

# RISK ASSESSMENT AT THE ROYAL BC MUSEUM

British Columbia, Canada



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The Royal BC Museum was established in 1886 as the BC Provincial Museum and merged with the BC Archives in 2003. Collections include artifacts, documents and specimens of human and natural history.

## METHODOLOGY

### ASSESSMENT

The Royal BC Museum followed the method developed, and further refined, by Dr. Robert Waller of Protect Heritage Corporation (Waller, 2003).

The project was directed by a team of colleagues, the Collection Risk Assessment Team (CRAT), representing each of the major collection areas, Archives, Human History, and Natural History, plus a digital media specialist, facilities advisor and security/business continuity advisor. CRAT was co-chaired by the Conservation Services Manager and the Senior Preservation Archivist. The participation of facility management and security personnel was instrumental to ensuring accuracy and breadth of research.

### THE RISKS

#### GENERIC RISKS

PF	Physical Forces	e.g. Earthquake
FIRE	Fire	e.g. Single compartment combustion
WA	Water	e.g. Roof leak
CR	Criminals	e.g. Pilfering
PEST	Pests	e.g. Insects
CO	Contaminants	e.g. Air pollution
LUV	Light and Ultraviolet Radiation	e.g. Sunlight
TEMP	Inappropriate Temperature	e.g. Constant changes in temperature
RH	Inappropriate Relative Humidity	e.g. Occasional high relative humidity
DISS	Dissociation	e.g. Loss of object data

26 generic risks were defined by CPRAM. Within the generic risk categories, collection managers had the freedom to choose specific risks applicable to their own collection and even add risks that were not previously identified.

#### POSITIVE OUTCOMES OF RISK ANALYSIS

- ! New fire detection and suppression for historic houses
- ! Upgraded security system in historic houses
- ! New procedures to reduce the risk of fire in First Nations House
- ! Archaeology collection rehoused into durable containers
- ! New and improved vats for wet invertebrates storage
- ! New and improved labels for birds and invertebrates
- ! Deaccession of expendable education materials
- ! New -80 DNA tissue freezer
- ! Planning for new cold storage facility for A/V and photograph collections
- ! Planning for new collections storage building
- ! Negotiations for control of government records accessions registers

#### Also:

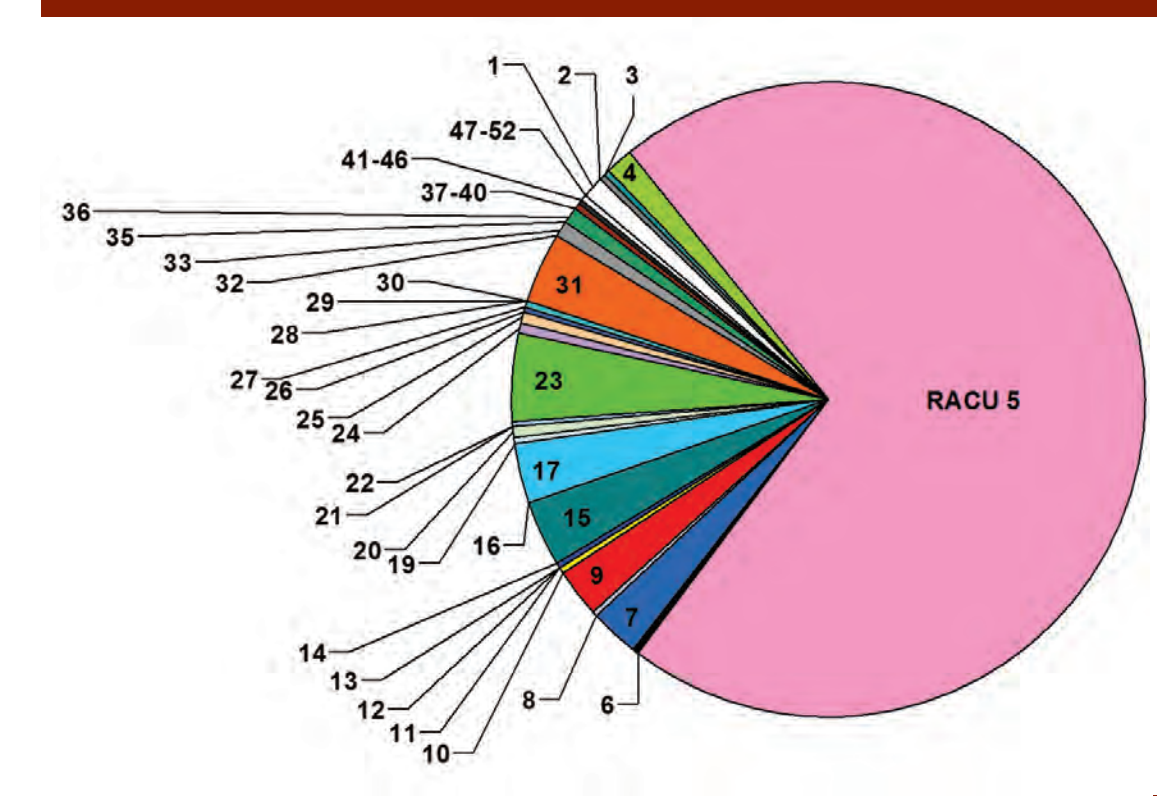
- ! Affirmation that integrated pest management program is effective
- ! Affirmation that electronic records are secure
- ! Light, UV, and contaminants are under control



