, images have been obtained of almost all medium and large sized mammal species except Sumatran rhino. No footprints or other signs of rhino have been detected in Tabin after the capture of Puntung. Liaison with the management of Empayar Kejora Sdn Bhd, the forest contractor holding the licence to an area where rhino signs were seen in upper Kuamut in recent years, resulted in posting of notices of reward for rhino reports in buildings and at gates. No reports of rhino were received from the Kulamba – Kretam area during this period.

Improve rhino facilities (a) construction of the BRS Danum Valley rhino facility eventually commenced in early December. Delays were due to a host of issues including assurance of financing and legal compliance, and a late change of plan to build the facility further from the road than had been agreed previously. (b) a pebble walkway was constructed in July to allow Puntung to more easily walk up and down the slope between her paddock and night stall, even in periods of heavy rain. (c) the interim rhino facilities at Tabin suffer from various management and maintenance problems; one is the instability of the prevailing kaolin-rich clay soils in the area, which constantly slump and erode; a roadside drain was constructed adjacent to the facilities. However, heavy rain through December kept all Tabin roads in very poor condition. (d) Due to frequent rain, road condition and other factors, progress on the permanent BRS breeding facilities at TWR was also slow.

#### **Other updates**

(1) A Letter of Intent was signed (15 August) between BORA and Institute for Tropical Biology and Conservation (ITBC), Universiti Malaysia Sabah (UMS), formalising continued collaboration of the two agencies; ongoing collaboration in this reporting period involved a study of the possibility that natural plant secondary compounds and/or pesticides in rhino food may have adverse impacts on rhino health and reproductive condition. (2) The Rhino Cup, an event organised by Miss Adilla Jamaludin and her colleagues was held on Oct 20 at the Royal Selangor Polo Club, involving a polo tournament and other activities aimed at raising both Malaysian awareness and funds towards construction of the BRS Danum facility. (3) Sabah Forestry Department Annual Report 2012 was released during this period, and contains an illustrated article on progress in the BRS programme, available at <http://www.forest.sabah.gov.my/en/epublication/annual-report/ar2012>

#### **Awareness**

A statement on the role of YSD was inadvertently missed out in the 20 August press conference, and the hurried nature of the preparation of the media text release did not rectify this error. Also because of short notice, the media release also failed to mention the role of IZW. The (Sabah) Daily Express article (reproduced below) mentioned IZW because the journalist had been present at SRCS, yet nevertheless, three significant errors of fact are made even in this article. No action can be taken on the omission from or on careless errors in media statements, but this slip-up is a timely reminder that pro-activeness and vigilance is always necessary for all media contacts.

#### **Issues to be addressed**

Collaboration with Indonesia (a) YABI remained interested in collaboration with BORA on camera trapping in TNWK, but the more general view was that any cameras potentially available from Tabin and Danum rhino work in Sabah would better be deployed in Kutai Barat, East Kalimantan, and with the consortium of International Rhino Foundation, Asian Rhino Project, WWF, IUCN and others working to secure funds for the overall camera trapping programme in Sumatra. (b) It appears that the prevailing view in Indonesia is that there is no need to collaborate with other countries or institutions, apart from with established external veterinary expertise and for fund raising. BORA

suggests that Sumatran rhino should be managed as a global meta-population, with Indonesia taking the key role, with a focus on a much-enhanced captive population, and unhindered exchange of Sumatran rhinos and gametes between interested and competent institutions in Indonesia, Malaysia, USA and Germany.

Rhino reproductive work Puntung's irregular oestrus cycling makes it almost impossible for the IZW vet team to synchronise their visit to TWR exactly when Puntung will be able to ovulate, thereby severely limiting scope for AI attempts. Lack of progress since mid-2013 on collaboration with IZW gives rise for concern; as the rhinos in Sabah grow older, opportunities to continue AI attempts are being lost. The main high-risk element of AI is the need to perform general anaesthesia on Tam in order to obtain fresh semen by electro-ejaculation. Until recently, the policy of Sabah had been to allow only the IZW veterinary team to do this. At a BRS task force meeting on 4 December, SWD and BORA agreed that this policy has to be relaxed. It is hoped that proposed work on reproductive biology of captive Malayan tapir during 2014, available in captive conditions in Peninsular Malaysia, could help in developing local capacity in general anaesthesia and other techniques.

Secure public support for loan of rhinos between institutions Remarkably, no challenges were faced in Sabah in obtaining a broad range of support from concerned NGOs to loan Sabah rhinos overseas. However, the possibility for other parties in Sabah or overseas to take up this issue negatively or gratuitously at a later date cannot be discounted. By coincidence less than a week after the 15 July Forum, Cincinnati Zoo announced an intention to attempt mating of Suci with her brother Harapan later in 2013 (<http://cincinnatizoo.org/blog/2013/07/21/sumatran-rhino-returns-to-the-cincinnati-zoo-in-the-face-of-crisis/>). This news did not impact the Sabah decision. Interestingly, a widespread antipathy for mating between rhino siblings is apparent in Malaysia and USA, even though neither ethics nor religion nor science can provide clear reasons not to make such an attempt (apparently, those who express antipathy accept that the ancestors of many domestic pets that they love were bred by people who indulged in animal sibling breeding).

Danum Valley rhino capture Signs of two persons who may have been poachers were found overlapping with fresh rhino footprints in the trap area on the day that the trap materials were airlifted in to the area (23 July), and a gunshot was heard to the north on night of 24 July, but no further signs of unauthorised persons were detected after 24 July during this reporting period. During this reporting period, several press reports in Sabah show that illegal hunting of all forms of wildlife has become extremely severe in Sabah in recent years, and is cause for grave concern. Based on information obtained during 2013, it is possible that only one (female) rhino remains in Danum Valley. If so, it will remain for Sabah to decide how to make the best possible use of its remaining rhinos and their genomes and gametes in the absence of agreement for collaboration with Indonesia.

