

Internet Mapping in the Kootenays

Ian Parfitt

SKI Canada - Fernie

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Outline

- Selkirk College Geospatial Research Centre (SGRC)
- Internet Map Services (IMS)
- Inventory of Kootenay-based IMS developers
- Profile of an IMS audience in the Kootenays
- How to widen the circle

The SGRC

- Geospatial centre of excellence at Selkirk College, Castlegar campus
- Initiated by Selkirk School of Renewable Resources
- Established with federal Centre for Innovation (CFI) funding in 2003
- State of the art geomatics technology
- Data sharing partnership with the provincial government
- Education, research, application development

SGRC Internet Mapping Applications

- Kootenay Spatial Data Partnership
 - Forest planning
 - Forest licensees and BC forest management agencies
- Biodiversity Atlas
 - Wildlife, ecosystem restoration, land acquisition data
 - BC Hydro – BC Ministry of Environment Fish & Wildlife Compensation Program for the Columbia Basin
 - Planners at municipal, RD, and provincial levels, public
- Columbia Basin Trust Watershed Network
 - Watershed monitoring
 - CBT, Community watershed groups
- Regional District of Kootenay Boundary
 - Planning
 - RDKB staff, public
- Preliminary Health Services Atlas
 - Health service locations
 - IHA, public

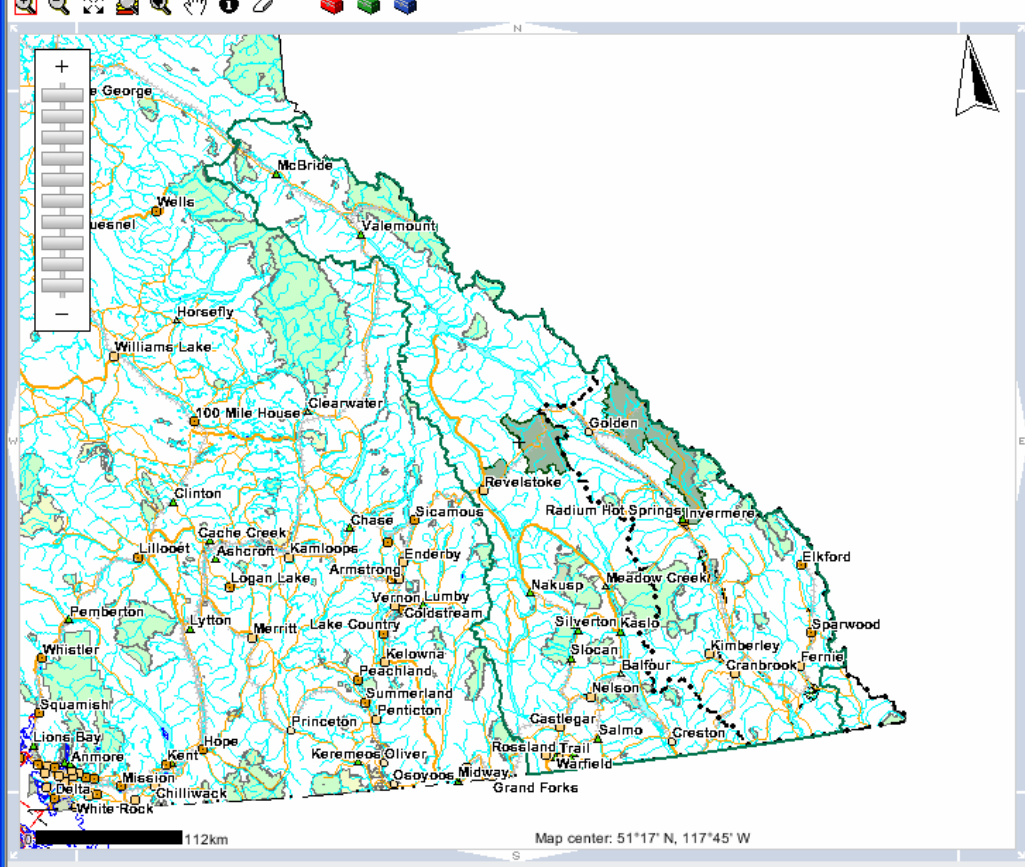
http://www.sgrc.selkirk.ca - Columbia Basin Biodiversity Atlas - Microsoft Internet Explorer



BIODIVERSITY ATLAS

Funded by FWCP in Partnership with Selkirk College

About Layers Legend Locate Selection Themes Key Map Bookmarks Create PDF Disclaimer Help Exit