Fire destroys Haida House, on the grounds of the RBCM, in July 1980.

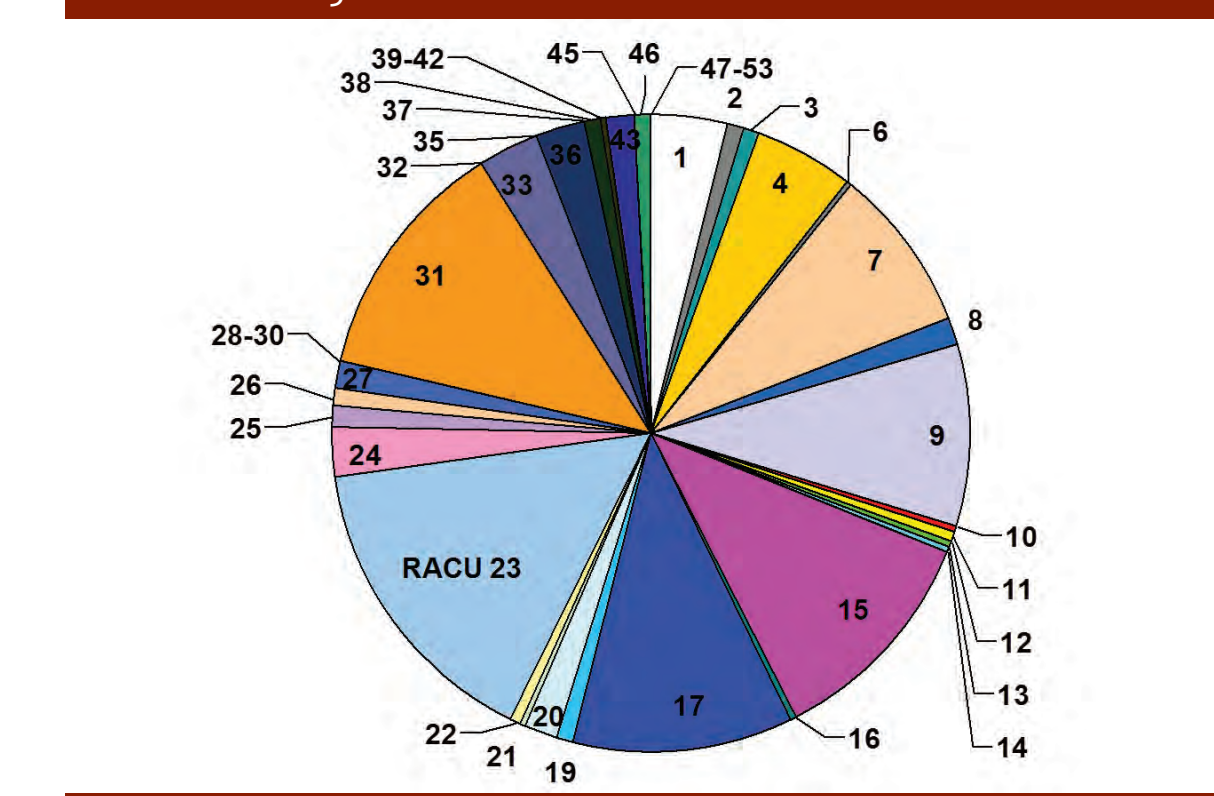
### RACUs

#### RELATIVE SIZE OF RACUs



