

UNIFIED HYDRO-CLIMATE DATA SEARCH ACROSS NEW ZEALAND

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Acquisition of relevant and useful data for hydrological, meteorological or hydrogeological assessments and research projects in New Zealand's regions is primarily based on personal communication and reliance on the knowledge of domain specialists (White 2006; William, Milke et al. 2009). To support the task of identification and subsequently retrieval of available datasets for an area of interest, a new unified method for metadata and data search in New Zealand with a focus on hydro-climate and geo-scientific datasets is presented. The method is implemented within an online accessible search website which searches the many distributed New Zealand based data providers and web portals of scientific and governmental organisations (Klug and Kmoch 2014).

The research work undertaken comprises of two parts. First, the publicly accessible abstracts from the website of the Journal of Hydrology New Zealand (NZHS 2014) are analysed. The title, date, authors and abstract text were indexed and where possible a spatial context was derived. Additional keywords were selected for a thesaurus based on occurrence of domain specific terms in the abstract text. Subsequently, metadata records in the New Zealand metadata standard format are created and provided online. Secondly, the web search algorithm distributes the search to a selection of pre-registered geo- and hydro-climate data portals like "LINZ Data Service" (LINZ 2014), "Geodata.govt.nz" (NZGO 2014), "NIWA DC" (NIWA 2014), "Landcare LRIS" (Landcare 2014), "Koordinates" (Koordinates 2014) and "data.govt.nz" (NZ_DIA 2014). The search query can be enriched with related terms from a thesaurus or glossary and spatial context with place names or coordinates. Results are ranked based on spatial and semantic correlations with New Zealand place names register and hydrological terms from the developed glossary.

References

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