## The Sabah Rhino Project – Captive Breeding, Habitat Protection and Habitat Reforestation

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The Sabah rhino (Dicerorhinus sumatrensis harrissonii) is a subspecies of the Sumatra rhino (Fig. 1). It once occurred all over Borneo but habitat destruction and poaching led to a drastic reduction of the population within the last 15 years. Currently less than 50 individuals of the subspecies still exist. These few individuals occur in the northern tip of Borneo, in the East Malaysian state Sabah. Sabah is characterised by a high diversity in flora and fauna. Its rainforests are among the oldest rainforest of the world. But the majority of the forest areas in Sabah, especially the lowland forests, have been selectively logged in the past. The increasing demand for palm oil on the international market, has led to a high pressure on the remaining forest areas. Forest areas with a very low protection status, such as secondary forest, are therefore at a high risk to be converted into agricultural land. These areas are however very important for the animals such as the rhino and the elephant. They are buffer zones between agricultural land and primary forest and they are corridors for large animals connecting the fragmented landscapes.

The remaining Sabah rhinos are isolated from each other in small pockets of rainforest surrounded by plantations; here they are facing a high risk of inbreeding. Therefore breeding management of this highly endangered species becomes essential. In July 2007 the government of Sabah together with local and international Non Governmental Organisations (NGO) decided to start a rescue and breeding project for isolated individuals.

In the past, the captive breeding of the species has not been a story of success. Basic information from free ranging animals was lacking due to its elusive character, its rarity and the inhospitable nature of its habitat. This resulted in management problems as its basic requirements in terms of food, health and breeding were unknown. In recent years more data has been collected and captive breeding methods have fast developed. Non-invasive hormone analysis, ultrasound techniques and assisted reproductive techniques have been

successfully applied for the reproductive assessment in a number of species, including the Sabah rhino. The Leibniz Institute for Zoo and Wildlife Research (IZW) and the Zoo Leipzig support the local government and NGOs with its proven scientific and captive breeding expertise ensuring the preservation of the Sabah rhino. An eventual viable population will largely depend on an intact forest. Afforestation and reforestation efforts are therefore needed to increase the carrying capacity of the potential habitat. The Rhino and Forest Fund, a German NGO was founded to rise funding for saving the Sabah rhino and its vanishing habitat.

# Biodiversity is Life

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### Welcoming address by the Host

#### Theo Pagel, Zoo Director & CEO – Cologne Zoo

Welcome to Cologne!

Dear WAZA members and guests, it is an absolute pleasure for me to welcome you all on behalf of the board of Cologne Zoo and the whole staff to the 65<sup>th</sup> annual WAZA conference.

This year, in 2010, we celebrate our 150-year anniversary and are proud to host the WAZA meeting for the first time in our long history, to have colleagues from almost 40 countries around the world as guests. We will try our best to make you feel at home in our beautiful Zoo and our city full of culture and life!

Let us together make this conference a successful one with a lot of fruitful workshops, discussions and results. "Biodiversity is Life: the Role of Zoos and Aquariums in Biodiversity Conservation" is our conference topic. We are the experts in keeping and breeding animals, in teaching about the importance of the fauna, of biodiversity in general.

We all should use this meeting to become friends, close partners and take it as a chance to tell the people what we are doing.

I wish you all a fruitful, enjoyable and happy time in Cologne.

Yours