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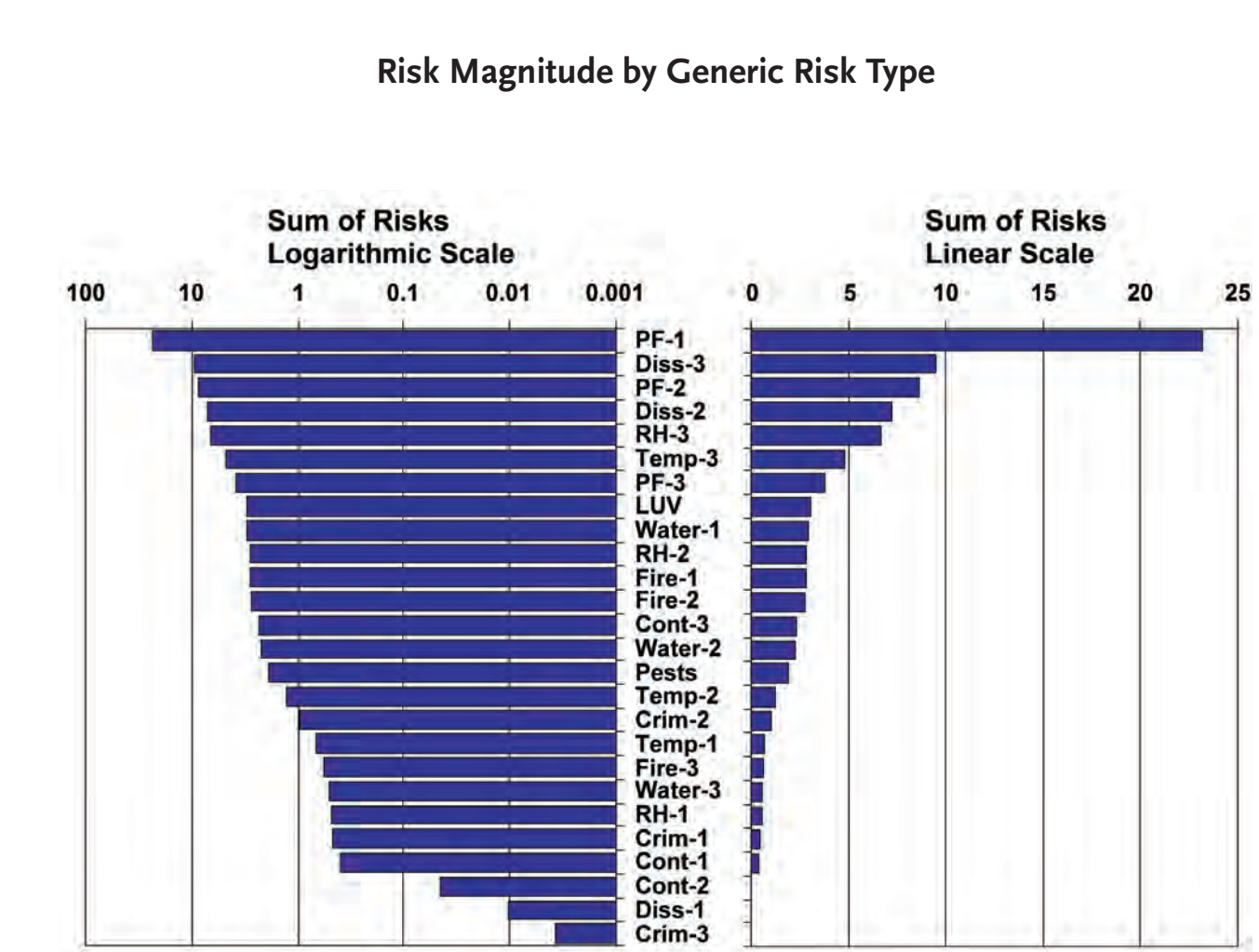
