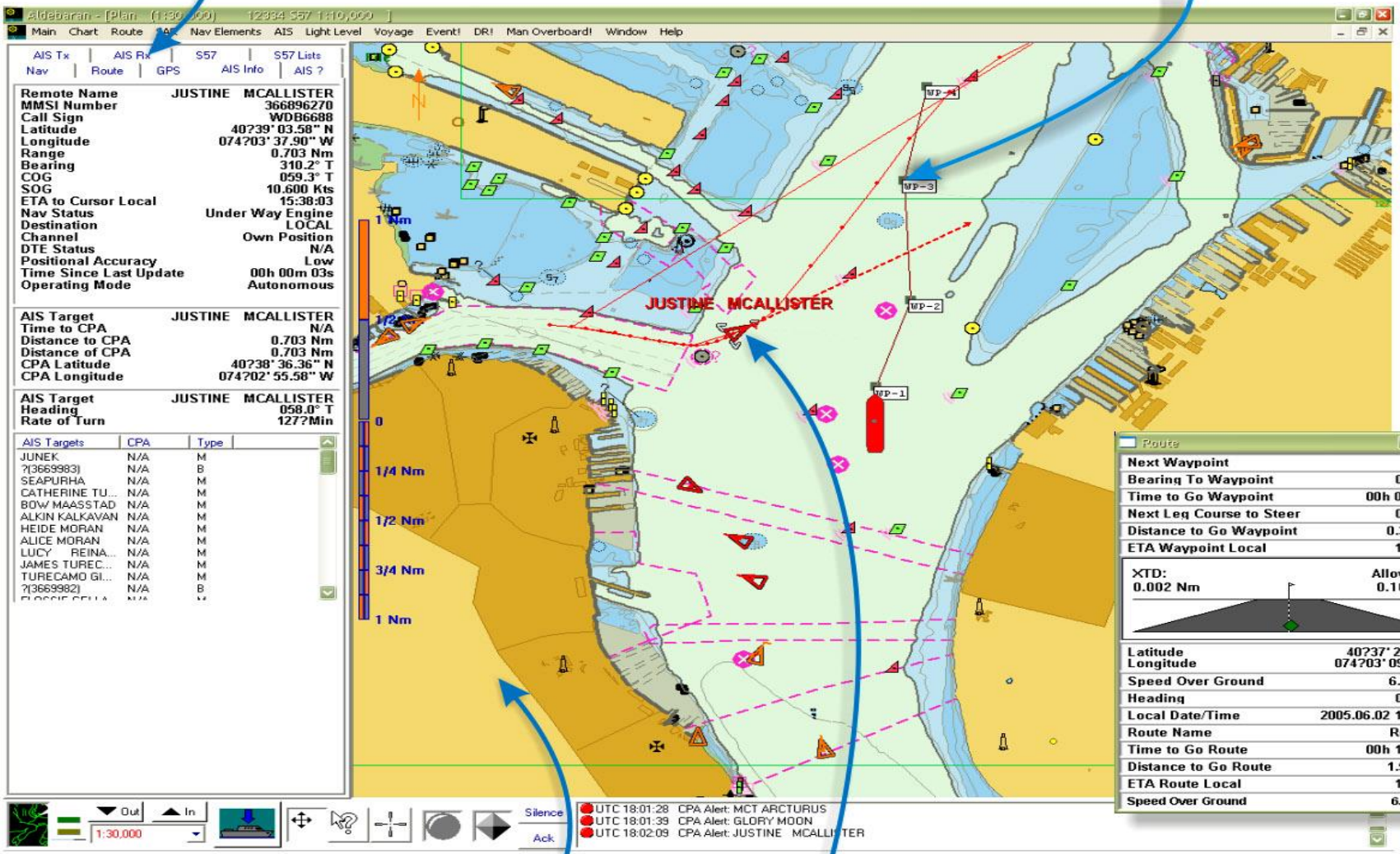
Randal's role: product testing and technical support, internal IT, system and product engineering, business planning, team leadership

http://www.icanmarine.com/

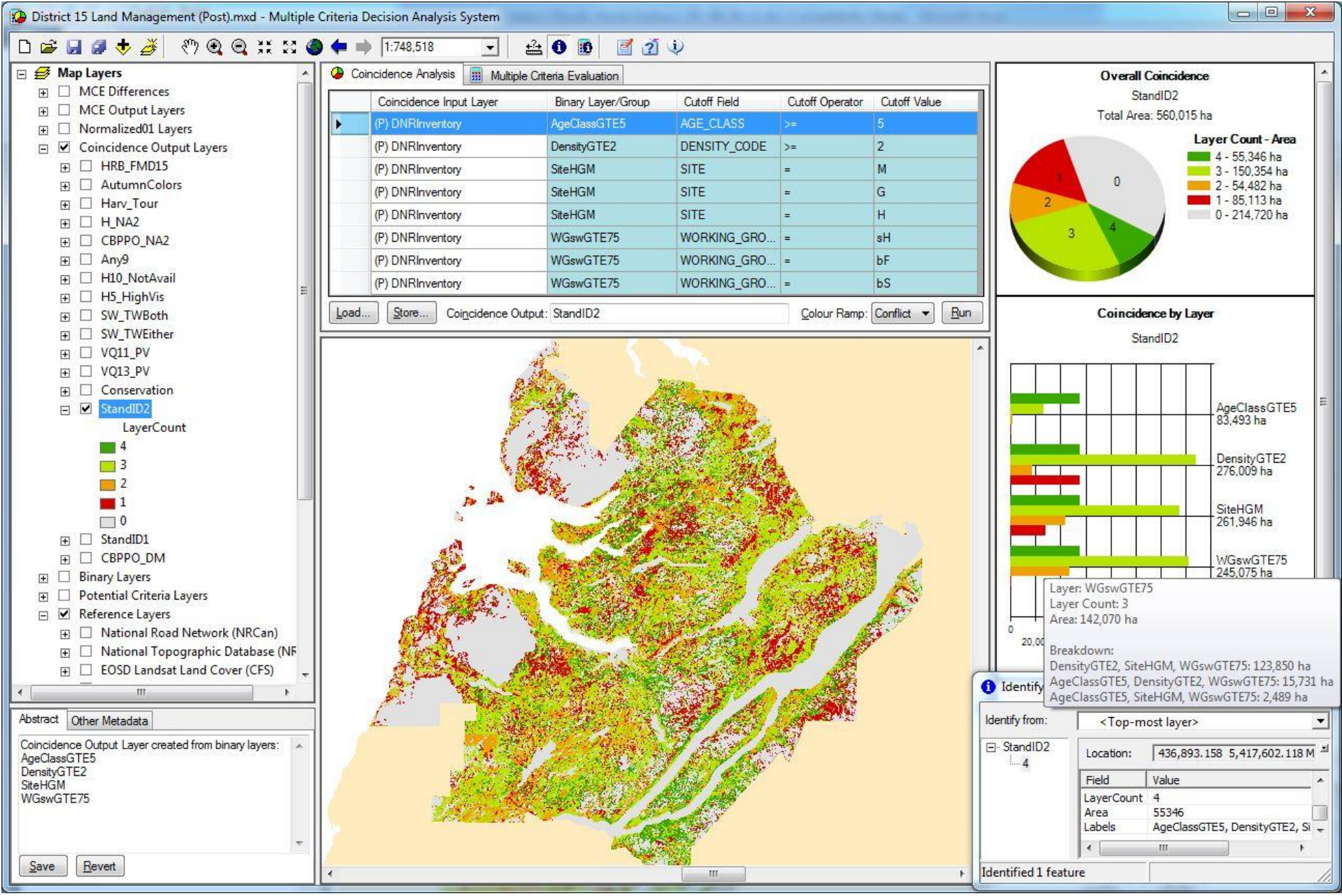
ICAN's customizable InfoPanels gives you the flexibility to view relevant information to meet your unique requirements.

