

LANDSLIDES IN NEW ZEALAND

A selected Bibliography

by

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1. Introduction

Research on landslides has a well established history in New Zealand. Since the beginning of this century, problems resulting from landslide occurrence have increased steadily. Despite the growing number of publications on landslide issues, only SELBY (1976) published a preliminary bibliography. SELBY's report summarises the major contribution in the field of mass movements until 1970. HARMSWORTH & PAGE (1991) undertook a literature search within the purpose of compiling information on landslide damaging rainstorms. A recent report on earthquake-triggered landslides with a volume >1,000,000 m³ is published by IGNS (1996). A landslide inventory compiling information on rainfall-triggered landslides is held at the Institute of Geography, Victoria University of Wellington. The latter data base contains only rainfall-triggered landslides and it became obvious that there was an equal need for a comprehensive bibliography of all accessible landslide references for New Zealand.

1.1 Definition

This bibliography deals with published research and reports on landslides. Therefore it is important to define the term landslides. For the purpose of this report, the definition of CROZIER (1998) is adopted, where landslides are defined as movement of a mass of rock, earth, or debris down a slope, under the influence of gravity and triggered by different agents. These agents may be either natural or human induced. Natural triggers relate mainly to prolonged or/and intense rainfalls, earthquakes, and marine or coastal action, while human induced landslides relate to human activities such as detonations from explosions, damming of rivers, roading, general landuse change, deforestation - all resulting in instability on the surrounding slopes.

Reports on landslides deal with different space and time scales. They range from single, large, often deep-seated landslide complexes to numerous, widespread, often shallow landslides. They can be related to single impact events in the last decades or to Holocene or even Pleistocene time periods.

1.2 Aim and Potential Users

This publication aims to summarize and to provide a list of landslide research publications and reports in New Zealand since publications are available. Potential users of this bibliography are research scientists, students undertaking research in the field of landslide studies,

environmental, engineering and earth science consultants, managers responsible for planning and maintaining landslide programs, policy decision makers, as well as interested individuals.

1.3 Restrictions and Limitations

A decision had to be made as to which publications to include and which to exclude from this bibliography. The general criterion for inclusion in this bibliography is that the focus of the publication should be strongly related to landslides or associated issues. Items were considered if they provided an important contribution to the research field. For example, any items relating to research, geotechnical reports, management and administration of land resources and their social, economic, or environmental impacts are included. Although the importance of political and management plans is recognised, these items have largely been excluded. This decision had to be made due to both the volume of this material and the limited space in this volume, and the difficulty in accessing these reports and plans from the relevant organizations.

Because of the dominant role of landslides in New Zealand soil erosion, a number of papers listed refer to topics on soil erosion, soil conservation and land use sustainability.

Although we tried to consider and access all relevant publication, inevitably we will have missed some. A list has been compiled in Section Two to give the user an overview of which sources have been consulted. 54 Papers for which we do not have a full reference listing, in particular the name of author(s), are listed at the end of the reference list. Every attempt has been made to ensure that the information contained within this bibliography is as accurate and comprehensive as possible. However, if users note any errors or omissions, or have any suggestions for future editions, or want to have specific items included in this bibliography, please write us so that it can be included in any update.

Landslide Bibliography
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2. Method

The bibliography contains 822 references on landslides in New Zealand in the period between 1975 and 1996. References prior to 1975 are already summarized in the report of SELBY (1976) and are also added to this bibliography. Users interested in abstracts of publications prior to 1975 should refer to SELBY (1976). However, some references prior to 1975 were not included in SELBY's publication and are thus included in this bibliography.

The literature sources include monographs, edited books, university theses, published research from journals, conference proceedings and conference papers, and unpublished reports from universities, Crown Research Institutes and their predecessors, private consultancies as well as official institutions such as Councils and Ministries.

All data are stored within the literature database software EndNote 3.0, 1st Edition for Windows95, held by the School of Earth Sciences (SES), Victoria University of Wellington. The developer of EndNote, Niles Software Inc. is offering free trial versions of this programme under <http://www.niles.com>.

Information sources

The accessed sources cover a wide area. The limiting factor was either the public availability of the appropriate item or the importance of the source, as already discussed in Section 1.3.

The starting point of the literature search was the compiled inventory of rainfall-triggered landsliding publications and references held by SES, Victoria University of Wellington. Items were added either by response to an information request sent out to all Universities, Crown Research Institutes, appropriate Ministries, and individuals or by personal notice. A few references were also added as a result of searches in the catalogues of the Auckland University, Massey University, Victoria University, Lincoln University and Otago University libraries. Some items were received from authors personally.

The following subsections summarise the sources used. Refer to Section 6 for the complete reference.

2.1 Bibliographies

SELBY (1976)

HARMSWORTH & PAGE (1991)

IGNS (1993)

2.2 Monographs

CROZIER (1989)

SELBY (1992)

SELBY & SOONS (1993)

2.3 Book Section

2.4 Conference Proceedings

2.5 Journals, Periodicals

To avoid any misunderstanding journals are not abbreviated in the reference list. The following list gives an overview of used journals (Appendix 2).

2.5 Thesis

All theses which were accessible from various New Zealand and overseas universities.

Imperial College of Science and Technology, London

Kyoto University, Disaster Prevention Research Institute, Japan

Massey University

University of Auckland

University of Bern, Switzerland

University of Canterbury

University of Otago

University of Sydney, Australia

University of Waikato

Victoria University of Wellington

2.6 Research Publications

Publications from various institutions organisations, as well as private consultancies (Appendix 3).

2.7 Library Searches

Library catalogues of all New Zealand University libraries and on-line georeference resources.

3. The usage of the bibliography

All references are listed in alphabetical order according to the author's first surname or to the first name of the organisation (Section 6). Where there is more than one author, the additional author/s can be located in the co-author index (Section 7.2). Publications are also indexed by editor where appropriate (Section 7.3).

3.1 Reference Details

Publication information has been provided to assist with item identification and subsequent library searches for the item of interest. The following details are given, where appropriate, for each item:

1. Reference number (number used in indices of this bibliography)
2. Name (author, editor or organisation)
3. Year of publication (unpublished references are filed by the year of completion or presentation)
4. Title
5. a Journal or periodical title
b Name of editor and title of general publication
6. a Volume and number
b Publisher and place of publication (unpublished items have as much information included as possible to provide comprehensive information)
7. Pagination (either range of the pages or total number of pages)
8. Keywords

Examples:

Bibliography:

321. **Harmsworth, G.R. & Page, M.J.** (1991): A review of selected storm damage assessments in New Zealand.- Department of Scientific and Industrial Research, Land Resources, Scientific Report 9.

Keyword(s): Damage Costs, Impacts, Rainfall.

Monograph:

165. **Crozier, M.J.** (1989): Landslides: Causes, consequences and environment, London, Routledge, 252 p.

Keyword(s): Cause, Impacts, Landslide Stability Factors, Overview, Trigger.

Book Section:

461. **McConchie, J.A.** (1992): Water and slope stability.- in: Mosley, M.P. (ed.): Waters of New Zealand, Wellington, New Zealand Hydrological Society, Vol. 1, 381-408.

Keyword(s): Control, Groundwater, Rainfall, Stabilisation.

Conference Proceedings:

480. **McSaveney, M.J., Thomson, R. & Turnbull, I.M.** (1992): Timing of relief and landslides in Central Otago, New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1450-1456.

Keyword(s): Dating, Landform Development, Landslide Stability Factors, Topography, Central Otago.

Journal, Periodical:

215. **DeRose, R.C., Trustrum, N.A. & Blaschke, P.M.** (1993): Post-deforestation soil loss from steepland hillslopes in Taranaki, New Zealand.- Earth Surface Processes and Landforms, Vol. 18(2), 131-144.

Keyword(s): Land Use, Sedimentation, Vegetation, Taranaki.

Thesis:

20. **Basher, L.R.** (1989): Soil development and erosion history of a mountainous high rainfall area, Cropp River, Central Westland.- PhD Thesis, University of Canterbury.

Keyword(s): Erosion, Historical Record, Soils, Westland.

Research Publication:

127. **Clough, P. & Hicks, D.** (1993): Soil Conservation and the Resource Management Act.- Ministry of Agriculture & Fisheries, Wellington, MAF Policy Technical Report 93/2.

Keyword(s): Soil Conservation, Legislation.

Where an author has two or more publications, the items are listed according to the year of publication. Where an author or a group of authors have one or more publications in one year, the year is indexed by small letters in alphabetical order. The references are numbered in descending numerical order to allow a quick search using all indices (Section 7.1, 7.2 and 7.3). Where possible all items have been sighted.

3.2 Keywords

Each item has a set of keywords. These are used to identify the main context for each item in the most appropriate way. The keywords were either directly imported from the keyword list of the item or derived from title, abstract and main text body. It was always envisaged that keywords reflect all themes covered by the reference. To allow searchers a focus on specific areas, names of regions or landscape types were also included wherever possible. The keywords are sorted in alphabetic order. Keywords containing more than one word are indexed to the way in which they were read.

Example 1:

The keyword *Landslide Investigation* is listed in the keyword index (section 7.1). This item in the keyword index will refer to all publications with the keyword *Landslide Investigation* attached to them. The search can be narrowed by using more specific keywords such as *Stabilisation* or *Remediation*.

Example 2:

Any publication with *James* as the principal author is listed in section 7.2, which is sorted in alphabetical order. If you are interested in all publication published by *James*, refer also to the co-author index (Section 7.3) and to the editor index (Section 7.4).

To allow a quick orientation within the keyword index, these are sorted in alphabetic order. Because of this ordering system, the general thematic context of the keywords may not be clear. To avoid any confusion or misunderstanding, a subject index is included in Appendix 1, which orders the keywords thematically. Keywords listed in Appendix 1 are fully included in the Keyword Index of Section 7.1. Keywords containing more than one word are indexed in the way in which they were read.

4. Availability

References of interest should be obtained through local library or library interloan services. Users can also request the appropriate information through direct contact with either the concerned organisations or the author or co-authors. Some addresses for reference enquiries are Included in Section 5. It may possible that some consulting reports may not be available for general access.

5. Addresses of other Sources

Institute of Geological & Nuclear Sciences Limited (IGNS)

69 Gracefield Road
PO Box 30-368
Lower Hutt
New Zealand

Telephone: +64 - 4 - 570 1444
Facsimile: +64 - 4 - 569 0600
Internet: <http://www.gns.cri.nz>

Manaaki Whenua
Landcare Research New Zealand Limited
Massey University
Private Bag 11052
Palmerston North

Telephone: +64 - 6 - 356 7154
Facsimile: +64 - 6 - 355 9230
Internet: <http://www.landcare.cri.nz>

National Institute of Water & Atmospheric Research Limited (NIWA)
310 Evans Bay Parade
Greta point
PO Box 14 901
Wellington

Telephone: +64 - 4 - 386 1189
Facsimile: +64 - 4 - 386 2153
Internet: <http://www.niwa.cri.nz>

New Zealand Forest Research Institute Limited (NZ FRI)
Sala Street
Private Bag 3020
Rotorua

Telephone: +64 - 7 - 347 5899
Facsimile: +64 - 7 - 347 9380
Internet: <http://www.fri.cri.nz>

6. Bibliography

Note: All references are listed in alphabetical order. Where an author has two or more publications, the items are listed according to the year of publication. Where an author or a group of authors have one or more publications in one year, the year is indexed by small letters in alphabetical order. The references are numbered in descendent order to allow a quick search using all four indices (Section 7.1, 7.2, 7.3 and 7.4).

1. **Ackroyd, P.** (1990): Policies for soil conservation in New Zealand: the institutional setting.- Ministry for the Environment.
Keyword(s): Legislation, Management, Policy, Soil Conservation.
2. **Adams, J.E.** (1979): Late Cenozoic erosion in New Zealand.- PhD Thesis, Research School of Earth Science, Victoria University of Wellington.
Keyword(s): Erosion, Geology, Historical Record, Landform Evolution.
3. **Adams, J.E.** (1980): Contemporary uplift and erosion of the Southern Alps, New Zealand.- Geological Society of America Bulletin, Vol. 91(11), 1-114.
Keyword(s): Erosion, Landform Evolution, Tectonic Movement, Southern Alps.
4. **Adams, J.E.** (1981): Earthquake triggered landslides form lakes in New Zealand.- Earthquake Information Bulletin, Vol. 13, 205-215.
Keyword(s): Cause, Earthquakes, Landslide Dammed Lakes, Trigger.
5. **Adams, J.E.** (1981): Earthquake-dammed lakes in New Zealand.- Geology, Vol. 9, 215-219.
Keyword(s): Cause, Earthquakes, Landslide Dammed Lakes, Overview, Trigger.
6. **Adams, R.D.** (1968): Preliminary reports on the Inangahua Earthquake, New Zealand, May 1968.- Department of Scientific and Industrial Research, Bulletin 193.
Keyword(s): Earthquakes, Impacts, Trigger, Inangahua, West Coast.
7. **Akehurst, N.S.** (1963): Erosion in the Waipaoa catchment: a physiographic analysis.- MA Thesis, University of Auckland, New Zealand.
Keyword(s): Soil Erosion, Gisborne.
8. **Alpe, S.G.** (1977): Farming the moving land: a study of mass movement on Okarahia Downs, Kaikoura, New Zealand.- MSc Thesis, University of Canterbury.
Keyword(s): Land Use, Sustainability, Okarahia Downs, Kaikoura.
9. **Anderson, A.G.** (1980): The land our future: Essays on land use and conservation in New Zealand.- in: New Zealand Geographical Society (ed.): Miscellaneous Series, Longman Paul.
Keyword(s): Land Use, Overview, Soil Conservation, Sustainability.
10. **Anderson, D.** (1996): Social impacts of land use change.- in: New Zealand Agricultural Economics Society (Inc) Conference, Blenheim, New Zealand, 5-6 July 1996, 10.
Keyword(s): Land Use, Social Impact.

11. **Anderson, G.A.** (1962): Observations on burning control in North Otago.- in: 10th N.Z. Science Congress, Conservation Section, Christchurch, 32-39.
Keyword(s): Land Use, Sustainability, Vegetation, Otago.
12. **Anon, R.** (1983): Earthworks erosion management.- Auckland Regional Water Board, Guideline.
Keyword(s): Erosion, Management, Auckland.
13. **Anon, R.** (1983): Sediments of the Upper Waitemata Harbour.- Auckland Regional Water Board, Review.
Keyword(s): Sedimentation, Waitemata Harbour, Auckland.
14. **Ansley, B.** (1994): Dam or disaster? - Listener, 30-32.
Keyword(s): Dams, Management, Policy, Clyde Dam, Otago.
15. **Arand, J.G.** (1986): Mass movement hazard at Te Aroha, North Island, New Zealand, University of Waikato.
Keyword(s): Assessment, Debris Material, Flow Movement, Hazard, Te Aroha.
16. **Ashby, G.C.A.** (1985): Geological controls on landsliding in the Kauaeranga Valley, Coromandel Ranges, and sources of sediment in stream channels, University of Waikato.
Keyword(s): Geology, Geomechanics, Geotechnics, Material Properties, Sedimentation, Kauaeranga Valley, Coromandel.
17. **Augustinus, P.C.** (1991): Rock resistance to erosion: some further considerations.- Earth Surface Processes and Landforms, Vol. 16, 563-569.
Keyword(s): Geology, Rock, Material Properties.
18. **Baldwin, R.G.** (1972): Rock debris slopes.- MA Thesis, Christchurch, University of Canterbury.
Keyword(s): Landform Evolution, Marlborough.
19. **Barton, I.L., Dakin, A.J., McPike, A.W., Mc Quarrie, W.G. & Ogilvie, D.J.G.** (1988): February 1985 Storm - Effects in The Hunua Catchment's.- Auckland Regional Authority, Report 11/26/7.
Keyword(s): Event, Impact, Landslide Disasters, Rainfall, Hunua Catchment.
20. **Basher, L.R.** (1989): Soil development and erosion history of a mountainous high rainfall area, Cropp River, Central Westland.- PhD Thesis, University of Canterbury.
Keyword(s): Erosion, Historical Record, Soils, Westland.
21. **Basher, L.R.** (1989): Surface erosion: a review of techniques for assessing the magnitude of soil loss.- Department of Scientific and Industrial Research, Land Resources, Technical Report CH1.
Keyword(s): Erosion, Soil Conservation.
22. **Basher, L.R., Meurk, C.D. & Tate, K.R.** (1990): The effects of burning on soil properties and vegetation.- Department of Scientific and Industrial Research, Land Resources Technical Report 18.
Keyword(s): Land Use, Material Properties, Sustainability, Vegetation.

23. **Basher, L.R. & Tonkin, P.J.** (1985): Soil formation, erosion and revegetation in the Central South Island hill and mountain lands.- in: NZ Society of Soil Science, Blenheim, 49-64.
Keyword(s): Erosion, Land Use, Soils, Vegetation.
24. **Beck, A.C.** (1968): Gravity faulting as a mechanism of topographic adjustment.- New Zealand Journal of Geology and Geophysics, Vol. 11, 191-199.
Keyword(s): Sackung/Sagging, Canterbury, Southern Alps.
25. **Beetham, R.D.** (1983): Seismicity and landsliding with especial attention to New Zealand.- MSc Thesis, London, Imperial College of Science and Technology, 137 p.
Keyword(s): Earthquakes, Historical Record, Landslide Dammed Lakes, Tectonic Movement, Mohaka Cliff, Waikaremoana.
26. **Beetham, R.D., Moody, K.E., Ferguson, D.A., Jennings, D.N. & Waugh, P.J.** (1992): Landslide development in schist by toe buckling.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 25-32.
Keyword(s): Dams, Geology, Landslide Behaviour, Otago.
27. **Beetham, R.D., Smith, G., Jennings, D.N. & Newton, C.J.** (1992): The geology of Nine Mile Creek schist landslide complex.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 17-24.
Keyword(s): Dams, Geological Assessment, Landslide Investigation, Cromwell Gorge.
28. **Bell, D.** (1983): The K9 landslide, Kawarau Valley, Central Otago - Abstract only.- in: Pacific Science Association 15th Congress, Dunedin, 17-18.
Keyword(s): Dams, Landslide Investigation, Cromwell Gorge, Kawarau Valley, Central Otago.
29. **Bell, D.H.** (1976): High intensity rainstorms and geological hazards; Cyclone Alison March 1975, Kaikoura, New Zealand.- Engineering Geology Bulletin, Vol. 14, 189-200.
Keyword(s): Cyclone, Event, Hazard Assessment, Rainfall, Kaikoura.
30. **Bell, D.H.** (1976): Slope evolution and slope stability, Kawarau Valley, Central Otago, New Zealand.- Bulletin of the International Association of Engineering Geology, Vol. 14, 189-200.
Keyword(s): Landform Evolution, Landform Development, Stability Analysis, Kawarau Valley, Central Otago.
31. **Bell, D.H.** (1977): Railway and highway stability problems in the Kaikoura area: New Zealand Institute of Engineers Annual Conference, Vol. 91.
Keyword(s): Engineering Assessment, Rail, Road, Stability Analysis, Kaikoura.
32. **Bell, D.H.** (1981): Dispersive loessial soils of the Port Hills, Christchurch.- in: Geomechanics in Urban Planning, Palmerston North.
Keyword(s): Erosion, Geotechnics, Geomechanics, Material Properties, Pipes, Tunnel Gully, Urbanisation, Port Hills, Christchurch.

33. **Bell, D.H.** (1984): Engineering geological aspects of the September 1983 Pompolona Hutt avalanche, Clinton Valley, Fiordland, New Zealand.- in: International Symposium on "Engineering Geological Environment in Mountainous Areas", Beijing, China, 177-188.
Keyword(s): Dams, Geological Assessment, Landslide Disasters, Clinton Valley, Fiordland.
34. **Bell, D.H.** (1990): Report on technical review of landslip hazard studies LR 1990/2 and LR 1990/3.- University of Canterbury.
Keyword(s): Hazard Assessment, Review.
35. **Bell, D.H.** (1992): Full day technical tour: Queenstown to Christchurch: field trip guide.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema(1).
Keyword(s): Geomorphological Assessment, Queenstown, Christchurch.
36. **Bell, D.H.** (1992): Landslides: Proceedings of the sixth international symposium 10-14 February 1992, Christchurch, Rotterdam, A.A. Balkema, 1495 p.
Keyword(s): Antecedent Moisture, Antecedent Rainfall, Organisation, Overview, Proceedings.
37. **Bell, D.H. & Owens, I.F.** (1979): High intensity rainstorms and mass movements. - in: ANZAAS Conference, January 1979, Auckland, 159.
Keyword(s): Rainfall.
38. **Bell, D.H. & Patterson, B.R.** (1992): Landslides and geomorphology in central and northern South Island, New Zealand: post symposium technical tour H/I.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema.
Keyword(s): Geomorphological Assessment, Rail, Road, Arthur's Pass.
39. **Bell, D.H. & Pettinga, J.R.** (1988): Bedding-controlled landslides in New Zealand soft rock terrain: Fifth International Symposium on Landslides, Lausanne, A.A. Balkema, Vol. 1, 77-83.
Keyword(s): Geology.
40. **Bell, D.H. & Trangmar, B.B.** (1987): Regolith materials and erosion processes on the Port Hills, Christchurch, New Zealand: Fifth International Symposium and Field Workshop on Landslides, Lausanne, A.A. Balkema, Vol. 1, 77-83.
Keyword(s): Erosion, Material Properties, Port Hills, Christchurch.
41. **Belz, D.T.G.** (1967): Investigations of subsidence at Utiku.- Soil & Water, Vol. 4(1), 19-22.
Keyword(s): Landslide Investigation (case study), Slump Movement, Rangitikei.
42. **Benn, J.** (1990): A Chronology of Flooding on the West Coast, South Island, New Zealand 1846-1990, 153 p.
Keyword(s): Historical Record, Data Bases, Rainfall, West Coast.
43. **Benn, J.** (1992): A Review of Earthquake Hazards on the West Coast, 61 p.
Keyword(s): Earthquakes, Hazard Assessment, Review, West Coast.

44. **Benson, W.N.** (1940): Landslides and allied features in the Dunedin district in relation to geological structure, topography and engineering.- Transactions and Proceedings of the Royal Society of New Zealand, Vol. 70(3), 249-263.
Keyword(s): Geology, Investigation, Otago.
45. **Benson, W.N.** (1946): Landslides and their relation to engineering in the Dunedin District, New Zealand.- Economic Geology, Vol. 41(4), 328-347.
Keyword(s): Geology, Investigation, Otago.
46. **Berezovsky, O.** (1994): Landslide impact on Pakihikura Valley.- BA (Hons) Thesis, Research School of Earth Science, Victoria University of Wellington.
Keyword(s): Indirect Costs, Land Use, Management, Pastoral Productivity, Personal Costs, Rural, Pakihikura Valley, Rangaitikei.
47. **Bergin, D.O., Kimberley, M.O. & Marden, M.** (1993): How soon does regenerating scrub control erosion?- New Zealand Journal of Forestry(August).
Keyword(s): Land Use, Soil Conservation, Vegetation.
48. **Bergin, D.O., Kimberley, M.O. & Marden, M.** (1995): Protective value of regenerating tea tree stands on erosion-prone hill country, East Coast, North Island, New Zealand.- New Zealand Journal of Forestry Science, Vol. 25(1), 3-19.
Keyword(s): Land Use, Landslide Stability Factors, Soil Conservation, Vegetation, East Coast, North Island.
49. **Berry, L. & Ruxton, B.P.** (1961): Mass movement and landforms in New Zealand and Hong Kong.- Transactions of the Royal Society of New Zealand, Vol. 88(4), 623-629.
Keyword(s): Flow Movement.
50. **Beschta, R.L.** (1983): Channel changes following storm-induced hillslope erosion in the Upper Kowhai Basin, Torlesse Range, New Zealand.- Journal of Hydrology (New Zealand), Vol. 22(2), 93-111.
Keyword(s): Change, Channels, Erosion, Impact, Rainfall, Kowhai Basin, Torlesse Range, Canterbury.
51. **Bird, G.A.** (1981): The nature and causes of coastal landsliding on the Maungatapu Peninsula, University of Waikato.
Keyword(s): Coast, Landslide Investigation, Maungatapu Peninsula.
52. **Bishop, D.G.** (1968): The geology of an area of accelerated erosion at Waerengaokuri, near Gisborne.- New Zealand Journal of Geology and Geophysics, Vol. 11(3), 551-563.
Keyword(s): Earth Material, Flow Movement, Gisborne.
53. **Bishop, D.G.** (1979): East Abbotsford landslide: basic data available as at 19 October 1979, Lower Hutt, N.Z. Geological Survey.
Keyword(s): Assessment, Data Bases, Inquiry, Landslide Disasters, Landslide Investigation, Abbotsford.
54. **Bishop, D.G. & Hislop, W.F.** (1983): Things that go bang in the night.- Landscape, Vol. 13, 2-5.
Keyword(s): Assessment, Landslide Investigation.

55. **Bishop, D.G. & McKellar, I.C.** (1979): East Abbotsford landslide: N.Z. Geological Survey, DSIR involvement up to end of emergency, Lower Hutt, N.Z. Geological Survey.
Keyword(s): Assessment, Inquiry, Landslide Disasters, Landslide Investigation, Abbotsford.
56. **Bishop, D.G. & Norris, R.J.** (1986): Rift and thrust tectonics associated with a translational block slide, Abbotsford, New Zealand. - *Geology Magazine*, Vol. 123, 13-25.
Keyword(s): Geology, Slide, Tectonic Movement, Abbotsford.
57. **Black, R.D.** (1979): Wairoa County Land Resource Study. - Hawke's Bay Catchment Board, preliminary report.
Keyword(s): Assessment, Geology, Land Use, Soil erosion, Terrain Classification, Topography, Vegetation, Wairoa County.
58. **Black, R.D.** (1980): Upper Cretaceous and Tertiary geology of Mangatu State Forest, Raukumara Peninsula, NZ. - *New Zealand Journal of Geology and Geophysics*, Vol. 23, 293-312.
Keyword(s): Geology, Vegetation, Raukumara, Gisborne.
59. **Black, R.D.** (1983): Wairoa County Land Resource Study. - Hawke's Bay Catchment Board, Final Report - Project 80/2.
Keyword(s): Assessment, Geology, Land Use, Soil Erosion, Terrain Classification, Topography, Vegetation, Wairoa County.
60. **Black, R.D.** (1989): Reversing the erosion trend on erodible hill country, East Coast, North Island, Hawke's Bay Catchment Board.
Keyword(s): Erosion, Soil Conservation, East Coast, North Island.
61. **Blair, J.R.** (1972): The influence of variations in lithology and structure in the Torlesse supergroup upon erosion processes in Blackly Stream Catchment, Torlesse Range, Canterbury, New Zealand. - MSc Thesis, Christchurch, University of Canterbury.
Keyword(s): Erosion, Canterbury.
62. **Blake, H.** (1983): Pastoral High Country. - Centre for Resource Management, Lincoln, Resource Management Paper 11.
Keyword(s): Land Use, Management.
63. **Blakeley, J.P.** (1974): Determination of relevant information for assessment of stability of soil slopes. - in: *Symposium on Stability of Slopes in Natural Ground*, New Zealand, 6.1-6.12.
Keyword(s): Engineering Assessment, Slope, Stability Analysis.
64. **Blakemore, S.** (1984): Soil conservation and hill country production - a proven partnership. - Wairarapa Catchment Board.
Keyword(s): Management, Pastoral Productivity, Soil Conservation, Wairarapa, North Island.
65. **Blaschke, P.M.** (1988): Vegetation and landscape dynamics in eastern Taranaki, North Island, New Zealand. - PhD Thesis, Research School of Earth Science, Victoria University of Wellington.