Rhinos in other areas The possibility that rhino(s) remain in the wild only in Danum Valley must now be faced.

Improvement in rhino facilities Some parties have recommended postponing the building of a facility at Danum until there is clearer evidence of more rhinos in the area. However, it is to be noted that the decision in principle to do so was made in November 2012, at a time when the old female rhino Gelogob was held in TWR (she was subsequently moved to Lok Kawi Wildlife Park in March 2013), there were believed to be several rhinos in and around Danum Valley and no facility was available in the event a rhino might be captured from Danum Valley (or any other site). Cognisant of a history of missed opportunities, tragedies and slow and poor decisions on Sumatran rhino (after the 1984 IUCN Indonesia-Malaysia-US zoos agreement on global captive breeding) the decision was taken to proceed with building the Danum rhino facility.

## Solutions and plans for next quarter

- (1) Pursue finding and capture all remaining wild rhinos in Sabah
- (2) Pursue channels and reasoning for full international collaboration, with Sumatran rhino managed as a meta-population
- (3) Try every possible existing & experimental way to produce rhino embryos



(left) Participants in the IUCN – Ministry of Forestry Indonesia convened 1st Asian Rhino Range States Meeting, Bandar Lampung, Sumatra, Indonesia, 2-3 October. (right) Datuk Seri Masidi Manjun, Minister of Tourism, Culture and Environment of Sabah, together with Datuk Dr Laurentius Ambu, Director of Sabah Wildlife Department and Dato' Dr Dionysius Sharma, CEO/executive director of WWF-Malaysia at the press conference (20 August) announcing that Sabah is prepared to loan Tam to Cincinnati Zoo if a fertile female cannot be caught before July 2014.



Meeting with the Minister of Forestry Indonesia in his office, 6 December 2013, (left to right)) J. Payne (BORA), Sonny Partono (Director-General, Forestry Protection and Nature Conservation), Minister Zulkifli Hasan, Dr Emil Salim (Chair, Advisory Council to the President of Indonesia), Dr Zulkarnain Duki (Chief Secretary of the Advisory Council and Secretary for Economics & Environment), Hjh, Yatela Zainal Abidin (CEO, YSD) and Arifah Sharifuddin (YSD)





29 October, at interim facilities at Tabin, natural mating attempt, (left) Puntung (at the peak of her cycle) and Tam interact between night stalls, (middle) Puntung “presents” her rump and Tam tries to “chin” her, (right) BORA veterinarian Dr Zainal presses down on Puntung’s back to help enhance her for receptivity to mating



(left) Puntung exits her night stall, and (right) is coaxed into a breeding chute, designed so that she cannot escape and so that Tam cannot harm her



(left) Puntung is calmed and readied in the chute, but (right) when Tam is released into the breeding yard, he is not sure what to do; later he pushed Puntung hard from behind with his head, eventually necessitating her release into the forest paddock





(left) the general area in central Danum Valley where the targeted female rhino lives, (right) location of the helicopter drop point for materials for the rhino traps



(left) aerial view of Tekala camp, where the approximately 4 tonnes of rhino trap related items were stockpiled for airlifting, (right) stockade ("boma") sections being readied for the airlift (after the rhino is caught, it will be retained in this small stockade until airlifted out of the capture site)



(left) fresh footprints of the targetted rhino on a gravel bank, 23 July, (middle) some of the freshly-dropped items found next to these rhino footprints (instant noodle wrapper and part of a fishing reel, left by unknown persons), (right) BORA field manager / veterinarian Dr Zainal Z Zainuddin and SWD senior wildlife ranger Mr Herman Stawin determine the alignment of the route to bring trap materials from the drop point to the trap site





(left) view of helicopter bringing a batch of materials to the drop site, (right) moving sections of boma from the drop site to the temporary storage site, 23 July (staff Marikus Suyat, Tinrus Tindok, Suzali Jaya and Zuraimi Rahman)



One of the two rhino traps, in front of a wallow, (left) under construction in late July, (right) in October 2013, showing how it is totally camouflaged.



(left) the base camp from which twice-daily monitoring of the rhino traps is conducted, (right) a strong wind on 13 October twisted over some trees at the camp site.





(left) a part of the 1.5 km trail between the trap monitoring base camp and the traps consists of a stream, (right) a part of the store of materials near the rhino trap area (drums for fresh water, and plastic pipe to supply water to the trap site below)



(left) pebble walkway constructed to allow Puntung to more easily walk up and down the slope (compare with same site shown in previous quarterly report), (right) agreement to commence construction of the BRS Danum facility (30 October) pending re-alignment of the facility further from the roadside (left to right in picture : Mr Wong (Buildtech), J Payne (BORA), Indra Sunjoto (District Forest Officer; DFO), Jikos Gidiman (Danum Valley manager), Robert Mijol (Assistant DFO)





(left) BORA executive director Datuk Junaidi Payne and Director of ITBC, Universiti Malaysia Sabah, Dr Charles S Vairappan, sign a letter of intent for collaboration (15 August), (right) scene at The Rhino Cup (20 October)



Road next to the interim rhino facilities at Tabin, (left) a drain dug in 2012 eroded to this by July 2013, (right) the concrete roadside drain completed in early October



(Sabah) Daily Express article (21 August)