Effectively plan operations with ICAN's route planning and monitoring tools which allow you to reduce travel time and fuel consumption. All routes can be saved in our route database for future use or to send route information to other vessels.



Aldebaran II offers a seamless display of multiple chart formats simultaneously. Regulus II can display any two chart combinations of your choice.
Available chart formats include: BSB, S-57 (ENC), CM-93, ARCS, and NTX.

ICAN ECS software includes complete AIS capability to display static, dynamic, and vessel related information. You can query AIS targets to view their heading, speed, cargo, MMSI, etc. More information of vessel traffic allows you to make better decisions.

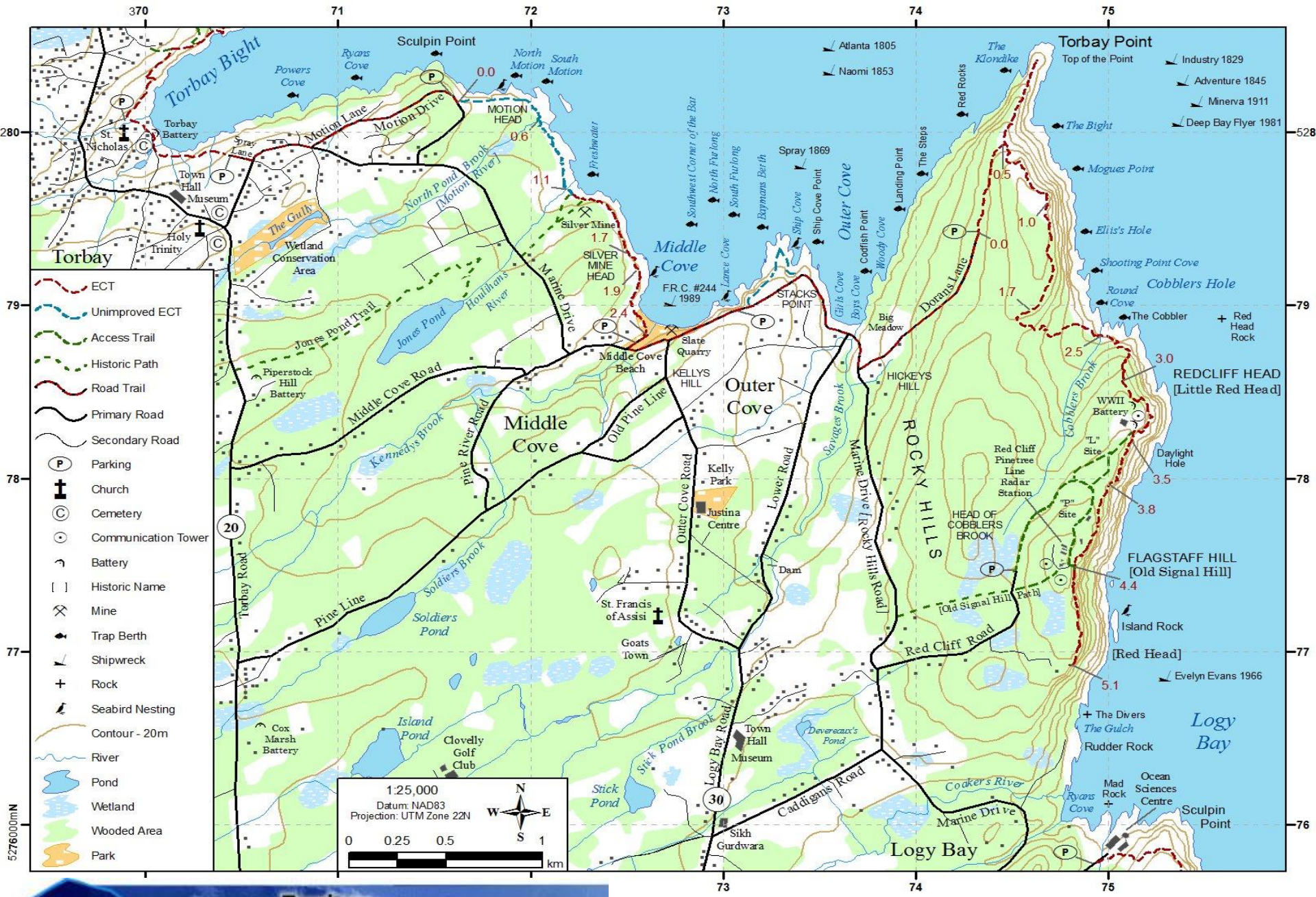


http://dx.doi.org/10.1111/j.1749-8198.2011.00431.x

http://dx.doi.org/10.1016/j.foreco.2010.08.052

Randal's MSc thesis project

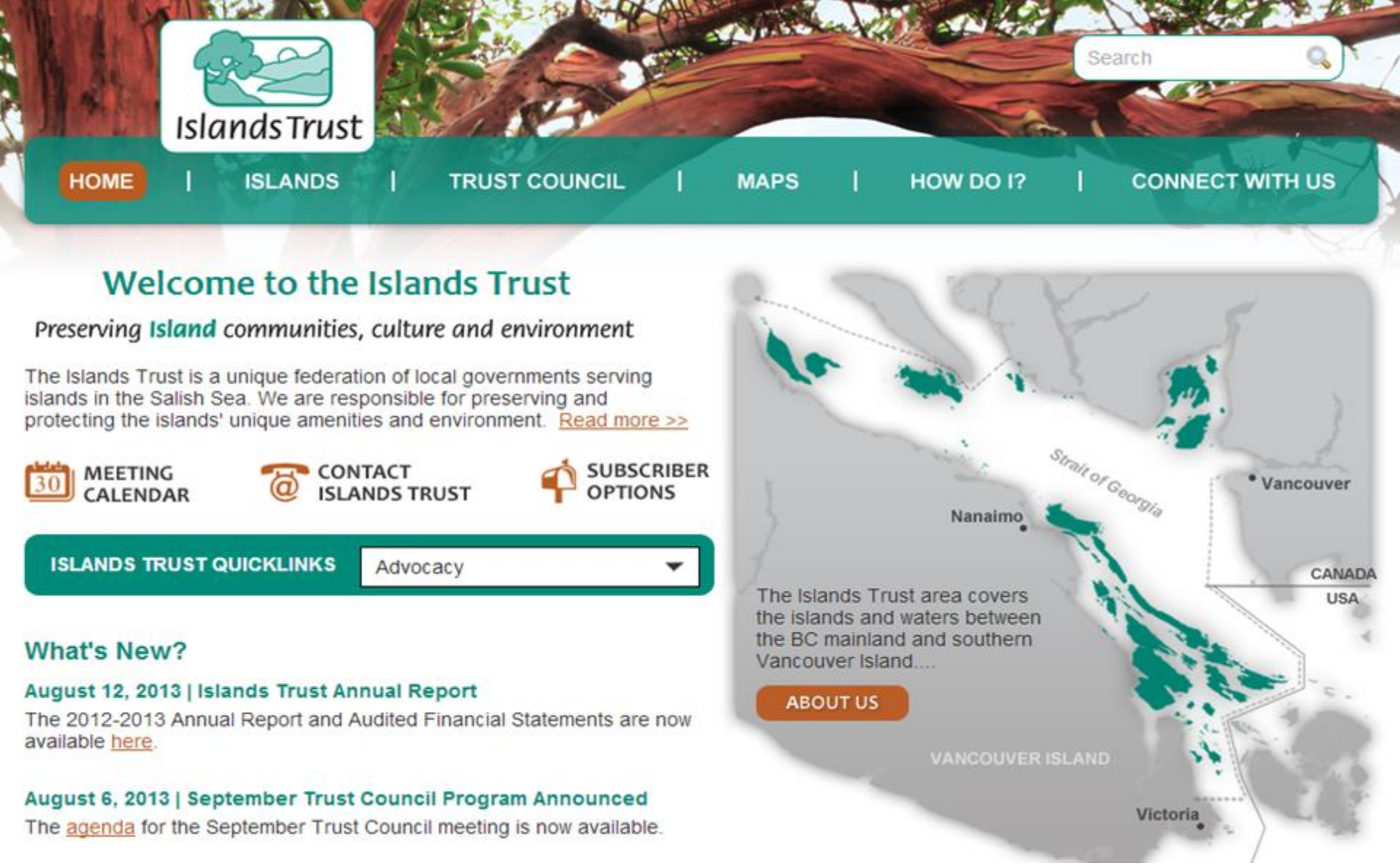
http://research.library.mun.ca/9520/



Explore the East Coast Trail of Newfoundland, Canada

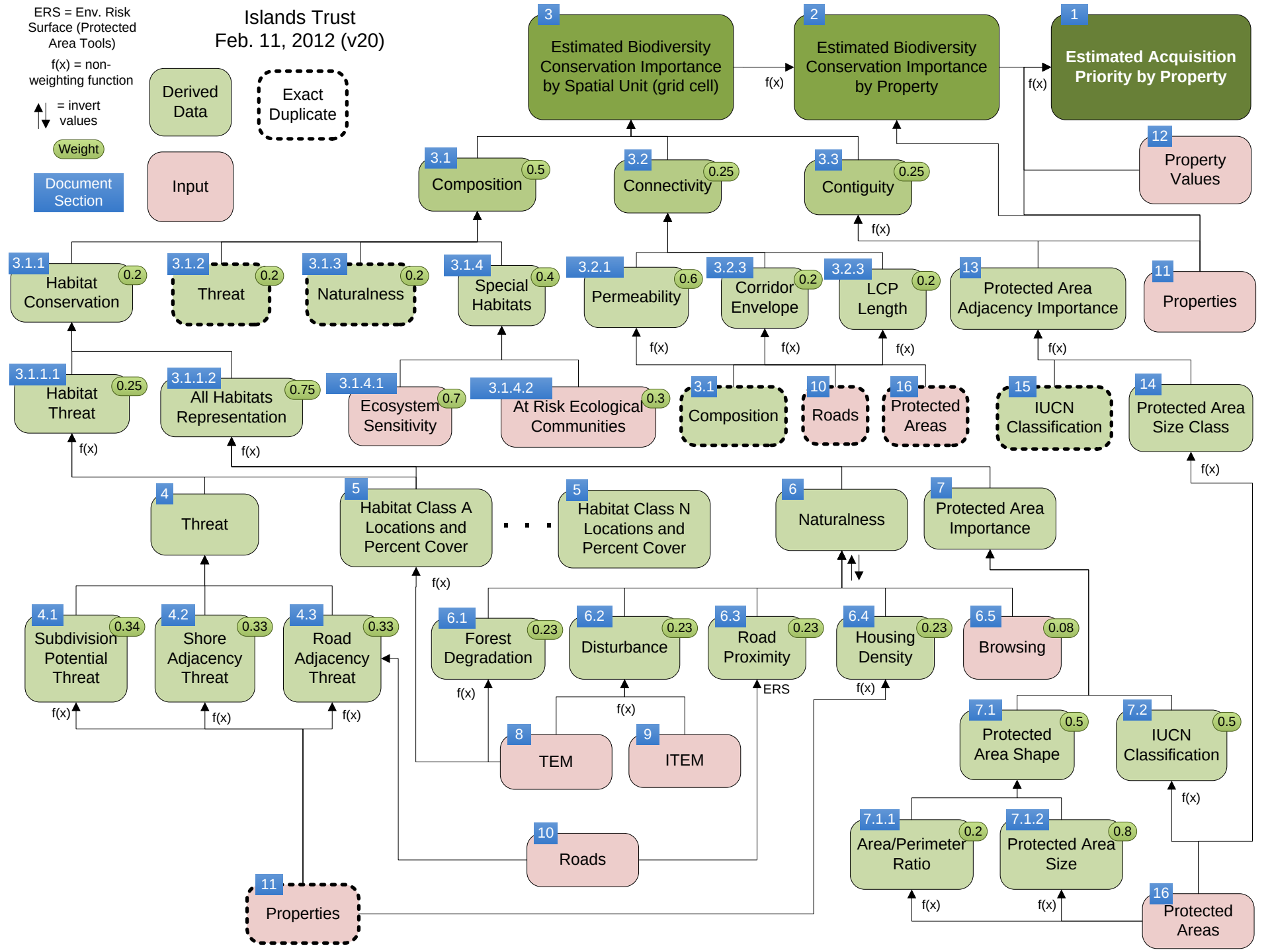
Randal's role: trail mapping and elevation profiling