- Keyword(s):** Landform Evolution, Landform Development, Landslide Investigation, Vegetation, Taranaki.
66. **Blaschke, P.M.** (1990): Vegetative indicators of erosion frequency.- in: Ziemer, R.R., O'Loughlin, C.L. & Hamilton, L.S. (eds.): Research needs and applications to reduce erosion and sedimentation in tropical steep lands, International Association of Hydrological Sciences, Vol. 192, 385.
- Keyword(s):** Erosion, Frequency, Magnitude, Historical Record, Landslide Investigation, Vegetation, Taranaki.
67. **Blaschke, P.M., Eyles, G.O., DeRose, R.C. & Hicks, D.L.** (1992): Physically sustainable land uses in the Taranaki region.- Taranaki Regional Council DSIR 92/27.
- Keyword(s):** Land Use, Management, Soil Erosion, Sustainability, Taranaki.
68. **Blaschke, P.M., Trustrum, N.A. & DeRose, R.C.** (1992): Ecosystem processes and sustainable land use in New Zealand steep lands.- Agriculture, Ecosystems and Environment, Vol. 41, 153-178.
- Keyword(s):** Land Use, Overview, Sustainability, Vegetation.
69. **Blong, R.J.** (1971): Landform morphometry and landsurface evolution in the upper Mangawhara catchment, North Island, New Zealand.- PhD Thesis, University of Sydney, Australia.
- Keyword(s):** Landslide Classification, Waikato.
70. **Blong, R.J.** (1971): The underthrust slide - an unusual type of mass movement.- Geografiska Annaler, Vol. 53A(1), 52-58.
- Keyword(s):** Landslide Investigation (case study), Mechanisms.
71. **Blong, R.J.** (1973): A numerical classification of selected landslides of the debris slide - avalanche - flow type.- Engineering Geology, Vol. 7, 99-114.
- Keyword(s):** Landslide Classification, North Island.
72. **Blong, R.J.** (1973): Relationships between morphometric attributes of landslides.- Zeitschrift für Geomorphologie, Vol. 18, 66-67.
- Keyword(s):** Landslide Classification, Waikato.
73. **Blong, R.J.** (1974): Landslide form and hillslope morphology: an example of New Zealand.- The Australian Geographer, Vol. 12(5), 425-438.
- Keyword(s):** Landform Evolution.
74. **Blong, R.J. & Eyles, G.O.** (1989): Landslides: Extent and economic significance in Australia, New Zealand and Papua New Guinea.- in: Brabb, E.E. & Harrod, B.L. (eds.): Landslides: Extent and Economic Significance, Rotterdam, A.A. Balkema, 343-355.
- Keyword(s):** Damage Costs, Direct Costs, Hazard, Impact, Indirect Costs, Overview.
75. **Boase, M.R.** (1988): Succession of subalpine vegetation to *Libocedrus bidwillii* forest on a landslide-initiated soil chronosequence, Mount Taranaki, New Zealand, University of Waikato.
- Keyword(s):** Impact, Dating, Soils, Vegetation, Taranaki.

76. **Boon, K.** (1995): The Abbotsford Landslide, Wellington, Kotuku.
Keyword(s): Event, Landslide Disasters, Landslide Investigation, Abbotsford.
77. **Bowler, J.** (1994): Sedimentation in Mangahao No 1 reservoir and erosion within the Upper Mangahao catchment.- MSc Thesis, Research School of Earth Science, Victoria University of Wellington.
Keyword(s): Catchment, Erosion, Geology, Management, Sedimentation, Slopes, Topography, Mangahao.
78. **Brabhaharan, P., Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region Study Area 1 - Wellington City.- Wellington Regional Council, Works Consultancy Services Ltd, Institute of Geological and Nuclear Sciences, Report.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Susceptibility, Urban, Vegetation, State Highway 2, Upper Hutt, Wellington.
79. **Brabhaharan, P., Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region, Study Area 2 - Hutt Valley.- Wellington Regional Council, Works Consultancy Services Ltd, Institute of Geological and Nuclear Sciences, Report.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Susceptibility, Urban, Vegetation, Hutt Valley, Wellington.
80. **Brabhaharan, P., Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region, Study Area 3 - Porirua Basin and SH58.- Wellington Regional Council, Works Consultancy Services Ltd, Institute of Geological and Nuclear Sciences, Report.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Susceptibility, Urban, Vegetation, Porirua, State Highway 58, Wellington.
81. **Brabhaharan, P., Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region, Study Area 4 - Kapiti Coast.- Wellington Regional Council, Works Consultancy Services Ltd, Institute of Geological and Nuclear Sciences, Report.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Susceptibility, Urban, Vegetation, Kapiti Coast, Wellington.
82. **Brabhaharan, P., Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region, Study Area 5 - SH 2 Upper Hutt to Featherston Corridor.- Wellington Regional Council, Works Consultancy Services Ltd, Institute of Geological and Nuclear Sciences, Report.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Susceptibility, Urban Landslides, Vegetation, Upper Hutt, Featherston, State Highway 2.
83. **Bradsen, J.** (1992): Issues for an institutional framework for sustainable land use and soil conservation.- Ministry of Agriculture and Fisheries, Policy Report.
Keyword(s): Land Use, Management, Policy, Soil Conservation, Sustainability.
84. **BRANZ** (1987): Assessment of slope stability at building sites.- BRANZ.
Keyword(s): Engineering Assessment, Stability Analysis.

85. **Brenstrum, E.** (1990): Weather forecasting - an example of natural hazard mitigation.- in: Crozier, M.J. (ed.): Natural Hazards 90, Research School of Earth Sciences, Victoria University of Wellington, 40-45.
Keyword(s): Hazard Assessment, Hazard, Rainfall.
86. **Brickell Moss Rankine & Hill** (1980): Geotechnical report: Abbotsford landslide.- Earthquake and War Damage Commission.
Keyword(s): Engineering Assessment, Event, Geotechnics, Geomechanics, Landslide Disasters, Abbotsford.
87. **Bridson, J.D.** (1981): The effects of an extreme meteorological event on sediment production in a small steep land catchment, South Auckland, New Zealand, University of Waikato.
Keyword(s): Catchment, Event, Impacts, Rainfall, Sedimentation, Topography, Auckland.
88. **Brown, I.** (1978): Erosion history of the Wairoa county.- Hawke's Bay Catchment Board, unpublished.
Keyword(s): Erosion, Historical Record, Wairoa, Hawke's Bay.
89. **Brown, I. & Black, R.** (1989): Sustainable land use after Cyclone Bola.- Hawke's Bay Catchment Board.
Keyword(s): Cyclone Bola, Land Use, Management, Sustainability, East Coast, North Island.
90. **Brown, I.R.** (1974): Stability of slopes in soft rock.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 7.23-7.33.
Keyword(s): Rock Material, Slope.
91. **Brown, I.R.** (1975): The stability of slopes in soft rock.- MPhil Thesis, University of Auckland.
Keyword(s): Geomechanics, Stability Analysis, Auckland.
92. **Brown, R., Gillon, M. & Deere, D.** (1993): Landslide stabilisation at the Clyde Power Project, New Zealand.- in: Geotechnical Practice in Dam Rehabilitation, April 25 - 28, 1993, Raleigh, North Carolina, USA, 299-319.
Keyword(s): Landslide Stability Factors, Stabilisation/Controls, Stability Analysis, Clyde Dam, Otago.
93. **Brown, W.J.** (1983): The changing imprint of the landslide on rural landscapes on New Zealand.- Landscape Planning, Vol. 10, 173-204.
Keyword(s): Impacts, Land Use, Landform Evolution, Landform Development, Rural, Sustainability.
94. **Brundall, J.A.** (1966): Recent debris flows and related gullies in the Cass Basin.- MA Thesis, University of Canterbury, Christchurch.
Keyword(s): Debris Material, Flow Movement, Canterbury, Southern Alps.
95. **Bryant, J.M.** (1987): Clutha Valley development roading: slope stability investigations of the active portion of the Brewery Creek landslide complex.- Ministry of Works and Development, Materials and Investigations Report 156.

Keyword(s): Control, Dams, Landslide Stability Factors, Roads, Stabilisation, Stability Analysis, Clutha Valley, Brewery Creek, Otago.

96. **Bryant, J.M., Logan, T.C., Woodward, D.J. & Beetham, R.D.** (1992): The use of seismic methods in defining landslide structure.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 33-40.

Keyword(s): Geomechanics, Geotechnics, Landslide Investigation, Landslide Stability Factors, Methods, Stability Analysis, Otago.

97. **Bryant, J.M., McPherson, I.D. & Saul, G.J.** (1992): Cromwell Gorge landslides - effect on road design and construction.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 677-682.

Keyword(s): Control, Dams, Landslide Investigation, Landslide Stability Factors, Planning, Stabilisation, Stability Analysis, Cromwell Gorge, Otago.

98. **Bull, W.B., King, J., Kong, F., Moutoux, T. & Phillips, W.M.** (1994): Lichen dating of coseismic landslide hazards in alpine mountains. - Geomorphology, Vol. 10, 253-264.

Keyword(s): Earthquakes, Dating, Geomorphological Assessment, Hazard Assessment, Vegetation.

99. **Bull, W.H.** (1996): Prehistorical earthquakes on the Alpine fault, New Zealand.- Journal of Geophysical Research, Vol. 101(B3), 6037-6050.

Keyword(s): Dating, Earthquakes, Fall Movement, Rock Material, Southern Alps.

100. **Burrows, C.J.** (1975): A 500-year old landslide in the Acheron River Valley, Canterbury(Note).- New Zealand Journal of Geology and Geophysics, Vol. 18(2), 357-360.

Keyword(s): Earthquakes, Rock Avalanche, Canterbury, Southern Alps.

101. **Cairns, I.** (1995): Proceedings of the Indicators for Sustainable Agriculture Seminar.- Ministry of Agriculture and Fisheries, MAF Policy Technical Paper 95/7.

Keyword(s): Land Use, Overview, Sustainability.

102. **Calder, G.G.** (1966): Conservation farm planning results.- Soil & Water, Vol. 1(1), 4-8.

Keyword(s): Land Use, Soil Conservation.

103. **Campbell, D.A.** (1945): Soil conservation studies applied to farming in Hawke's Bay. Part 1.- New Zealand Journal of Science and Technology, Vol. 26, 301-332.

Keyword(s): Land Use, Soil Conservation, Sustainability, Hawke's Bay.

104. **Campbell, D.A.** (1946): Soil conservation studies applied to farming in Hawke's Bay. Part 2.- New Zealand Journal of Science and Technology, Vol. 27, 147-172.

Keyword(s): Land Use, Soil Conservation, Sustainability, Hawke's Bay.

105. **Campbell, D.A.** (1946): Soil conservation studies applied to farming in Hawke's Bay. Part 3.- New Zealand Journal of Science and Technology, Vol. 27, 426-444.

Keyword(s): Land Use, Soil Conservation, Sustainability, Hawke's Bay.

106. **Campbell, D.A.** (1950): First Steps in Soil Conservation.- Soil Conservation and Rivers Control Council, Wellington, Bulletin 4.
Keyword(s): Soil Conservation, Soil Erosion.
107. **Campbell, D.A.** (1950): Soil conservation studies applied to farming in Hawke's Bay. Part 4.- New Zealand Journal of Science and Technology, Vol. 32, 315-334.
Keyword(s): Land Use, Soil Conservation, Sustainability, Hawke's Bay.
108. **Campbell, D.A.** (1951): Types of soil erosion prevalent in New Zealand.- in: Union Geodesique et Internationale, Assemblée Generale de Bruxelles, 82-95.
Keyword(s): Soil Erosion.
109. **Campbell, D.A.** (1952): Down to the sea in slips.- Soil Conservation and Rivers Control Council, Bulletin.
Keyword(s): Erosion, Soil Conservation.
110. **Campbell, D.A.** (1955): Giving wings to soil conservation.- SCRCC Bulletin Ministry of Works and Development, Vol. 11.
Keyword(s): Policy, Soil Conservation.
111. **Campbell, D.A.** (1960): Conservation Farming for Hill Country.- Soil Conservation and River Control Council, Bulletin 15.
Keyword(s): Soil Conservation, Wellington.
112. **Campbell, D.A.** (1964): Oversowing of slips.- Soil & Water(December), 29.
Keyword(s): Soil Conservation.
113. **Campbell, D.A.** (1964): Restoring severely eroded and depleted tussock country at Tara Hills.- SCRCC Bulletin, Ministry of Works and Development, Vol. 17.
Keyword(s): Soil Conservation, Land Use, Sustainability, Canterbury.
114. **Campbell, D.A.** (1965): Down to the sea in slips.- SCRCC Bulletin, Ministry of Works and Development, Vol. 18.
Keyword(s): Management, Soil Conservation.
115. **Campbell, D.A.** (1966): Measurement of movement of an earthflow.- Soil & Water, Vol. 2(3), 23-24.
Keyword(s): Movement, Gisborne.
116. **Campbell, D.A. & Anaru, S.T.** (1964): Stabilising slip-eroded slopes.- Soil & Water, Vol. 1(2), 3-10.
Keyword(s): Stabilisation, Control.
117. **Campbell, H.J.** (1992): Erosional susceptibility and landscape development of different lithologies.- MSc Thesis, Victoria University of Wellington.
Keyword(s): Erosion, Geology, Land Use, Landform Evolution, Wairarapa.
118. **Canterbury University** (1992): Mount Fletcher Rock Avalanche May 2nd 1992.
Keyword(s): Rock Avalanche, Rock Material, Types, Canterbury.
119. **Cathcart, R.** (1980): Soil conservation under more intensive land use.- NZASWC Broadsheet.
Keyword(s): Land Use, Soil Conservation.

120. **Cave, M.P.** (1980): The geology of the Otira Valley section of State Highway 73, Arthur's Pass.- Ministry of Works and Development, Civil Directorate.
Keyword(s): Geological Assessment, Impacts, Road, Arthur's Pass, Westland.
121. **Cave, M.P.** (1982): Sedimentology, paleontology and structure of Torlesse rocks, and the geological hazards of Arthur's Pass National Park.- PhD Thesis, University of Auckland.
Keyword(s): Assessment, Geology, Hazard, Arthur's Pass.
122. **Chandler, M.P.** (1978): Some causes and effects of shallow landsliding on mudrocks, King Country, New Zealand, University of Waikato.
Keyword(s): Causes, Impacts, King Country.
123. **Chaney, A.L.J.** (1980): The hydrological characteristics of a small hill country catchment in the Wairarapa.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
Keyword(s): Hydrological Assessment, Wairarapa.
124. **Chinn, T.J., McSaveney, M.J. & McSaveney, E.R.** (1992): The Mt. Cook avalanche of 14 December 1991.- Department of Scientific and Industrial Research, Geology and Geophysics.
Keyword(s): Event, Movement, Rock Avalanche, Rock Material, Types, Mt. Cook.
125. **Claridge, G.G.C.** (1960): Clay minerals, accelerated erosion, and sedimentation in the Waipaoa River catchment.- New Zealand Journal of Geology and Geophysics, Vol. 3(2), 184-191.
Keyword(s): Geology, Mechanisms, Gisborne.
126. **Clarke, M., Lovell, C. & Wije-Wardana, D.** (1991): Maori forestry issues.- in: Whitwell, J. & Thompson, M.A. (eds.): Society and Culture: Economic Perspectives, Wellington, New Zealand Association of Economists Incorporated, Vol. 1(2), 39-50.
Keyword(s): Management.
127. **Clough, P. & Hicks, D.** (1993): Soil Conservation and the Resource Management Act.- Ministry of Agriculture & Fisheries, Wellington, MAF Policy Technical Report 93/2.
Keyword(s): Soil Conservation, Legislation.
128. **Clough, P. & Hicks, D.L.** (1992): Soil Conservation and the Resource Management Act.- NZ Institute of Economic Research, Unpublished Contract Report for MAF Policy.
Keyword(s): Soil Conservation, Legislation.
129. **Clyde Power Project** (1992): Cromwell Gorge landslides: technical papers summarising features, hazard assessments, and stabilisation measures.
Keyword(s): Dams, Hazard Assessment, Stabilisation, Cromwell Gorge, Otago.
130. **Coalition for Open Government** (1982): The national interest argument (Clyde Dam).- Coalition for Open Government.
Keyword(s): Clyde Dam, Otago.

131. **Cochrane, P.** (1995): Monitoring and the Resource Management Act 1991: A national perspective.- in: Proceedings on Land Use Impacts & Section 35 Resource Management Act - Know What It Means, 7-9 September 1995, Dunedin, New Zealand, 1-5.
Keyword(s): Legislation, Management.
132. **Cochrane, P.** (1995): Towards a core set of environmental indicators.- in: Cairns, I. (ed.): Towards Sustainable Agriculture - MAF Policy Technical Paper, Ministry of Agriculture and Fisheries, Vol. 95/7, 16-19.
Keyword(s): Land Use, Policy, Sustainability.
133. **Cocker, R.J. & Fahey, B.D.** (1993): Road-related mass movement in weathered granite, Golden Downs and Motueka Forests, New Zealand: A note.- Journal of Hydrology (New Zealand), Vol. 31(1), 65-69.
Keyword(s): Cause, Human Induced, Road, Trigger, Golden Downs, Motueka.
134. **Coker, R.J., Pearce, A.J. & Fahey, B.D.** (1990): Prediction and prevention of forest landing failures in high-intensity rainfall areas of northern New Zealand.- in: Ziemer, R.R., O'Loughlin, C.L. & Hamilton, L.S. (eds.): Research needs and applications to reduce erosion and sedimentation in tropical steepplands, International Association of Hydrological Sciences, Vol. 192, 311-317.
Keyword(s): Erosion, Landslide Stability Factors, Vegetation.
135. **Collins, J.** (1988): Cyclone Bola and its impact on the forestry sector.- New Zealand Forestry, Vol. 33(1), 4-5.
Keyword(s): Cyclone Bola, Event, Impact, Landslide disasters.
136. **Comesky, S.** (1985): Landslide hazard zoning for Raroa Road, Kelburn, Wellington.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
Keyword(s): Landslide Stability Factors, Road, Rock Material, Wellington.
137. **Commission of Inquiry into the Abbotsford Landslip Disaster** (1980): Commission of Inquiry into the Abbotsford Landslip Disaster, NZ Parliament.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford.
138. **Coombs, D.S. & Norris, R.J.** (1981): The East Abbotsford, Dunedin, New Zealand landslide of August 8, 1979, an interim report.- Bulletin Liason Laboratory, ETH, Special X.
Keyword(s): Event, Landslide Disasters, Abbotsford, Dunedin.
139. **Corne, C.P.** (1973): Progressive failure in clay slopes - with special reference to the role of soil creep.- MEng Thesis, University of Auckland.
Keyword(s): Geomechanics, Mechanisms.
140. **Costin, A.B.** (1962): Some impressions of a visit to parts of the South Island, June 1962.- Tussock Grasslands and Mountain Lands Institute, Special Publication 2.
Keyword(s): Soil Erosion, South Island.
141. **Cotton, C.A.** (1948): Landscape: As developed by the processes of normal erosion, Christchurch, Whitcombe & Tombs.
Keyword(s): Geomorphological Assessment.

142. **Cotton, C.A. & Te Punga, M.T.** (1955): Fossil gullies in the Wellington landscape.- New Zealand Geographer, Vol. 11(1), 72-75.
Keyword(s): Flow Movement, Soil Material, Wellington.
143. **Cotton, C.A. & Te Punga, M.T.** (1955): Solifluxion and periglacially modified landforms at Wellington, New Zealand.- Transactions of the Royal Society of New Zealand, Vol. 82(5), 1001-1031.
Keyword(s): Flow Movement, Soil Material, Wellington.
144. **Cowan, H.A.** (1989): An evaluation of the late Quaternary displacements and seismic hazard associated with the Hope and Kakapo faults, Amuri District, North Canterbury.- MSc Thesis, University of Canterbury.
Keyword(s): Earthquakes, North Canterbury.
145. **Cowan, H.A.** (1992): Structure, seismicity and tectonics for the Porter's Pass - Amberley fault zone, North Canterbury, New Zealand.- PhD Thesis, University of Canterbury.
Keyword(s): Earthquakes, Tectonic Movement, Porter's Pass, North Canterbury.
146. **Cowan, H.A. & McGlone, M.S.** (1991): Late Holocene displacements and characteristic earthquakes on the Hope River segment of the Hope Fault, New Zealand.- Journal of the Royal Society of New Zealand, Vol. 21(4), 373-384.
Keyword(s): Cause, Earthquakes, Tectonic Movement, Trigger, Hope Fault, North Canterbury.
147. **Cowan, H.A. & Pettinga, J.R.** (1990): Seismic hazards in analysis of natural hazards in the Canterbury civil defence region.- Canterbury Regional Council R90/8.
Keyword(s): Earthquakes, Hazard Assessment, Risk, Canterbury.
148. **Craig, D.** (1981): Mudslide plug flow within channels.- Engineering Geology, Vol. 17, 273-281.
Keyword(s): Landslide Behaviour.
149. **Crampton, A.** (1996): Remedial measures at Golden Cross following ground movement.- New Zealand Mining, Vol. 19, 7-8.
Keyword(s): Management, Mines, Remediation, Coromandel.
150. **Crimp, F.** (1975): Controlling earthflow slip and gully erosion.- Soil & Water, Vol. 11(3), 54-56.
Keyword(s): Control.
151. **Crozier, M.J.** (1967): Landslides and the Dunedin District.- Science Record, Vol. 17, 9-11.
Keyword(s): Classification, Dunedin.
152. **Crozier, M.J.** (1968): Earthflows and related environmental factors of Eastern Otago.- Journal of Hydrology (New Zealand), Vol. 7(1), 4-12.
Keyword(s): Earth Material, Flow Movement, Movement, Otago.
153. **Crozier, M.J.** (1968): Slope failures during heavy rainfall in Eastern Otago.- New Zealand Hydrological Society Symposium on Droughts and Floods(Nov.).
Keyword(s): Rainfall, Otago.

154. **Crozier, M.J.** (1969): Earthflow occurrence during high intensity rainfall in Eastern Otago, New Zealand.- New Zealand Journal of Engineering Geology, Vol. 3, 325-334.
Keyword(s): Earthflows, Event, Rainfall.
155. **Crozier, M.J.** (1970): Mass movement in Eastern Otago.- PhD Thesis, Dunedin, University of Otago.
Keyword(s): Landslide Stability Factors, Otago.
156. **Crozier, M.J.** (1972): Some problems in the correlation of landslide movement and climate.- in: 22nd International Geographical Congress, Montreal, 90-93.
Keyword(s): Landslides, Controls.
157. **Crozier, M.J.** (1973): Techniques for the morphometric analysis of landslips.- Zeitschrift für Geomorphologie, Vol. N.F. 17(1), 78-101.
Keyword(s): Classification, Otago.
158. **Crozier, M.J.** (1981): Landslides in the urban environment.- in: Geomechanics in Urban Planning, Palmerston North.
Keyword(s): Urban Landslides.
159. **Crozier, M.J.** (1981): A technique for predicting the probability of mudflow and rapid landslide occurrence.- in: Landslides and Mudflows, Reports on International Seminar, Oct. 1981, Alma Ata, USSR, 420-430.
Keyword(s): Frequency, Magnitude, Methods, Probability of Occurrence, Rainfall, Thresholds.
160. **Crozier, M.J.** (1983): Landslide activity and related climatic conditions - Abstract only.- in: Pacific Science Association 15th Congress, Dunedin, 52.
Keyword(s): Cause, Rainfall, Trigger.
161. **Crozier, M.J.** (1983): The mass movement regime: Recent history of landslide activity in the Wairarapa hill country, New Zealand.- New Zealand Geomechanics News, Vol. 27(Nov.), 3-9.
Keyword(s): Dating, Geomorphological Assessment, Landslide Investigation (case study), Return Period, Wairarapa.
162. **Crozier, M.J.** (1984): Field assessment of slope instability.- in: Brunsdon, D. & Prior, D.B. (eds.): Slope Instability, London, Wiley & Sons, 103-142.
Keyword(s): Geomorphological Assessment, Hazard Assessment, Landslide Stability Factors, Overview, Susceptibility.
163. **Crozier, M.J.** (1988): The terminology of 'natural hazard' assessment.- New Zealand Journal of Geography, Vol. 86, 5-7.
Keyword(s): Landslide Hazard, Terminology.
164. **Crozier, M.J.** (1989): Landslide hazard in the Pacific Islands.- in: Brabb, E.E. & Harrod, B.L. (eds.): Landslides: Extent and economic significance, Rotterdam, A.A. Balkema, 357-366.
Keyword(s): Hazard Assessment, Impacts.
165. **Crozier, M.J.** (1989): Landslides: Causes, consequences and environment, London, Routledge, 252 p.

Keyword(s): Cause, Impacts, Landslide Stability Factors, Overview, Trigger.

166. **Crozier, M.J.** (1990): Landslide hazard in New Zealand.- in: Crozier, M.J. (ed.): Natural Hazard 90: Natural Hazard Assessment in New Zealand, Research School of Earth Sciences, Victoria University Wellington, 31-39.

Keyword(s): Hazard Assessment, Impacts, Overview.

167. **Crozier, M.J.** (1990): Landslides and erosion in Wairarapa - Mechanics, controlling factors and processes and regional differences.- Department of Geography, Victoria University of Wellington, Occasional Paper 1.

Keyword(s): Landslide Stability Factors, Wairarapa.

168. **Crozier, M.J.** (1990): Natural Hazards 90, Research School of Earth Sciences, Victoria University of Wellington, 114 p.

Keyword(s): Hazard Assessment, Overview.

169. **Crozier, M.J.** (1990): Review of regional landslip hazard.- Victoria University of Wellington, Interim Report to Wellington Regional Council.

Keyword(s): Hazard, Review, Wellington.

170. **Crozier, M.J.** (1990): Slope instability in lowland Otago.- in: Kearsley, G. & Fitzharris, B. (eds.): Southern landscapes, 129-146.

Keyword(s): Landslide Stability Factors, Landslide Types, Overview, Otago.

171. **Crozier, M.J.** (1991): Determination of paleoseismicity from landslides.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Christchurch, A.A. Balkema, Vol. 2, 1173-1180.

Keyword(s): Assessment, Dating, Earthquakes, Taranaki.

172. **Crozier, M.J.** (1991): Geomorphology in unstable regions: Catena, Cremlingen.

Keyword(s): Geomorphological Assessment, Taranaki.

173. **Crozier, M.J.** (1991): Scale effects on locational controls of regolith landslides.- Bulletin of Geomorphology, Turkey, Vol. 19, 47-58.

Keyword(s): Control, Landslide Stability Factors, Stabilisation.

174. **Crozier, M.J.** (1993): Management issues arising from landslide and related activity.- New Zealand Geographer, Vol. 49(1), 35-37.

Keyword(s): Management.

175. **Crozier, M.J.** (1995): Landslide hazard assessment: a review of papers submitted to theme G4.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 3(3), 1843-1848.

Keyword(s): Hazard Assessment, Review.

176. **Crozier, M.J.** (1996): Hi-tech pinpoints landslide threat: The Dominion, Wellington, New Zealand, 3.

Keyword(s): Methods, Probability of Occurrence, Wellington.

177. **Crozier, M.J.** (1996): Magnitude/frequency issues in landslide hazard assessment.- in: Mäusbacher, R. & Schulte, A. (eds.): Beiträge zur Physiogeographie - Festschrift für Dietrich Barsch - Heidelberger Geographische Arbeiten, Heidelberg,

Selbstverlag des Geographischen Instituts der Universität Heidelberg, Vol. 104, 221-236.

Keyword(s): Frequency, Magnitude.

178. **Crozier, M.J.** (1996): Runout behaviour of shallow, rapid earthflows.- Zeitschrift für Geomorphologie (Supplementband), Vol. 105, 35-48.

Keyword(s): Landslide Behaviour, North Island.

179. **Crozier, M.J.** (1997): The climate-landslide couple: a Southern Hemisphere perspective.- in: Matthews, J.A., Brunnsden, D., Frenzel, B., Gläser, B. & Weiß, M.M. (eds.): Rapid Mass Movement as a Source of Climatic Evidence for the Holocene - Palaeoclimate Research, Stuttgart, Gustav Fisher Verlag, Vol. 19, 329-350.

Keyword(s): Climate Change, Earthquakes, Rainfall, Return Period, Thresholds.

180. **Crozier, M.J.** (1998): Landslides: The Encyclopedia of Environmental Science.

Keyword(s): Terminology.

181. **Crozier, M.J., Deimel, M.S. & Simon, J.S.** (1995): Investigation of earthquake triggering for deep-seated landslides, Taranaki, New Zealand.- Quaternary International, Vol. 25, 65-73.

Keyword(s): Cause, Earthquakes, Stability Analysis, Trigger, Taranaki.

182. **Crozier, M.J. & Eyles, R.J.** (1980): Assessing the probability of rapid mass movement.- in: Proceedings of the Technical Groups, Third Australia - New Zealand Conference on Geomechanics, Wellington, 2.47-2.51.

Keyword(s): Methods, Probability of Occurrence.

183. **Crozier, M.J., Eyles, R.J., Marx, S.L., McConchie, J.A. & Owen, R.C.** (1979): Mass movement erosion in the Wairarapa during 1977.- ANZAAS, Auckland, 11pp.

Keyword(s): Landslide Investigation (case study), Overview, Wairarapa.

184. **Crozier, M.J., Eyles, R.J., Marx, S.L., McConchie, J.A. & Owen, R.C.** (1980): Distribution of landslips in the Wairarapa hill country.- New Zealand Journal of Geology and Geophysics, Vol. 23, 575-586.

