

## Classification of Debris Flow in the Mountains of Beijing

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**Abstract:** According to practical and easy criterions about characteristics, classification of debris flows in Beijing mountains has been established, which will play a vital role underlying the prevention and control of debris flow disasters. Debris-flow sites including gullies and slopes found in mountains of Beijing are 705, which can be divided into the following seven criterions: 1. Classification by geomorphology, there are 57 river-type debris flows, 534 gully-type debris flows, 114 slope-type debris flows; 2. Classification by the scale of occurrence, there are 51 large-scale debris flows, 490 middle-scale debris flows and 164 small-scale debris flows. 3. Classification by properties of the fluid, there are 30 viscous debris flows, 539 sub-viscous debris flows and 136 intermediate debris flows. 4. Classification by the evolution, there are 296 debris flows of developing stage, 343 of active, 66 of decline. 5. Classification by harm to human, there are 117 debris flows of the most serious danger, 225 of the second serious, 161 of medium and 172 of slight. 6. Classification by frequency, there are 166 debris flows with moderate frequency and 539 with low frequency. 7. Classification by the relation between formation and human activities, there are 36 man-made debris flows and 669 nature debris flows.

**Key words:** debris flow classification; classification principle; classification criteria; debris flow type; the mountains of Beijing

### 资料讯电

## 黄河源头历史上首次断流

黄河孕育了中华民族 5000 年的灿烂文明,是中华民族“母亲河”。扎陵湖和鄂陵湖作为黄河源头最大的一对“姊妹湖”,造就了黄河汹涌东去、一泻千里的宏伟壮观,然而自 2003 年 12 月以来,黄河源头鄂陵湖出水口出现历史上首次断流。

20 世纪末,黄河已出现多次断流,最早一次出现在 1972 年。此后 26 年间,有 21 年断流,其中从 1990~1998 年,黄河年年断流,1997 年断流多达 7 次 226 天,断流河段 704km,此次黄河源头断流,无疑给源头地区生态环境问题再次敲响了警钟。

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