http://eastcoasttrail.ca/

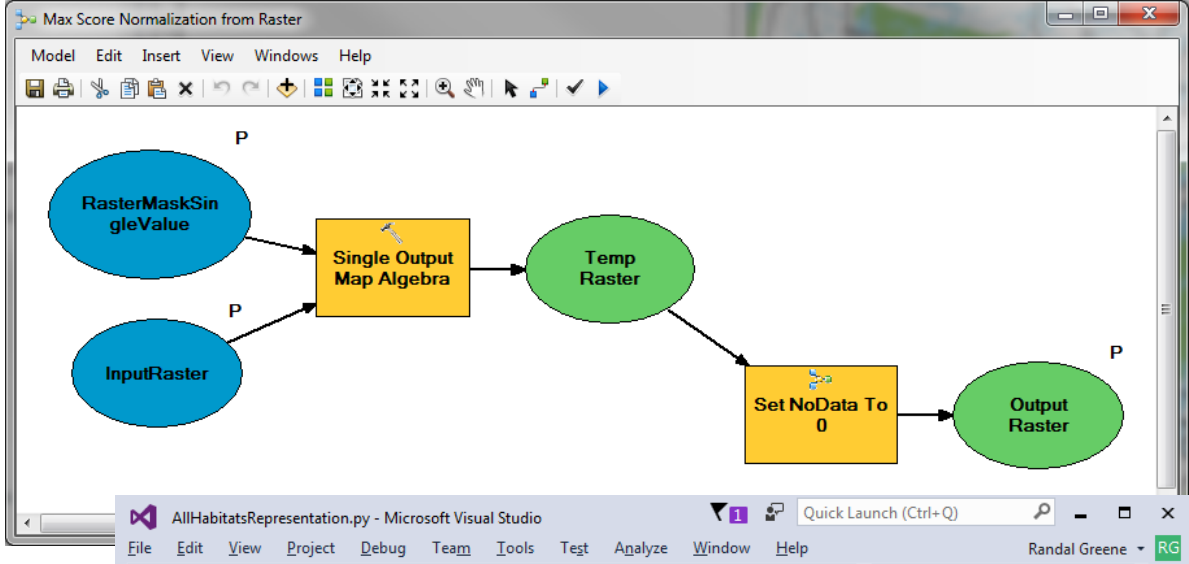


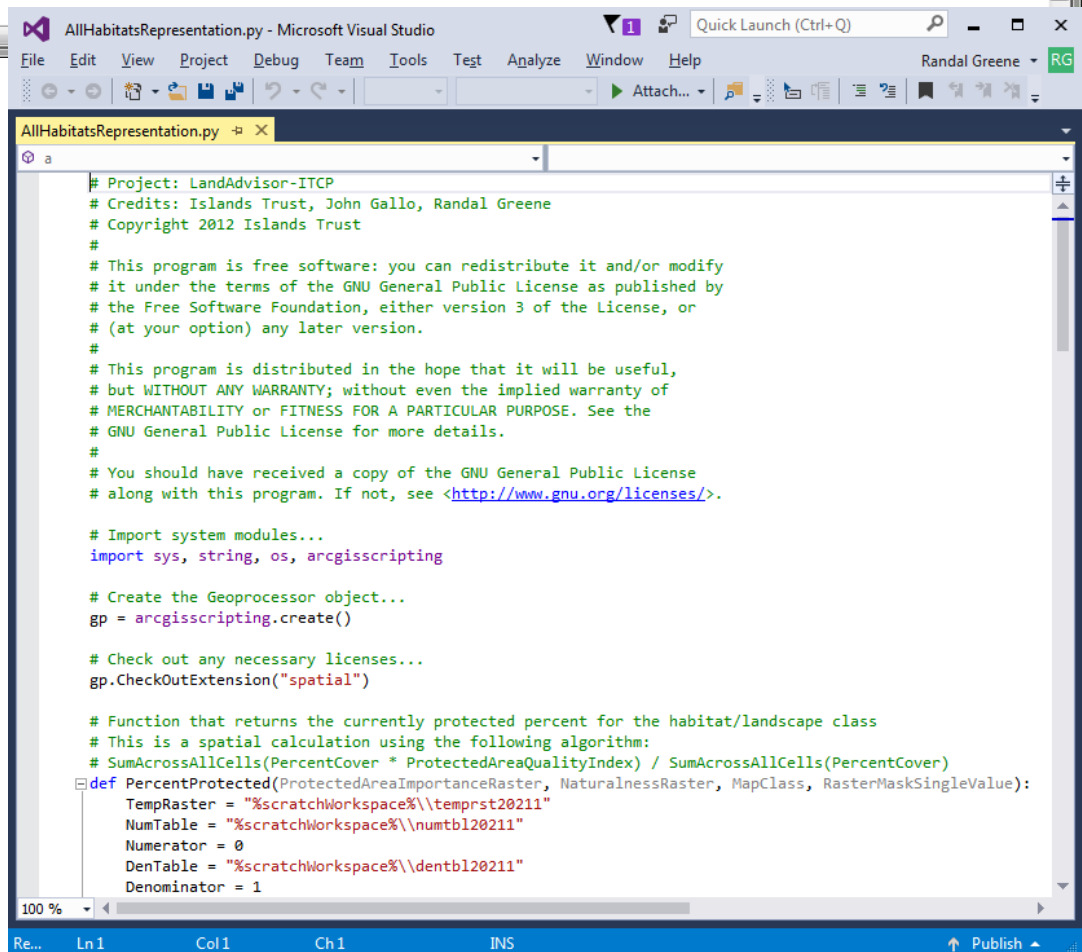
Randal's role: development, testing and documentation of ArcGIS tools for multi-criteria evaluation models for conservation prioritization