Keyword(s): Landslide Investigation (case study), Landslide Stability Factors, Wairarapa.

185. **Crozier, M.J., Eyles, R.J. & Wheeler, R.H.** (1978): Landslips in Wellington City.- New Zealand Geographer, Vol. 34, 58-74.

Keyword(s): Landslide Stability Factors, Rainfall, Thresholds, Trigger, Urban Landslides, Wellington.

186. **Crozier, M.J., Gage, M., Pettinga, J.R., Selby, M.J. & Wasson, R.J.** (1992): The stability of hillslopes.- in: Soons, J.M. & Selby, M.J. (eds.): Landforms of New Zealand, Auckland, Longman Paul Ltd., 63-90.

Keyword(s): Landslide Stability Factors, Overview.

187. **Crozier, M.J. & Glade, T.** (in prep.): The standardized landslide reporting protocol.- Victoria University of Wellington, Occasional Report.

Keyword(s): Data Bases.

188. **Crozier, M.J., McConchie, J.A., Owen, R.C. & Eyles, R.J.** (1982): Mass movement erosion Wairarapa.- Department of Geography, Victoria University of Wellington.
Keyword(s): Cause, Landslide Stability Factors, Landslide Types, Movement, Wairarapa.
189. **Crozier, M.J. & Pillans, B.J.** (1991): Geomorphic events and landform response in South-eastern Taranaki, New Zealand.- in: Crozier, M.J. (ed.): Geomorphology in Unstable Regions, Catena, Vol. 18, 471-487.
Keyword(s): Deforestation, Earthquakes, Sea-Level, Tectonic Movement, Taranaki.
190. **Crozier, M.J. & Preston, N.J.** (1998): Modelling changes in terrain resistance as a component of landform evolution in unstable hill country.- in: Process Modelling and Landform Evolution, Bonn, 267-284.
Keyword(s): Landform Evolution, Thresholds, Hawke's Bay.
191. **Crozier, M.J., Vaughan, E.E. & Tippet, J.M.** (1990): Relative instability in colluvium filled bedrock depressions.- Earth Surface Processes and Landforms, Vol. 15, 329-339.
Keyword(s): Landslide Stability Factors, Slope Form, Stability Analysis, Wellington.
192. **Cuff, J.R.I.** (1977): A description of the upper Ashburton catchment with emphasis on land use capability and sources of detritus.- South Canterbury Catchment Board, Publication 15.
Keyword(s): Catchment, Erosion, Land Use, Canterbury.
193. **Cuff, J.R.I.** (1981): Conservation tillage's role in reducing hill country erosion.- in: Conservation Tillage Seminar, Monsanto, 337-341.
Keyword(s): Soil Conservation.
194. **Cuff, J.R.I.** (1981): Erosion in the upper Orari Catchment.- South Canterbury Catchment Board and Regional Water Board, Publication 19.
Keyword(s): Sedimentation, Canterbury.
195. **Cuff, J.R.I.** (1988): Soil conservation: achieving sustainable land use in New Zealand.- NZ Association of Soil and Water Conservators, unpublished.
Keyword(s): Land Use, Soil Conservation, Sustainability.
196. **Cumberland, K.B.** (1944): Contrasting regional morphology of soil erosion in New Zealand.- Geographic Review, Vol. 34(1), 77-95.
Keyword(s): Soil Erosion.
197. **Cumberland, K.B.** (1947): Soil erosion in New Zealand: A geographic reconnaissance.- in: Soil Conservation and Rivers Control Council (ed.), Christchurch, Whitcombe & Tombs, 228 p.
Keyword(s): Overview, Soil Erosion.
198. **Cunningham, A.** (1958): Direct effect of the 1855 earthquake on the vegetation of the Orongorongo Valley, Wellington.- Transactions of the Royal Society of New Zealand, Vol. 85(2), 205-212.

Keyword(s): Impacts, Vegetation, Trigger, Cause, Earthquakes, Orongorongo, Wellington.

199. **Cunningham, A.** (1974): Headwaters of the Tutaekuri catchment study of an erosion problem in Hawke's Bay.- Forest Research Institute - New Zealand Forest Service, Technical Paper 62.

Keyword(s): Catchment, Impacts, Hawke's Bay.

200. **Cunningham, A.** (1978): Erosion assessment in New Zealand mountainlands.- in: Proceedings of the Conference on Erosion Assessment and Control in New Zealand, University of Canterbury, Christchurch, 272-284.

Keyword(s): Assessment, Erosion, Overview.

201. **Cunningham, A.** (1981): Use of introduced plants for erosion control in Hawke's Bay mountainlands.- in: Symposium on erosion and sediment transport in pacific rim steeplands, Christchurch, 546-557.

Keyword(s): Control, Soil Erosion, Stabilisation, Vegetation, Hawke's Bay.

202. **Cunningham, A. & Arnott, W.B.** (1964): Observations following a heavy rainfall on the Rimutaka range.- Journal of Hydrology (New Zealand), Vol. 3(2), 15-24.

Keyword(s): Catchment, Impacts, Wellington.

203. **Cunningham, A. & Stribling, P.W.** (1976): The Ruahine Range control scheme.- Soil & Water, Vol. 13(1), 4-5.

Keyword(s): Control, Erosion, Stabilisation, Hawke's Bay.

204. **Cunningham, M.J.** (1972): A mathematical model of the physical processes of an earthflow.- Vol. 11(1), 47-54.

Keyword(s): Earth Material, Flow Movement, Mechanisms.

205. **Daji, M.** (1979): Landslides on recently deforested mudrock slopes in the Taumarunui County, N.Z., University of Waikato.

Keyword(s): Landslide Types, Vegetation, Taumarunui.

206. **Dallow, G.** (1992): Large ancient landslides along the Wellington Fault - Abstract only.- in: Recent advances in Wellington Earth Science, 75.

Keyword(s): Earthquakes, Wellington, North Island.

207. **Dalton, L.** (1976): The Ruamahanga slip: its form, origin and age.- Unpublished BSc Honours Thesis, Victoria University of Wellington.

Keyword(s): Earthquakes, Landslide Behaviour, Wairarapa.

208. **Davidson, C.F.** (1965): Mass movement on the Gisborne coastline.- MA Thesis, University of Canterbury.

Keyword(s): Coasts/Coastal, Geomorphological Assessment, Landslide Investigation (case study), Gisborne.

209. **Deimel, M.S. & Simon, J.** (1989): Report of a stability-research in the Taranaki-Wanganui area New Zealand.- RSES Victoria University of Wellington.

Keyword(s): Earthquakes, Material Properties, Slope, Taranaki.

210. **Dellow, G.D.** (1988): Earthquake generated landslides in the Wellington-Lower Hutt area.- MSc Thesis, Christchurch, University of Canterbury.

Keyword(s): Earthquakes, Trigger, Wellington, Lower Hutt.

211. **Department of Internal Affairs** (1980): Submissions by the Department of Internal Affairs to the commission of inquiry into the Abbotsford Landslip disaster.- Department of Internal Affairs.

Keyword(s): Inquiry, Landslide Disasters, Abbotsford.

212. **DeRose, R.C.** (1995): Slope limitations to sustainable land use in hill country prone to landslide erosion.- New Zealand Association of Resource Management Broadsheet, 117-122.

Keyword(s): Land Use, Slope, Soil Conservation, Sustainability.

213. **DeRose, R.C.** (1996): Relationships between slope morphology, regolith depth, and the incidence of shallow landslides in eastern Taranaki hill country.- Zeitschrift für Geomorphologie (Supplementband), Vol. 105, 49-60.

Keyword(s): Landslide Stability Factors, Slope Form, Taranaki.

214. **DeRose, R.C., Trustrum, N.A. & Blaschke, P.M.** (1991): Geomorphic change implied by regolith-slope relationships on steep land hillslopes, Taranaki, New Zealand.- in: Crozier, M.J. (ed.): Geomorphology in Unstable Regions, Cremlingen, Catena, Vol. 18, 489-514.

Keyword(s): Slope, Slope Form, Soils, Taranaki.

215. **DeRose, R.C., Trustrum, N.A. & Blaschke, P.M.** (1993): Post-deforestation soil loss from steep land hillslopes in Taranaki, New Zealand.- Earth Surface Processes and Landforms, Vol. 18(2), 131-144.

Keyword(s): Land Use, Sedimentation, Vegetation, Taranaki.

216. **DeRose, R.C., Trustrum, N.A., Thomson, N.A. & Roberts, A.H.C.** (1995): Effect of landslide erosion on Taranaki hill pasture production and composition.- New Zealand Journal of Agricultural Research, Vol. 38, 457-471.

Keyword(s): Impacts, Pastoral Productivity, Taranaki.

217. **Dibble, R.R.** (1988): Volcanic hazards in New Zealand.- Annals of the Disaster Prevention Research Institute, Kyoto University, Vol. 31A, 27-46.

Keyword(s): Hazard Assessment, Lahars.

218. **Dingwall, P.R., Fitzharris, B.B. & Owens, I.F.** (1989): Natural hazards and visitor safety in New Zealand's national parks.- New Zealand Geographer, Vol. 45, 68-79.

Keyword(s): Avalanches, Hazard Assessment, Risk, National Park.

219. **Dixie, R.** (1982): Reconnaissance review of soil conservation and water control techniques, North Island.- Ministry of Works and Development, Water and Soil Division.

Keyword(s): Hydrological Assessment, Review, Soil Conservation, North Island.

220. **Douglas, G.B., Trustrum, N.A. & Brown, I.C.** (1986): Effect of soil slip erosion on Wairoa hill pasture production and composition.- New Zealand Journal of Agricultural Research, Vol. 29, 183-192.

Keyword(s): Impacts, Pastoral Productivity, Soil Erosion, Wairoa.

221. **Drummond, R.G.** (1968): Landslide in Tukituki River.- Soil & Water, Vol. 5(2), 22-23.
Keyword(s): Landslide Dammed Lakes, Hawke's Bay.
222. **DSIR** (1989): Landslides spotted by SPOT.- Streamland, Vol. 75.
Keyword(s): Methods, Remote Sensing, East Coast, North Island.
223. **Dymond, J. & Hicks, D.** (1986): Steepland erosion measurements from aerial photographs.- Soil & Water Conservation, Vol. 41, 252-255.
Keyword(s): Aerial Photograph Analysis, Methods.
224. **Dymond, J.R., DeRose, R.C. & Harmsworth, G.R.** (1995): Automated mapping of land components from digital elevation data.- Earth Surface Processes and Landforms, Vol. 20, 131-137.
Keyword(s): GIS Application, Methods.
225. **Dymond, J.R., DeRose, R.C. & Trotter, C.M.** (1992): DTMs for terrain evaluation.- Geocarto International, Vol. 2, 53-58.
Keyword(s): GIS Application, Methods, Terrain Classification, Wanganui, Makahu, Taranaki.
226. **Dymond, J.R. & Luckman, P.G.** (1994): Direct induction of compact rule-based classifiers for resource mapping.- International Journal Geographical Information Systems, Vol. 8(4), 357-367.
Keyword(s): GIS Application.
227. **Earthquake and War Damage Commission** (1980): Abbotsford landslip commission of inquiry - Phase 4: submissions on behalf of Earthquake and War Damage Commission.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford.
228. **East Cape Catchment Board** (1985): Estimates of erosion control requirements by land use capability units.- East Cape Catchment Board, Gisborne.
Keyword(s): Control, Soil Conservation, Stabilisation, East Coast, North Island.
229. **East Cape Catchment Board** (1988): Wairoa catchment: Cyclonic Bola storm damage survey.- East Cape Catchment Board, Gisborne.
Keyword(s): Cyclone Bola, Event, Landslide Disasters, Wairoa County.
230. **East, G.R.W.** (1974): Inclined plane slope failures in the Auckland Waitemata soils.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 5.17-5.34.
Keyword(s): Landslide Investigation (case study), Remediation, Auckland.
231. **Eden, D.N., Froggatt, P.C., Trustrum, N.A. & Page, M.J.** (1994): A multiple-source Holocene tephra sequence from Lake Tutira, Hawke's Bay, New Zealand.- New Zealand Journal of Geology and Geophysics, Vol. 36(2), 233-242.
Keyword(s): Climate Change, Dating, Sedimentation, Hawke's Bay.
232. **Eden, D.N. & Page, M.J.** (1998): Palaeoclimatic implications of a storm erosion record from late Holocene lake sediments, North Island, New Zealand.- Palaeogeography, Palaeoclimatology, Palaeoecology, Vol. 139, 37-58.
Keyword(s): Climate Change, Dating, Hawke's Bay.

233. **Edwards, S.** (1990): Earthquake triggered landslides: South Taranaki/Wanganui.- MSc (Hons) Thesis, Victoria University of Wellington.
Keyword(s): Earthquakes, Taranaki.
234. **Eggers, M.J.** (1987): Engineering geology assessment of slope instability on forest lands in South Westland.- MSc Thesis, Canterbury University.
Keyword(s): Engineering Assessment, Westland.
235. **Eibey, G.A.** (1965): Landslides as evidence of seismic activity.- New Zealand Science Review, Vol. 23(5), 81.
Keyword(s): Cause, Earthquakes, Trigger.
236. **Elder, D.E., McCahon, I.F. & Yetton, M.D.** (1991): The earthquake hazard in Christchurch.- Earthquake and War Damage Commission.
Keyword(s): Cause, Earthquakes, Hazard Assessment, Trigger, Christchurch.
237. **Electricity Corporation of New Zealand** (1989): Cromwell Gorge: landslides, Electricorp Production, Wellington, 10 p.
Keyword(s): Dams, Landslide Investigation (case study), Cromwell Gorge, Otago.
238. **Ericksen, N.J.** (1990): Natural hazards: an interactive systems approach.- in: Natural hazards 90 - Natural hazard assessment in New Zealand, 12.
Keyword(s): Hazard Assessment, Management, Policy.
239. **Evans, G.** (1978): Some slope failure case studies.- in: Seminar on slope stability and urban development, University of Canterbury.
Keyword(s): Urban Landslides.
240. **Evans, G.L. & McKelvey, R.J.** (1992): Stabilisation of failures in weathered mudstone.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 699-706.
Keyword(s): Control, Stabilisation.
241. **Eyles, G.O.** (1983): The distribution and severity of present (soil) solid (sic) erosion in New Zealand.- New Zealand Geographer, Vol. 39(1), 12-28.
Keyword(s): Assessment, Geology, Overview, Soil Erosion, Topography.
242. **Eyles, G.O. & Harmsworth, G.R.** (1991): Review on the application of DSIR land resource data bases to Ministry for the Environment outcome areas.- Department of Scientific and Industrial Research, Land Resources, Contract Report 91/27.
Keyword(s): Data Bases, Review.
243. **Eyles, G.O. & Newsome, P.F.** (1991): A soil conservation approach to sustainable land use.- in: Proceedings of the International Conference on Sustainable Land Management, Napier, New Zealand, 216-220.
Keyword(s): Land Use, Management, Soil Conservation, Sustainability.
244. **Eyles, R.J.** (1971): Mass movement in Tangoio Soil Conservation Reserve, Hawke's Bay.- Earth Science Journal, Vol. 5, 79-91.
Keyword(s): Landform Development, Mass Movement, Soil Erosion, Hawke's Bay.

245. **Eyles, R.J.** (1974): Predicting slips.- Soil & Water, Vol. 10(4), 51-52.
Keyword(s): Preconditions, Hawke's Bay.
246. **Eyles, R.J.** (1979): Slip-triggering rainfalls in Wellington City, New Zealand.- New Zealand Journal of Science, Vol. 22, 117-121.
Keyword(s): Cause, Rainfall, Return Period, Thresholds, Trigger, Wellington.
247. **Eyles, R.J., Crozier, M.J. & Wheeler, R.H.** (1974): Landslides in Wellington City.- Soil & Water, Vol. 11(2), 17-20.
Keyword(s): Landslide Disasters, Wellington.
248. **Eyles, R.J., Crozier, M.J. & Wheeler, R.H.** (1974): Landslips in Wellington City.- New Zealand Geographer, Vol. 34(2), 58-74.
Keyword(s): Landslide Disasters, Wellington.
249. **Eyles, R.J. & Eyles, G.O.** (1981): Recognition of storm damage events.- in: Proceedings of the 11th New Zealand Geography Conference, Wellington, 118-123.
Keyword(s): Rainfall, Thresholds.
250. **Fahey, B.D. & Coker, R.J.** (1989): Forest road erosion in the granite terrain of southwest Nelson, New Zealand.- Journal of Hydrology (New Zealand), Vol. 28, 123-141.
Keyword(s): Erosion, Land Use, Roads, Nelson.
251. **Falconer, B.H.** (1963): Stability of the hillside at Tahunanui, Nelson.- Nelson City Council.
Keyword(s): Control, Stabilisation, Urban Landslides, Nelson.
252. **Fantham, P.** (1987): Preliminary cost benefit analysis for the East Cape erosion effectiveness survey.- East Cape Catchment Board.
Keyword(s): Damage Costs, Soil Conservation, East Coast, North Island.
253. **Fisher, F.J.F.** (1952): Observations on the vegetation of screes in Canterbury, New Zealand.- Journal of Ecology, Vol. 40, 156-167.
Keyword(s): Erosion, Geomorphological Assessment, Canterbury, Southern Alps.
254. **Forest Research Institute** (1965): Report of the Forest Research Institute for 1964.
Keyword(s): Creep Movement, Vegetation.
255. **Forsyth, P.J., Glassey, P.J. & Turnball, I.M.** (1995): Integrating natural hazards under the RMA.- Planning Quarterly, Vol. 3, 17-19.
Keyword(s): Hazard Assessment, Management.
256. **Francis, D.A.** (1983): Geological aspects of some large landslides in NZ seismic areas.- in: Pacific Science Association 15th Congress, Dunedin, 75.
Keyword(s): Cause, Earthquakes, Geological Assessment, Trigger.
257. **Fransen, P.** (1996): Identifying erosion risk in steep hill country - a case study.- Logging Industry Research Organisation Vol. 21(20).
Keyword(s): Erosion, Land Use, Risk, Hawke's Bay.

258. **Fransen, P.** (1996): A model of slip erosion risk, Central Hawke's Bay coastal hill country.- Logging Industry Research Organisation, P.R. 59.
Keyword(s): Erosion, Land Use, Risk, Hawke's Bay.
259. **Fransen, P. & Brownlie, R.** (1995): Historical slip erosion in catchments under pasture and radiata pine forest, Hawke's Bay hill country.- New Zealand Forestry, Vol. 11, 29-33.
Keyword(s): Erosion, Pastoral Productivity, Vegetation, Hawke's Bay.
260. **Fransen, P.J.B. & Brownlie, R.K.** (1996): Physical characteristics of Pakuratahi-Tamingimangi catchments, Central Hawke's Bay.- New Zealand Logging Industry Research Organisation.
Keyword(s): Catchment, Geomorphological Assessment, Hawke's Bay.
261. **Gage, M. & Black, R.D.** (1979): Slope stability and geological investigations at Mangatu State Forest.- N.Z. Forest Service, Forest Research Institute Technical Paper 66, 37pp.
Keyword(s): Geology, Landslide Stability Factors, Gisborne.
262. **Garden E.R. and Partners** (1979): Abbotsford landslip: second phase of inquiry, disaster period: submissions of representatives of E.R. Garden & Partners - Dunedin.- E.R.Garden and Partners,.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford.
263. **Garrett, J.** (1980): Catchment authority work in the Rangitikei area.- in: Trustrum, N.A. (ed.): The Influence of Soil Slip Erosion on Hill Country Pastoral Productivity, Aokautere - Internal Report, National Water and Soil Conservation Organisation, Vol. 21, 23-26.
Keyword(s): Pastoral Productivity, Soil Conservation, Rangitikei.
264. **Gee, M.D.** (1991): Classification of landslide hazard zonation methods.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Christchurch, New Zealand, A.A. Balkema, Rotterdam, Vol. 2(3), 947-952.
Keyword(s): Hazard Assessment, Methods.
265. **Gee, M.D.** (1992): The mapping and assessment of Natural Hazards in Wellington.- PhD Thesis, Wellington, Research School of Earth Science, Victoria University of Wellington, 517 p.
Keyword(s): Frequency, Hazard Assessment, Impacts, Magnitude, Overview, Wellington.
266. **Gellatly, A.F.** (1982): Lichenometry as a relative age dating method in Mt. Cook National Park, New Zealand.- New Zealand Journal of Botany, Vol. 20, 343-353.
Keyword(s): Holocene, Moraines.
267. **Gibbs, H.S.** (1945): Soil erosion in the high country of the South Island.- Department of Scientific and Industrial Research Bulletin 92.
Keyword(s): Land Use, Overview, Soil Erosion, South Island.
268. **Gill, J.L.** (1974): Risks, legalities and insurance of slope stability.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 2.1-2.6.

Keyword(s): Impacts, Insurance, Legislation, Risk.

269. **Gillingham, A. & During, C.** (1973): Pasture production and transfer of fertility within a long-established hill pasture.- New Zealand Journal Experimental Agriculture, Vol. 1, 227-232.

Keyword(s): Pastoral Productivity, Soil Conservation.

270. **Gillon, M.** (1993): A review of public safety aspects of the Clyde Power Station.- ECNZ.

Keyword(s): Dams, Hazard Assessment, Risk, Otago.

271. **Gillon, M.D.** (1992): Landslide stabilisation at the Clyde Power Project: a major geotechnical undertaking.- New Zealand Engineering, Vol. 47(3).

Keyword(s): Dams, Landslide Stability Factors, Clyde Power Project, Otago.

272. **Gillon, M.D., Anderson, C.K., Halliday, G.S. & Watts, C.R.** (1992): Jackson Creek landslide stabilisation, New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 707-714.

Keyword(s): Control, Dams, Stabilisation, Cromwell Gorge, Otago.

273. **Gillon, M.D., Denton, B.N. & Macfarlane, D.F.** (1992): Field investigation of the Cromwell Gorge landslides.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 111-118.

Keyword(s): Dams, Landslide Investigation (case study), Cromwell Gorge, Otago.

274. **Gillon, M.D., Foster, P.F., Jennings, D.N. & Graham, C.J.** (1992): Stability analysis applications: Cromwell Gorge landslides. - in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 423-428.

Keyword(s): Dams, Landslide Investigation (case study), Stability Analysis, Cromwell Gorge.

275. **Gillon, M.D., Foster, P.F., Proffitt, G.Y. & Smits, A.P.** (1991): Monitoring of the Cromwell Gorge landslides.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1135-1140.

Keyword(s): Dams, Instrumentation, Monitoring, Cromwell Gorge, Otago.

276. **Gillon, M.D., Graham, C.J. & Grocott, G.G.** (1992): Low level drainage works at the Brewery Creek slide.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 715-720.

Keyword(s): Control, Dams, Groundwater, Stabilisation, Cromwell Gorge, Otago.

277. **Gillon, M.D. & Hancox, G.T.** (1992): Cromwell Gorge Landslides - a general overview.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 83-120.

Keyword(s): Dams, Landslide Investigation (case study), Overview, Cromwell Gorge, Otago.

278. **Gillon, M.D., Riley, P.B., Halliday, G.S. & Lilley, P.B.** (1992): Movement history and infiltration, Cairnmuir Landslide, NZ.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 103-110.

Keyword(s): Dams, Groundwater, Instrumentation, Landslide Behaviour, Landslide Investigation (case study), Overview, Cromwell Gorge, Otago.

279. **Glade, T.** (1996): The temporal and spatial occurrence of landslide-triggering rainstorms in New Zealand.- in: Mäusbacher, R. & Schulte, A. (eds.): Beiträge zur Physiogeographie - Festschrift für Dietrich Barsch - Heidelberger Geographische Arbeiten, Heidelberg, Geographisches Institut, University Heidelberg, Vol. 104, 237-250.

Keyword(s): Data Bases, Frequency, Rainfall.

280. **Glade, T.** (1997): The temporal and spatial occurrence of rainstorm-triggered landslide events in New Zealand.- PhD Thesis, Wellington, Victoria University, 380 p.

Keyword(s): Aerial Photograph Analysis, Antecedent Moisture, Antecedent Rainfall, Cause, Climate, Cyclone Bola, Damage Costs, Data Bases, Deforestation, Direct Costs, Erosion, Event, Frequency, GIS Application, Hazard Assessment, Historical Record, Insurance, Investigation, Magnitude, Preconditions, Probability of Occurrence, Rainfall, Reporting Protocol, Resource Management Act (RMA), Susceptibility, Thresholds, Hawke's Bay, North Island, Wairarapa, Wellington.

281. **Glade, T.** (1998): Approach to establish the frequency and magnitude of landslide-triggering rainstorm events in New Zealand.- Environmental Geology, Vol. 35(2-3), 160-174.

Keyword(s): Antecedent Rainfall, Cause, Climate, Deforestation, Frequency, Historical Record, Magnitude, Preconditions, Probability of Occurrence, Rainfall, Thresholds, Hawke's Bay, North Island, Wairarapa, Wellington.

282. **Glade, T. & Crozier, M.J.** (1996): Towards a national landslide information base for New Zealand.- New Zealand Geographer, Vol. 52(1), 29-40.

Keyword(s): Damage Costs, Data Bases, Reporting Protocol.

283. **Glade, T. & Crozier, M.J.** (1998): The current status of landslide information systems in New Zealand.- in: Proceedings of the Eighteenth Conference of the New Zealand Geographical Society, 27 - 30 August 1995, Christchurch, New Zealand, 153-158.

Keyword(s): Damage Costs, Data Bases, Reporting Protocol.

284. **Glasby, G.P.** (1991): A review of the concept of sustainable management as applied to New Zealand.- Journal of the Royal Society of New Zealand, Vol. 21, 61-81.

Keyword(s): Land Use, Management, Policy, Sustainability.

285. **Glass, A.N.** (1957): Soil conservation on North Island hill country.- New Zealand Journal of Agriculture, Vol. 94, 2-12.
Keyword(s): Overview, Soil Conservation, North Island.
286. **Glass, A.N.** (1964): Soil conservation practices increase dairy production.- Soil & Water, Vol. 1(1), 15-16.
Keyword(s): Pastoral Productivity, Soil Conservation.
287. **Gordon, B.M.** (1991): Earthquake claims in New Zealand - a loss adjuster's perspective.- in: Natural and Technological Hazards: Implications for the Insurance Industry, Australia, 119-129.
Keyword(s): Damage Costs, Earthquakes, Insurance.
288. **Gradwell, M.W.** (1957): Patterned ground at a high country station.- New Zealand Journal of Science and Technology, Vol. B38, 793-806.
Keyword(s): Creep Movement, Marlborough.
289. **Gradwell, M.W.** (1960): Soil frost action in snow-tussock grassland.- New Zealand Journal of Science, Vol. 3, 580-590.
Keyword(s): Creep Movement, Canterbury.
290. **Gradwell, M.W.** (1962): Physical properties and instability in South Island high country soils.- New Zealand Society of Soil Science Proceedings, Vol. 5, 1-4.
Keyword(s): Creep Movement, South Island.
291. **Graham, C.J. & Crozier, M.J.** (1993): Overview of land instability in the Waikato Region.- prepared for Environment Waikato, Report.
Keyword(s): Geomorphological Assessment, Hazard, Overview, Waikato.
292. **Grange, L.I. & Gibbs, H.S.** (1947): Soil erosion in New Zealand, Part 1 - Southern half of the North Island.- Department of Scientific and Industrial Research, Soil Bureau Bulletin 1.
Keyword(s): Soil erosion, Soil conservation, North Island.
293. **Grant, P.J.** (1966): Tutira Lake - 1925 and 1963.- Soil & Water, Vol. 2(4), 21-22.
Keyword(s): Historical Record, Rainfall, Sedimentation, Lake Tutira, Hawke's Bay.
294. **Grant, P.J.** (1978): Rainfalls and floods of Cyclone Alison, March 1975, on the North-Eastern Ruahine Range.- Ministry of Works and Development, Water and Soil Division, Miscellaneous Publication 1.
Keyword(s): Cause, Event, Landslide Disasters, Trigger, Tropical Cyclones, Hawke's Bay.
295. **Grant, P.J.** (1981): Major periods of erosion and sedimentation in the North Island, New Zealand, since the 13th century.- in: Davies, T.R.H. & Pearce, A.J. (eds.): Erosion and Sediment Transport in Pacific Rim Steeplands, Christchurch, IAHS-AISH, Vol. 132, 288-304.
Keyword(s): Climate, Dating, Erosion, Sedimentation, North Island.
296. **Grant, P.J.** (1981): Recently increased tropical cyclone activity and inferences coastal erosion and inland hydrological regimes in New Zealand and Eastern Australia: Climatic Change, D. Reidel Publishing Co., Vol. 3(3), 317-332.

