Scientists trace how rivers change course

December 25 2005

U.S. scientists have used laboratory techniques and sediment cores from the ocean to help explain the how rivers have changed course over millions of years.

Scientists Peter Clift of the University of Aberdeen in Scotland and Jerzy Blusztajn of the Woods Hole Oceanographic Institution reconstructed the erosional discharge from the Indus River over the past 30 million years and found that the source of those sediments changed 5 million years ago.

Until then, Indus River sediments were produced by erosion of mountains to the north of the collision zone between India and Asia, but 5 million years ago much more sediment starting coming from the southern Himalayas, part of the deformed Indian plate.

Clift and Blusztajn believe the change is caused by a rerouting of the major rivers of the Punjab region into the Indus River, where they flow into the Arabian Sea west of India. Previously these rivers flowed east and joined the Ganges River before reaching the Bay of Bengal, east of India.

The findings are reported in the journal Nature.