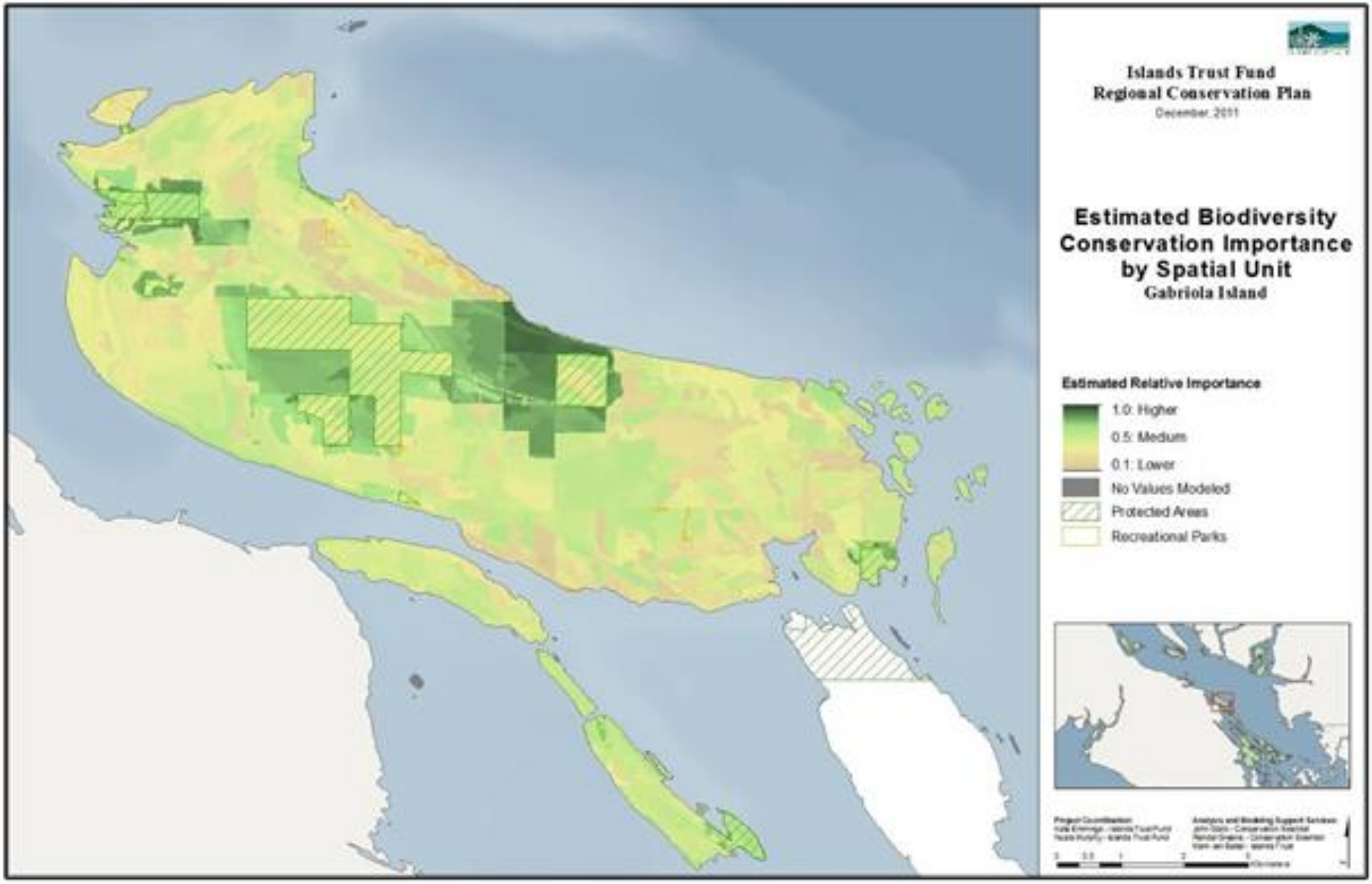
http://islandstrust.bc.ca/

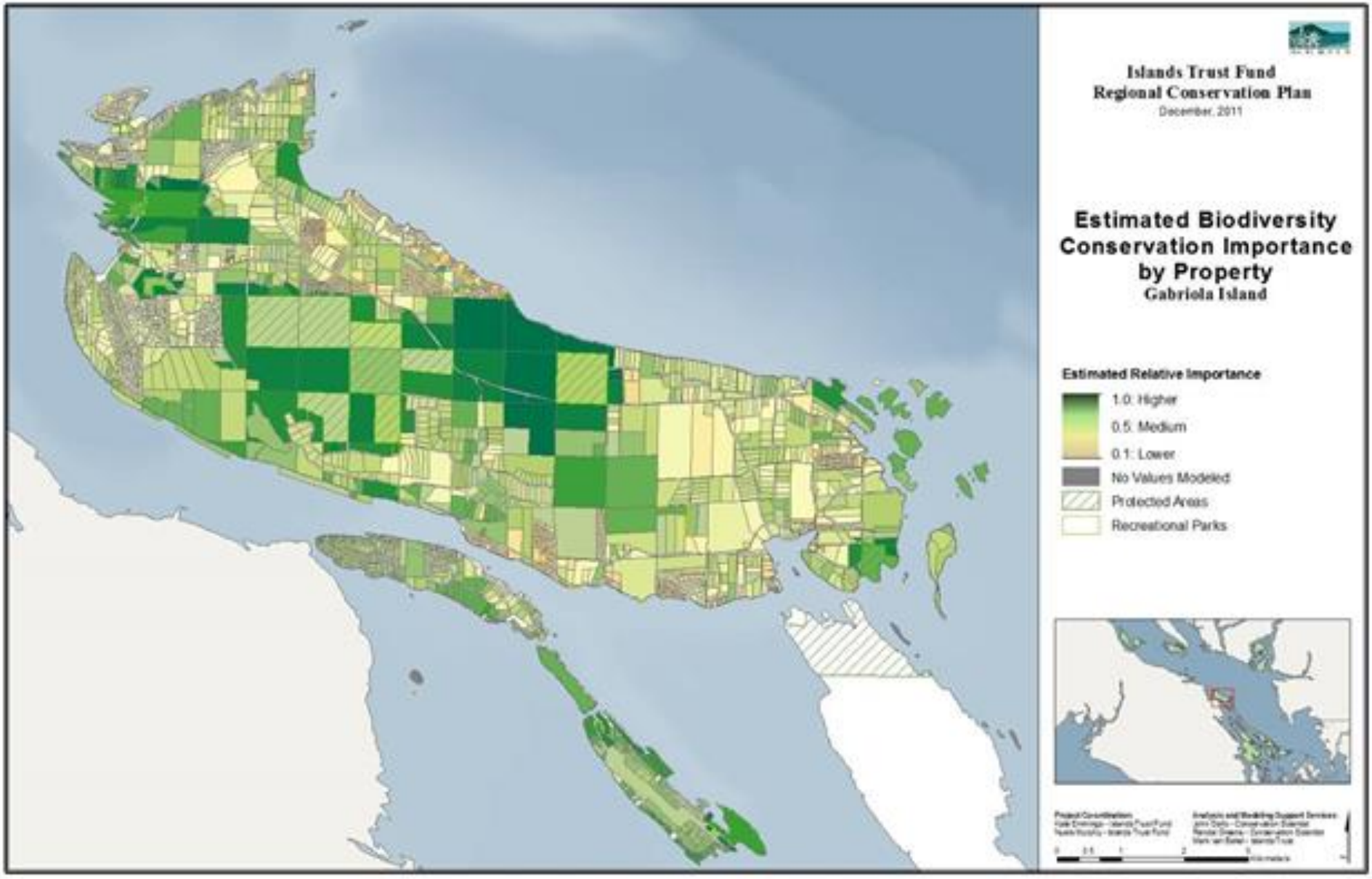

ERS = Env. Risk Surface (Protected Area Tools)
f(x) = non-weighting function
= invert values
Weight
Document Section
Islands Trust
Feb. 11, 2012 (v20)
Derived Data
Exact Duplicate
Input
3 Estimated Biodiversity Conservation Importance by Spatial Unit (grid cell)
2 Estimated Biodiversity Conservation Importance by Property
1 Estimated Acquisition Priority by Property
12 Property Values
3.1 Composition 0.5
3.2 Connectivity 0.25
3.3 Contiguity 0.25
3.1.1 Habitat Conservation 0.2
3.1.2 Threat 0.2
3.1.3 Naturalness 0.2
3.1.4 Special Habitats 0.4
3.2.1 Permeability 0.6
3.2.3 Corridor Envelope 0.2
3.2.3 LCP Length 0.2
13 Protected Area Adjacency Importance
11 Properties
3.1.1.1 Habitat Threat 0.25
3.1.1.2 All Habitats Representation 0.75
3.1.4.1 Ecosystem Sensitivity 0.7
3.1.4.2 At Risk Ecological Communities 0.3
3.1 Composition
10 Roads
16 Protected Areas
15 IUCN Classification
14 Protected Area Size Class
4 Threat
5 Habitat Class A Locations and Percent Cover
5 Habitat Class N Locations and Percent Cover
6 Naturalness
7 Protected Area Importance
4.1 Subdivision Potential Threat 0.34
4.2 Shore Adjacency Threat 0.33
4.3 Road Adjacency Threat 0.33
6.1 Forest Degradation 0.23
6.2 Disturbance 0.23
6.3 Road Proximity 0.23
6.4 Housing Density 0.23
6.5 Browsing 0.08
8 TEM
9 ITEM
7.1 Protected Area Shape 0.5
7.2 IUCN Classification 0.5
10 Roads
7.1.1 Area/Perimeter Ratio 0.2
7.1.2 Protected Area Size 0.8
11 Properties
16 Protected Areas
f(x)
ERS