Keyword(s): Cause, Climate Change, Rainfall, Trigger, Tropical Cyclones.

297. **Grant, P.J.** (1982): Coarse sediment yields from the upper Waipawa River basin, Ruahine Range.- *Journal of Hydrology (New Zealand)*, Vol. 21(2), 81-97.

Keyword(s): Erosion, Sediment Budget, Hawke's Bay.

298. **Grant, P.J.** (1983): Rainfall patterns in the upper Waipawa river basin, Ruahine Range.- Ministry of Works and Development, Soil Conservation Centre, Internal Report 95.

Keyword(s): Climate, Hydrological Assessment, Rainfall, Hawke's Bay.

299. **Grant, P.J.** (1983): Recently increased erosion and sediment transport rates in the upper Waipawa River basin, Ruahine Range, New Zealand.- Ministry of Works and Development, Soil Conservation Centre, Publication 5.

Keyword(s): Climate, Erosion, Sediment Budget, Hawke's Bay.

300. **Grant, P.J.** (1984): Drought effect on high-altitude forests, Ruahine Range, North Island, New Zealand.- *New Zealand Journal of Botany*, Vol. 22, 15-27.

Keyword(s): Climate, Erosion, Vegetation, Hawke's Bay.

301. **Grant, P.J.** (1985): Major periods of erosion and alluvial sedimentation in New Zealand during the late Holocene.- *Journal of the Royal Society of New Zealand*, Vol. 15(1), 67-121.

Keyword(s): Climate, Dating, Erosion, Sedimentation.

302. **Grant, P.J.** (1989): Effects on New Zealand vegetation of Late Holocene erosion and alluvial sedimentation.- *New Zealand Journal of Ecology*, Vol. 12, 131-144.

Keyword(s): Climate, Dating, Erosion, Impacts, Sedimentation.

303. **Grant, P.J.** (1991): Disturbance in the forests of the Ruahine Range since 1770.- *Journal of the Royal Society of New Zealand*, Vol. 21, 385-404.

Keyword(s): Climate, Land Use, Vegetation, Hawke's Bay.

304. **Grapes, R.H.** (1988): Geology and revegetation of an 1855 landslide, Ruamahanga River, Kopuaranga, Wairarapa.- *Tuatara*, Vol. 30, 77-83.

Keyword(s): Earthquakes, Trigger, Vegetation, Wairarapa.

305. **Grapes, R.H.** (1991): Aggradation surfaces and implications for displacement rates along the Wairarapa Fault, southern North Island, New Zealand.- *Catena*, Vol. 18, 453-469.

Keyword(s): Sedimentation, Tectonic Movement, Wairarapa.

306. **Griffiths, G.A.** (1981): Some suspended sediment yields from South Island catchments, New Zealand.- *Water Resources Bulletin*, Vol. 17(4), 662-671.

Keyword(s): Catchment, Sediment Yield, South Island.

307. **Griffiths, G.A.** (1982): Spatial and temporal variability in suspended sediment yields of North Island basins, New Zealand. - *Water Resources Bulletin*, Vol. 18(4), 575-584.

Keyword(s): Climate, Rainfall, Sediment Yield, Sedimentation, North Island.

308. **Gulliver, C.P. & Houghton, B.F.** (1980): Omokoroa Point land stability investigation.- Tauranga County Council, Report.

- Keyword(s):** Coasts/Coastal, Engineering Assessment, Tauranga.
309. **Guthrie-Smith, W.H.** (1969): Tutira - The Story of a New Zealand Sheep Station, Wellington, New Zealand, William Blackwood and Sons Ltd., 550 p.
- Keyword(s):** Soil Erosion, Hawke's Bay.
310. **Hadifeld, G.J., Toan, D.V. & Blakey, J.P.** (1981): Design of slopes associated with highways, bridges and culverts.- Beca Carter Hollings and Ferner, Report.
- Keyword(s):** Control, Road, Stabilisation.
311. **Hall, J.Z.** (1978): Earthflow erosion control techniques.- Ministry of Works and Development, Water and Soil Division, unpublished.
- Keyword(s):** Control, Earth Material, Flow Movement, Stabilisation.
312. **Hancox, G.T.** (1974): Geological aspects of slope stability.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 4.1-4.14.
- Keyword(s):** Geological Assessment, Inherent Factors.
313. **Hancox, G.T.** (1981): Planning to prevent geotechnical problems in urban development - an engineering geological view.- in: Proceedings of the Workshop: Geomechanics in Urban Planning, Palmerston North.
- Keyword(s):** Geological Assessment, Planning, Urban Landslides.
314. **Hancox, G.T., Bishop, D.G., McKellar, I.C. & Northey, R.D.** (1980): East Abbotsford landslide - presentation and assessment of engineering geological data and factors related to the cause of the slide.- New Zealand Geological Survey, EG 332.
- Keyword(s):** Engineering Assessment, Abbotsford.
315. **Hancox, G.T., Chinn, T.J. & McSaveney, M.J.** (1991): Immediate report Mt Cook rock avalanche, 14 December 1991.- Canterbury University.
- Keyword(s):** Event, Rock Avalanche, Mt. Cook.
316. **Hancox, G.T., Dellow, G.D. & Perrin, N.D.** (1994): Earthquake induced slope failure hazard study, Wellington Region - Review of historical records of earthquake induced slope failure.- by the Institute of Geological and Nuclear Sciences, for the Wellington Regional Council, WORKS Consultancy Services Ltd, Contract Report.
- Keyword(s):** Earthquakes, Hazard, Historical Record, Trigger, Wellington.
317. **Hancox, G.T. & Perrin, N.D.** (1994): Green Lake landslide. A very large ancient rock slide in Fiordland, New Zealand.- in: Proceedings of the Seventh International Congress, Portugal, 1677-1689.
- Keyword(s):** Landslide Investigation (case study), Fiordland.
318. **Hancox, G.T., Perrin, N.D. & Dellow, G.D.** (1997): Earthquake-induced landsliding in New Zealand and implications for MM Intensity and seismic hazard assessment.- Institute of Geological and Nuclear Sciences, Client report - prepared for Earthquake Commission 43601B.
- Keyword(s):** Earthquakes, Hazard Assessment.

319. **Hare, W.N.** (1984): Physical and economic evaluation of long-term soil conservation on a hill country farm in southern Hawke's Bay.- Unpublished BSc Honours Thesis, Massey University.
Keyword(s): Damage Costs, Soil Conservation, Hawke's Bay.
320. **Harmsworth, G.R., Hope, G.D., Page, M.J. & Manson, P.A.** (1987): An assessment of storm damage at Otou in northern Hawke's Bay.- Soil Conservation Centre, Palmerston North, Report 10.
Keyword(s): Damage Costs, Impacts, Rainfall, Hawke's Bay.
321. **Harmsworth, G.R. & Page, M.J.** (1991): A review of selected storm damage assessments in New Zealand.- Department of Scientific and Industrial Research, Land Resources, Scientific Report 9.
Keyword(s): Damage Costs, Impacts, Rainfall.
322. **Harrington, A.J.** (1991): Landslip hazard assessment menu system: Users guide and technical notes.- Wellington Regional Council, Policy and Planning Department, Report.
Keyword(s): Hazard Assessment, Methods, Wellington.
323. **Harvey, C.** (1982): Problems associated with shrinkage of Auckland clays.- New Zealand Geomechanics News, Vol. 25, 38-46.
Keyword(s): Geotechnical Assessment, Material Properties, Auckland.
324. **Harvey, M.D.** (1976): An analysis of the soil slips that occurred on the Port Hills, Canterbury, between 19-25 August 1975.- in: Soil Science Society of New Zealand Conference, Palmerston North.
Keyword(s): Landslide Investigation (case study), Christchurch.
325. **Hastie, W.J.** (1989): Landslip hazard modelling, Wellington Region, New Zealand.- in: Proceedings of the Inaugural Colloquium of the Spatial Information Research Centre, Dunedin, University of Otago.
Keyword(s): Hazard Assessment, Methods, Urban Landslides, Wellington.
326. **Hastie, W.J.** (1990): Regional landslip hazard assessment.- Wellington Regional Council, Interim Report on Empirical Model Development LR1990/2.
Keyword(s): Hazard Assessment, Methods, Wellington.
327. **Hathaway, R.** (1981): Tree species for slope stability control.- Ministry of Works and Development, Soil Conservation Centre, Internal Report 59.
Keyword(s): Control, Stabilisation, Vegetation.
328. **Hathaway, R.** (1986): Trees for soil conservation.- NZ Forestry Service, Trees and Timber 16.
Keyword(s): Soil Conservation, Vegetation.
329. **Hawley, J.G.** (1978): Urban slope stability: the way ahead.- in: New Zealand Association of Soil Conservators conference, Christchurch, 30.
Keyword(s): Urban Landslides.
330. **Hawley, J.G.** (1980): Introduction.- in: Workshop on the Influence of Soil Slip Erosion on Hill Country Pastoral Productivity, Aokautere Science Centre, 4-6.
Keyword(s): Pastoral Productivity, Soil Conservation.

331. **Hawley, J.G.** (1981): The geomechanics of soil conservation.- in: Geomechanics Conference, 253-260.
Keyword(s): Geotechnics, Overview, Soil Conservation.
332. **Hawley, J.G.** (1981): The literates and the numerates.- New Zealand Geomechanics News, Vol. 23, 3-6.
Keyword(s): Stability Analysis.
333. **Hawley, J.G.** (1984): Slope instability in New Zealand.- in: Speden, I.G. & Crozier, M.J. (eds.): Natural Hazards in New Zealand, Wellington, UNESCO, 88-133.
Keyword(s): Damage Costs, Hazard Assessment, Overview, Stability Analysis.
334. **Hawley, J.G.** (1985): Concepts of erosion severity.- in: Proceedings of the New Zealand Soil Science Conference, Blenheim, 78-91.
Keyword(s): Assessment, Frequency, Magnitude.
335. **Hawley, J.G.** (1987): Soil conservation: should the user pay?- Soil & Water, Vol. 23, 4-7.
Keyword(s): Damage Costs, Policy, Soil Conservation.
336. **Hawley, J.G.** (1989): Hill country erosion research in New Zealand.- in: International Workshop on Conservation Farming on Hillslopes, Taiwan.
Keyword(s): Land Use, Overview, Soil Erosion.
337. **Hawley, J.G. & Dymond, J.R.** (1989): How much do trees reduce landsliding?- Journal of Soil and Water Conservation, Vol. 43, 495-498.
Keyword(s): Control, Landslide Stability Factors, Stabilisation, Vegetation.
338. **Hawley, J.G. & King, M.** (1978): Landslides on some seasonally dry hill country soils in New Zealand.- Ministry of Works and Development, Water and Soil Division and Wairarapa Catchment Board, to the Soil Conservation and Rivers Control Council, Wellington, Unpublished Report.
Keyword(s): Landslide Stability Factors, Wairarapa.
339. **Haylock, J.A. & Trotter, C.M.** (1985): The erosion status of selected catchments in the East Coast-Poverty Bay region.- Ministry of Works and Development, Soil Conservation Centre, Internal Report 144.
Keyword(s): Soil Conservation, East Coast, North Island.
340. **Hayward, J.A.** (1969): Land management for soil stability: Symposium on Watershed Management - Papers in Water Resources, Lincoln, Vol. 8, 70-81.
Keyword(s): Management, Soil Conservation.
341. **Henderson, R.D.** (1983): Values of the rainfall and runoff factor(R) of the Universal Soil Loss Equation for New Zealand.- Ministry of Works and Development, Hydrology Centre, Internal Report 844.
Keyword(s): Geomechanics, Geotechnics, Hydrology.
342. **Henderson, R.D.** (1993): Extreme storm rainfalls in the Southern Alps, New Zealand.- in: International Symposium on Extreme Hydrological Events: Precipitation, Floods and Droughts, Yokohama, Japan, 113-120.
Keyword(s): Hydrological Assessment, Southern Alps.

343. **Herzer, R.H.** (1979): Submarine slides and submarine canyons on the continental slope off Canterbury, New Zealand.- *New Zealand Journal of Geology and Geophysics*, Vol. 22(3), 391-406.
Keyword(s): Submarine Landslides, Canterbury.
344. **Hicks, B.G. & Smith, R.D.** (1981): Management of steeplands impacts by landslide hazard zonation and risk evaluation.- *Journal of Hydrology (New Zealand)*, Vol. 20, 63-70.
Keyword(s): Hazard Assessment, Management, Zonation.
345. **Hicks, D.L.** (1980): Notes on the photogrammetric measurement of erosion scars in the Waipawa headwaters, Hawke's Bay.- Ministry of Works and Development, Water and Soil Science Centre, Internal Report 26.
Keyword(s): Remote Sensing, Hawke's Bay.
346. **Hicks, D.L.** (1982): Notes on photogrammetric measurement of a large slump earthflow at Butcher's Creek.- Water and Soil Science Centre, Ministry of Works and Development, Internal Report 53.
Keyword(s): Earth Material, Flow Movement, Remote Sensing, Slump Movement.
347. **Hicks, D.L.** (1983): Photogrammetric measurement of river channels and erosion scars: a guide for planners and managers.- Ministry of Works and Development, Water and Soil Science Centre, Internal report.
Keyword(s): Channels, Remote Sensing.
348. **Hicks, D.L.** (1987): Gully stabilisation under pine trees at Mangatu Forest.- in: Cowie, B. (ed.): *East Coast Project Review*, Ministry of Works and Development, Water and Soil Division, 35.
Keyword(s): Channels, Gullies, Vegetation, Mangatu, East Coast, North Island.
349. **Hicks, D.L.** (1988): An assessment of soil conservation in the Wairoa catchment, East Coast.- Soil Conservation Centre, Palmerston North, Internal Report 226.
Keyword(s): Soil Conservation, Wairoa County.
350. **Hicks, D.L.** (1988): Differences in suspended sediment yield from basins established in pasture and exotic forest.- in: *Proceedings of the New Zealand Hydrological Society Symposium*, 18. August 1988, Dunedin, New Zealand, 5.
Keyword(s): Sediment Yield, Sedimentation, Vegetation.
351. **Hicks, D.L.** (1988): Possible estimate of downstream benefit from afforestation of erosion-prone land.- Department of Scientific and Industrial Research (East Coast Project Review Officials Committee), unpublished note.
Keyword(s): water quality, soil conservation, erosion.
352. **Hicks, D.L.** (1989): Conservation in the Wairoa catchment, East Coast: an assessment in the wake of Cyclone Bola.- in: Baker, M.A. (ed.): *Changing Times: Proceedings of the Nelson Conference*, NZ Association of Soil & Water Conservators, Nelson, 47-56.
Keyword(s): Cyclone Bola, Erosion, Soil Conservation, Hawke's Bay.

353. **Hicks, D.L.** (1989): Economic impact of farm conservation on hill country: some information from Cyclone Bola.- Department of Scientific and Industrial Research, Land Resources, Technical Report PN4.
Keyword(s): Cyclone Bola, Damage Costs, Impacts, Soil Conservation, Hawke's Bay.
354. **Hicks, D.L.** (1989): Farm conservation measures' effect on hill country erosion: an assessment in the wake of Cyclone Bola.- Department of Scientific and Industrial Research, Land Resources, Technical Report PN3.
Keyword(s): Cyclone Bola, Management, Soil Conservation, Hawke's Bay.
355. **Hicks, D.L.** (1989): Soil conservation in Wairoa catchment.- Department of Scientific and Industrial Research, Land and Soil Sciences, Technical Report PN3.
Keyword(s): Soil Conservation, Wairoa County.
356. **Hicks, D.L.** (1989): Some evidence that erosion is probabilistic.- Department of Scientific and Industrial Research, Land and Soil Sciences, Technical Record LH13.
Keyword(s): Erosion, Frequency, Magnitude, Probability of Occurrence.
357. **Hicks, D.L.** (1989): Some ways to estimate the frequency of erosion-inducing rainfall.- Department of Scientific and Industrial Research, Land and Soil Sciences, Technical Record LH14.
Keyword(s): Erosion, Frequency, Magnitude, Methods, Rainfall, Soil Conservation.
358. **Hicks, D.L.** (1989): Storm damage to bush, pasture and forest: some evidence from Cyclone Bola.- Department of Scientific and Industrial Research, Land Resources, Technical Report PN2.
Keyword(s): Cause, Cyclone Bola, Impacts, Rainfall, Trigger, Tropical Cyclones, Vegetation, Hawke's Bay.
359. **Hicks, D.L.** (1989): Upstream versus downstream damage during large storms: some evidence from Cyclone Bola.- Department of Scientific and Industrial Research, Division of Land and Soil Sciences, Technical Report PN1.
Keyword(s): Channels, Cyclone Bola, Erosion, Impacts.
360. **Hicks, D.L.** (1990): Economic value of erosion control by forests.- Department of Scientific and Industrial Research, Land Resources, unpublished note for Ministry for the Environment.
Keyword(s): Damage Costs, Soil Conservation.
361. **Hicks, D.L.** (1990): Landslip damage to hill country under pasture, pine plantation, scrub and bush in Taranaki.- Department of Scientific and Industrial Research, Technical Record LH 31.
Keyword(s): Impacts, Landslide Stability Factors, Vegetation, Taranaki.
362. **Hicks, D.L.** (1990): Long term impact of erosion on hill country farm production: a method for estimation.- Department of Scientific and Industrial Research, Land Resources, Technical Record 32.
Keyword(s): Erosion, Impacts, Pastoral Productivity.

363. **Hicks, D.L.** (1991): Effect of soil conservation tree plantings on damage sustained by the Whareama catchment during the storm 8-11 April 1991.- Department of Scientific and Industrial Research, Land Resources, Contract Report 91/106.
Keyword(s): Control, Impacts, Soil Conservation, Vegetation.
364. **Hicks, D.L.** (1991): Erosion under pasture, pine plantations, scrub and indigenous forest: a comparison from Cyclone Bola.- New Zealand Forestry, Vol. 36(3), 21-22.
Keyword(s): Cyclone Bola, Erosion, Land Use, Vegetation, Hawke's Bay.
365. **Hicks, D.L.** (1991): Long-term impact of soil conservation measures on hill country farm production.- Department of Scientific and Industrial Research, Land Resources, Technical Report LH33.
Keyword(s): Land Use, Pastoral Productivity, Soil Conservation.
366. **Hicks, D.L.** (1991): Stabilisation of East Coast hill country by various vegetation covers.- in: Department of Scientific and Industrial Research Research findings relevant to East Coast land use, 29 May 1991, 19.
Keyword(s): Control, Stabilisation, Vegetation.
367. **Hicks, D.L.** (1992): Effect of soil conservation plantings on stream bank stability.- Department of Scientific and Industrial Research, Land Resources, Technical Record 118.
Keyword(s): Soil Conservation.
368. **Hicks, D.L.** (1992): Environmental benefits of afforestation, East Coast.- Department of Scientific and Industrial Research, Land Resources, unpublished note for Ministry of Agriculture and Fisheries.
Keyword(s): Control, Land Use, Sustainability, Vegetation, East Coast, North Island.
369. **Hicks, D.L.** (1992): Impact of soil conservation on storm-damaged hill grazing lands in New Zealand.- Australian Journal of Soil & Water Conservation, Vol. 5(1), 34-40.
Keyword(s): Impacts, Pastoral Productivity, Rainfall, Soil Conservation.
370. **Hicks, D.L.** (1992): A low-technology method for assessing the effectiveness of soil conservation in steeplands: Environmentally Sound: Technology for Sustainable Development - Advanced Technology Assessment Systems, United Nations Centre for Science and Technology for Development, Vol. 7, 93-98.
Keyword(s): Control, Methods, Soil Conservation.
371. **Hicks, D.L.** (1994): Land-use effects on magnitude-frequency characteristics of storm sediment yields: some New Zealand examples.- in: Olive, L.J., Loughran, R.J. & Kesby, J.A. (eds.): Variability in Stream Erosion and Sediment Transport, International Association of Hydrological Sciences, Vol. 224, 395-402.
Keyword(s): Frequency, Land Use, Magnitude, Sediment Budget, Sediment Yield.
372. **Hicks, D.L.** (1995): Control of soil erosion on farmland.- Ministry of Agriculture and Fisheries, Policy Technical Paper 95/4.
Keyword(s): Control, Pastoral Productivity, Soil Conservation.

373. **Hicks, D.L.** (1995): A way to estimate the frequency of rainfall-induced mass movements.- Journal of Hydrology (New Zealand), Vol. 33, 59-67.
Keyword(s): Frequency, Magnitude, Rainfall, Return Period.
374. **Hicks, D.L.** (1996): Review of sustainable land use classification for Taranaki.- Taranaki Regional Council, Report.
Keyword(s): Land Use, Sustainability, Taranaki.
375. **Hicks, D.L., Fletcher, J.R., Eyles, G.O., McPhail, C.R. & Watson, M.** (1993): Erosion of hill country in the Manawatu-Wanganui Region 1992: Impacts and options for sustainable land use.- Landcare Research, Unpublished Contract Report LC 9394/51.
Keyword(s): Erosion, Land Use, Policy, Sustainability, Manawatu, Wanganui.
376. **Hicks, D.L. & Harmsworth, G.R.** (1989): Changes in sediment yield regime during logging, Glenbervie Forest.- in: Water Resources and Hydrology Symposium, Christchurch, 424-428.
Keyword(s): Land Use, Sedimentation, Vegetation.
377. **Hill, J.K.** (1985): A deep-seated landslide in loess, La Care subdivision, Akaroa.- New Zealand Geomechanics News, Vol. 30, 34-39.
Keyword(s): Geotechnics (Geomechanics), Landslide Stability Factors, Monitoring/Instrumentation, Stability Analysis, Urban Landslides.
378. **Hogg, J.T.** (1968): Some aspects of water and soil conservation planning.- Soil & Water, Vol. 5(3), 13-14.
Keyword(s): Planning, Soil Conservation.
379. **Hosking, P.L.** (1962): Loess, and its erosion, on the Port Hills, Banks Peninsula.- MA Thesis, Christchurch, University of Canterbury.
Keyword(s): Soil Erosion, Tunnel Gullies, Canterbury.
380. **Howard, G.** (1978): Scientific evidence relevant to South Island high country policies for class VIII and severely eroded class VII lands.- Ministry of Works and Development, Water and Soil Division, Miscellaneous Publication U42.
Keyword(s): Assessment, Erosion, Policy, South Island.
381. **Hubbard, C.B. & Neall, V.E.** (1980): A reconstruction of late Quaternary erosional events in the West Tamaki River catchment, Southern Ruahine Range, North Island, New Zealand.- New Zealand Journal of Geology and Geophysics, Vol. 23, 587-593.
Keyword(s): Dating, Erosion, Hawke's Bay.
382. **Hughes, P.J.** (1970): Tunnel erosion in the loess of Banks Peninsula.- MSc Thesis, Christchurch, University of Canterbury.
Keyword(s): Tunnel Gullies, Canterbury.
383. **Hughes, P.J.** (1972): Slope aspect and tunnel erosion in the loess of Banks Peninsula, New Zealand.- Journal of Hydrology (New Zealand), Vol. 11(2), 94-98.
Keyword(s): Tunnel Gullies, Canterbury.
384. **IGNS** (1993): Notes to accompany the interim 1:1,000,000 landslide map of New Zealand.- Institute of Geological and Nuclear Science, unpublished Report.

Keyword(s): Data Bases, Hazard Assessment.

385. **IGNS (1995):** Geological aspects of cut slope failures in the realignment of State Highway 58 at Belmont Road, Wellington, 1993-1994.- IGNS 95/5.

Keyword(s): Cause, Geological Assessment, Human Induced, Road, Trigger, Wellington.

386. **IGNS (1995):** Geological aspects of cut slope failures in the SH 2 Mount Bruce realignment.- IGNS 95/21.

Keyword(s): Cause, Geological Assessment, Human Induced, Road, Trigger, Wairarapa.

387. **IGNS (1995):** Geological aspects of failure in roads: State Highway 1 (North Island), Mangaweka Deviation.- IGNS 95/29.

Keyword(s): Cause, Geological Assessment, Human Induced, Road, Trigger, North Island.

388. **IGNS (1995):** Managing slope instability hazards (IGNS contribution 945).- in: Natural Hazards Management Workshop 95, Auckland, 73-76.

Keyword(s): Hazard Assessment, Management.

389. **IGNS (1996):** Landslides triggered by the 17-19 March 1994 rainstorm, Dunedin area.- IGNS 95/22.

Keyword(s): Cause, Event, Rainfall, Trigger, Dunedin.

390. **Jackson, R.J. (1966):** Slips in relation to rainfall and soil characteristics.- Journal of Hydrology (New Zealand), Vol. 5(2), 45-53.

Keyword(s): Rainfall, Trigger, Fiordland, Wairarapa, Wellington.

391. **James, I.L. (1973):** Mass movements in the Upper Pohangina catchment, Ruahine Range.- Journal of Hydrology (New Zealand), Vol. 12, 92-102.

Keyword(s): Catchment, Frequency, Geomorphological Assessment, Magnitude, Vegetation, Ruahine Range, Hawke's Bay.

392. **Jane, G.T. & Green, G.A. (1983):** Biotic influences on landslide occurrence in the Kaimai Range.- New Zealand Journal of Geology and Geophysics, Vol. 26(4), 381-393.

Keyword(s): Landslide Stability Factors, Vegetation, Kaimai Range.

393. **Jane, G.T. & Green, G.A. (1983):** Morphology and incidence of landslides in the Kaimai Range, North Island, New Zealand.- New Zealand Journal of Geology and Geophysics, Vol. 26(1), 71-84.

Keyword(s): Landslide Stability Factors, Slope Form, Kaimai Range.

394. **Jennings, D.N., Newton, C.J., Beetham, R.D. & Smith, G. (1992):** Stabilization of the Nine Mile Creek schist landslide complex.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 759-764.

Keyword(s): Control, Dams, Stabilisation, Cromwell Gorge.

395. **Johnston, M.R. (1974):** Major landslides in the upper Buller Gorge South-west Nelson.- Transactions of the New Zealand Institution of Engineers, Vol. 1(3), 239-244.

- Keyword(s):** Earthquakes, Landslide Dammed Lakes, Nelson.
396. **Johnston, R.M.** (1978): Richmond growth study.- Department of Scientific and Industrial Research, Report.
- Keyword(s):** Assessment, Urban Landslides, Nelson.
397. **Johnston, R.M.S.** (1983): Taihape land stability surveyreport.- Rangatikei-Wanganui Catchment Board and Regional Water Board, Report.
- Keyword(s):** Landslide Investigation (case study), Stabilisation, Urban Landslides, Rangitikei, Wanganui.
398. **Johnstone, I.M. & Robinson, P.W.** (1987): Light level variation in Lake Tutira after transient sediment inflow and its effect on the submersed macrophytes.- New Zealand Journal of Marine and Freshwater Research, Vol. 21(1), 47-53.
- Keyword(s):** Sedimentation, Hawke's Bay, Tutira.
399. **Jones, I.E. & Howie, R.** (1970): The measurement and control of erosion and sedimentation.- in: N.Z. Water Conference, 46.1-46.25.
- Keyword(s):** Control, Erosion, Sedimentation, Soil Conservation.
400. **Kayes, T.J.** (1968): Computer analysis of earth slope stability.- ME Thesis, Auckland, University of Auckland.
- Keyword(s):** Stability Analysis.
401. **Kayes, T.J.** (1974): Analysis of natural earth slope stability.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 6.13-6.24.
- Keyword(s):** Engineering Assessment, Stability Analysis.
402. **Kelliher, F.M., Marden, M., Watson, A.J. & Arulchelvam, I.M.** (1995): Estimating the risk of landsliding using historical extreme river flood data (note).- Journal of Hydrology (New Zealand), Vol. 33(2), 123-129.
- Keyword(s):** Earth Material, Flow Movement, Hydrological Assessment, Probability of Occurrence, Rainfall, Slump Movement, East Coast.
403. **Ker, D.S.** (1970): Renewed movement on a slump at Utiku.- New Zealand Journal of Geology and Geophysics, Vol. 13(4), 996-1017.
- Keyword(s):** Movement, Rangitikei.
404. **Kerrison, G.C.** (1981): Tunnel gully erosion in an East Wairarapa hill country catchment.- Hon Thesis, Victoria University of Wellington.
- Keyword(s):** Erosion, Tunnel Gullies, Wairarapa.
405. **King, J.M. & Krausse, M.K.** (1995): The impact of land use change in Wairoa.- Landcare Research New Zealand Ltd., Report to Wairoa District Council.
- Keyword(s):** Erosion, Impacts, Land Use, Wairoa.
406. **Kingsbury, P.** (1992): Landslip hazard model development and mitigation measures.- Wellington Regional Council, Report 92.240.
- Keyword(s):** Hazard, Methods, Wellington.
407. **Kingsbury, P.A.** (1990): Landslide hazard assessment - Porirua catchment area.- Wellington Regional Council, Report 90.332.
- Keyword(s):** Hazard Assessment, Porirua, Wellington.

