



Borneo Rhino Sanctuary (BRS) programme (restricted distribution)

Quarterly report : 1 July - 30 September 2010

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 at Tabin Wildlife Reserve (TWR)

Main participating agencies

Sabah Wildlife Department (SWD), Borneo Rhino Alliance (BORA), Sabah Forestry Department, WWF-Malaysia.

Main financing agencies during this quarter

Yayasan Sime Darby; Sabah Wildlife Department; BORA; US Fish & Wildlife Service Rhino & Tiger Conservation Fund; WWF-Malaysia; WWF-Germany.

Programme description

- protection and monitoring of wild rhinos in TWR (BORA-SWD) and Danum Valley Conservation Area (WWF-Malaysia), the only two areas where potentially viable wild populations exist.
- establishing Borneo Rhinoceros Sanctuary (BRS) breeding facilities (a managed, fenced area) inside TWR.
- bringing isolated remnant rhinos from non-viable situations, into BRS.
- establishing a sustainable financing scheme to allow long-term operations of BRS.
- appointing a professional company to manage BRS and its rhinos

Activities and progress

Monitoring and security of wild rhinos at TWR Due to the continuing need to focus on rhino rescue work, only short (3-6 day) monitoring /patrol trips were done. All trips were along the border of TWR. The previous method of combining patrol with seeking rhino signs inside

TWR has been abandoned for the time being, in favour of demonstrating to external parties (mainly plantation workers and local poachers) the presence of a guard force at TWR. Any attempt to obtain useful information on wild rhinos in TWR (other than Puntung; see below) requires a review of methods to be used and sustained effort, probably by a team led by a dedicated field biologist.

The security consultant contracted by BORA for the period April-June 2010, finalised his report on possible ways to improve security for rhinos in the Tabin region.

Rhino rescue The pit trap built in mid April to capture the female rhino Puntung was monitored continuously throughout this reporting period, with a minimum of six persons stationed near the trap at all times - but with no luck. The trap was closed (by covering with wood and vegetation) from 22 July-6 August, when the BORA field manager - veterinarian was away on leave, but there was no sign of Puntung near the trap during that period. There was rain almost daily through the reporting period, probably the major factor that may have kept Puntung on higher ground and away from the trap area. There is concern that there might be no further dry period during 2010. A brief survey to locate Puntung was done 21 – 24 September. Very fresh signs of the presence of Puntung were found on the ridge top which represents the northern border of her home range, where she has about eight wallows.

A helicopter survey arranged by WWF-Malaysia was conducted 12 July of the Lower Kinabatangan Segama Wetlands (incorporating Abai, Lot 1, Malbumi, Siungkung, Kretam and Kulamba) to seek possible insights on where a trap might be set for rhinos in this area. Several patches of dry land within extensive swamps were noted (to date, pit traps are the only method being contemplated to rescue rhinos; and pit traps have to be constructed in sites which are not swampy, waterlogged or flood-prone).

A report was received by WWF-Malaysia of a sighting on 17 July of a single rhino (sex unknown) in forest at Kretam, not far from where the male rhino Tam had been caught in August 2008. This site lies within the new Kulamba Wildlife Reserve extension which links Kulamba to Kretam Virgin Jungle Reserve (all remaining rhinos in Sabah are now living entirely or almost entirely within Forest Reserves). An immediate check by WWF found rhino footprints, but these had been washed away by rain by the end of July, and no further rhino signs were found thereafter. Following site visits in August involving SWD, WWF and BORA, a decision was made to target this rhino for the next organized “rhino rescue”. Location of the trap site and access route for a temporary track to extract the rhino were decided.

Interim rhino facilities Further modifications were made to the interim rhino facilities, in order to allow for holding of a third rhino, and for a dedicated breeding area (where a female and male rhino can be introduced for mating under controlled conditions). The facilities now consist of three night stalls, breeding paddock, “crush” to allow restraining of individual rhinos for examination or treatment without use of tranquilizers or sedatives, and two forest paddocks each of about 1.5 hectares, that can be shared by three rhinos. In addition, a chain-link fence and gate were installed to prevent ad hoc entry to the facilities by passers-by, and a disinfectant tyre bath for incoming vehicles, as part of efforts (including

foot baths for keepers entering night stalls) to improve bio-security at the site. A generator and backup generator are now in place to allow availability of electricity at any time. Due to frequent rainfall throughout this reporting period, clean water supply was adequate, but the absence of piped water to the interim facilities remains a concern for any future dry spells.

Treatment of Gelogob Gelogob, the old, blind, reproductively senescent female rhino kept in recent years at Lok Kawi Wildlife Park was transferred by road to the interim facilities at TWR, overnight 21-22 September. Medication is given for excessive lacrimation, and her chronic foot ulcers are receiving ongoing treatment. She receives a variety of locally-obtained leaves as food, and less fruit than at Lok Kawi. Horse pellets (1.5 kg daily) are now added to her diet in order to help improve her condition.

Dr Petra Kretschmar of the Institute for Zoo and Wildlife Research (IZW), Germany, visited Sabah during August. Pending approval by the BRS technical and steering committees, agreement was reached in principle to seek IZW assistance to attempt to stimulate follicle growth and oocyte (ovum) production by Gelogob and, if successful, to attempt artificial insemination using sperm from Tam. Subsequently, the fertilized ovum would be recovered via flushing and cryopreservation.