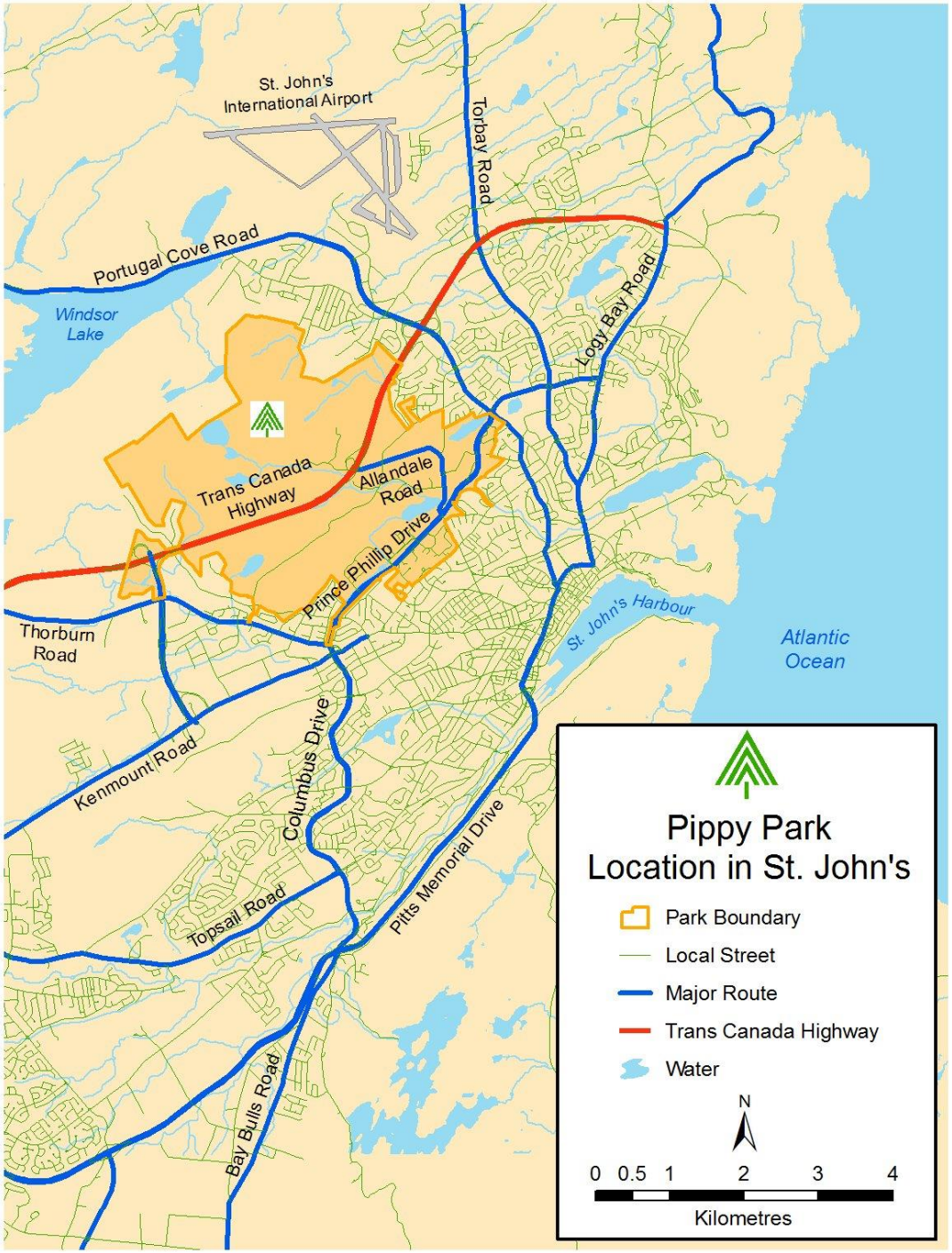
- LandAdvisor-ITCP.tbx
  - 00 Data Prep
    - At Risk Ecological Communities
    - Convert Properties to Raster
    - Create Raster Mask Single Value
    - Ecosystem Sensitivity
    - Habitat Locations Percent Cover
    - Property Values
    - Protected Areas
    - Road Class
    - Road Proximity
    - Road Threat
  - 10 Generic
    - Generate Zonal Stats
    - Identify Adjacent Properties
    - Max Score Inverted Normalization from Raster
    - Max Score Normalization from Polygon
    - Max Score Normalization from Raster
    - Score Range Normalization from Polygon
    - Score Range Normalization from Raster
    - Set NoData To 0
    - Set NoData To Value
    - Weighted Sum with Max Score Inverted Normalization
    - Weighted Sum with Max Score Normalization
  - 20 Analysis
    - All Habitats Representation
    - Connectivity A
    - Connectivity B
    - Contiguity
    - Disturbance
    - Estimated Acquisition Priority
    - Forest Degradation
    - Habitat Threat
    - Housing Density
    - IUCN Classification
    - Protected Area Adjacency Importance
    - Protected Area Shape
    - Protected Area Size Class
    - Road Adjacency Threat
    - Run Analysis
    - Run Data Prep
    - Shore Adjacency Threat
    - Subdivision Potential Threat