408. **Kingsbury, P.A.** (1990): Porirua catchment landslip hazard assessment.- Land Resources Department, Wellington Regional Council, Technical Report, Pilot Study LR1990/3.
Keyword(s): Hazard Assessment, Porirua, Wellington.
409. **Kingsbury, P.A.** (1993): Regional landslip hazard classification for urban development.- Wellington Regional Council, Policy and Planning Department.
Keyword(s): Hazard Zonation, Urban Landslides, Wellington.
410. **Kingsbury, P.A.** (1994): Preliminary assessment of the Johnson Hill landslide, Palliser Bay.- Wellington Regional Council, Contract Report 94.205.
Keyword(s): Landslide Investigation (case study), Palliser Bay, Wairarapa.
411. **Kingsbury, P.A.** (1995): Earthquake induced slope failure hazard: Seismic Hazard Map Series.- Wellington Regional Council, Report 95.208.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Wellington.
412. **Kingsbury, P.A. & Hastie, W.J.** (1995): Earthquake induced slope failure hazard map - Map Sheet 1 Wellington.- Wellington Regional Council.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Wellington.
413. **Kingsbury, P.A. & Hastie, W.J.** (1995): Earthquake induced slope failure hazard map - Map Sheet 2 Porirua and State Highway 58.- Wellington Regional Council.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Porirua, State Highway 2.
414. **Kingsbury, P.A. & Hastie, W.J.** (1995): Earthquake induced slope failure hazard map - Map Sheet 3 Hutt Valley.- Wellington Regional Council.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Hutt Valley.
415. **Kingsbury, P.A. & Hastie, W.J.** (1995): Earthquake induced slope failure hazard map - Map Sheet 4 Kapiti.- Wellington Regional Council.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Kapiti Coast.
416. **Kingsbury, P.A. & Hastie, W.J.** (1995): Earthquake induced slope failure hazard map - Map Sheet 5 State Highway 2 Upper Hutt to Featherston.- Wellington Regional Council.
Keyword(s): Earthquakes, Hazard Zonation, Trigger, Featherston, State Highway 2, Upper Hutt.
417. **Kingsbury, P.A., Wayne, J.H. & Harrington, A.J.** (1991): Regional landslip hazard assessment using a Geographic Information System.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 995-999.
Keyword(s): GIS Application, Hazard Assessment, Wellington.
418. **Kinnear, S.R.** (1992): Rural resources study stage 2 issues, options and proposals.- Porirua City Council.
Keyword(s): Management.
419. **Kirk, R.M. & Hewson, P.A.** (1978): The coastal scene: a coastal sediment budget for South Canterbury-North Otago.- in: Conference on Erosion assessment and control, 24.

- Keyword(s):** Coasts/Coastal, Dams, Canterbury, Otago.
420. **Korte, C.** (1989): Effect of Cyclone Bola on hill country farms in the Gisborne East Coast region.- MAFTech, unpublished report.
- Keyword(s):** Impacts, Pastoral Productivity, Cyclone Bola, Hawke's Bay.
421. **Krause, M.K. & King, J.M.** (1996): Land use change in Wairoa district: A case study in monitoring social and economic wellbeing.- New Zealand Association of Resource Management, Broadsheet, 80-89.
- Keyword(s):** Impacts, Land Use, Management, Wairoa.
422. **Laffan, M.D.** (1979): Slope stability in the Charleston - Punakaiki region, South Island, New Zealand.- New Zealand Journal of Science, Vol. 22, 183-192.
- Keyword(s):** Assessment, Westland.
423. **Laffan, M.D. & Cutler, E.J.B.** (1977): Landscapes, soils, and erosion of a catchment in the Wither Hills, Marlborough.- New Zealand Journal of Science, Vol. 20, 279-289.
- Keyword(s):** Land Use, Tunnel Gullies, Marlborough.
424. **Lambert, M.G., Trustrum, N.A. & Costall, D.A.** (1984): Effect of soil slip erosion on seasonally dry Wairarapa hill pastures.- New Zealand Journal of Agricultural Research, Vol. 27, 57-64.
- Keyword(s):** Pastoral Productivity, Wairarapa.
425. **Lash, W.H.** (1971): Coastal mass movement in the Orere area.- MA Thesis, Auckland, University of Auckland.
- Keyword(s):** Coasts/Coastal, Geology, Orere.
426. **Lawrence, J.H., Depledge, D.R., Eyles, R.J., Salinger, M.J. & Oakley, D.J.** (1982): Landslip and flooding hazards in Eastbourne Borough: a guide for planning.- Ministry of Works and Development, Water and Soil Miscellaneous Publication 37.
- Keyword(s):** Hazard Assessment, Management, Urban Landslides, Wellington.
427. **Leather, D.** (1979): Hillside moves to disaster: Abbotsford.- Soil & Water, Vol. 15(5), 4-8.
- Keyword(s):** Event, Landslide Disasters, Abbotsford.
428. **Leech, S.J.** (1988): Engineering geology and hydrogeology of Hamner Springs, North Canterbury.- MSc Thesis, Canterbury University.
- Keyword(s):** Geological Assessment, Hamner Springs, Canterbury.
429. **Lensen, G.J.** (1981): Earth deformation and shaking effects.- in: Conference on Geomechanics in Urban Planning, Palmerston North.
- Keyword(s):** Earthquakes, Geological Assessment, Tectonic Movement.
430. **Leslie, D.M.** (1974): Effects of basement lithology, regolith, and slope on landslide potential, Otago Peninsula, New Zealand.- NZ Soil Bureau, Scientific Report 12.
- Keyword(s):** Geological Assessment, Slope, Soils, Otago Peninsula.
431. **Lins, W.** (1993): The dam thesis: a description of a shallow landslide dammed lake.- Unpublished BSc Honours Thesis, Victoria University of Wellington.

Keyword(s): Landslide Dammed Lakes, Rangitikei.

432. **Lowe, D.A.** (1987): The geology and landslides of the Lake Tutira - Waikoura area, Northern Central Hawke's Bay.- MSc Thesis, Victoria University of Wellington.
Keyword(s): Geological Assessment, Landslide Dammed Lakes, Hawke's Bay, Tutira.
433. **Lowe, D.J. & Green, J.D.** (1987): Origins and development of the lakes.- in: Viner, A.B. (ed.): Inland Waters of New Zealand - New Zealand DSIR Bulletin, Vol. 241, 1-64.
Keyword(s): Landslide dammed Lakes, Vegetation.
434. **Lowe, H.J.** (1910): Report on landslide at Waihi, Tokaanu.- Appendices to the Journal of the House of Representatives New Zealand, Vol. C.1, 43.
Keyword(s): Geology, Landslide Investigation (case study), North Island.
435. **Luckman, P.G. & Thompson, R.C.** (1991): Monitoring and evaluating the effectiveness of measures to control erosion in the Gisborne - East Cape region. parts 1-5.- Department of Scientific and Industrial Research, Land Resources Technical records 23-25,47-48.
Keyword(s): Control, Erosion, Monitoring, Stabilisation, East Coast, Gisborne.
436. **Luxford, N.S. & Bell, D.H.** (1981): Geotechnical assessment of coastal slopes and catchments, Claverley-Oaro; Marlborough.- in: Annual Conference, Auckland, 60.
Keyword(s): Coasts/Coastal, Geological Assessment, Marlborough.
437. **Mac Gregor, J.P. & McManus, K.J.** (1992): Management of lands subject to mass movement.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10- 14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1437-1444.
Keyword(s): Management.
438. **Macfarlane, D.F., Pattle, A.D. & Salt, G.** (1992): Nature and identification of Cromwell Gorge landslides groundwater systems.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 509-518.
Keyword(s): Dams, Groundwater, Porewater, Cromwell Gorge, Otago.
439. **MAFTech** (1992): Erosion of Hill Country in the Manawatu - Wanganui Region 1992: Impacts and options for Sustainable Land Uses, Adverse Events Reports.
Keyword(s): Impacts, Land Use, Sustainability, Manawatu, Wanganui.
440. **Maher, J.** (1980): The social implications of the Abbotsford landslip.- BA (Hons) Thesis, University of Otago.
Keyword(s): Impacts, Landslide Disasters, Social, Abbotsford.
441. **Mahoney, A.G.** (1983): Landslip claims: A geologists look at what the earthquake and war damage commission act covers and excludes.- New Zealand Geomechanics News, Vol. 26, 3-12.
Keyword(s): Data Bases, Insurance, Legislation.
442. **Mahoney, A.G.** (1984): A brief review of the recent earthquake and war damage (land cover) regulations 1984.- New Zealand Geomechanics News, Vol. 29, 3-6.

- Keyword(s):** Insurance, Legislation.
443. **Mansergh, G.D. & Findlay, R.H.** (1977): The geology of State Highway 73 Upper Otira Valley.- NZ Geological Survey, unpublished Report EG 276.
- Keyword(s):** Geological Assessment, Road, Otira, State Highway 73, Westland.
444. **Marden, M.** (1984): Geology and its relationship to erosion in the Southern Ruahine Range.- PhD Thesis, Massey University.
- Keyword(s):** Erosion, Geological Assessment, Hawke's Bay.
445. **Marden, M.** (1991): Declining soil loss with increasing age of plantation forests in the Uawa catchment, East Coast region.- in: N.Z. Association of Soil and Water Conservation (ed.): International Conference on Sustainable Land Management - Proceedings International Conference on Sustainable Land Management NZASWC, Napier, NZASWC, 358-361.
- Keyword(s):** Landslide Stability Factors, Vegetation, East Coast, North Island.
446. **Marden, M., Phillips, C.J., Jackson, R.J., Zhang, X.B. & Ekanayake, J.** (1992): A decade of earthflow research and inter-related studies in the North Island of New Zealand: Conference on Erosion, debris flows and environment in mountain regions, Chengdu, IAHS, Vol. 209, 263-271.
- Keyword(s):** Earth, Flow, Groundwater/Porewater, Historical Record, Material Properties, Rainfall, Vegetation, Waipaoa River, East Cape.
447. **Marden, M. & Rowan, D.** (1993): Protective value of vegetation on Tertiary terrain before and during Cyclone Bola, East Coast, North Island, New Zealand.- New Zealand Journal of Forestry Science, Vol. 23(3), 255-263.
- Keyword(s):** Cyclone Bola, Landslide Stability Factors, Vegetation, East Coast, North Island.
448. **Mark, A.F. & Sanderson, F.R.** (1989): Forest succession on landslides in the Fiord ecological region, Southwestern, New Zealand.- New Zealand Journal of Botany, Vol. 27(3), 369-390.
- Keyword(s):** Climate Change, Landslide Stability Factors, Vegetation, Fiordland, South Island.
449. **Mark, A.F., Scott, G.A.M., Sanderson, F.R. & James, P.W.** (1964): Forest succession on landslides above Lake Thomson, Fiordland.- New Zealand Journal of Botany, Vol. 2(1), 60-89.
- Keyword(s):** Dating, Landslide Stability Factors, Vegetation, Fiordland.
450. **Marshall, P.** (1926): The origin of Lake Waikaremoana.- Transactions of the New Zealand Institute, Vol. 57, 237-244.
- Keyword(s):** Landslide Dammed Lakes, North Island.
451. **Martell, C.M.** (1993): The effects of mass movement on the hydrological properties of tertiary hill country soils.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
- Keyword(s):** Hydrology, Material Properties, Soil Moisture, Rangatikei.
452. **Martin, G.R. & Millar, P.J.** (1974): Stability of slopes in weathered and jointed rock.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 7.1-7.14.

Keyword(s): Geomechanics, Material Properties, Rock Material, Slope.

453. **Marwick, J.** (1929): Mud-flows in the Cheviot District.- New Zealand Journal of Science and Technology, Vol. 11, 4-8.

Keyword(s): Flow Movement, Earth Material, Canterbury.

454. **Mason, C.R.** (1981): Control techniques for tunnel gully erosion.- NZASWC Broadsheet, 31-36.

Keyword(s): Control, Pipes, Stabilisation, Tunnel Gullies.

455. **Matthews, B.W.** (1992): Shoreline erosion and sedimentology of Lake Waikaremoana.- MSc Thesis, University of Waikato.

Keyword(s): Erosion, Historical Record, Sedimentation, Lake Waikaremoana.

456. **McCaskill, L.** (1973): Hold this land: a history of soil and water conservation in New Zealand, Reed, 274 p.

Keyword(s): Historical Record, Management, Soil Conservation.

457. **McConchie, J.A.** (1977): The geomorphological and hydrological response to the 20 December 1976 storm, Stokes Valley.- Unpublished BSc Honours Thesis, Research School of Earth Science, Victoria University of Wellington.

Keyword(s): Event, Landslide Disasters, Landslide Stability Factors, Wellington.

458. **McConchie, J.A.** (1980): Implication of landslide activity for urban drainage.- Journal of Hydrology (New Zealand), Vol. 19(1), 27-34.

Keyword(s): Channels, Hydrological Assessment, Impacts, Management, Wellington.

459. **McConchie, J.A.** (1981): Landslip prediction from precedent.- in: 11th N.Z. Geographical Conference, 112-117.

Keyword(s): Landslide Stability Factors, Wellington.

460. **McConchie, J.A.** (1986): Earthflows: Measurement and explanation.- PhD Thesis, Research School of Earth Science, Victoria University of Wellington.

Keyword(s): Earth Material, Flow Movement, Landslide Investigation (case study), Wairarapa.

461. **McConchie, J.A.** (1992): Water and slope stability.- in: Mosley, M.P. (ed.): Waters of New Zealand, Wellington, New Zealand Hydrological Society, Vol. 1, 381-408.

Keyword(s): Control, Groundwater, Rainfall, Stabilisation.

462. **McCraw, J.D.** (1965): Landscapes of Central Otago.- in: New Zealand Geographical Society (ed.): Central Otago - Special Publication, Miscellaneous Series, Vol. 5, 30-45.

Keyword(s): Geomorphology, Landform Evolution, Otago.

463. **McGlinchy, I.W.** (1987): Erosion severity assessment: a methodology for assessing erosion severity with emphasis on sediment access to drainage network.- Unpublished B.Sc. Hons. Thesis, Victoria University of Wellington.

Keyword(s): Erosion, Gullies, Methods, Wairarapa.

464. **McGlone, M.S.** (1978): Forest destruction by early Polynesians, Lake Poukawa, Hawke's Bay, New Zealand.- *Journal of the Royal Society of New Zealand*, Vol. 8(3), 275-281.
Keyword(s): Dating, Erosion, Vegetation, Hawke's Bay.
465. **McGlone, M.S.** (1983): Polynesian deforestation of New Zealand: A preliminary synthesis.- *Archaeology in Oceania*, Vol. 18, 11-25.
Keyword(s): Dating, Erosion, Vegetation.
466. **McGlone, M.S.** (1989): The Polynesian settlement of New Zealand in relation to environment and biotic changes.- *New Zealand Journal of Ecology*, Vol. 12, 115-129.
Keyword(s): Erosion, Historical Record, Sedimentation.
467. **McKellar, I.C.** (1979): East Abbotsford landslide - June to August 1979.- *Newsletter of the Geological Society of New Zealand*, Vol. 48, 3-4.
Keyword(s): Event, Landslide Disasters, Abbotsford.
468. **McKelvey, R.J. & Murton, K.** (1992): Landslide damage on the East Coast Region arising from tropical cyclone Bola, March 1988.- in: Bell, D.H. (ed.): *Landslides - Proceedings of the Sixth International Symposium*, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1445-1450.
Keyword(s): Cyclone Bola, Event, Landslide Disasters, East Coast, North Island.
469. **McKerchar, A.** (1992): Extreme rainfall and extreme floods in New Zealand.- *Water & Atmosphere*, Vol. 1(1), 19-20.
Keyword(s): Hydrological Assessment, Landslide Disasters, Rainfall.
470. **McLean, R.F. & Davidson, C.F.** (1968): The role of mass movement in shore platform development along the Gisborne coastline.- *Earth Science Journal*, Vol. 2, 15-25.
Keyword(s): Coasts/Coastal, Landform Development, Gisborne.
471. **McLean, S.A.** (1979): The December 1976 storm in the context of the inter-relationships of man, vegetation and landform at Belmont, Lower Hutt.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
Keyword(s): Landform Development, Rainfall, Trigger, Vegetation, Wellington.
472. **McLennan, N.R. & O'Connor, E.C.** (1983): Comment on coarse sediment yields from the Upper Waipawa River basin, Ruahine Range by PJ Grant.- *Journal of Hydrology (New Zealand)*, Vol. 22(2), 187-189.
Keyword(s): Sedimentation, Hawke's Bay.
473. **McManus, D.A.** (1981): Aspects of the engineering geology, including mass movement, of the Albany basin and Paremoremo area.- MSc Thesis, University of Auckland.
Keyword(s): Engineering Assessment, Geology, Urban Landslides, Auckland.
474. **McPherson, R.I.** (1988): Experimental geomorphic map for hazard assessment, Cheviot, North Canterbury.- Department of Scientific and Industrial Research, NZ Water and Soil Publication 118.

Keyword(s): Geomorphological Assessment, Hazard Assessment, Zonation, Canterbury.

475. **McSaveney, E.R.** (1982): The Arthur's Pass earthquake of 9th March 1929, 24 p.

Keyword(s): Cause, Earthquakes, Trigger, Arthur's Pass, Canterbury.

476. **McSaveney, E.R.** (1982): Recent geomorphic changes in the Bealey, Otira, Mingha and Deception valleys, Arthur's Pass National Park.- National Parks Authority of New Zealand, Report.

Keyword(s): Geomorphological Assessment, Arthur's Pass, Canterbury, Otira, Westland.

477. **McSaveney, M.J.** (1978): The magnitude of erosion across the Southern Alps.- in: Proceedings of the Conference of Erosion Assessment and Control in New Zealand, 7-25.

Keyword(s): Assessment, Erosion, Southern Alps.

478. **McSaveney, M.J.** (1992): The Mount Fletcher rock avalanche of 2 May 1992, immediate report.- Department of Scientific and Industrial Research, Geology and Geophysics.

Keyword(s): Rock Avalanche, Mt. Fletcher.

479. **McSaveney, M.J. & Griffiths, G.A.** (1987): Drought, rain and movement of a recurrent earth flow complex in New Zealand.- Geology, Vol. 15(7), 643-646.

Keyword(s): Antecedent Moisture, Cause, Earth Material, Flow Movement, Rainfall, Trigger.

480. **McSaveney, M.J., Thomson, R. & Turnbull, I.M.** (1992): Timing of relief and landslides in Central Otago, New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1450-1456.

Keyword(s): Dating, Landform Development, Landslide Stability Factors, Topography, Central Otago.

481. **McSaveney, M.J. & Whitehouse, I.E.** (1988): Hazards on fans.- Streamlands, Vol. 73, 4.

Keyword(s): Control, Debris Material, Flow Movement, Hazard, Management, Stabilisation.

482. **Meister, A.** (1985): Economic analysis and soil conservation work.- Natural Resource Economics Unit, Massey, Discussion Paper 10.

Keyword(s): Soil Conservation.

483. **Merz, J.** (1997): Hydrological investigations of a hillside affected by landslides, Lake Tutira, New Zealand.- Diploma Thesis, Bern, University of Bern, Switzerland, 132 p.

Keyword(s): Hydrological Assessment, Landslide Stability Factors, Hawke's Bay.

484. **Miller, D.E.** (1980): Earthflow erosion process studies-Gisborne.

Keyword(s): Earth Material, Flow Movement, Mechanisms, Gisborne.

485. **Miller, D.E.** (1983): Groundwater conditions in Gisborne earthflows; summary.- Ministry of Works and Development, Water and Soil Division, unpublished Report.
Keyword(s): Earth Material, Flow Movement, Groundwater, Porewater, Gisborne.
486. **Miller, D.E.** (1987): Stabilising earthflows by planting poplars or willows.- in: Cowie, B. (ed.): East Coast Project Review, Ministry of Works and Development, Water and Soil Division, 48.
Keyword(s): Control, Earth Material, Flow Movement, Stabilisation, East Coast, North Island.
487. **Miller, D.E.** (1991): Pasture production from earthflows in Gisborne.- Department of Scientific and Industrial Research, Land Resources, Technical Record 66.
Keyword(s): Earth Material, Flow Movement, Pastoral Productivity, Gisborne.
488. **Miller, D.E., Gilchrist, N. & Hicks, D.** (1993): The role of broadleaved trees in slope stabilisation on New Zealand hill country pastoral farms.- in: East Asia - Pacific Mountain Land Symposium, Lincoln.
Keyword(s): Control, Stabilisation, Vegetation.
489. **Miller, D.J.** (1995): Coupling GIS with physical models to assess deep-seated landslide hazards.- Environmental & Engineering Geoscience, Vol. 1(3), 263-276.
Keyword(s): GIS Application.
490. **Miller, R.** (1987): Gully stabilisation by close planting of poplars, willows and pines, Ihungia.- in: Cowie, B. (ed.): East Coast Project Review, Ministry of Works and Development, Water and Soil Division, 52.
Keyword(s): Control, Gullies, Stabilisation, East Coast, North Island.
491. **Ministry of Works and Development** (1969): Controlling water and soil conservation.- Ministry of Works and Development, Water and Soil Division, Miscellaneous Publication U35.
Keyword(s): Soil Conservation.
492. **Ministry of Works and Development** (1973): Prevention and control of mass movement and gully erosion.- Ministry of Works and Development, Water and Soil Division, Miscellaneous Publication Z57.
Keyword(s): Control, Pipes, Prevention, Stabilisation, Tunnel Gullies.
493. **Ministry of Works and Development** (1980): Abbotsford landslide: third phase of inquiry.- Ministry of Works and Development.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford.
494. **Ministry of Works and Development** (1980): East Abbotsford landslide: commission of inquiry, phase 5.- Ministry of Works and Development.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford.
495. **Ministry of Works and Development** (1980): NZED Wellsford substation slip investigation.- Ministry of Works and Development.
Keyword(s): Landslide Investigation (case study), Wellsford.

496. **Mitchell, M.T.** (1974): The use of instrumentation in evaluating the stability of natural slopes.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 6.31-6.46.
Keyword(s): Engineering Assessment, Instrumentation.
497. **Morriss, H.S.** (1966): Orchard conservation plans, Moutere.- Soil & Water, Vol. 3(4), 22-24.
Keyword(s): Land Use, Soil Conservation, Nelson.
498. **Morriss, H.S.** (1969): Nelson district orchard conservation.- Soil & Water, Vol. 6(1), 7-10.
Keyword(s): Land Use, Soil Conservation, Nelson.
499. **Mosley, M.P.** (1977): Southeastern Ruahine Investigation Report on Erosion and Sedimentation.- Manawatu Catchment Board and Regional Water Board.
Keyword(s): Erosion, Sedimentation, Hawke's Bay.
500. **Mosley, M.P.** (1978): Erosion in the protection forests.- in: Conference on Erosion Assessment and Control, Christchurch, 16.
Keyword(s): Erosion, Sediment Budget, Vegetation.
501. **Mosley, M.P.** (1978): Erosion in the south-eastern Ruahine Range: Its implications for downstream river control.- New Zealand Journal of Forestry, Vol. 23, 21-48.
Keyword(s): Erosion, Sedimentation, Vegetation, Hawke's Bay.
502. **Mosley, M.P.** (1980): The impact of forest road erosion in the Dart Valley, Nelson.- New Zealand Journal of Forestry, Vol. 25, 184-198.
Keyword(s): Land Use, Road, Southern Alps.
503. **Mosley, M.P.** (1980): Mapping sediment sources in a New Zealand mountain watershed.- Environmental Geology, Vol. 3, 85-95.
Keyword(s): Sediment Budget.
504. **Mosley, M.P. & Blakely, R.J.** (1977): The Coppermine Creek landslide, August 1976.- Soil & Water.
Keyword(s): Event, Landslide Investigation (case study).
505. **Mueller, M.** (1988): Landslides at Lake Stanley.- Tasman District Council.
Keyword(s): Event, Landslide Investigation (case study), Motueka.
506. **Murrow, P.J.** (1974): Debris flow in the Maungakotukutuku Valley.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
Keyword(s): Debris Material, Flow Movement.
507. **N.N.** (1965): Tangoio soil conservation reserve.- Soil Conservation Newsletter, Vol. 3, 70-73.
Keyword(s): Soil Conservation, Tangoio, Hawke's Bay.
508. **N.N.** (1988): Landslide dammed lakes in New Zealand.- Newsletter Geological Society of New Zealand, Vol. 80, 75-76.
Keyword(s): Landslide Dammed Lakes.
509. **N.N.** (1996): Wellman corner; landslide of the Murchison earthquake.- Newsletter Geological Society of New Zealand, Vol. 109, 27-28.

- Keyword(s):** Earthquakes, Trigger, Cause, Murchison.
510. **National Water and Soil Conservation Authority** (1987): Farming the hills - mining or sustaining the resource?- Streamland, Vol. 62.
- Keyword(s):** Erosion, Sustainability.
511. **Neild, J. & Kirkland, W.** (1989): Soil conservation activity review, Taranaki Catchment Board and Regional Water Board.- MAFTech, Contract Report to Taranaki Catchment Commission.
- Keyword(s):** Soil Conservation, Taranaki.
512. **Nelson Catchment Board** (1977): A review of soil and water conservation works in Nelson orchards.- Nelson Catchment Board.
- Keyword(s):** Land Use, Soil Conservation, Nelson.
513. **Nevins, T.H.F.** (1968): Economic reports for soil conservation, river control and drainage proposals.- in: Acheson, A. R. (ed.): River control and drainage in New Zealand, Govt. Printer.
- Keyword(s):** Indirect Costs, Soil Conservation.
514. **New Zealand Meteorological Society** (1988): "Cyclone Bola" 26 February - 10 March 1988.- New Zealand Meteorological Society Newsletter, Vol. 33, 14-23.
- Keyword(s):** Cyclone Bola, Event, Landslide Disasters, Hawke's Bay.
515. **Newton, C.J. & Smith, C.J.** (1992): Dewatering of the Nine Mile Creek landslide.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 797-804.
- Keyword(s):** Control, Dams, Groundwater, Stabilisation, Cromwell Gorge, Otago.
516. **Northey, R.D.** (1973): Insurance claims from earthquake damage in relation to soil patterns.- Geoderma, Vol. 10(1-2), 151-159.
- Keyword(s):** Damage Costs, Insurance, Wellington.
517. **Northey, R.D., Hawley, J.G. & Barker, P.R.** (1974): Classification and mechanics of slope failures in natural ground.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 3.1-3.8.
- Keyword(s):** Classification, Mechanisms.
518. **NWASCA** (1980): Proceedings of the Workshop on Influence of Soil Slip Erosion on Hill Country Pastoral Productivity, Palmerston North.
- Keyword(s):** Erosion, Pastoral Productivity.
519. **NWASCA** (1985): Workshop on Tidal Inlet Stability, Christchurch, Ministry of Works and Development, Water and Soil Directorate.
- Keyword(s):** Coasts/Coastal, Landslide Stability Factors.
520. **NWASCA** (1986): Review of soil conservation progress, 1970-1985.- NWASCA.
- Keyword(s):** Soil Conservation.
521. **NZ Geomechanics Society** (1977): Slope stability in urban development.- Department of Scientific and Industrial Research, Information Series 12.

Keyword(s): Control, Management, Stabilisation, Urban Landslides.

522. **NZ National Water and Soil Conservation** (1973): Prevention and control of mass movement and gully erosion.- NZ National Water and Soil Conservation.

Keyword(s): Mass Movement, Pipes, Prevention, Tunnel Gullies.

523. **NZ National Water and Soil Conservation** (1982): Landslip and flooding hazard in Eastbourne Borough - a guide for planning.- NZ Water and Soil Conservation, Water and Soil Miscellaneous Publication 37.

Keyword(s): Management, Planning, Urban Landslides, Wellington.

524. **NZ National Water and Soil Conservation** (1985): Developments in hazard prone areas: a discussion document.- NWASC, WASCO 47.

Keyword(s): Hazard Assessment, Risk.

525. **NZGS** (1971): Abbotsford slide area.- New Zealand Geological Survey EG 247.

Keyword(s): Event, Landslide Disasters, Abbotsford.

