A Big Earth Data Platform for Three Poles

**Data set of surface grain size distribution along the Nyangqu River in the Yarlung Zangbo River (2021)**

1、Description

The riverbed surface of the main channel in Nyangqu river is composed of gravel particles with wide grain size distribution. there are abundant gravel particles on the beach and riverbed. In this investigation, the bed surface grain size distribution of the main channel and tributaries of the Nyangqu river was measured. This data set contains the information of the five sampling locations in five main channels and two locations in tributaries of the Nyangqu River Basin (Table 1) and the bed surface grain size distribution (Table 2). The sampling locations were generally selected near the cross-section with obvious riverbed. It was considered that water flow through these sections in the straight channel for a long. At the same time, because it was a dry season, the bed grain size distribution on the river beach could be considered as the movement of gravel bedload carried by the last flood season. Therefore, it was considered that the bed grain size distribution in the sampling area on the river beach in the dry season was the bedload size distribution in the flood season. The grain size distributions were measured by the automatic identification method of full particle size based on image processing (e.g., Baserain software), with high identification accuracy of sediment particles is high. It is of great value to the scientific research on the evolution of source to sink process，bedlaod transport, and flood numerical simualtion， as well as the basic research on the flash flood prevention and control.

2、Keywords

Theme：Topography,Surface Water,Base data,Sediment
Discipline：Terrestrial Surface
Places：Nyangqu River BasinNyangqu River Basin,
Time：2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：2.54MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.5 | - |
| west：88.5 | - | east：90.5 |
| - | south：28.0 | - |

5、Time frame:2021-05-12 16:00:00+00:00--2021-05-14 16:00:00+00:00

6、Reference method

References to data:

LUO Ming, MA Xudong, WANG Lu, HUANG Er, YAN Xufeng. Data set of surface grain size distribution along the Nyangqu River in the Yarlung Zangbo River (2021). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2725102022

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: HUANG Er
unit: State Key Lab of Hydraulics and Mountain River Engineering, Sichuan University
email: huang\_er@scu.edu.cn

name: YAN Xufeng
unit: State Key Lab of Hydraulics and Mountain River Engineering, Sichuan University
email: xufeng.yan@scu.edu.cn

name: LUO Ming
unit: State Key Lab of Hydraulics and Mountain River Engineering, Sichuan University
email: luoming17@163.com

name: WANG Lu
unit: State Key Lab of Hydraulics and Mountain River Engineering, Sichuan University
email: wanglu@scu.edu.cn

name: MA Xudong
unit: State Key Lab of Hydraulics and Mountain River Engineering, Sichuan University
email: maxd@scu.edu.cn