

# Emergent Disaster Precursive Phenomena and Motion Prediction of the Giant Jinnosuke-dani Landslide in Haku-san Mountain, Japan

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# 2005 Fiscal Year Final Research Report Summary

## Emergent Disaster Precursive Phenomena and Motion Prediction of the Giant Jinnosuke-dani Landslide in Haku-san Mountain, Japan

Research Project

### Project/Area Number

15310127

### Research Category

Grant-in-Aid for Scientific Research (B)

### Allocation Type

Single-year Grants

### Section

一般

### Research Field

Natural disaster science

### Research Institution

Kyoto University (2004-2005)

Kanazawa University (2003)

### Principal Investigator

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### Project Period (FY)

2003 – 2005

### Keywords

landslide / debris flow / groundwater / initiation mechanism / motion mechanism / field investigation / ring shear tests / grain crushing

### Research Abstract

The Jinnosuke-dani landslide is a giant landslide 2,000 m long and 500 m wide in the Haku-san Mountain area, Japan. It was also the first landslide to be designated as a "Landslide Prevention Area" according to the "Japan Landslide Prevention Law". This landslide consists of alternating layers of sandstone and shale in the Tedori Formation, which was deposited from the Jurassic period to the Early Cretaceous. Based on deformation monitoring results for more than 7 years, the landslide is divided into upper and lower blocks. The upper block has moved at a speed of 80 to 170 mm/year, while the lower block has moved more slowly (3 to 15 mm/year). Monitoring data show that the variation of the groundwater level has a great influence on the landslide movement. The deteriorating effect of the weathering of the alternating layers of sandstone and shale on the landslide deformation has been confirmed by borehole exploration and monitoring. Concerning the landslide motion prediction when a giant ... More

## Research Products (13 results)

All	2006	2005
All	Journal Article	Book

[Journal Article] Initiation and traveling mechanisms of the May 2004 landslide-debris flow at Bettou-dani of the Jinnosuke-dani landslide, Haku-san Mountain, Japan	<b>2006</b> ▾
[Journal Article] Deformation characteristics and influential factors for the giant Jinnosuke-dani landslide in the Haku-san Mountain area, Japan	<b>2006</b> ▾
[Journal Article] Initiation and traveling mechanisms of the May 2004 landslide-debris flow at Bettou-dani of the Jinnosuke-dani landslide, Haku-san Mountain, Japan	<b>2006</b> ▾
[Journal Article] Deformation characteristics and influential factors for the giant Jinnosuke-dani landslide in the Haku-san Mountain area, Japan	<b>2006</b> ▾
[Journal Article] Two recent flowslides in Yamashina area, Kanazawa City, Japan	<b>2005</b> ▾
[Journal Article] Fluidization mechanisms and motion simulation on flowslides triggered by earthquake and rainfall.	<b>2005</b> ▾
[Journal Article] Dynamic properties of earthquake-induced large-scale rapid landslides within past landslide masses	<b>2005</b> ▾
[Journal Article] Displacement monitoring and physical exploration on the Shuping Landslide reactivated by impoundment of the Three Gorge Reservoir, China	<b>2005</b> ▾
[Journal Article] Two recent flowslides in Yamashina area, Kanazawa City, Japan	<b>2005</b> ▾
[Journal Article] Fluidization mechanisms and motion simulation on flowslides triggered by earthquake and rainfall	<b>2005</b> ▾
[Journal Article] Displacement monitoring and physical exploration on the Shuping Landslide reactivated by impoundment of the Three Gorge Reservoir, China	<b>2005</b> ▾
[Book] Landslides - Risk Analysis and Sustainable Disaster Management	<b>2005</b> ▾
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