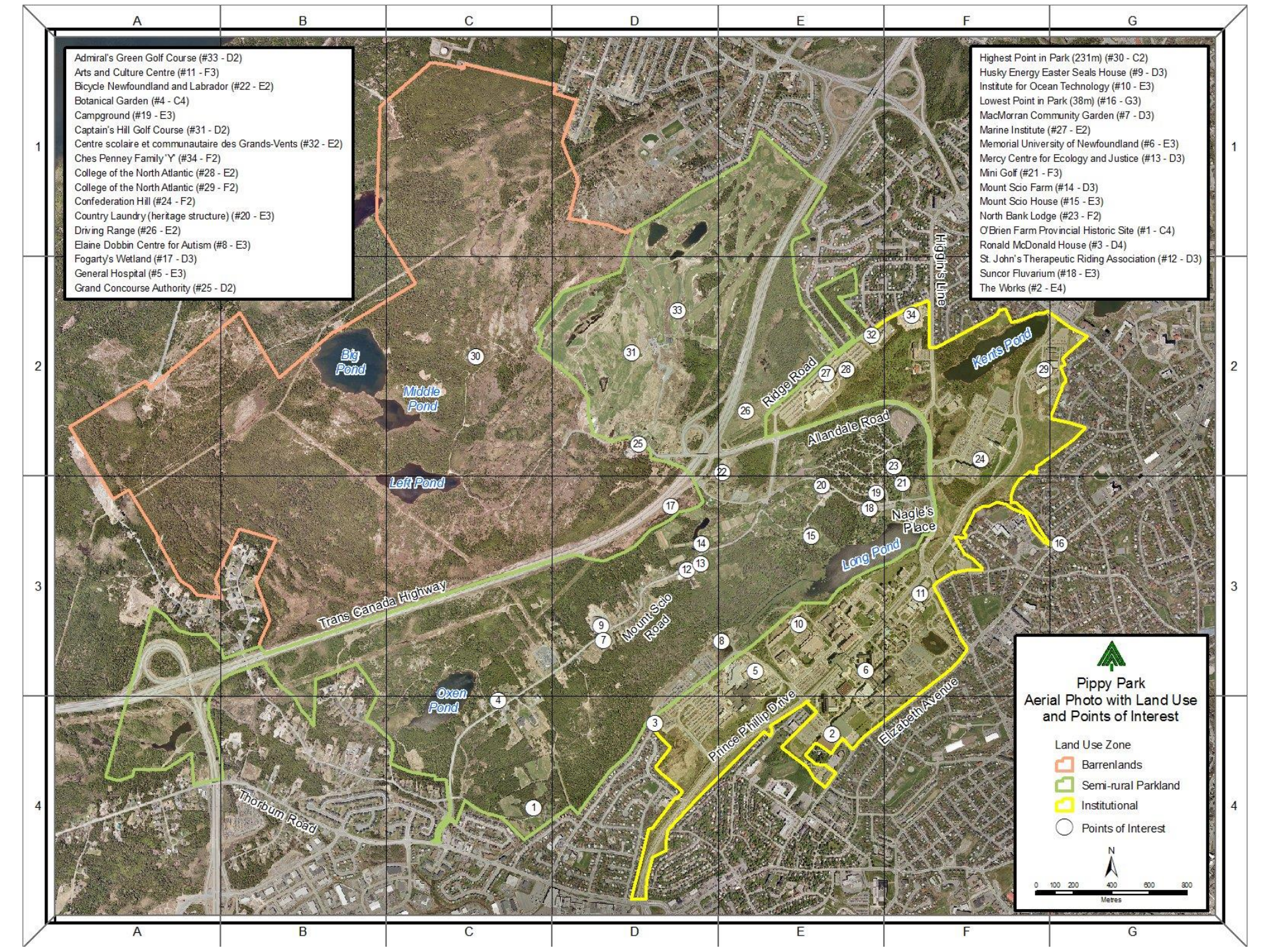

Islands Trust Fund
Regional Conservation Plan
December, 2011
Estimated Biodiversity Conservation Importance by Spatial Unit
Gabriola Island
Estimated Relative Importance
1.0: Higher
0.5: Medium
0.1: Lower
No Values Modeled
Protected Areas
Recreational Parks


Islands Trust Fund
Regional Conservation Plan
December, 2011
Estimated Biodiversity Conservation Importance by Property
Gabriola Island
Estimated Relative Importance
1.0: Higher
0.5: Medium
0.1: Lower
No Values Modeled
Protected Areas
Recreational Parks



Randal's role:
park and trail mapping

http://pippypark.com/


Admiral's Green Golf Course (#33 - D2)
Arts and Culture Centre (#11 - F3)
Bicycle Newfoundland and Labrador (#22 - E2)
Botanical Garden (#4 - C4)
Campground (#19 - E3)
Captain's Hill Golf Course (#31 - D2)
Centre scolaire et communautaire des Grands-Vents (#32 - E2)
Ches Penney Family 'Y' (#34 - F2)
College of the North Atlantic (#28 - E2)
College of the North Atlantic (#29 - F2)
Confederation Hill (#24 - F2)
Country Laundry (heritage structure) (#20 - E3)
Driving Range (#26 - E2)
Elaine Dobbin Centre for Autism (#8 - E3)
Fogarty's Wetland (#17 - D3)
General Hospital (#5 - E3)
Grand Concourse Authority (#25 - D2)
Highest Point in Park (231m) (#30 - C2)
Husky Energy Easter Seals House (#9 - D3)
Institute for Ocean Technology (#10 - E3)
Lowest Point in Park (38m) (#16 - G3)
MacMorran Community Garden (#7 - D3)
Marine Institute (#27 - E2)
Memorial University of Newfoundland (#6 - E3)
Mercy Centre for Ecology and Justice (#13 - D3)
Mini Golf (#21 - F3)
Mount Scio Farm (#14 - D3)
Mount Scio House (#15 - E3)
North Bank Lodge (#23 - F2)
O'Brien Farm Provincial Historic Site (#1 - C4)
Ronald McDonald House (#3 - D4)
St. John's Therapeutic Riding Association (#12 - D3)
Suncor Fluvarium (#18 - E3)
The Works (#2 - E4)
Big Pond
Middle Pond
Left Pond
Oxen Pond
Kents Pond
Long Pond
Nagle's Place
Ridge Road
Allandale Road
Higgins Line
Trans Canada Highway
Mount Scio Road
Prince Phillip Drive
Elizabeth Avenue
Thorburn Road
Pippy Park
Aerial Photo with Land Use and Points of Interest
Land Use Zone
Barrenlands
Semi-rural Parkland
Institutional
Points of Interest
N
0 100 200 400 600 800
Metres

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Newfoundland and Labrador

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- Get Involved
- Events
- Our Partners
- Faces of NCC

Labrador Conservation Blueprint

Coastal hike, Forteau Labrador, Newfoundland and Labrador (Photo by NCC)

Labrador, or "The Big Land" as it is affectionately known, is 294,330 square kilometres, or twice as large as Nova Scotia, New Brunswick and PEI combined. This vast area encompasses tundra, taiga and boreal forest ecosystems — from the severe, stark beauty of lichen-strewn barrens to the rich softwood forests of Canada's eastern boreal. Labrador's Torngat Mountains boast the highest peaks east of the Rockies, while its forests represent some of the largest intact ecosystems in the world!

Labrador Blueprint at a glance

- stretches inland from the Straight of Belle Isle and north to the tip of Cape Chidley at the mouth of Ungava Bay;
- NCC is engaged in a collaborative effort to identify areas of high conservation value throughout this enormous geographic region;
- most of the work to date has focussed on developing a "Labrador Nature Atlas" that maps the special natural areas and features of a region. This information will be used to help our partners in government, Aboriginal organizations, academia, industry and other conservation groups in making wise and sustainable land use planning and resource management decisions.