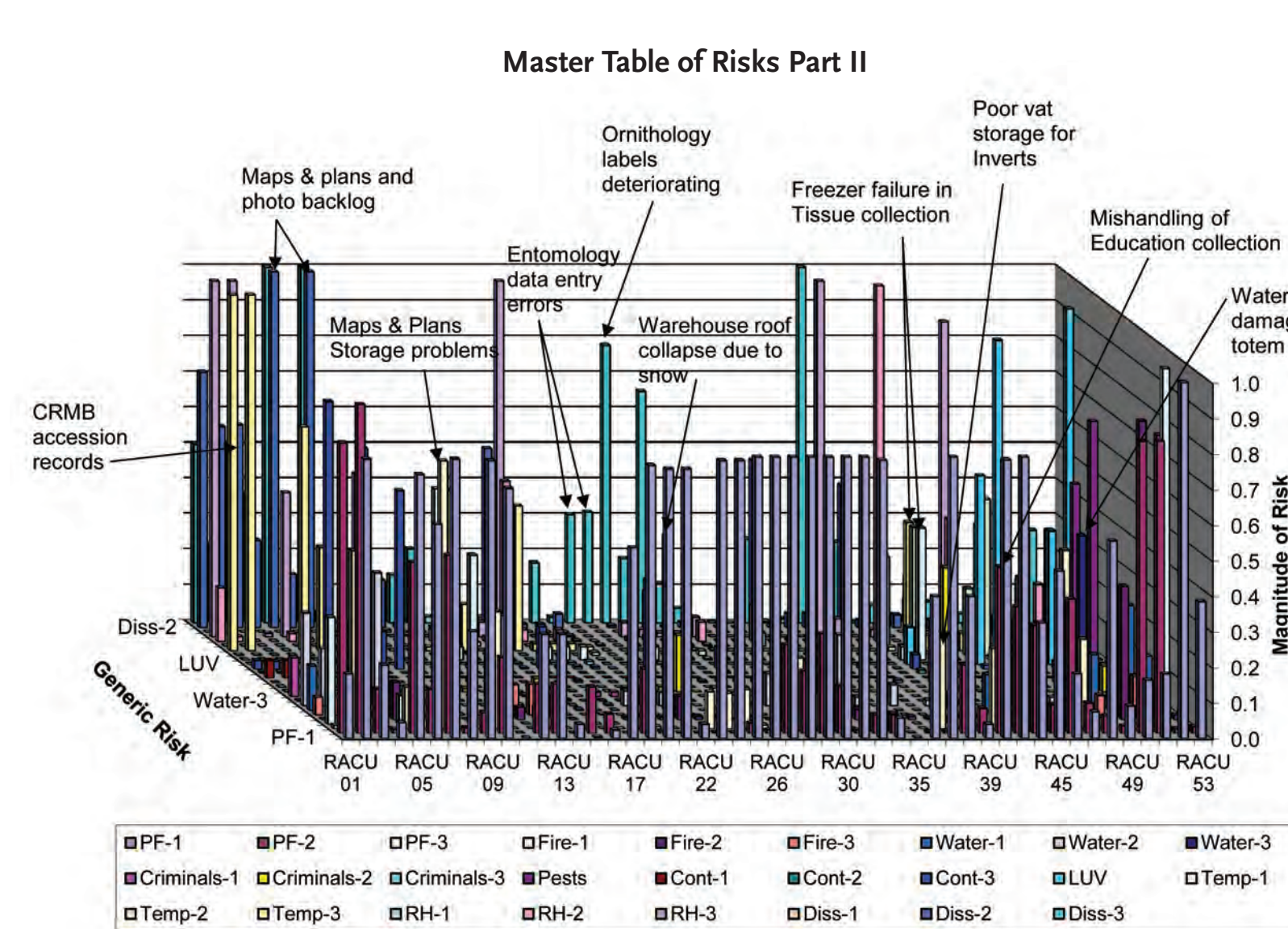
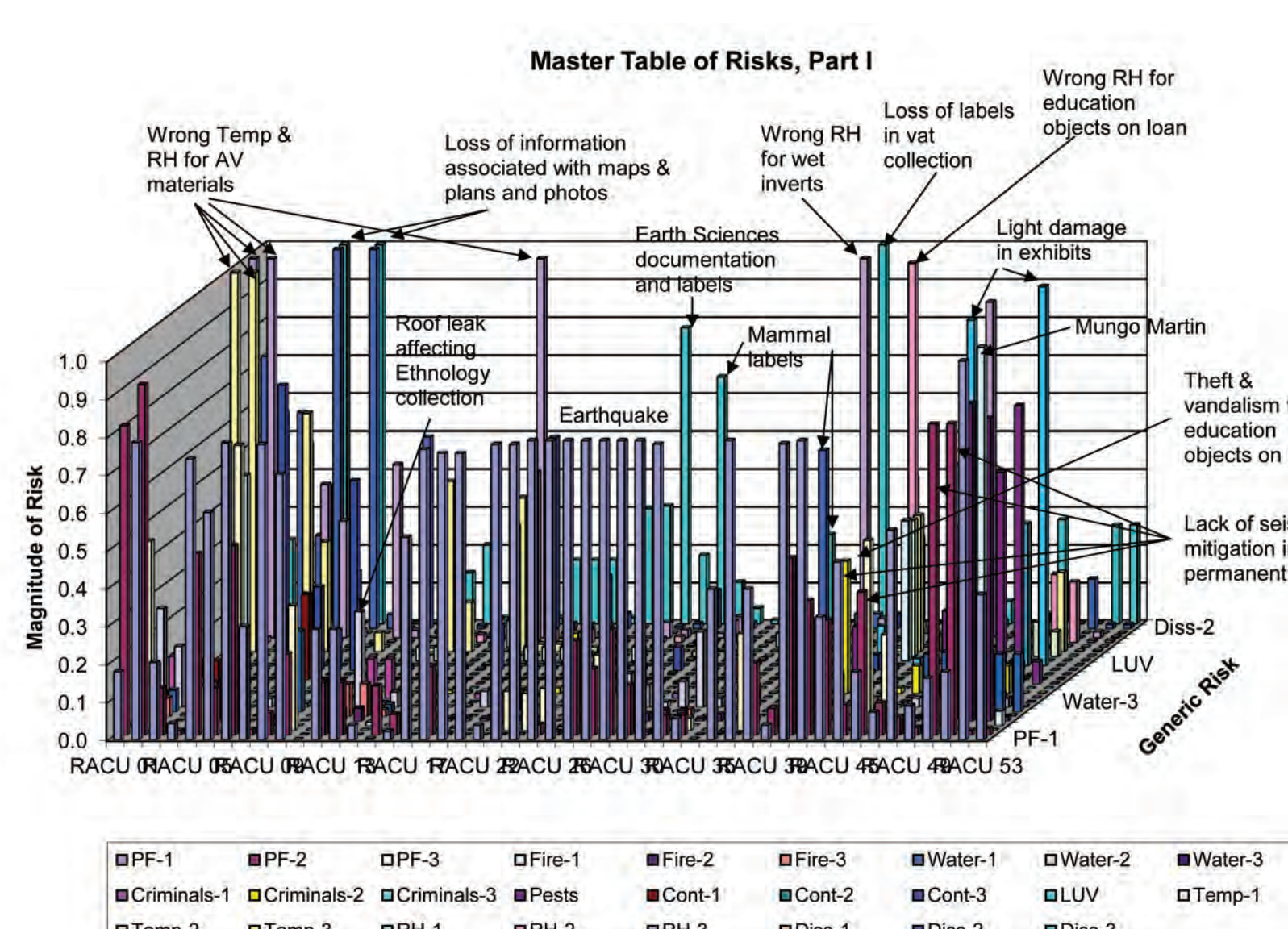
RACU 5 excluded