Show Layers by
Theme: Conservation

Map Layers [Feedback](#)

- Conservation
 - National Parks
 - Provincial Protected Areas
 - Conservation Properties
 - Ecosystem - Classification
 - Ecosystem - Deciduous Forest
 - Ecosystem - Grasslands
 - Ecosystem - Wetlands
 - Ecosystem - Restoration
 - Management
 - Species - Badger (*Taxidea taxus*)
 - Species - Bighorn Sheep (*Ovis canadensis*)
 - Species - Chipmunk (*Tamias*)
 - Species - Elk (*Cervus elaphus*)
 - Species - Lewis' Woodpecker (*Melanerpes formicivorus*)
 - Species - Other
 - Species - Ungulate
 - Base Data

Automatically Refresh Map

[\[search for layers\]](#)

Notes:
Please refer to the following for descriptions of the functions of the controls in the layer list above.

Scale: 1: 4,092,261 Quick View: Map Tool: Active Layer: * NO ACTIVE LAYER * Selkirk College

BC Albers: 1748398, 420605 -- UTM11: 581731, 5352418 -- Geographic: 115°53' W, 49°17' N

Internet Map Service Cast of Characters

- Traditional GIS Vendors
 - ESRI
 - Autodesk
- Open Source
 - MapServer
 - PostGIS
- New Corporate Players
 - Google
 - MapQuest
 - Microsoft (Virtual Earth)
- Third-party Software
 - Latitude Geographics (Internet Mapping Framework)
- Application developers
- Audience

IMS Developers in the Kootenays

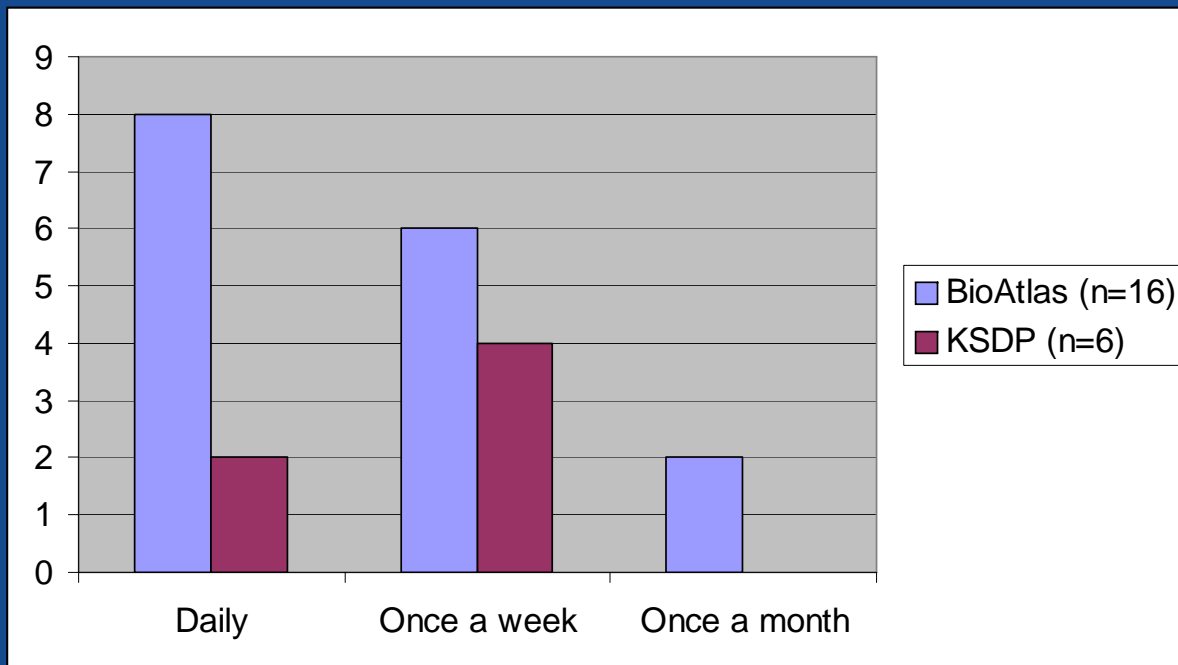
- Government at local and regional level
 - City of Castlegar (Autodesk)
 - City of Revelstoke (ESRI)
 - Regional District of Central Kootenay (ESRI)
 - Regional District of East Kootenay (ESRI)
 - Regional District of Kootenay Boundary (ESRI & IMF)
- Private Sector
 - Interior Reforestation / Canadian Mountain Holidays (ESRI)
 - FortisBC (ESRI)
- Academia
 - Selkirk College (ESRI & IMF)

