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LATE QUATERNARY PALAEOHYDROLOGICAL CHANGES IN THE UPPER PURUS BASIN, SOUTH-WESTERN AMAZONIA, BRAZIL

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The section of the upper Purus river upstream of Boca do Acre city was studied. Field work was carried out in 1997. Facies and sedimentological analyses as well radiocarbon datings were performed. Landsat images added in the geomorphological interpretation and mapping.

The Purus river is a typical lowland river of south-western Brazilian Amazonia with its headwaters to less than 500 m a.s.l., therefore without contact with the Andes. The present river has confined meanders with point bars and side bars. The banks of the river channel are 10-12 m high, therefore the river cover the flood plain only during the summer catastrophic floods (e.g. 1997th March). More than 98% of the sedimentary load is carry as suspended load.

First results of our studies documented the important palaeohydrological changes in this area during the Late Pleistocene and the Holocene. The biggest change was between Late Pleistocene (black conglomerates dated at 24-19 ka BP and accumulated in torrential environment) and the Holocene (rainforest environment). An aggradational phase occurred during the early and middle Holocene. At this period the river had a meandering pattern and changed its course. The palaeomeanders was filled by muds and peats (7.8-5.8 ka BP). The aggradation was probably a response to climatic deterioration recorded in Amazonia during the Middle Holocene. A hiatus in the sedimentation

occurred between approximately 5-1 ka BP., indicate a phase of dissection during the upper Holocene. Alluvia along the channel was dated at the last 1 ka BP. Rapid changes in age along the banks on short distances and also in one profile could indicate that sediments with the organic detritus are temporarily redeposited during the large floods.