The holdings of the Royal BC Museum were broken down into 49 collection units or groups of similar objects in similar storage or exhibit environments.

- |                                       |  |
|---------------------------------------|--|
| 1 Sound Records                       | 27 Mammal collection                         |
| 2 Moving Image Records                | 28 Mammal antlers and horns                  |
| 3 Textual Records                     | 29 Mammal large specimens                    |
| 4 Textual Records - Offsite           | 30 Mammal fur collection                     |
| 5 Graphic Records- Historic Photos    | 31 Botany collection                         |
| 6 Graphic Records- Works of Art       | 32 Botany cone collection                    |
| 7 Cartographic Records                | 33 Earth Science collection                  |
| 8 Microforms                          | 35 Earth Science log collection              |
| 9 Library in Archives Building        | 36 Fish, Herpetology & invertebrates in jars |
| 10 Archival Objects                   | 37 Fish, Herpetology & invertebrates in vats |
| 11 Electronic Records                 | 38 Fish, Herpetology & invertebrates, dry    |
| 12 Ethnology - 14th floor             | 39 Ore and Mineral collection                |
| 13 Ethnology - 12th floor             | 40 Natural History Education collection      |
| 14 Ethnology - Warehouse              | 41 Natural History tissue collections        |
| 15 Archaeology - Fannin Tower         | 43 Natural History specimen slides           |
| 16 Archaeology - Warehouse            | 45 Exhibits First Peoples                    |
| 17 Ethnology audio-visual, 11th floor | 46 Exhibits History                          |
| 19 Modern History - 9th floor         | 47 Exhibits Natural History                  |
| 20 Modern History - 8th floor         | 48 Exhibits First Floor                      |
| 21 Modern History - 7th floor         | 49 Thunderbird Park                          |
| 22 Modern History - Warehouse         | 50 Helmcken House                            |
| 23 Entomology dry collection          | 51 St. Ann's Schoolhouse                     |
| 24 Entomology wet collection          | 52 Mungo Martin House                        |
| 25 Ornithology collection             | 53 Exhibits Glass House                      |
| 26 Comparative Faunal collection      |  |

## ANALYSIS



## RESULTS

### RISK MANAGEMENT STRATEGIES

SHORT TERM PLAN, NO ADDITIONAL RESOURCES REQUIRED	
Risk	Mitigation Strategy
Theft or vandalism, damage from transport and handling, and inappropriate environment for education collections on loan	Deaccession all Education Collections
Water and other outdoor elements result in destruction of totem poles in Thunderbird Park	Develop a conservation plan for the totem poles in consultation with First Nations representatives
Lack of control of public records accession registers	Work with CRMB to ensure that RBCM has control of accession records, possibly including an Executive initiated MOU
Loss of information associated with Earth Sciences collection	Catalogue all Natural History field notes, convert Ciera databases to MAMMOTH, and provide new labels where required
Loss of information associated with the Ornithology collection	Replace deteriorating labels with a more durable format, preserving original labels when appropriate
Loss of information associated with the Mammal collection	Replace deteriorating labels with a more durable format, preserving original labels when appropriate
Loss of information due to data entry errors associated with the Entomology collection	Implement new procedures to ensure accuracy of data entry

MEDIUM TERM PLAN, ADDITIONAL RESOURCES REQUIRED	
Risk	Mitigation Strategy
Moderate Earthquake	Secure collections, especially in exhibits
Inundation of basement levels by seawater or other water source	Move collections currently housed in basement levels to ground level or above
Destructive fire in First Nations house	Fire detection and suppression system installation and review procedures
Prolonged light exposure in permanent exhibits	Remove all research collections from permanent exhibition and replace with alternate objects. If no reasonable substitutes exist, institute a rotational schedule dictated by maximum allowable light exposure
Roof collapse at warehouse	Work with Landlord to improve roof and if risk cannot be reduced, move collection to new location
Roof leaks in collections building	Install water capture/deflection system below ceiling level and water proof cabinetry or move Ethnology collection to lower level
Backlog of unprocessed archival records	Recruit additional resources, especially cartographic records specialist, to process archival collections

LONG TERM PLAN, SUBSTANTIAL RESOURCES REQUIRED	
Risk	Mitigation Strategy
Major Earthquake	Site redevelopment to include post disaster seismic standards, above ground storage of all collections, additional storage space, superior roofing, and modern museum and archives environmental controls
Flooding of basement storage areas	Site redevelopment to include post disaster seismic standards, above ground storage of all collections, additional storage space, superior roofing, and modern museum and archives environmental controls
Evaporation of wet collections	Site redevelopment to include post disaster seismic standards, above ground storage of all collections, additional storage space, superior roofing, and modern museum and archives environmental controls
Inappropriate storage of map collection	Site redevelopment to include post disaster seismic standards, above ground storage of all collections, additional storage space, superior roofing, and modern museum and archives environmental controls
Roof leaks in collections building	Site redevelopment to include post disaster seismic standards, above ground storage of all collections, additional storage space, superior roofing, and modern museum and archives environmental controls
Inappropriate environment for AV & photos	Cold storage facility implementation