526. **NZGS** (1971): Landslide investigation Utikislip.- New Zealand Geological Survey EG 109.

Keyword(s): Landslide Investigation (case study), Road, Rangatikei.

527. **NZGS** (1971): Landslide studies - Kawarau Gorge, South Island, New Zealand.- New Zealand Geological Survey EG 117.

Keyword(s): Landslide Investigation (case study), Road, Otago.

528. **NZGS** (1971): Landslides in the Kilmog Hill-Seacliff area, South Island New Zealand.- New Zealand Geological Survey EG 116.

Keyword(s): Landslide Investigation (case study), Road, Otago.

529. **NZGS** (1974): The Cromwell landslide.- New Zealand Geological Survey EG 199.

Keyword(s): Dams, Landslide Investigation (case study), Cromwell Gorge, Otago.

530. **NZGS** (1975): East Abbotsford landslide: N.Z. Geological Survey, geological map of Dunedin and East Taieri from NZGS Bulletin No.38 by M. Ongley 1939.- New Zealand Geological Survey EG 335.

Keyword(s): Event, Landslide Disasters, Abbotsford.

531. **NZGS** (1976): Geological report on a landslide, Lake Te Anau.- New Zealand Geological Survey EG 328.

Keyword(s): Geological Assessment, Te Anau.

532. **NZGS** (1979): East Abbotsford landslide.- New Zealand Geological Survey EG 330.

Keyword(s): Event, Landslide Disasters, Abbotsford.

533. **NZGS** (1979): A reappraisal of the Cromwell slide in relation to reservoir and roading proposals.- New Zealand Geological Survey EG 338.

Keyword(s): Dams, Groundwater, Hydrological Assessment, Porewater, Road, Cromwell Gorge.

534. **NZGS** (1980): East Abbotsford landslide: commission of inquiry, phase 3: submission by engineers in response to questions put by Mr G. Beca on behalf of the Commission.

Keyword(s): Inquiry, Landslide Disasters, Abbotsford.

535. **NZGS (1980):** East Abbotsford landslide: presentation and assessment of engineering geological data and factors related to the cause of the slide.- New Zealand Geological Survey EG 328.

Keyword(s): Inquiry, Landslide Disasters, Abbotsford.

536. **NZGS (1981):** Pukerua Bay - Paekakariki coastal stability project. Preliminary engineering geological assessment of the Beanpole Corner landslide.- New Zealand Geological Survey EG 359.

Keyword(s): Engineering Assessment, Geological Assessment, Wellington.

537. **O'Byrne, T.N. (1967):** A correlation of rock types with soils, topography, and erosion in the Gisborne-East Cape Region.- New Zealand Journal of Geology and Geophysics, Vol. 10(1), 217-231.

Keyword(s): Geology, Gisborne.

538. **O'Leary, S.M., Stephens, P.R., Willoughby, R., DeRose, R.C., Gibb, R.G., White, M.F. & Sutherland, A. (1996):** Land-use monitoring in the Eastern Taranaki Hills.- Taranaki Regional Council Landcare LC9596/134.

Keyword(s): Land Use, Sustainability, Taranaki.

539. **Oliver, T.I. (1967):** The significance of subsurface water as a geomorphic agent in an area of the greywacke ranges near Whitehall.- BA (Hons) Thesis, Waikato, University of Waikato.

Keyword(s): Tunnel Gullies, Waikato.

540. **O'Loughlin, C. (1968):** Geomorphology of a small mountain catchment.- MSc Thesis, Christchurch, University of Canterbury.

Keyword(s): Catchment, Channels, Soil Erosion, Canterbury.

541. **O'Loughlin, C.J. (1974):** The effect of timber removal on the stability of forest soils.- Journal of Hydrology (New Zealand), Vol. 13(2), 121-134.

Keyword(s): Stability Analysis, Vegetation.

542. **O'Loughlin, C.L. (1984):** Effectiveness of introduced forest vegetation for protection against landslides and erosion in New Zealand's steep lands.- in: Symposium on effects of forest land use on erosion and slope stability, Honolulu, Hawaii, 275-280.

Keyword(s): Controls, Erosion, Vegetation.

543. **O'Loughlin, C.L. (1995):** The sustainable paradox - an examination of The Plantation Effect - a review of the environmental effects of plantation forestry in New Zealand.- New Zealand Forestry, Vol. 39(4), 3-8.

Keyword(s): Land Use, Sustainability, Vegetation.

544. **O'Loughlin, C.L., Blong, R.J. & Swanston, D.N. (1981):** Methods for assessing slope erosion and non-channel sediment sources in upland regions.- Journal of Hydrology (New Zealand), Vol. 20(1), 80-89.

Keyword(s): Erosion, Methods, Sedimentation.

545. **O'Loughlin, C.L. & Gage, M.** (1975): A report on the status of slope erosion on selected steep areas, West Coast beech project area.- New Zealand Forest Service, Report.
Keyword(s): Erosion, Slope, Vegetation, West Coast.
546. **O'Loughlin, C.L. & Pearce, A.J.** (1976): Influence of Cenozoic geology on mass movement and sediment yield response to forest removal, North Westland, New Zealand.- Bulletin of the International Association of Engineering Geology, Vol. 14, 41-46.
Keyword(s): Geology, Mass Movement, Sediment Budget, Westland.
547. **O'Loughlin, C.L. & Pearce, A.J.** (1982): Erosion processes in the mountains.- in: Soons, J. & Selby, M. (eds.): Landforms of New Zealand, Longman, 67-80.
Keyword(s): Assessment, Erosion, Southern Alps.
548. **O'Loughlin, C.L., Rowe, L.K. & Pearce, A.J.** (1978): Sediment yields from small forested catchments North Westland - Nelson, New Zealand.- Journal of Hydrology (New Zealand), Vol. 17(1), 1-15.
Keyword(s): Sedimentation, Vegetation, Westland.
549. **O'Loughlin, C.L., Rowe, L.K. & Pearce, A.J.** (1982): Exceptional storm influences on slope erosion and sediment yield in small forest catchments, North Westland, New Zealand.- in: The First National Symposium on Forest Hydrology, 11-13 May 1982, Melbourne, 84-91.
Keyword(s): Impacts, Rainfall, Sedimentation, Westland.
550. **O'Loughlin, C.L. & Watson, A.J.** (1979): Root wood strength deterioration in radiata pine after clearfelling.- New Zealand Journal of Forestry, Vol. 9(3), 284-293.
Keyword(s): Material Properties, Vegetation.
551. **O'Loughlin, C.L. & Watson, A.J.** (1981): Root wood strength deterioration in beech (*Nothofagus fusca* and *M. truncata*) after clearfelling.- New Zealand Journal of Forestry, Vol. 11(2), 183-185.
Keyword(s): Material Properties, Vegetation.
552. **O'Loughlin, C.L. & Zhang, X.B.** (1986): The influence of fast growing conifer plantations on shallow landsliding and earthflow movement in New Zealand steepplands.- in: Proceedings of the 18th International Union Forest Research Organisations - 18th World Congress, Ljubljana, Yugoslavia, September 1986, 217-226.
Keyword(s): Control, Landslide Behaviour, Vegetation.
553. **O'Loughlin, C.O. & Ziemer, R.R.** (1982): The importance of root strength and deterioration rates upon edaphic stability in steeppland forests.- in: Workshop on Carbon Uptake and Allocation in subalpine Ecosystems as a Key to Management, Oregon State University, Corvallis, Oregon, 70-77.
Keyword(s): Material Properties, Vegetation.
554. **O'Loughlin, J.C. & Owens, I.F.** (1987): Our dynamic environment.- in: Holland, P.G. & Johnston, W.B. (eds.): Southern Approaches: Geography in New Zealand, Christchurch, New Zealand, New Zealand Geographical Society, 59-90.

Keyword(s): Geomorphological Assessment.

555. **Omura, H. & Hicks, D.L.** (1991): Probability of landslides in hill country.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 1045-1049.

Keyword(s): Frequency, Magnitude, Probability of Occurrence.

556. **Orbell, G.E.** (1981): Settlement problems - natural ground.- in: Geomechanics in Urban Planning, Palmerston North.

Keyword(s): Material Properties, Subsidence.

557. **O'Riordan, T.** (1973): The Tahunanui landslip of August 1970: an investigation of landslip protection policy in New Zealand.- New Zealand Geographer, Vol. 29, 16-30.

Keyword(s): Investigation, Management, Urban Landslides, Nelson.

558. **Oshaka, O., Omura, H., Ohara, T. & Hicks, D.** (1994): Effect of poplar roots on physical properties of surface soils at Mangaweka, New Zealand.- Trans. Jap. For. Soc., Vol. 105, 593-596.

Keyword(s): Material Properties, Vegetation, Rangatikei.

559. **Owen, R.C.** (1981): Soil strength and microclimate in the distribution of shallow landslides.- Journal of Hydrology (New Zealand), Vol. 20(1), 17-26.

Keyword(s): Climate, Material Properties, Wairarapa.

560. **Owens, I.F.** (1967): Mass movement in the Chilton Valley.- MA Thesis, Canterbury.

Keyword(s): Climate, Mass Movement, Canterbury, Southern Alps.

561. **Owens, I.F.** (1969): Causes and rates of soil creep in the Chilton Valley, Cass, New Zealand.- Arctic and Alpine Research, Vol. 1(3), 213-220.

Keyword(s): Creep Movement, Canterbury, Southern Alps.

562. **Owens, I.F.** (1992): A note on the Mt. Cook rock avalanche of 14 December 1991.- New Zealand Geographer, Vol. 48(2), 74-78.

Keyword(s): Rock Avalanche, Mt. Cook, Southern Alps.

563. **Owens, I.F., Kirk, R.M., Bell, D.H., Pettinga, J. & Todd, D.** (1994): Natural hazards in Canterbury.- Canterbury University 94/19.

Keyword(s): Hazard Assessment, Canterbury.

564. **Page, M.J. & Trustrum, N.A.** (1997): A late Holocene lake sediment record of the erosion response to land use change in a steep land catchment, New Zealand.- Zeitschrift für Geomorphologie, Vol. 41(3), 369-392.

Keyword(s): Dating, Erosion, Historical Record, Land Use, Sediment Budget, Sedimentation, Vegetation, Tutira, Hawke's Bay.

565. **Page, M.J., Trustrum, N.A. & DeRose, R.C.** (1994): A high resolution record of storm induced erosion from lake sediments, New Zealand.- Journal of Paleolimnology, Vol. 11, 333-348.

Keyword(s): Dating, Rainfall, Sedimentation, Hawke's Bay.

566. **Page, M.J., Trustrum, N.A. & Dymond, J.R.** (1994): Sediment budget to assess the geomorphic effect of a cyclonic storm, New Zealand.- *Geomorphology*, Vol. 9, 169-188.
Keyword(s): Cyclone Bola, Rainfall, Sediment Budget, Hawke's Bay, Tutira.
567. **Pain, C.F.** (1968): Geomorphic effects of floods in the Orere River catchment, eastern Hunua Ranges.- *Journal of Hydrology (New Zealand)*, Vol. 7(1), 62-74.
Keyword(s): Catchment, Event, Auckland.
568. **Pain, C.F.** (1968): Mass movement and vegetation in the Orere River Catchment, Hunua Ranges.- MA Thesis, University of Auckland, New Zealand.
Keyword(s): Vegetation, Auckland.
569. **Pain, C.F.** (1969): The effect of some environmental factors on rapid mass movement in the Hunua Range, New Zealand.- *Earth Science Journal*, Vol. 3(2), 101-107.
Keyword(s): Geology, Auckland.
570. **Pain, C.F.** (1971): Rapid mass movement under forest and grass in the Hunua Ranges, New Zealand.- *Australian Geographical Studies*, Vol. 9, 77-84.
Keyword(s): Debris Material, Earth Material, Landslide Investigation, Movement, Slide Movement, Slump Movement, Vegetation, Orere, Hunua Catchment.
571. **Pain, C.F. & Hosking, P.L.** (1970): The movement of sediment in a channel in relation to magnitude and frequency concepts - A New Zealand example.- *Earth Science Journal*, Vol. 4(1), 17-23.
Keyword(s): Frequency/Magnitude of Landslides, Historical Record, Landslide Investigation.
572. **Pain, C.F. & Stephens, P.R.** (1990): Storm damage assessment using digitised aerial photographs: Eltham, New Zealand, 24-25 February 1986.- *New Zealand Geographer*, Vol. 46(1), 21-25.
Keyword(s): Aerial Photograph Analysis, Impacts, Rainfall, Taranaki.
573. **Painter, D.J.** (1973): Soil and fluid-mechanics principles in mass movement erosion.- in: *Prevention and control of mass movement and gully erosion*, 10-30.
Keyword(s): Mechanisms.
574. **Painter, R.B., Blyth, K., Mosedale, J.C. & Kelly, M.** (1974): The effect of afforestation on erosion processes and sediment yield.- in: *Effects of man on the interference of the hydrological cycle with the physical environment - symposium*, Paris, 62-67.
Keyword(s): Erosion, Sediment Yield, Vegetation.
575. **Pardy, G.F.** (1991): Stabilisation of landslides and bare ground using native shrubby species.- Forest Research Institute, Northern Wildlands Section Forest and Wildlife Division.
Keyword(s): Control, Stabilisation, Vegetation.
576. **Parkin, D.T., Jennings, D.N. & Webby, M.G.** (1993): Tunawaea landslide dam: Part 1 - hazard management.- in: *IPENZ*, Hamilton, New Zealand.
Keyword(s): Landslide Dammed Lakes, Management.

577. **Parr, A.R.** (1982): Future contingencies - 2. Social disaster. A sociology of disasters and the future.- Commission for the Future.
Keyword(s): Impacts, Inquiry, Landslide Disasters, Social, Abbotsford.
578. **Parr, A.R.** (1984): Social implications of landslides.- in: Speden, I.G. & Crozier, M.J. (eds.): Scientific, economic and social reviews of natural hazards in New Zealand, New Zealand National Commission for UNESCO, 466-481.
Keyword(s): Impacts, Inquiry, Landslide Disasters, Social, Abbotsford.
579. **Parr, A.R.** (1987): Sociological problems in New Zealand disasters.- in: Hazards in Canterbury and Westland, Christchurch.
Keyword(s): Impacts, Inquiry, Landslide Disasters, Social, Abbotsford.
580. **Parton, I.M.** (1974): Assessment of slope stability at Poro-o-Tarao Tunnel south portal.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 5.35 - 5.56.
Keyword(s): Review, Stability Analysis.
581. **Patterson, B.R.** (1992): Landslides and geomorphology along the Christchurch-Arthurs Pass route, South Island, New Zealand: field guide.- in: Sixth International Symposium on Landslides.
Keyword(s): Geomorphological Assessment, Arthur's Pass, Southern Alps.
582. **Pearce, A.J.** (1976): Magnitude and frequency of erosion by Hortonian overland flow.- Journal of Geology, Vol. 84, 65-80.
Keyword(s): Frequency, Magnitude.
583. **Pearce, A.J.** (1979): Earthflow movement, Dome Station site, summary of initial results, Jan 1979-Dec 1980.
Keyword(s): Earth Material, Flow Movement, Landslide Behaviour.
584. **Pearce, A.J.** (1981): Complex mass movement terrain in the Eastern Raukumara Peninsula, New Zealand: lithologic and structural tectonic influences and the effects of recent deforestation and reforestation.- in: Landslides and mudflows: Reports of the Alma-Ata International Seminar, 235-247.
Keyword(s): Geology, Mass Movement, Tectonic Movement, Vegetation, Gisborne.
585. **Pearce, A.J.** (1986): Effects of earthquake-induced landslides on sediment budget and transport over a 50 year period.- Geology, Vol. 14, 52-55.
Keyword(s): Earthquakes, Sediment Budget.
586. **Pearce, A.J.** (1986): Geomorphic effectiveness of erosion and sedimentation events.- Journal of Water Resources, Vol. 5(1), 551-569.
Keyword(s): Geomorphological Assessment, Sedimentation, Slope.
587. **Pearce, A.J., Black, R.D. & Nelson, C.S.** (1981): Lithologic and weathering influences on slope form and process, eastern Raukumara Range, New Zealand.- in: Erosion and Sediment Transport in Pacific Rim Steeplands, Christchurch, 95-122.
Keyword(s): Geological Assessment, East Coast, North Island.

588. **Pearce, A.J. & Hodgiss, P.D.** (1987): Erosion and sediment yield from a landing failure after a moderate rainstorm, Tairua Forest.- New Zealand Forestry, Vol. 32(3), 19-22.
Keyword(s): Erosion, Rainfall, Sediment Budget.
589. **Pearce, A.J. & O'Loughlin, C.L.** (1978): Hydrologic and geomorphic processes on forested lands-a selective overview.- in: Erosion assessment and control conference, Christchurch, 15pp.
Keyword(s): Geomorphological Assessment, Hydrological Assessment.
590. **Pearce, A.J. & O'Loughlin, C.L.** (1985): Landsliding during a M7.7 earthquake: influence of geology and topography.- Geology, Vol. 13, 855-858.
Keyword(s): Earthquakes.
591. **Pearce, A.J., O'Loughlin, C.L., Jackson, R.J. & Zhang, X.B.** (1987): Reforestation: on-site effects on hydrology and erosion, eastern Raukumara Range, New Zealand.- International Association of Scientific Hydrology, Forest Hydrology & Watershed Management Publication 167.
Keyword(s): Control, Erosion, Hydrological Assessment, Vegetation, Gisborne, Raukumara.
592. **Pearce, A.J., O'Loughlin, C.L. & Rowe, L.K.** (1976): Hydrological regimes of small, undisturbed beech forest catchments, North Westland.- in: Proceedings of Soil and Plant Water Symposium.- Department of Scientific and Industrial Research, Information Series.
Keyword(s): Hydrological Assessment, Westland.
593. **Pearce, A.J., O'Loughlin, C.L. & Watson, A.J.** (1985): Medium-term effects of landsliding and related sedimentation evaluated fifty years after an M7.7 earthquake.- in: International Symposium on Erosion, Debris Flow & Disaster Prevention, Tsukuba, Japan, 291-296.
Keyword(s): Earthquakes, Impacts, Sedimentation.
594. **Pearce, A.J. & Rowe, L.K.** (1979): Forest management effects on interception, evaporation, and water yield.- Journal of Hydrology (New Zealand), Vol. 18(2), 73-87.
Keyword(s): Hydrology, Land Use, Management.
595. **Pearce, A.J. & Watson, A.** (1983): Medium-term effects of two landsliding episodes on channel storage of sediment.- Earth Surface Processes and Landforms, Vol. 8(1), 29-39.
Keyword(s): Channels, Impacts, Sediment Budget.
596. **Pearce, R.B.** (1987): Caspar Creek: discovering how watersheds respond to logging.- Forestry Research West.
Keyword(s): Hydrological Assessment, Hydrology, Impacts, Vegetation.
597. **Perkins, C.G.** (1972): Terracette morphology on two lithologies in the Franklin County.- MSc Thesis, Auckland, University of Auckland.
Keyword(s): Creep Movement, Geology, Auckland.
598. **Perrin, N.D.** (1990): Technical review of landslide hazard reports LR 1990/2 and LR 1990/3.- Department of Scientific and Industrial Research.

Keyword(s): Hazard, Review.

599. **Perrin, N.D. & Hancox, G.T.** (1992): Landslide dammed lakes in New Zealand - preliminary studies on their distribution, causes and effects.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1457-1466.

Keyword(s): Landslide Dammed Lakes.

600. **Pettinga, J.R.** (1979): The effects of geologic structure and lithology on slope failure in Southern Hawke's Bay.- in: ANZAAS, 1-59.

Keyword(s): Geology, Hawke's Bay.

601. **Pettinga, J.R.** (1980): Geological controls on slope failure and influence on farm production.- Department of Geology, University of Canterbury, Notes 1.

Keyword(s): Geological Assessment, Pastoral Productivity.

602. **Pettinga, J.R.** (1980): Geology and landslides of the eastern Te Aute District, southern Hawke's Bay.- PhD Thesis, University of Auckland.

Keyword(s): Geological Assessment, Hawke's Bay.

603. **Pettinga, J.R.** (1982): Upper Cenezoic structural history, coastal Southern Hawke's Bay, New Zealand.- New Zealand Journal of Geology and Geophysics, Vol. 25, 149-191.

Keyword(s): Geology, Hawke's Bay.

604. **Pettinga, J.R.** (1992): Landslides and landscape development in soft rock terrain of the East Coast, North Island, New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 1(3), 108.

Keyword(s): Geology, Landform Development, East Coast, North Island.

605. **Pettinga, J.R. & Bell, D.H.** (1992): Engineering geological assessment of slope instability for rural land-use, Hawke's Bay, New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1467-1480.

Keyword(s): Engineering Assessment, Geological Assessment, Land Use, Hawke's Bay.

606. **Phillips, C.J.** (1988): Geomorphic effects of two storms on the upper Waitahaia River catchment, Raukumara Peninsula, New Zealand.- Journal of Hydrology (New Zealand), Vol. 27(2), 99-112.

Keyword(s): Geomorphological Assessment, Impacts, Rainfall, East Coast, North Island.

607. **Phillips, C.J.** (1989): Geomorphic effects of Cyclone Bola 1988 - A note.- Journal of Hydrology (New Zealand), Vol. 28(2), 142-146.

Keyword(s): Cyclone Bola, Geomorphological Assessment, Hawke's Bay.

608. **Phillips, C.J. & Davies, R.H.** (1991): Determining rheological parameters of debris flow material.- Geomorphology, Vol. 4, 101-110.

Keyword(s): Landslide Behaviour, Material Properties, Methods.

609. **Phillips, C.J., Marden, M. & Pearce, A.J.** (1990): Effectiveness of reforestation in prevention and control of landsliding during large cyclonic storms.- in: 19th World Congress, 5 - 11 August 1990, Montreal, Canada, 340-350.
Keyword(s): Control, Cyclone, Prevention, Vegetation.
610. **Phillips, C.J., Marden, M. & Rowan, D.** (1989): Planning for forestry after Cyclone Bola - a comment.- New Zealand Forestry, Vol. 34(3), 16-17.
Keyword(s): Cyclone Bola, Land Use, Vegetation.
611. **Pierson, T.C.** (1980): Piezometric response to rainstorms in forested hillslope drainage depressions.- Journal of Hydrology (New Zealand), Vol. 19(1), 1-10.
Keyword(s): Groundwater, Porewater, Rainfall.
612. **Pillans, B.** (1993): Quaternary geomorphology: quantifying longterm landform evolution.- New Zealand Geographer, Vol. 49(1), 35-37.
Keyword(s): Climate Change, Landform Development, Landform Evolution, Tectonic Movement.
613. **Pullar, W.A.** (1965): Landslides as evidence of seismic activity: Correspondance.- New Zealand Science Review, Vol. 23(5), 81.
Keyword(s): Earthquakes.
614. **Pullar, W.A. & Penhale, H.R.** (1970): Periods of recent infilling of the Gisborne Plains basin, associated marker beds and changes in shoreline.- New Zealand Journal of Science, Vol. 13, 410-434.
Keyword(s): Erosion, Historical Record, Sedimentation, Gisborne.
615. **Radcliffe, J.E.** (1968): Soil conditions on tracked hillside pastures.- New Zealand Journal of Agricultural Research, Vol. 11(2), 359-370.
Keyword(s): Creep Movement, Geology, Canterbury.
616. **Ramsey, G.** (1980): East Abbotsford landslide, 8 August 1979: Submission to the commission of inquiry, Phase 3: Determination of cause.- Ministry of Works and Development.
Keyword(s): Geotechnical Assessment, Inquiry, Landslide Disasters, Abbotsford.
617. **Read, H.I.** (1986): Soil erosion: rainfall simulation experiments - an index to soil erodibility.- Unpublished BSc Honours Thesis, Research School of Earth Science, Victoria University of Wellington.
Keyword(s): Erosion, Methods, Rainfall.
618. **Read, L.M., Dunne, T. & Cederholme, C.J.** (1981): Application of sediment budget studies to the evaluation of logging road impact.- Journal of Hydrology (New Zealand), Vol. 20(1), 49-62.
Keyword(s): Sediment Budget, Vegetation.
619. **Read, S.A.L.** (1974): Engineering geological assessment and slope stability.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 4.15-4.31.
Keyword(s): Engineering Assessment, Geological Assessment, Stability Analysis.

620. **Read, S.A.L., Beetham, R.D. & Riley, P.B.** (1992): Lake Waikaremoana barrier - A large landslide dam in New Zealand.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1481-1488.
Keyword(s): Geology, Landslide Dammed Lakes, Waikaremoana.
621. **Rennie, H.** (1982): Universal soil loss equation and its applicability to New Zealand.- Ministry of Works and Development, Water and Soil Division, Discussion Paper.
Keyword(s): Methods, Soil Erosion.
622. **Revell, C.G. & Ward, G.F.A.** (1982): Tropical Cyclone 'Bernie'.- Weather and Climate, Vol. 2(2), 31-32.
Keyword(s): Event, Landslide Disasters, Tropical Cyclones.
623. **Riddolls, B.W.** (1974): Engineering geology of a slope failure in urban Wellington.- New Zealand Engineering, Vol. 29(6), 173-176.
Keyword(s): Landslide Investigation (case study), Rainfall, Wellington.
624. **Riddolls, B.W.** (1977): Engineering geological aspects of slope instability in Hutt Valley area resulting from intense rainfall of December 1976.- New Zealand Geomechanics News, Vol. 14, 10-13.
Keyword(s): Engineering Assessment, Geological Assessment, Geology, Impacts, Rainfall, Wellington.
625. **Riley, P.B.** (1974): Stability of hardrock slopes.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 7.15-7.22.
Keyword(s): Rock Material, Slope, Stability Analysis.
626. **Riley, P.B., Meredith, A.S. & Lilley, P.B.** (1993): Tunawaea landslide dam collapse - physical and environmental consequences.- in: IPENZ, Hamilton, New Zealand.
Keyword(s): Impacts, Landslide Dammed Lakes.
627. **Riley, P.B. & Read, S.A.L.** (1992): Lake Waikaremoana - present day stability of landslide barrier.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1249-1256.
Keyword(s): Landslide Dammed Lakes, Stability Analysis, Waikaremoana.
628. **Robbins, R.G.** (1958): Direct effect of the 1855 earthquake on the vegetation of the Orongorongo Valley, Wellington.- Transactions of the Royal Society, Botany, Vol. 85(2), 205-212.
Keyword(s): Earthquakes, Impacts, Wellington.
629. **Roche, M.M.** (1989): Deteriorated lands, soil erosion and rivers control.- in: N.Z. Association of Econ., Dunedin.
Keyword(s): Policy, Soil Erosion.
630. **Rogers, N.W.** (1978): The nature and causes of shallow translational landslides in the Hapuakohe Range, North Island, New Zealand.- MSc Thesis, University of Waikato.
Keyword(s): Landslide Stability Factors.

631. **Rogers, N.W. & Selby, M.J.** (1980): Mechanism of shallow translational landsliding during summer rainstorms: North Island New Zealand.- *Geografiska Annaler, Series A*, Vol. 62(1-2), 11-21.
Keyword(s): Mechanisms, Rainfall, North Island.
632. **Ross, C.W.** (1981): Soil physical properties of some conservation tillage trials in the Southern North island.- in: *Conservation Tillage Seminar, Christchurch*, 361-373.
Keyword(s): Material Properties, Soil Conservation.
633. **Ross, C.W. & Wilson, A.D.** (1983): Soil and Conservation.- *New Zealand Agricultural Science*, Vol. 17(3), 283-287.
Keyword(s): Soil Conservation.
634. **Rowell, A.** (1982): Soil conservation reconnaissance, South Island, 1942-1982.- Ministry of Works and Development, Water and Soil Division.
Keyword(s): Soil Conservation, South Island.
635. **Russ, L.M.** (1984): Photo interpretation of the Te-Manawa-O-Tuhoe storm damage area.- Soil Conservation Centre, Palmerston North, Report 74/4/6/6.
Keyword(s): Aerial Photograph Analysis, Impacts, Rainfall.
636. **Ryan, C.** (1992): Stormy history.- *Terra Nova*(June), 52-54.
Keyword(s): Cyclone, Rainfall, Hawke's Bay.
637. **Salt, G.A., Hancox, G.T. & Northey, R.D.** (1980): East Abbotsford landslide: limit equilibrium analysis of the East Abbotsford landslide and assessment of the possible causes of the slide.- New Zealand Geological Survey, Department of Scientific and Industrial Research EG 341.
Keyword(s): Stability Analysis, Abbotsford.
638. **Salter, R.T., Crippen, T.F. & Noble, K.E.** (1983): Storm damage assessment of the Thames-Te Aroha area following the storm of April 1981.- Soil Conservation Centre, Report 1.
Keyword(s): Hydrological Assessment, Impacts, Rainfall, Stability Analysis, Coromandel.
639. **Schweinfurth, U.** (1966): Über eine besondere Form der Hangabtragung im neuseeländischen Fjordland.- *Zeitschrift für Geomorphologie*, Vol. 10(2), 144-149.
Keyword(s): Avalanches, Debris Material, Soil Erosion, Vegetation, Fiordland.
640. **Scott, D.** (1963): Erosional effects of recent and past cloudbursts in the Godley Valley, Lake Tekapo.- *Proceedings of the New Zealand Ecological Society*, Vol. 10, 19-20.
Keyword(s): Impacts, Rainfall, Trigger, Canterbury.
641. **Seddon, R.** (1981): A review of the Wharekiri soil conservation reserve.- Unpublished BSc Honours Thesis, Massey University.
Keyword(s): Review, Soil Conservation, Wharekiri.
642. **Selby, M.J.** (1966): Methods of measuring soil creep.- *Journal of Hydrology (New Zealand)*, Vol. 5(2), 54-63.
Keyword(s): Creep Movement.

