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Orangutan rope-bridges in Ulu Segama Forest Reserve

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Report prepared by

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In orangutan range in Sabah, extensive, indiscriminate logging and forest clearing for oil palm plantations have fragmented forest habitats and removed large riparian trees along river banks. The large trees were previously used as natural bridges by orangutans to move across rivers. Connecting the fragmented habitats by restoration of forests and providing natural bridges by restoring riparian forests and its large trees would be necessary for the long-term conservation of orangutans. However, as an immediate measure, rope-bridges across rivers and canals to facilitate movements of orangutans across these physical barriers have also been recommended. In recent years, there have been efforts to build rope-bridges to connect fragmented orangutan habitats of Lower Kinabatangan Wildlife Sanctuary in Sabah. There were also reports of successful usage of these rope-bridges by orangutans.

The northern parts of Ulu Segama Forest Reserve (FR) (which includes the 11,612 ha Bukit Piton FR lying north of River Segama) had been severely degraded by heavy logging since 1980s and until 2007 and also been ravaged by forest fires in 1983 and again in 1997-98 after the long drought during that period. These rendered 40% of the area treeless and much of the rest with poor tree density. Bukit Piton FR is bordered by oil palm plantations to the north and east, and by broad strips of alienated (private) land along the Segama River to the South (also cultivated with oil palm).



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It is estimated that there are about 150 – 200 orangutans in Bukit Piton FR. They are considered to be largely isolated from orangutans in the rest of Ulu Segama FR by the physical barrier of River Segama in the South. This area has been a site of huge reforestation effort by WWF, Sabah Forestry Department, Sime Darby Foundation, Yayasan Sabah and others since 2007. WWF-Malaysia along with WWF network partners and through corporate funding support has pledged to reforest 2,400 ha of Bukit Piton FR (Fig. 1). Of this, 1,710 ha have been planted until June 2013. In particular, WWF's reforestation work involves planting about 10-15% of all trees with species that can provide fruits for orangutans. Restoration of these forests provides additional habitat for orangutan population in Bukit Piton to use and grow in size. In addition, a few rope-bridges across River Segama have also been considered to be necessary to provide connectivity for orangutans to the larger population and habitat in Ulu Segama FR south of the river.

Funding support from WWF-UK and Oliver Hardiment legacy have been used for the construction of these rope-bridges (Fig. 2 and 3). These rope-bridges are expected to provide an immediate means for orangutans to move among forest patches to access food resources and mates, to find additional habitats for dispersal, and thereby also to facilitate genetic flow among orangutans in Ulu Segama FR.



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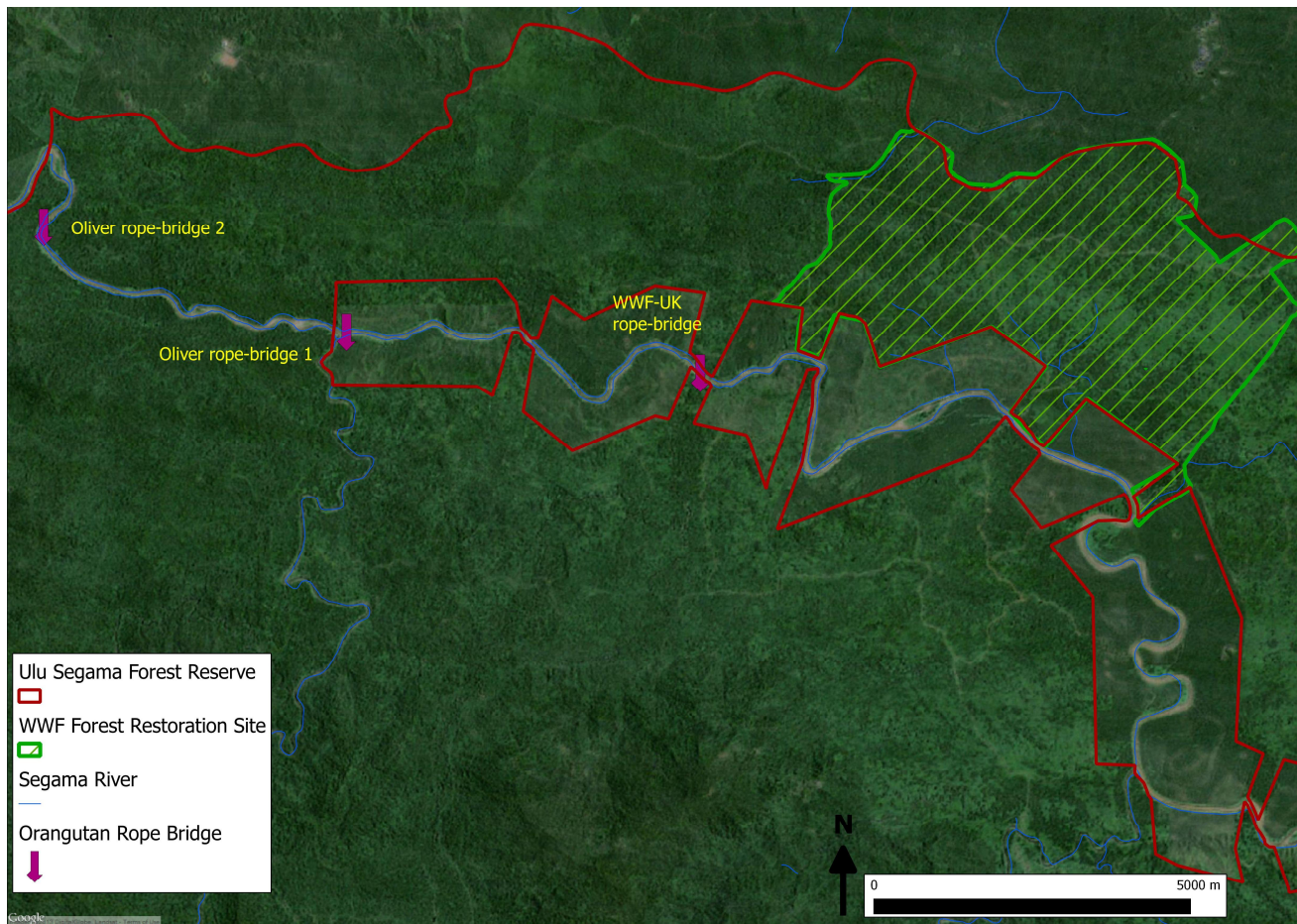


Fig. 1. Map of northern part of Ulu Segama Forest Reserve (FR) showing locations of WWF forest restoration site (green cross-hatched) and the three rope bridges (purple arrows) built across the River Segama. The area to the north of the river (blue line) is the Bukit Piton FR which forms part of the Ulu Segama FR. The areas to the North of the red line are oil palm plantations and were originally lowland dipterocarp forests before conversion. The areas along the River Segama, bounded by red polygons have been left out of the Ulu Segama FR for human development needs and which currently are mainly oil palm plantations.



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Fig. 2a. Oliver rope-bridge # 1, across River Segama in Ulu Segama Forest Reserve, a protected forest and a stronghold for Orangutan in Sabah, Malaysian Borneo.



Fig. 2b. Oliver rope-bridge # 1, fixed to two large trees on the northern side, seen with its support rope forming a Y-shape.



Fig. 3a. Oliver rope-bridge # 2, upstream from WWF forest restoration site along River Segama.



Fig. 3b. Oliver rope-bridge #2, connecting the orangutans in the forest restoration area of Bukit Piton FR to the larger Ulu Segama forests on the southern side.