The Kootenay IMS Audience

- Only preliminary results: full user-needs assessment needed.
- Data sources: Questionnaires
 - Columbia Basin Biodiversity Atlas Workshop, paper survey, October 2007 – 16 respondents
 - Kootenay Spatial Data Partnership, online survey, January 2008 – 6 respondents
- All respondents are GIS-savvy, more than 50% use GIS daily, most are from government and academic sectors, all use IMS sites regularly.

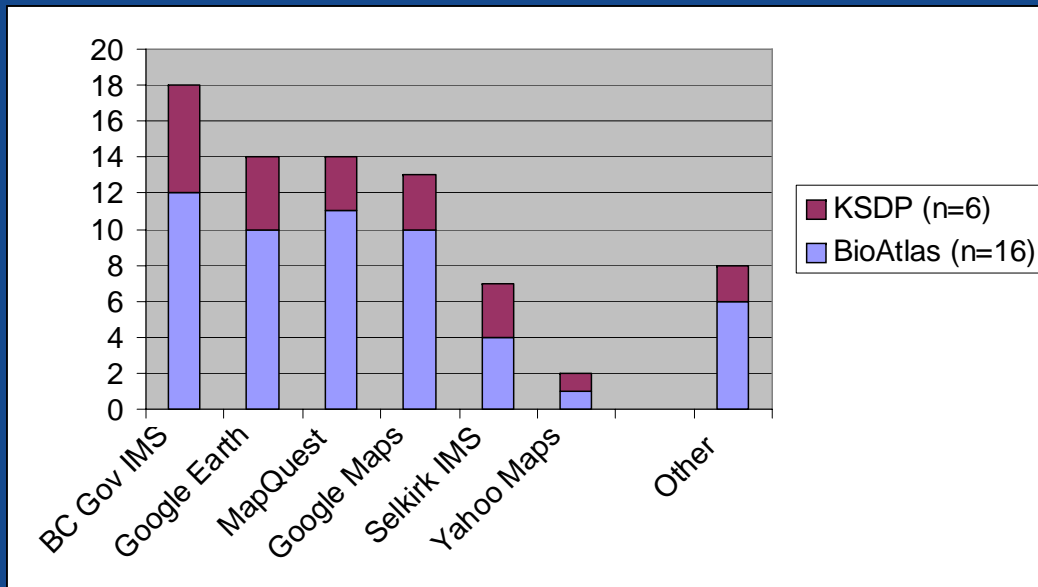
Survey Results

How often do you use IMS sites?



Survey Results

Which IMS sites do you use?



- Other Sites:
- Eflora/Efauna
 - CMN
 - CDC
 - RDCK IMS
 - Mapster
 - Virtual Earth

Survey Results

- Most sites are reportedly used for work purposes.
 - Study area reconnaissance (iMap, SGRC, Google, MapQuest sites)
 - Study Area data: what is known and recorded, verify data accuracy, find correct location names, other queries and research (iMap, SGRC sites)
 - Make maps
- Results biased by fact that the Atlas workshop was also work-related, as is KSDP.

Discussion

Why so few developers?

- Internet mapping applications require significant resources
 - HR: GIS, IT, project management
 - Hardware: servers
 - Software: IMS, viewers, RDBMS
 - Internet connectivity: bandwidth, security, maintenance

Discussion

- Internet Mapping rapidly evolving
 - Challenging to remain current
 - Clients concerned their investment may be wasted as new developments (like Google Earth) overtake their applications

How to increase development in the Kootenays

- Use of Google API may be appropriate for many applications with limited data (i.e. point locations of services)
- Data-rich applications (those with many polygon and image layers in particular) or applications requiring geoprocessing can also be built using Open Source solutions

But is there enough demand?

- Is “build it and they will come” an appropriate method
- Need to couple development of sites with outreach and education about them
- Are we driving demand for these tools by creating them, when in reality a PDF or other much more simple solution would suffice.

Acknowledgements

- The SKI Executive, Nadine, Renee, Scott
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Questions?

Ian Parfitt

iparfitt@selkirk.ca

(250) 365 1321

Selkirk College

301 Frank Beinder Way

Castlegar, BC

SGRC

selkirk.ca/sgrc