643. **Selby, M.J.** (1966): Some slumps and boulder fields near Whitehall.- Journal of Hydrology (New Zealand), Vol. 5(2), 34-44.
Keyword(s): Dating, Slump Movement, Auckland.
644. **Selby, M.J.** (1967): Aspects of the geomorphology of the greywacke range bordering the Lower and Middle Waikato Basin.- Earth Science Journal, Vol. 1(1), 37-58.
Keyword(s): Landform Evolution, Waikato.
645. **Selby, M.J.** (1967): Erosion by high intensity rainfalls in the lower Waikato.- Earth Science Journal, Vol. 1(1), 27-30.
Keyword(s): Event, Impacts, Waikato.
646. **Selby, M.J.** (1970): Design of a hand portable rainfall simulating infiltrometer, with trial results from the Otutira catchment.- Journal of Hydrology (New Zealand), Vol. 9(2), 117-131.
Keyword(s): Soil, Infiltration, Measurement.
647. **Selby, M.J.** (1970): Slopes and Slope Processes.- New Zealand Geographical Society, Publication 1.
Keyword(s): Landform Development.
648. **Selby, M.J.** (1974): Dominant geomorphic events in landform evolution.- Bulletin of the International Association of Engineering Geology, Vol. 9, 85-89.
Keyword(s): Geomorphology, Landform Evolution.
649. **Selby, M.J.** (1974): Rates of denudation.- New Zealand Journal of Geography, Vol. 56, 1-14.
Keyword(s): Erosion.
650. **Selby, M.J.** (1976): Erosion by high intensity rainfalls in the Lower Waikato.- Earth Sciences Journal, Vol. 1(2), 153-156.
Keyword(s): Erosion, Rainfall, Waikato.
651. **Selby, M.J.** (1976): Selected annotated bibliography of mass wasting in New Zealand to 1975.- University of Waikato, Department of Earth Sciences, Occasional Report 1.
Keyword(s): Data Bases, Review.
652. **Selby, M.J.** (1976): Slope erosion due to extreme rainfall: a case study from New Zealand.- Geografiska Annaler, Series A, Vol. 58, 131-138.
Keyword(s): Erosion, Rainfall, Waikato.
653. **Selby, M.J.** (1979): Slope stability studies in New Zealand.- in: Murray, D.L. & Ackroyd, P. (eds.): Physical Hydrology: New Zealand Experience, New Zealand Hydrological Society, 120-134.
Keyword(s): Landslide Stability Factors, Overview, Review, Types.
654. **Selby, M.J.** (1980): A rock mass strength classification for geomorphic purposes: with tests from Antarctica and New Zealand.- Zeitschrift für Geomorphologie, Supplementband, Vol. 24(1), 31-51.
Keyword(s): Material Properties, Methods, Antarctica.

655. **Selby, M.J.** (1993): Hillslope materials and processes, New York, Oxford University Press.
Keyword(s): Geomechanics, Geotechnics, Material Properties, Overview.
656. **Selby, M.J. & Hosking, P.J.** (1973): The erodibility of pumice soils of the North Island, New Zealand.- *Journal of Hydrology (New Zealand)*, Vol. 12(1), 32-56.
Keyword(s): Soil Erosion.
657. **Shepherd, G.** (1991): Towards sustainable soil and crop management on arable land.- Department of Scientific and Industrial Research, Land Resources, Technical Report 56.
Keyword(s): Land Use, Management, Sustainability.
658. **Shuker, R.W.** (1974): A slump control technique.- *Soil & Water*, Vol. 11(1), 57-58.
Keyword(s): Control, Slump Movement.
659. **Sidle, R.C., Pearce, A.J. & O'Loughlin, L.** (1985): Hillslope stability and land use.- American Geophysical Union, Water Resources Monograph Series 11.
Keyword(s): Land Use, Overview, Review.
660. **Sinclair, T.J.E.** (1992): SCARR: A slope condition and risk rating.- in: Bell, D.H. (ed.): *Landslides - Proceedings of the Sixth International Symposium*, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1057-1064.
Keyword(s): Hazard, Methods, Risk, Road.
661. **Smale, D., Van der Lingen, G.J. & Bell, D.H.** (1982): A bedding-plane landslide near Mt Vulcan, North Canterbury.- *New Zealand Journal of Geology and Geophysics*, Vol. 25(4), 397-404.
Keyword(s): Geological Assessment, Investigation, Slide Movement, North Canterbury.
662. **Smith, N.S.** (1974): A contractors viewpoint and recommendations.- in: *Symposium on Stability of Slopes in Natural Ground*, New Zealand, 5.1-5.16.
Keyword(s): Policy, Remediation.
663. **Smith, R.K.** (1974): Earthflows in the Poverty Bay - East Coast region.- *NZ National Water and Soil Conservation*.
Keyword(s): Earth Material, Flow Movement, East Cape, Gisborne.
664. **Soons, J.M.** (1971): Factors involved in erosion in the Southern Alps, New Zealand.- *Zeitschrift für Geomorphologie*, Vol. 15, 460-470.
Keyword(s): Erosion, Landslide Stability Factors, Southern Alps.
665. **Soons, J.M. & Selby, M.K.** (1992): *Landforms of New Zealand*, London, Longman, 531 p.
Keyword(s): Geology, Geomorphology, Overview.
666. **Speden, I.L. & Crozier, M.J.** (1984): *Natural hazards in New Zealand*, Wellington, New Zealand National Commission for UNESCO, 495 p.
Keyword(s): Hazard Assessment, Overview.

667. **Steel, K.** (1990): Policies for sustainable management of soil resources: New Zealand case study.- OECD Environment Committee, unpublished note.
Keyword(s): Management, Policy, Soil Conservation, Sustainability.
668. **Stephens, P.R.** (1975): Determination of procedures to establish priorities for erosion control as determined in the Southern Ruahine Ranges, New Zealand.- M.Agr.Sc. Thesis, Massey University, Palmerston North, 140 p.
Keyword(s): Erosion, Methods.
669. **Stephens, P.R.** (1975): Erosion in the southern Ruahine Range.- Massif (Palmerston North), Vol. 8, 61-64.
Keyword(s): Erosion, Hawke's Bay.
670. **Stephens, P.R.** (1977): Erosion in the upper West Tamaki catchment. - in: Neall, V.E. (ed.): Field excursion to Southern Ruahines, New Zealand Society of Soil Science.
Keyword(s): Erosion, Hawke's Bay.
671. **Stephens, P.R. & Trotter, C.** (1989): Landslides spotted by SPOT.- Streamland, Vol. 75.
Keyword(s): Methods, Remote Sensing, Types.
672. **Stephens, P.R., Trustrum, N.A. & Hicks, D.L.** (1983): Experimental aerial photographic survey of erosion and catchment condition, Gladstone district, Wairarapa.- in: Stephens, P.R. (ed.): Remote sensing for soil conservation 29 June-1 July 1982 - Water and Soil Miscellaneous, Soil Conservation Centre, Aokautere, Water & Soil Miscellaneous Publication, Vol. 52, 129-154.
Keyword(s): Aerial Photograph Analysis, Erosion, Methods, Wairarapa.
673. **Stevenson, G.B.** (1945): Note on the movement of waste on screes in the Orongorongo District, near Wellington.- Transactions of the Royal Society of New Zealand, Vol. 74(4), 315-319.
Keyword(s): Erosion, Wellington.
674. **Stewart, D.L.** (1996): Landslides triggered by the 17-19 March 1994 rainstorm, Dunedin area.- Institute of Geological and Nuclear Sciences, Science Report 95/42.
Keyword(s): Rainfall, Dunedin.
675. **Stockbridge, H.M.** (1991): Mangawhio drainage system response to a deep-seated landslide, Wanganui Region.- MSc Thesis, Research School of Earth Science, Victoria University of Wellington.
Keyword(s): Channels, Hydrology, Landslide Dammed Lakes, Wanganui.
676. **Stout, M.L.** (1977): Utiku landslide, North Island, New Zealand.- Geological Society of America, Reviews in Engineering Geology, Vol. 3, 171-184.
Keyword(s): Landslide Investigation (case study), Road, Rangatikei.
677. **Strachan, C.J.** (1977): Landuse, sediment yield and solute load: a case study from the Auckland region.- MSc Thesis, University of Auckland.
Keyword(s): Sediment Yield, Auckland.
678. **Stuart, I.** (1979): Landslide: the Abbotsford disaster, August 1, 1979: Otago Daily Times, Dunedin, 40.

Keyword(s): Landslide Disasters, Overview, Abbotsford.

679. **Suckling, F.E.** (1949): Te Awa soil conservation experimental station.- Manawatu Catchment Board.

Keyword(s): Overview, Soil Conservation, Manawatu.

680. **Taylor, D.K.** (1974): The stability of slopes in natural ground.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 1.1-1.3.

Keyword(s): Review, Stability Analysis.

681. **Taylor, D.K., Gulliver, G.P. & Rogers, N.W.** (1981): Geotechnical hazards to urban development.- in: Geomechanics in Urban Planning, Palmerston North.

Keyword(s): Geomechanics, Geotechnics, Stability Analysis, Urban Landslides.

682. **Taylor, D.K., Hawley, J.G. & Riddolls, B.W.** (1977): Slope stability in urban development.- NZ Geomechanics Society, DSIR Information Series 122.

Keyword(s): Landslide Stability Factors, Overview, Urban Landslides.

683. **Taylor, N.H.** (1937): Displaced limestone blocks.- New Zealand Journal of Science and Technology, Vol. 18(10), 768-771.

Keyword(s): Earthquakes, Fall Movement, Rock Material.

684. **Taylor, N.H.** (1938): Land deterioration in the heavier rainfall districts of New Zealand.- Department of Scientific and Industrial Research, Bulletin 62.

Keyword(s): Land Use, Soil Erosion.

685. **Taylor, N.H.** (1939): Maintenance of vegetative cover in New Zealand with special reference to land erosion.- Department of Scientific and Industrial Research, Bulletin 77.

Keyword(s): Earthquakes, Fall Movement, Rock Material.

686. **Taylor, P.W.** (1974): Stability of natural soil slopes during earthquakes.- in: Symposium on Stability of Slopes in Natural Ground, New Zealand, 6.25-6.30.

Keyword(s): Earthquakes, Engineering Assessment, Stability Analysis.

687. **Teirney, L.** (1980): Tutira: a lake worth restoring.- Soil & Water, Vol. 16(1), 10-13.

Keyword(s): Landslide dammed Lakes, Tutira.

688. **Thomas, V.J. & Trustrum, N.A.** (1984): A simulation model of soil slip erosion.- in: Symposium on effects of forest land use on erosion and slope stability, Honolulu, Hawaii, 83-89.

Keyword(s): Geomorphological Assessment, Methods.

689. **Thompson, B.N.** (1981): East Abbotsford landslide: DSIR involvement preceding the East Abbotsford landslide.

Keyword(s): Inquiry, Landslide Disasters, Policy, Abbotsford.

690. **Thompson, C.S.** (1982): The weather and climate of the Wairarapa region.- New Zealand Meteorological Service, Miscellaneous Publication 115(11).

Keyword(s): Climate, Wairarapa.

691. **Thompson, R.C.** (1982): Relationship of geology to slope failures in soft rocks of the Taihape-Mangaweka Area, Central North Island, New Zealand.- PhD Thesis, University of Auckland.

- Keyword(s):** Geology, Landslide Stability Factors, Mangaweka, Taihape.
692. **Thomson, N., Trustrum, N.A. & Gane, S.** (1990): Interim results of pasture production trials on erodible Taranaki hill country.- MAFTech, unpublished.
- Keyword(s):** Pastoral Productivity, Taranaki.
693. **Thorn, C.** (1994): Post deforestation mass movement in the Makahu, Taranaki: a study of the rate and process of mass movement erosion.- Unpublished BSc Honours Thesis, Research School of Earth Science, Victoria University of Wellington.
- Keyword(s):** Mass Movement, Taranaki.
694. **Todd, A.D.** (1965): Stabilisation of earthflows.- Soil & Water, Vol. 2(1), 32-35.
- Keyword(s):** Control, Earth Material, Flow Movement.
695. **Tomlinson, A.I.** (1977): The Wellington and Hutt Valley flood of 20 December 1976.- New Zealand Meteorological Service, Technical Information Circular 154.
- Keyword(s):** Impacts, Rainfall, Wellington.
696. **Tonkin & Taylor Ltd.** (1980): Omokoroa Point: Land stability investigation.- Tauranga County Council.
- Keyword(s):** Coasts/Coastal, Landslide Investigation (case study), Landslide Stability Factors, Tauranga.
697. **Tonkin & Taylor Ltd.** (1992): Geotechnical study and assessment of sea frontage Clarks Beach.- Franklin District Council 11636.
- Keyword(s):** Coasts/Coastal, Geomechanics, Geotechnics, Material Properties, Franklin.
698. **Travers, J.H.** (1980): Abbotsford landslip: commission of inquiry.- Brickell, Moss, Rankine & Hill.
- Keyword(s):** Inquiry, Landslide Disasters, Abbotsford.
699. **Trotter, C.M.** (1988): Cyclone Bola: The inevitable disaster.- New Zealand Engineering, Vol. 1, 13-16.
- Keyword(s):** Cyclone Bola, Event, Impacts, Landslide Disasters, Hawke's Bay.
700. **Trotter, C.M., Pinkney, E.J. & Tod, H.G.** (1992): Weathering and strength loss at an earthflow site.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3), 1489-1495.
- Keyword(s):** Earth Material, Flow Movement, Geology, Landslide Stability Factors, Material Properties.
701. **Trotter, C.M., Stephens, P.R., Trustrum, N.A., Page, M.J., Carr, K.S. & DeRose, R.C.** (1989): Application of remotely sensed and geographical information system data, to quantitative assessment of landslide damage.- in: 12th Canadian Symposium on Remote Sensing, Vancouver, Canada, 1990-1994.
- Keyword(s):** GIS Application, Remote Sensing.
702. **Trustrum, N.A.** (1981): Use of sequential areal photography to assess the long term effect of soil slip erosion on hill country pasture production.- N.Z. Assn. Soil Conservators, Broadsheet December, 42-47.

Keyword(s): Aerial Photograph Analysis, Erosion, Pastoral Productivity, Vegetation.

703. **Trustrum, N.A.** (1990): Cyclone impacts.- in: Speden, E.L. & Crozier, M.J. (eds.): Natural Hazards 90, Wellington, Research School of Earth Sciences, Victoria University of Wellington, 29-30.

Keyword(s): Cyclone, Damage Costs, Impacts.

704. **Trustrum, N.A. & Blaschke, P.M.** (1992): Erosion and land productivity.- in: Proc. 44th Ruakura Farmer's Conf., 9-10 June 1992, Ruakura, New Zealand.

Keyword(s): Erosion, Pastoral Productivity.

705. **Trustrum, N.A., Blaschke, P.M., DeRose, R.C. & West, A.W.** (1990): Regolith changes and pastoral productivity declines following deforestation in steeplands of North Island, New Zealand.- in: Transactions 14th International Soil Science Congress, Kyoto, Japan, 125-130.

Keyword(s): Material Properties, Pastoral Productivity, Soil Erosion.

706. **Trustrum, N.A., Blaschke, P.M., Page, M.J. & DeRose, R.C.** (1990): Erosion and sedimentation research to assess sustainable land use in temperate and tropical steepland watersheds.- in: Ziemer, R.R., O'Loughlin, C.L. & Hamilton, L.S. (eds.): Research needs and applications to reduce erosion and sedimentation in tropical steeplands, International Association of Hydrological Sciences, Vol. 192, 395.

Keyword(s): Erosion, Land Use, Sedimentation, Sustainability.

707. **Trustrum, N.A. & DeRose, R.C.** (1988): Soil depth-age relationship of landslides on deforested hillslopes, Taranaki, New Zealand. - Geomorphology, Vol. 1, 143-160.

Keyword(s): Dating, Landslide Stability Factors, Soils, Vegetation, Taranaki.

708. **Trustrum, N.A., Dymond, J.R., DeRose, R.C. & Blaschke, P.M.** (1990): Estimates of percentage bareground in Taranaki: Cyclone Hilda, March 1990. - Department of Scientific and Industrial Research, Division of Land and Soil Sciences, Contract Report 90/4.

Keyword(s): Cyclone, Impacts, Pastoral Productivity, Remote Sensing, Taranaki.

709. **Trustrum, N.A. & Hawley, J.G.** (1986): Conversion of forest land to grazing: a New Zealand perspective on the effects of landslide erosion on hill country productivity.- in: FAO (ed.): Land Use, Watersheds and Planning in the Asia Pacific Region, RAPA Report 1986/3, 73-93.

Keyword(s): Erosion, Overview, Pastoral Productivity, Vegetation.

710. **Trustrum, N.A., Lambert, M.G. & Thomas, V.J.** (1983): Erosion: a drop away in production.- Soil & Water, Vol. 19, 11-19.

Keyword(s): Erosion, Impacts, Pastoral Productivity.

711. **Trustrum, N.A., Lambert, M.G. & Thomas, V.J.** (1983): The impact of soil slip erosion on hill country pasture production in New Zealand.- in: Proceedings of the Second International Conference on Soil Erosion and Conservation, University of Hawaii.

Keyword(s): Erosion, Impacts, Pastoral Productivity.

712. **Trustrum, N.A. & Page, M.J.** (1980): The influence of erosion on hill country pasture productivity.- in: Aokautere Science Centre (ed.): Workshop on Influence of soil slip erosion on hill country pastoral productivity, October 14 and 15 1980, Aokautere, Ministry of Works and Development, National Water and Soil Conservation Organisation, Vol. 21, 84-90.
Keyword(s): Erosion, Impacts, Pastoral Productivity.
713. **Trustrum, N.A. & Page, M.J.** (1992): The long-term erosion history of Lake Tutira watershed: Implications for sustainable land use management.- in: The Proceedings of the International Conference on Sustainable Land Use Management, 17-23 November 1991, Napier, Hawke's Bay, New Zealand, 212-215.
Keyword(s): Dating, Erosion, Historical Record, Land Use, Management, Sedimentation, Sustainability, Vegetation, Hawke's Bay, Tutira.
714. **Trustrum, N.A. & Stephens, P.R.** (1981): Selection of hill country pasture measurement sites by interpretation of sequential aerial photographs.- New Zealand Journal Experimental Agriculture, Vol. 9, 31-34.
Keyword(s): Aerial Photograph Analysis, Methods, Pastoral Productivity.
715. **Trustrum, N.A., Thomas, V.J. & Lambert, M.G.** (1984): Soil slip erosion as a constraint to hill country pasture production.- Proceedings of the New Zealand Grasslands Association Conference, Vol. 45, 66-76.
Keyword(s): Erosion, Impacts, Pastoral Productivity.
716. **Trustrum, N.A., Wallace, R.C. & DeRose, R.C.** (1989): Tephrochronological dating of regolith in landslide prone steeplands, New Zealand.- in: International Symposium on Erosion and volcanic debris flow technology, July 31 - August 3, 1989, Yogyakarta, Indonesia, S34-1 - S34-7.
Keyword(s): Debris, Flow, Historical Record, Volcanic Eruptions, Taranaki.
717. **van de Graaf, M. & Wagendonk, A.** (1991): Road-related mass wasting, Golden Downs and Motueka Forests, South-West Nelson, New Zealand.- Forest Research Institute, unpublished Report 51.
Keyword(s): Land Use, Mass Movement, Road, Sustainability, Motueka.
718. **van Dissen, R. & Berryman, K.** (1995): The Arthur's Pass (Avoca River) earthquake of 18 June, 1994: an overdue note regarding landslide damage and the search for surface rupture (IGNS contribution 721).- Newsletter Geological Society of New Zealand, Vol. 107, 28-33.
Keyword(s): Damage Costs, Earthquakes, Tectonic Movement, Southern Alps.
719. **Vaughan, E.E.** (1989): The character and occurrence of colluvium filled bedrock depressions in the Wellington region.- MSc Thesis, Victoria University of Wellington.
Keyword(s): Material Properties, Slope Form, Wellington.
720. **Vine, M.H.** (1982): Report on flood of April 1981 (Vol.2: Erosion, deposition, cost).- Hauraki Catchment Board 123.
Keyword(s): Hydrological Assessment, Hauraki.

721. **Vine, M.H. & Matthews, J.L.** (1982): Landsliding in Waitoki: An Eyewitness Account.- in: Vine, M.H. (ed.): Report on Flood of April 1981, Napier, Hauraki Catchment Board, Vol. 2(2), Appendix 2.
Keyword(s): Event, Historical Record, Landslide Behaviour, Waitoki.
722. **Vissers, S.** (1969): Soil piping: a review with special reference to Northland.- Auckland Student Geographer, Vol. 6, 49-57.
Keyword(s): Pipes, Tunnel Gullies, Northland.
723. **Waikato Regional Council** (1991): Large slip in the Upper Waipa catchment.- Waikato Regional Council, Internal memo.
Keyword(s): Event, Waikato.
724. **Waldvogel, Y.S.** (1979): Rock control on complex scarp form and the processes of slope denudation at Te Akau, South Auckland, New Zealand.- MSc Thesis, University of Waikato.
Keyword(s): Geology, Landslide Stability Factors, Auckland.
725. **Wallace, J.C.** (1973): Seismic stability analysis of cohesionless slopes.- M.E. Thesis, Auckland, University of Auckland.
Keyword(s): Earthquakes, Stability Analysis.
726. **Ward, A.J.** (1966): Mass movement and interrelated phenomena in the Porotiarea of Northland.- MSc Thesis, Auckland, University of Auckland.
Keyword(s): Creep Movement, Tunnel Gullies, Northland.
727. **Ward, A.J.** (1966): Pipe/shaft phenomena in Northland.- Journal of Hydrology (New Zealand), Vol. 5(2), 64-72.
Keyword(s): Tunnel Gullies, Northland.
728. **Wasson, R.J. & Hall, G.** (1981): Mudslide reactivation: Waerenga-o-Kuri, New Zealand.- Australian Geographical Studies, Vol. 19, 217-223.
Keyword(s): Earth Material, Movement, Mud Material, Slide Movement, Gisborne.
729. **Waters, S.L.** (1980): Terrain analysis in natural hazard assessment: Arthur's Pass National Park.- MSc Thesis, University of Canterbury, Christchurch.
Keyword(s): Hazard Assessment, Terrain, Arthur's Pass.
730. **Watt, J.P.** (1972): Loess soils and problems of land use on the downlands of the South Island.- Otago Catchment Board Publication 4.
Keyword(s): Earth Material, Land Use, Material Properties, South Island.
731. **Webber, D., Buchan, D., Rivers, M.J. & Rayner, T.** (1989): Cyclone Bola agricultural assistance scheme - Economic and social impact study.- Ministry of Agriculture and Fisheries, Consultant Report.
Keyword(s): Cyclone Bola, Impacts, Inquiry, Landslide Disasters, Social, Hawke's Bay.
732. **Webber, D., Rivers, M.J., Buchan, D. & Rayner, T.** (1992): Cyclone Bola: Agricultural assistance scheme: A social and economic impact study.- Ministry of Agriculture and Fisheries, Policy Technical Paper 90/1.

- Keyword(s):** Cyclone Bola, Impacts, Inquiry, Landslide Disasters, Social, Hawke's Bay.
733. **Webber, J.A., Lynch, R.J. & Meister, A.D.** (1992): Benefits and costs of soil conservation in the Bay of Plenty region.- Agr. Econ. Res. Unit, Massey, contract report to BOP Regional Council.
- Keyword(s):** Policy, Soil Conservation, Bay of Plenty.
734. **Wedderburn, M.E.** (1991): The biophysical resource of hill country.- in: International Conference Sustainable Land Management, Napier.
- Keyword(s):** Land Use, Overview, Pastoral Productivity, Sustainability.
735. **Wellman, H.W.** (1983): The Endeavour and Three Kings slides - abstract only.- in: Pacific Science Association 15th Congress, Dunedin, 2:253.
- Keyword(s):** Landslide Investigation (case study).
736. **Wesseldine, M.A.** (1981): Shrinkage and swelling of clays.- in: Geomechanics in Urban Planning, Palmerston North.
- Keyword(s):** Material Properties, Urban Landslides.
737. **Whitehouse, I.E.** (1981): A large rock avalanche in the Cragieburn Range, Canterbury.- New Zealand Journal Geology and Geophysics, Vol. 24, 415-421.
- Keyword(s):** Rock Avalanche, Canterbury, Southern Alps.
738. **Whitehouse, I.E.** (1982): Erosion on Sebastopol, Mt Cook, New Zealand, in the last 85 years.- New Zealand Geographer, Vol. 38(2), 77-80.
- Keyword(s):** Erosion, Historical Record, Mt. Cook, Southern Alps.
739. **Whitehouse, I.E.** (1983): Distribution of large rock avalanche deposits in the central Southern Alps, New Zealand.- New Zealand Journal of Geology and Geophysics, Vol. 26, 271-279.
- Keyword(s):** Rock Avalanche, Southern Alps.
740. **Whitehouse, I.E.** (1985): Erosion in the eastern South Island high country: a changing perspective.- TGMLI Review, Vol. 42, 3-23.
- Keyword(s):** Erosion, Overview, Policy, South Island.
741. **Whitehouse, I.E.** (1985): The frequency of high-intensity rainfalls in the central Southern Alps, New Zealand.- Journal of the Royal Society of New Zealand, Vol. 15, 213-226.
- Keyword(s):** Hydrological Assessment, Rainfall, Southern Alps.
742. **Whitehouse, I.E., Basher, L.R. & Tonkin, P.J.** (1992): A landform classification for PNA Surveys in Eastern Southern Alps: Science & Research, Wellington, Department of Conservation, Head Office, 41 p.
- Keyword(s):** Terrain Classification, Southern Alps.
743. **Whitehouse, I.E. & Griffiths, G.** (1983): Frequency and hazard of large rock avalanches in the central Southern Alps.- Geology, Vol. 11, 331-334.
- Keyword(s):** Frequency, Hazard, Magnitude, Rock Avalanche, Southern Alps.
744. **Whitehouse, I.E. & McSaveney, M.J.** (1985): Geomorphological comment on the general problems of bridging on State Highway 6 Hokitika to Wanaka.- Ministry of Works and Development, Soil Conservation Group, Report WS 1002.

Keyword(s): Geomorphological Assessment, Road, State Highway 6, Southern Alps.

745. **Whitehouse, I.E. & McSaveney, M.J.** (1989): An alpine highway at risk.- Streamland(74).

Keyword(s): Geology, Landslide Stability Factors, Risk, Road, Arthur's Pass, Southern Alps.

746. **Whitehouse, I.E. & McSaveney, M.J.** (1990): Geomorphic appraisals for development on two steep, active alluvial fans, Mt Cook, New Zealand.- in: Rachocki, A.H. & Church, M. (eds.): Alluvial Fans: A Field Approach, John Wiley & Sons Ltd., 369-384.

Keyword(s): Geomorphological Assessment, Hazard Assessment, Mt. Cook, Southern Alps.

747. **Whitehouse, I.E. & McSaveney, M.J.** (1992): Assessment of geomorphic hazards along an alpine highway.- New Zealand Geographer, Vol. 48(1), 27-32.

Keyword(s): Geomorphological Assessment, Hazard Assessment, Road, Southern Alps.

748. **Wilkie, D.R.** (1965): Conservation work cures soil erosion and flooding - Glenmark catchment.- Soil & Water, Vol. 2(1), 11-14.