BRS breeding facilities An exercise was conducted 7-8 July involving Sabah Forestry Department, Sabah Wildlife Department and BORA to determine which trees are to be cut along the access road to BRS breeding facilities. A contract was issued in September to build the 1.2 km access road to the BRS breeding facilities. The BRS breeding facilities site was surveyed 13-15 July, on 14 July with the appointed BRS breeding facilities consultant. A plan for the alignment and form of the facilities was drafted, including division of the forest area into five adjacent paddocks with central night stalls. Dr Kretschmar has offered the assistance of German zoo architects for additional or alternative designs.

Rhino Action Plan The content and format of the (Sabah) Rhino Action Plan was finalized during this quarter (along with Orang-utan and Bornean Elephant Actions Plans).

Staff accommodation The Tabin Wildlife Officer house (to be named Rumah Binuang) and terrace house for staff associated with BRS (to be named Rumah Laran; both houses funded by Yayasan Sime Darby) were almost completed during this quarter. The major renovation of old kitchens and stores behind the wooden longhouse at TWR, in the form of a new house (to be named Rumah Maitap) providing additional rooms for BORA field staff, and financed largely by WWF-Malaysia and WWF-Germany, was completed on 15 July.

Meetings held BRS technical committee, 27 July; BRS rhino reproduction sub-committee, 17 August; SWD programme coordinator and BORA executive director, 11, 16, 23, 25 & 26 July (including with Director), 16 August, 2 & 19 September; SWD-BORA-BRS consultant, 13 and 16 August; SWD-BORA – Petra Kretschmar 16, 18 & 27 August, 1 September; BORA-WWF, 24 July, 2 August, 3 September; BORA-District Forest Officer, 1 July; BORA-Lahad Datu District Police Chief, 2 July.

Institutional arrangements The draft written agreement between SWD and BORA was extensively revised in July and submitted to higher authority for further action.

International connections BORA executive director made informal connection with Yayasan Badak Indonesia to advise that sperm from Tam might be made available for artificial insemination of female Sumatran rhinos, so that this possibility could be taken up to the relevant authorities within Indonesia. Unofficially, Cincinnati Zoo plans to mate their father and daughter rhinos, as prospects for this Zoo to obtain unrelated gametes (either via actual rhinos or sperm) seem dim at the present time. Robert Risch of the German NGO, Rhino and Forest Fund (rhinoandforestfund.homeip.net), visited TWR in August.

Sustainable financing

The possibility of planting gaharu trees at Tabin as a long-term means to generate income for rhino conservation was discussed with Drs Anthony Tibok and James Ahlan (Sudah Gaharu Sdn Bhd), including a visit to TWR, 24 August. Possible ways forward to secure internationally sourced funds for TWR and rhinos related to forest carbon was discussed with Michael Packer of Biodiversityworks Limited (31 July). Land for sale at Takun, south of TWR, was visited 15 September to identify if it might have potential to generate income for rhinos/TWR.

Other issues

The satellite tracking collar intended for Tam has not been fitted, pending completion of the renovations to the interim rhino facilities.

There is interest from external organizations in channeling volunteers to TWR to assist with rhino conservation work. Two such organizations were met during this quarter (Dynamic Tours Travel & Incentives Sdn Bhd, 3 August, and Pacific World, 20 September). The view of BORA is that, at least for the time being, there is little that volunteers can do at TWR, and the potential effort to be spent managing a volunteer programme would currently not be a good use of time.

Plans for next quarter

- (1) Capture Puntung. (2) Attempt to induce ovum production by Gelogob. (3) Construct access road to BRS breeding facilities.



(Left) Frequent heavy rain resulted in deep mud, even in parts of Tam's forest paddock. (Middle) In July, a specialist tree-felling team was employed to remove three potentially dangerous trees in and adjacent to Tam's paddock. (Right) A *Canarium megalanthum* tree at Tabin, one of many trees that bore fruit during August 2010, a major fruiting peak in eastern



(Left) Tabin experienced frequent rain through the reporting period. (Right) Lahad Datu town, 11 September.



(Left) Repair to the interim rhino paddock fence, damaged by a branch fall. (Right) A temporary breeding paddock (optimistically assuming Tam and Puntung may get together before the permanent BRS construction) was made in July by modifying two old (1990s)

paddocks at Tabin. Gravel was added to the breeding paddock, but even that was no match for incessant rain.



(Left) It was thought that frequent immersion in mud might have been a part of the reason for some new lesions on the soles of Tam's feet. Here, Tam is induced to recline by a gentle massage with a garden rake, so that the soles of his feet can be inspected. (Right) Tam feeding on *Canarium megalanthum* fruits; probably rhinos were once a significant disperser of the seeds of rainforest trees such as this.



(Left) There is a possibility that natural toxins in rainforest plants might contribute to Sumatran rhino health problems; leaves of *maitap* (*Neonauclea gigantea*) were removed from Tam's diet, as part of a month-long experiment to see if removal of this species might be linked to improvements in his foot lesions. (Right) SWD-BORA opening, checking and maintenance of the trap for Puntung, 9 August.



(Left) Surveying the proposed access road to the permanent Borneo Rhino Sanctuary breeding facilities site (done collaboratively by Sabah Forestry Department, SWD and BORA). (Right) Gelogob is loaded onto a truck, 1 September, for relocation to TWR interim rhino facilities.



(Left) New night stall for Gelogob. (Right) Disinfectant tyre bath at entrance to rhino interim facilities.



(Left) Installation of drinking water dispenser in the night stalls, to minimize both wastage and fouling of rhino drinking water. (Right) Completed Rumah Maitap accommodation for BORA field staff.