Keyword(s): Soil Conservation, Canterbury.

749. **Williams, P.A.** (1975): Studies of the tall tussock (*Chionochloa*) vegetation/soil systems of the southern Tararua range, New Zealand. I. Soils and slump features.- New Zealand Journal of Botany, Vol. 13(2), 215-268.

Keyword(s): Slump Movement, Vegetation, Wellington.

750. **Willis, P.** (1995): Soil/Landscape modelling. Modelling the spatial distribution of soil characteristics using landscape features in eroding hill country, Tutira, Hawke's Bay.- Unpublished BSc Honours Thesis, Wellington, Victoria University of Wellington.

Keyword(s): Erosion, Material Properties, Terrain Classification, Hawke's Bay.

751. **Wilmshurst, J.M.** (1997): The impact of human settlement on vegetation and soil stability in Hawke's Bay, New Zealand.- New Zealand Journal of Botany, Vol. 35, 97-111.

Keyword(s): Dating, Impacts, Vegetation, Hawke's Bay.

752. **Wilmshurst, J.M., McGlone, M.S. & Partridge, T.R.** (1997): A late Holocene history of natural disturbance in lowland podocarp/hardwood forest, Hawke's Bay, New Zealand.- New Zealand Journal of Botany, Vol. 35, 79-96.

Keyword(s): Dating, Erosion, Land Use, Sedimentation, Settlements, Vegetation, Hawke's Bay.

753. **Wilson, R.C.** (1978): Wairoa County Council - 'The First Hundred Years'.- Wairoa County Council.

Keyword(s): Historical Record, Wairoa.

754. **Wong, L.K.** (1981): The failure of State Highway 1, Abbots Creek reconstruction and M4 aggregate from Blackhead Quarry in 1980-81.- BMinTech(Hons) (Mineral Technology) Thesis, University of Otago.

- Keyword(s):** Cause, Human Induced, Road, Trigger, State Highway 1, Otago.
755. **Wood, J.E.T.** (1973): Mass movement in an area east of Masterton.- Unpublished BSc Honours Thesis, Victoria University of Wellington.
- Keyword(s):** Geomorphological Assessment, Mass Movement, Wairarapa.
756. **Works Consultancy Service** (1992): Cromwell Gorge landslides: technical papers summarising features, hazard assessments, and stabilisation measures, Works Consultancy Service.
- Keyword(s):** Dams, Hazard Assessment, Landslide Investigation (case study), Central Otago, Cromwell Gorge.
757. **Works Consultancy Services** (1993): Seismic hazard study.- Porirua City Council, Report 639.
- Keyword(s):** Earthquakes, Hazard Assessment, Porirua, Wellington.
758. **Works Consultancy Services** (1994): Porirua Seismic hazard study supplementary report on consideration zones for seismic ground damage hazards.- Porirua City Council.
- Keyword(s):** Earthquakes, Hazard Assessment, Zonation, Porirua, Wellington.
759. **Works Consultancy Services** (1994): Scinde Hill.- Napier City Council.
- Keyword(s):** Geological Assessment, Hawke's Bay.
760. **Wright, A.C. & Miller, R.B.** (1952): Soils of south-west Fiordland.- New Zealand Soil Bureau, Bulletin 7.
- Keyword(s):** Avalanches, Debris Material, Vegetation, Fiordland.
761. **Wright, L.W.** (1966): The Muriwai debris-avalanche.- New Zealand Geographer, Vol. 22(2), 90-93.
- Keyword(s):** Debris Material, Landslide Investigation (case study), Slide Movement, Auckland.
762. **Yang, J.S.** (1992): Landslide mapping and major earthquakes on the Kakapo Fault, South Island, New Zealand.- Journal of the Royal Society of New Zealand, Vol. 22(3), 205-212.
- Keyword(s):** Data Bases, Earthquakes, South Island.
763. **Yetton, M.** (1992): Engineering geological and geotechnical factors affecting development on Banks Peninsula and surrounding areas, New Zealand: field guide.- in: Bell, D.H. (ed.): Landslides - Proceedings of the Sixth International Symposium, Christchurch, 10-14 February 1992, Rotterdam, A.A. Balkema, Vol. 2(3).
- Keyword(s):** Geomechanics, Geotechnics, Landslide Stability Factors, Stability Analysis, Canterbury, Otago Peninsula.
764. **Yetton, M.** (1993): Active fault and landslide hazard assessment in Hamner and Cheviot.- Hurunui District Council.
- Keyword(s):** Earthquakes, Hazard Assessment, Tectonic Movement, Hamner Springs, Canterbury.

765. **Zhang, X., Phillips, C. & Marden, M.** (1991): Internal deformation of a fast-moving earthflow, Raukumara Peninsula, New Zealand.- *Geomorphology*, Vol. 4, 145-154.
Keyword(s): Earth Material, Flow Movement, Landslide Behaviour, Raukumara, Gisborne.
766. **Zhang, X., Phillips, C. & Marden, M.** (1993): A comparison of earthflow movement mechanisms on forested and grassed slopes, Raukumara Peninsula, North Island, New Zealand.- *Geomorphology*, Vol. 6(2), 175-187.
Keyword(s): Earth Material, Flow Movement, Landslide Behaviour, Raukumara, Gisborne.
767. **Zhang, X., Phillips, C.J. & Pearce, A.J.** (1991): Surface models (movements?) in an earth flow complex, Raukumara Peninsula, New Zealand.- *Geomorphology*, Vol. 4, 261-272.
Keyword(s): Earth Material, Flow Movement, Landslide Behaviour, Raukumara, Gisborne.
768. **Zotov, V.D.** (1940): Certain types of soil erosion and resultant relief features on the higher mountains of New Zealand.- Department of Scientific and Industrial Research, Botany Division, Bulletin 3.
Keyword(s): Soil Erosion, Southern Alps.
769. (1969): Tour BH7. Effects of basement lithology, regolith, slope and artesian water on landslide potential, Otago Peninsula, New Zealand.- in: 15th Pacific Science Association Congress.
Keyword(s): Groundwater, Material Properties, Landslide Stability Factors, Soils, Geology, Otago Peninsula.
770. (1974): Landslide investigation, Peacock Street, Glendowie.- New Zealand Geological Survey EG 202.
Keyword(s): Landslide Investigation (case study), Auckland.
771. (1976): Changes in landslide vegetation at Lake Thomson, Fiordland, New Zealand.- *New Zealand Journal of Botany*, Vol. 14(2), 197-198.
Keyword(s): Impacts, Vegetation, Fiordland.
772. (1977): Landslide investigations, main north line railway, South Island, New Zealand.- MSc Thesis, University of Canterbury.
Keyword(s): Landslide Investigation (case study), Rail, South Island.
773. (1978): The effects of deforestation on soil properties and slope stability, Hapuakohe Range, North Island, New Zealand.- MSc Thesis, University of Waikato.
Keyword(s): Landslide Stability Factors, Vegetation, Soils, Material Properties, Impacts, Hapuakohe Range, Waikato.
774. (1979): The agony of Abbotsford: Evening Star, Dunedin, 36.
Keyword(s): Event, Inquiry, Landslide Disasters, Abbotsford.
775. (1980): Disasters due to landslides and volcanic eruptions and associated rescue problems.- in: Civil Defence Rescue Seminar 1980.
Keyword(s): Landslide Disasters, Emergency Management.

776. (1980): East Abbotsford landslide: suitability and adequacy of legislation, planning requirements.- New Zealand Geological Survey EG 331.
Keyword(s): Event, Inquiry, Landslide Disasters, Legislation, Management, Abbotsford.
777. (1980): Submission to the commission of inquiry; East Abbotsford landslide. Phase 3: determination of cause.
Keyword(s): Event, Inquiry, Landslide Disasters, Abbotsford.
778. (1981): Abbotsford landslip report.- Newsletter of the Geological Society of New Zealand, Vol. 53, 27-28.
Keyword(s): Inquiry, Landslide Disasters, Reporting Protocol, Abbotsford.
779. (1981): Earthquakes, landslides, and large dams in New Zealand.- Bulletin of the New Zealand National Society for Earthquake Engineering, Vol. 14(2), 93-95.
Keyword(s): Earthquakes, Dams.
780. (1981): The East Abbotsford landslide, Dunedin, New Zealand, landslide of August 8, 1979: an interim report.- Bulletin de liaison des laboratoires des ponts et chaussees special, Vol. 10, 27-34.
Keyword(s): Inquiry, Landslide Disasters, Abbotsford, South Island.
781. (1981): Landsliding in Cenozoic soft rocks, of the Taihape-Mangaweka area, North Island, New Zealand.- Bulletin de liaison des laboratoires des ponts et chaussees Special volume, Vol. 10, 93-99.
Keyword(s): Geology, Landslide Stability Factors, Rock Material, Slide Movement, Mangaweka, Taihape, North Island.
782. (1981): Slope stability studies along the Paekakariki-Pukerua Bay coastline - Abstract.- in: New Zealand Geological Survey Conference, Turangi, 14.
Keyword(s): Coasts/Coastal, Stabilisation, Paekakariki-Pukerua Bay, Wellington, North Island.
783. (1982): Failure to consider hazards of canal built on 'sensitive' soil - Ruahihi canal collapse.- New Zealand Engineering, Vol. 37(3), 5-13.
Keyword(s): Event, Hazard, Landslide Disasters, Material Properties, Ruahihi.
784. (1983): Seismicity of landsliding with special reference to New Zealand.- New Zealand Geological Survey EG 378.
Keyword(s): Cause, Earthquakes, Trigger.
785. (1983): Soil pipes and slope stability.- Quarterly Journal of Engineering Geology, Vol. 16(1), 1-11.
Keyword(s): Landslide Stability Factors, Pipes, Soils, Tunnel Gullies.
786. (1984): Storm damage assessment - Wellington.- Streamland, Vol. 21.
Keyword(s): Assessment, Cause, Impacts, Rainfall, Trigger, Wellington, North Island.
787. (1984): Taihape: planning for urban instability.
Keyword(s): Management, Urban Landslides, Taihape, North Island.
788. (1985): Land instability assessment in an urban area.- in: Thirteenth New Zealand Geography Conference, Hamilton, 90-92.

Keyword(s): Assessment, Susceptibility, Urban Landslides.

789. (1986): Land stability investigation.- Resource Research, Vol. 6.

Keyword(s): Control, Landslide Investigation (case study), Landslide Stability Factors, Stabilisation.

790. (1987): ANZ Slide 87.- in: Fifth international conference and field workshop on landslides: Conference Proceedings: Australia and New Zealand, Christchurch, 269.

Keyword(s): Organisations, Proceedings.

791. (1988): Image processing of SPOT satellite data to map landslides caused by Cyclone Bola.- in: 3rd New Zealand Image Processing Workshop, Massey University.

Keyword(s): Cause, Cyclone Bola, Methods, Rainfall, Remote Sensing, Trigger, Hawke's Bay, North Island.

792. (1989): Aspects of progressive landslide mobility at Busbys Hill, Tokomaru Bay.- New Zealand Geological Survey.

Keyword(s): Mass Movement, Tokomaru Bay, Gisborne.

793. (1989): The synsedimentary slide at Te Awa-awa, Hawke's Bay, New Zealand: Pathways in Geology: essays in honour of Edwin Sherbon Hills, Melbourne, Blackwell Scientific, 188-200.

Keyword(s): Geology, Slide Movement, Te Awa-awa, Hawke's Bay.

794. (1990): Clyde power project - Cromwell Gorge landslides.- New Zealand Engineering, Vol. 45(8), 11-13.

Keyword(s): Dams, Instrumentation, Landslide Investigation (case study), Monitoring, Cromwell Gorge, Otago.

795. (1990): Landslide damage to hill country under pasture, pine plantation, scrub and bush, Taranaki.- Department of Scientific and Industrial Research, Land Resources LR-TRec - 31.

Keyword(s): Impacts, Landslide Stability Factors, Vegetation, Taranaki.

796. (1990): Large landslides and catchment evolution in Tertiary weak rock flysch, Southern Hawke's Bay.- in: Geological Society of New Zealand Annual Conference, Napier.

Keyword(s): Landform Development, Landform Evolution, Hawke's Bay.

797. (1990): Slip sliding away.- New Zealand Science Monthly, Vol. 1(3), 14-15.

Keyword(s): Types.

798. (1991): Landslide damage assessment using remotely sensed and geographic information system data.- in: Remote Sensing and Geographic Information Systems for Natural Resource Management.

Keyword(s): Damage Costs, GIS Application, Impacts, Remote Sensing.

799. (1991): Landslide prone Dunedin.- Terra Nova, Vol. 8.

Keyword(s): Urban Landslides, Dunedin.

800. (1991): Uranium/thorium series analysis: a new tool for determining the ages of mid to late Pleistocene outwash gravels and landslide movement - Abstract only.- in:

Joint Annual Conference, Geological Society of New Zealand, New Zealand Society of Soil Science, Lower Hutt.

Keyword(s): Dating, Landform Development, Landform Evolution.

801. (1992): Landslip claims down 38% with change in subdivision development.- New Zealand Engineering, Vol. 47(8).

Keyword(s): Damage Costs, Insurance, Urban Landslides.

802. (1992): The Mount Fletcher rock avalanche of 17 September 1992.- IGNS, Christchurch.

Keyword(s): Event, Rock Avalanche, Mt. Fletcher.

803. (1992): The rise and fall of Mt. Cook.- Terra Nova, Vol. 14, 52-53.

Keyword(s): Event, Geology, Rock Avalanche, Mt. Cook.

804. (1992): Three landslide sites in North Canterbury: Motunau, Coringa and Mt Thomas.- in: Geological Society of New Zealand and New Zealand Geophysical Society 1992 Joint Annual Conference, University of Canterbury, 153-159.

Keyword(s): Landslide Investigation (case study), Landslide Stability Factors, Coringa, Motunau, Mt. Thomas, Canterbury.

805. (1993): Landslide monitoring at the Clyde Dam.- The Watergate Weekly, Vol. 6, 5-7.

Keyword(s): Dams, Instrumentation, Monitoring, Clyde Dam, Otago.

806. (1993): Nine Mile Creek landslide (Clyde Power Project): pilot project GPS survey, data analysis, and network evaluation.- New Zealand Surveyor, Vol. 33(282), 385-397.

Keyword(s): Dams, Instrumentation, Landslide Investigation (case study), Monitoring, Cromwell Gorge, Otago.

807. (1993): Reconnaissance report of the Ormond Earthquake - 10 August 1992 (IGNS contribution).- Bulletin of the New Zealand National Society for Earthquake Engineering, Vol. 26(3), 292-308.

Keyword(s): Earthquake, Event, Landslide Investigation.

808. (1993): Tunawaea landslide dam, King Country, New Zealand.- Landslide News, Vol. 7, 25-27.

Keyword(s): Landslide Dammed Lakes, Tunawaea, King Country.

809. (1994): Dunedin pilot hazards information system: trial by GIS (IGNS contribution 285).- in: 6th Annual Colloquium of the Spatial Information Research Centre, University of Otago, 105-116.

Keyword(s): GIS Application, Hazards, Methods, Urban Landslides, Dunedin, South Island.

810. (1994): The Fiordland earthquake of 10 August, 1993: a reconnaissance report covering tectonic setting, peak ground acceleration, and landslide damage - (IGNS contribution).- Bulletin of the New Zealand national Society for Earthquake Engineering, Vol. 27(2), 147-154.

Keyword(s): Earthquakes, Impacts, Tectonic Movement, Fiordland, South Island.

811. (1994): Green Lake landslide: a very large ancient rock slide in Fiordland, New Zealand (IGNS contribution).- in: Seventh International Congress International Association of Engineering Geology, Lisboa, Portugal, 1677-1684.
Keyword(s): Investigation, Rock Material, Slide Movement, Fiordland, South Island.
812. (1994): Green Lake landslide: an ancient large-scale wedge failure in glaciated terrain, Fiordland, New Zealand.- IGNS Lower Hutt Science Report 93/18.
Keyword(s): Landslide Investigation (case study), Wedge Failure, Fiordland, South Island.
813. (1994): The Iris Burn slip: a geological appraisal.- IGNS 94/38.
Keyword(s): Assessment, Geology, Otago.
814. (1994): Natural hazards and the Resource Management Act: opening address to the workshop: Natural Hazards Management Workshop - Information Series: Proceedings of the Natural Hazards Management Workshop, Wellington, 8-9 November 1994, Wellington, IGNS, Vol. 31, 99-108.
Keyword(s): Hazards, Legislation, Management, Resource Management Act (RMA).
815. (1994): Resta Road slide: a re-evaluation of an area of hummocky terrain in the Gibbston Basin, Central Otago.- IGNS 94/33.
Keyword(s): Landslide Investigation (case study), Central Otago, South Island.
816. (1994): Slope instability and landsliding during earthquakes (IGNS contribution): Natural Hazards Management Workshop - Information Series: Proceedings of the Natural Hazards Management Workshop, Wellington, 8-9 November 1994, Wellington, IGNS, Vol. 31, 89-98.
Keyword(s): Hazards, Earthquakes.
817. (1995): Impact of cyclone induced landsliding on plantation forests and farmland in the East Coast Region of New Zealand: a lesson in risk management.- in: XX IUFRO World Congress, Tampere, Finland, 133-145.
Keyword(s): Cyclones, Impacts, Land Use, Management, Sustainability, East Coast, North Island.
818. (1995): The Waikareti landslide: Te Urewera National Park - Abstract only: Geological Society of New Zealand 1995 Annual Conference - Geological Society of New Zealand 1995 Annual Conference: 22-24 November, the University of Auckland, Auckland: Programme and Abstracts, Auckland, Geological Society of New Zealand, Misc. Publ., Vol. 81A, 184.
Keyword(s): Landslide Investigation (case study), Te Urewera National Park.
819. (1996): Engineering geology of the Puketeraki landslide complex Karitane, Otago, New Zealand (IGNS abstract 536) - Abstract only.- in: Geological Society of New Zealand (ed.): Geological Society of New Zealand Inc: 1996 Annual Conference, Misc. Publ., Dunedin, 75 p.
Keyword(s): Assessment, Engineering Assessment, Management, Rail, Karitane, Otago.
820. (1996): Mt. Cook rock avalanche of December, 1991 (IGNS contribution 984).- Chikyū Monthly, Vol. 18(9), 608-614.

Keyword(s): Rock Avalanche, Mt. Cook, South Island.

821. (1996): Slope instability along State Highway 73 through Arthur's Pass, South Island, New Zealand (IGNS contribution 1012).- New Zealand Journal of Geology and Geophysics, Vol. 39(3), 339-351.

Keyword(s): Geological Assessment, Management, Stabilisation, Controls, Roads, Arthur's Pass, South Island, State Highway 73.

822. (???): Sustainable land use in the Taranaki hill country: a case study - Volume 2.- Taranaki Regional Council, Appendices, TRC Technical Report 92-19.

Keyword(s): Land Use, Sustainability, Taranaki.

7. Indices

Four indices are available to provide a fast and efficient reference search. The first index (Section 7.1) contains the keywords, as obtained in section 3.2, of a given publication. Section 7.2 refers to geographical areas and Section 7.3 lists all references of a given co-author. The last index compiles all editors of publications (Section 7.4).

7.1 Keywords Index

Note: The following list refers to the alphabetical order of the keywords, independent of any thematic context. A subject index thematically ordered is attached in Appendix 1.

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Appendix 1: Subject Index

- A**ssessment/Investigation
 Engineering/Geotechnical Assessment
 Geological Assessment
 Geomorphological Assessment
 Hazard Assessment
 Hazard/Hazards
 Risk
 Susceptibility
 Zonation
 Landslide Investigation (case study)
 Hydrological Assessment
 Impact/damage Assessment
- C**hannels
 Classification
 Landslide Classification
 Terrain Classification
 Terminology
 Climate Change
 Control (see also methods)
 Prevention
 Remediation
 Stabilisation
- D**amage Costs
 Direct Costs
 Indirect Costs
 Personal Costs
 Data Bases
 Reporting Protocol
 Dating
- E**rosion
 Soil Erosion
 Soil conservation
- F**requency/Magnitude
 Probability of Occurrence
 Return Period
 Thresholds
- G**eotechnics/Geomechanics
 Material Properties
 Stability Analysis
 Groundwater/porewater
- H**azard Mitigation (See also Assessment Hazard; Methods; Management)
 Insurance
- Emergency Management
 Legislation
 Historical Record (see also Data base)
- I**mpacts/Effects (see also Damage Costs)
 Catchment
 Channels
 Social
 Insurance
- L**and Use
 Pastoral productivity
 Soil Conservation
 Sustainability
 Urbanisation
 Vegetation
- Landform Evolution/Development
 Landslide Behaviour
 Mechanisms
 Movement
 Landslide Dammed Lakes
 Landslide Disasters
 Event
 Inquiry
 Landslide Location/Setting
 Coasts
 Dams/Reservoirs
 Mines
 Rail
 Roads
 Rural
 Urban
 Landslide Stability Factors/
 Preconditions/ Inherent
 Factors
 Climate
 Geology
 Groundwater/Hydrology
 Land Use
 Topography/Terrain
 Slope Form
 Slope
 Catchment
 Tectonic Movement
 Soils
 Vegetation
- Legislation
 Resource Management Act (RMA)
- M**anagement/Planning/Policy
 Methods
 Aerial Photograph Analysis
- Dating
 GIS Application
 Monitoring/Instrumentation
 Prevention
 Remote Sensing
 Remediation
 Soil Conservation
 Stabilisation/Controls
- O**rganisations/Meetings/
 Proceedings
- P**astoral Productivity
- R**eporting Protocol (see also Data Bases)
 Reviews/Overview
- S**ediments
 Sediment Budget
 Sediment Yield
 Sedimentation
 Water Quality
- T**rigger/Cause
 Coasts/Coastal
 Cohesion/tension/Suction
 Earthquakes
 Groundwater/Porewater
 Human Induced
 Construction
 Cuts
 Fills
 Dams/Reservoirs
 Mines
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 Cyclones
 Tropical Cyclones
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 Volcanic Activity
 Transportation Routes
 Rail
 Roads
 Pipelines/Transmission
 Lines
 Tunnel Gullies/Pipes/Gullies
 Types
 Lahars
 Mass Movement
 Rock Avalanche
 Sacking/Sagging
 Snow Avalanche

Submarine Landslides

Subsidence

Wedge failure

Material

Debris

Earth/Mud

Rock

Movement

Complex

Creep

Fall

Flow

Slide

Slump

Spread

Topple

Appendix 2: Cited periodicals and journals.

Agricultural, Ecosystems and Environment
Archaeology in Oceania
ASCE Journal of Hydraulics Engineering
Auckland Student Geographer
Australian Geographical Studies
Australian Journal of Soil and Water Conservation
Broadsheet, N.Z. Assn. Soil Conservators
Bulletin de liaison des laboratoires des ponts et chaussees
Bulletin of Geomorphology, Turkey
Bulletin of the International Association of Engineering Geology
Catena
Earth Science Journal
Earth Surface Processes and Landforms
Earthquake Information Bulletin
Economic Geology
Engineering Geology
Engineering Geology Bulletin
Environmental & Engineering Geoscience
Environmental Geology
Forest Ecology and Management
Forestry Research West
Geocarto International
Geoderma
Geografiska Annaler, Series A
Geological Society of America Bulletin
Geology
Geomorphology
Geotech. Eng
Géotechnique
Holocene
International Journal Geographical Information Systems
Journal of Environmental Quality
Journal of Forestry
Journal of Geology
Journal of Geotech. Engineering ASCE
Journal of Hydrology
Journal of Hydrology (New Zealand)
Journal of Paleolimnology
Journal of Soil and Water Conservation
Journal of the Royal Society of New Zealand
Journal of Water Resources
Landscape
Landscape Planning
New Zealand Agricultural Science
New Zealand Association of Resource Management, Broadsheet
New Zealand ASWC Broadsheet
New Zealand Engineering
New Zealand Forestry
New Zealand Geographer
New Zealand Geomechanics News
New Zealand Journal Experimental Agriculture
New Zealand Journal of Agricultural Research
New Zealand Journal of Agriculture
New Zealand Journal of Botany
New Zealand Journal of Ecology
New Zealand Journal of Engineering Geology

New Zealand Journal of Forestry
New Zealand Journal of Forestry Science
New Zealand Journal of Geography
New Zealand Journal of Geology and Geophysics
New Zealand Journal of Marine and Freshwater Research
New Zealand Journal of Science
New Zealand Journal of Science and Technology
New Zealand Meteorological Society Newsletter
New Zealand Mining
New Zealand Science Monthly
New Zealand Science Review
New Zealand Surveyor
Planning Quarterly
Quarterly Journal of Engineering Geology
Quaternary International
Resource Research
Soil & Water
Soil and Water Conservation
Streamland
Terra Nova
TGMLI Review
The Australian Geograph
Transactions Japanese Forestry Society
Transactions of the Royal Society of New Zealand
Tuatara
Water & Atmosphere
Water Resources Bulletin
Water Resources Research
Weather and Climate
Zeitschrift für Geomorphologie, Supplementband

Appendix 3: List of institutions and organizations referred to.

American Geophysical Union
Association Internationale d'Hydrologie Scientifique
Auckland Regional Authority
Auckland Regional Water Board
Canterbury Regional Council
Centre for Resource Management, Lincoln
Department of Conservation
Department of Scientific and Industrial Research, Land and Soil Sciences
Department of Scientific and Industrial Research, Botany
Department of Scientific and Industrial Research, Geology and Geophysics
Department of Scientific and Industrial Research, Land and Soil Sciences
Department of Scientific and Industrial Research, Land Resources
Earthquake and War Damage Commission
East Cape Catchment Board, Gisborne
ECNZ
Electricorp Production, Wellington
Forest Research Institute
Forest Research Laboratory, Oregon State University
Franklin District Council
Geological Society of New Zealand
Geotechnical Engineering Division/ASCE
Hauraki Catchment Board
Hawke's Bay Catchment Board
Hurunui District Council
Imperial College of Science and Technology
Institute of Geological and Nuclear Science
International Association of Hydrological Sciences
International Association of Scientific Hydrology
Land Resources Department, Wellington Regional Council
Landcare Research New Zealand Ltd.
Logging Industry Research Organisation
MAFTech
Manawatu Catchment Board
Ministry for the Environment
Ministry of Agriculture and Fisheries
Ministry of Works and Development, Water and Soil Directorate
Ministry of Works and Development, Civil Directorate
Ministry of Works and Development, Hydrology Centre
Ministry of Works and Development, National Water and Soil Conservation Organisation
Ministry of Works and Development, Soil Conservation
Ministry of Works and Development, Water and Soil
Napier City Council
National Parks Authority of New Zealand
National Water and Soil Conservation Organisation
Nelson City Council
New Zealand Association of Economists Incorporated
New Zealand Association of Resource Management
New Zealand Association of Soil Conservators
New Zealand Forest Service
New Zealand Geographical Society
New Zealand Geological Society
New Zealand Geological Survey
New Zealand Hydrological Society
New Zealand Logging Industry Research Organisation
New Zealand Meteorological Service

New Zealand Society of Soil Science
New Zealand Soil Bureau
NZ Association of Soil and Water Conservators
NZ Forestry Service
NZ Geological Survey
NZ Geomechanics Society
NZ Institute of Economic Research
NZ Institution of Engineers
NZ National Water and Soil Conservation
NZ Soil Bureau
NZ Water and Soil Conservation
Otago Catchment Board
Pacific Science Association
Porirua City Council
Rangitikei-Wanganui Catchment Board and Regional Water Board
Royal Society of New Zealand
Soil Conservation and Rivers Control Council
Soil Conservation Centre
South Canterbury Catchment Board
Taranaki Regional Council
Tasman District Council
Tauranga County Council
The Institution of Engineers, Australia
Tussock Grasslands and Mountain Lands Institute
UNESCO
United Nations Centre for Science and Technology for Development
Waikato Regional Council
Wairarapa Catchment Board
Wairoa County Council
Wellington Regional Council
Works Consultancy Services Ltd

Appendix 4: Common abbreviations used in references.

ANZASS	Australian-New Zealand Association of
DSIR	Department of Scientific and Industrial Research
EC	Earthquake Commission
ECNZ	Electricity Cooperation New Zealand
FRI	Forest Research Institute
GIS	Geographical Information System
IGNS	Institute of Geological and Nuclear Sciences
MAF	Ministry of Agriculture and Fisheries
MWD	Ministry of Works and Development
NIWA	National Institute of Water and Atmosphere
NZASWC	New Zealand Association of Soil and Water Conservators (??????)
NZGS	New Zealand Geological Survey
RMA	Resource Management Act
SRCC	Soil and River Control Council
WSD	Water and Soil Division