Randal's role: stakeholder requirements, spatial data development and conservation priority modeling, with print publishing and web-based interactive delivery

http://www.nlnatureatlas.ca/

Newfoundland and Labrador Nature Atlas

Search

English

Home | About | Labrador Blueprint | Other Projects | User | Maps

Protected Areas

Parks and protected areas cover 3.3% of Labrador. Establishing the Mealy Mountains National Park Reserve and Eagle River Waterway Provincial Park raise it to about 8%.

photo by Chris P. Sampson

Featured Maps

Enduring Features

Seabird Colonies

Human Footprint

Protected Areas

Wetlands

All Maps

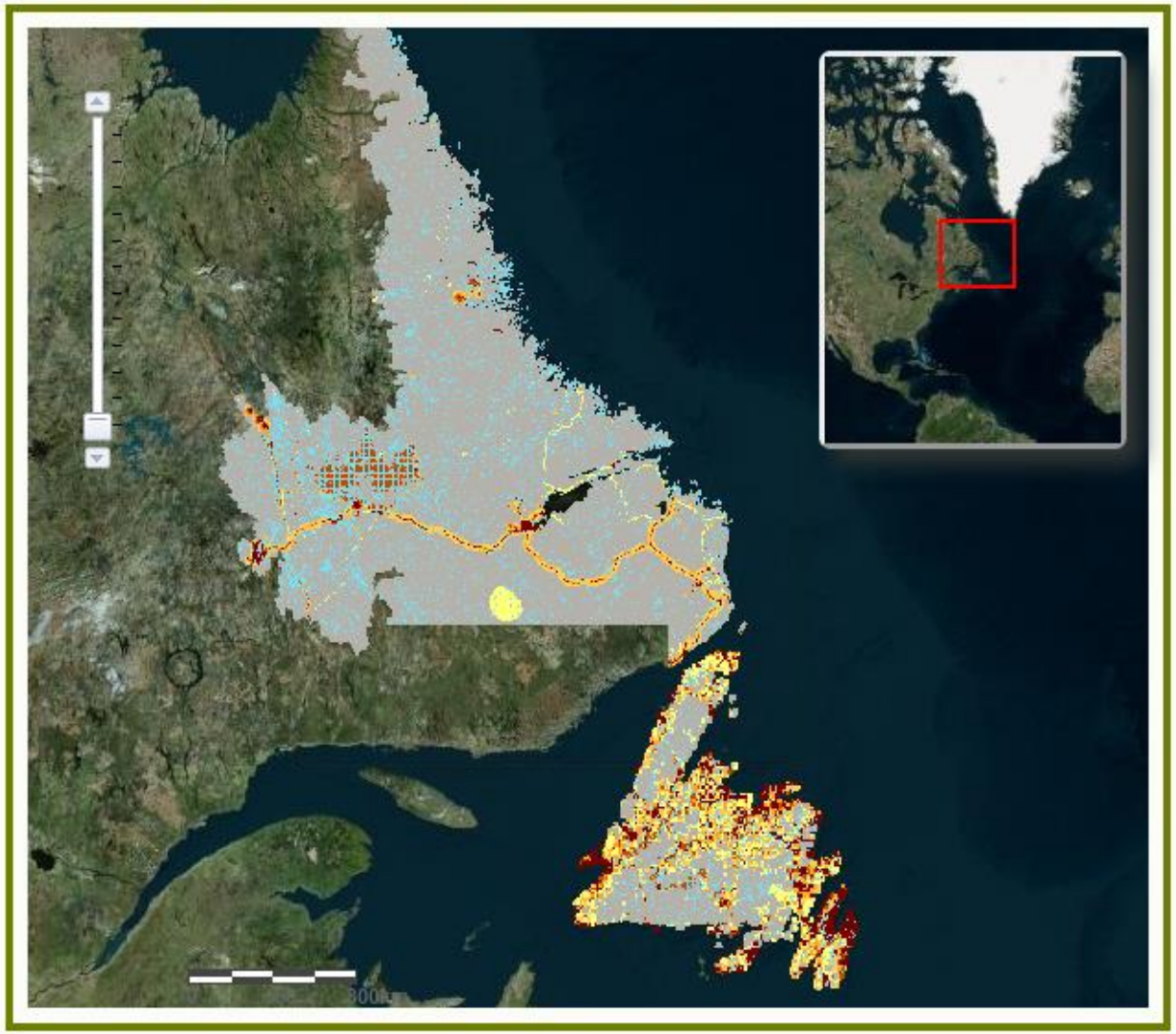
Nature Conservancy Canada | Grenfell Campus | Memorial University

Human Footprint

The Human Footprint for Newfoundland and Labrador illustrates the level of human industrial development on the natural landscape as of 2012. Read more

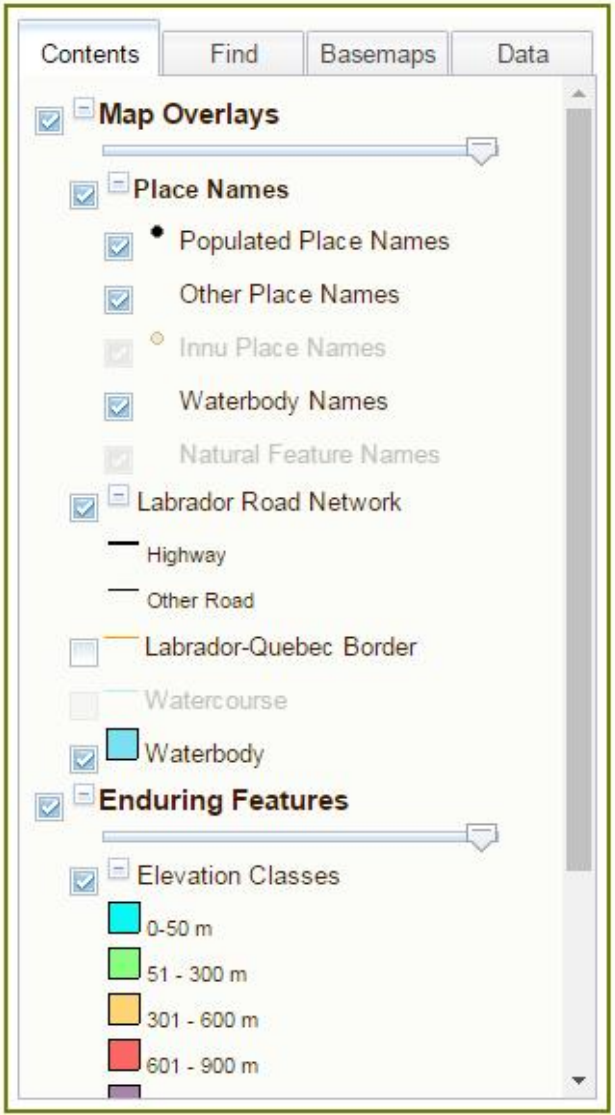
Contents | Find | Basemaps | Data

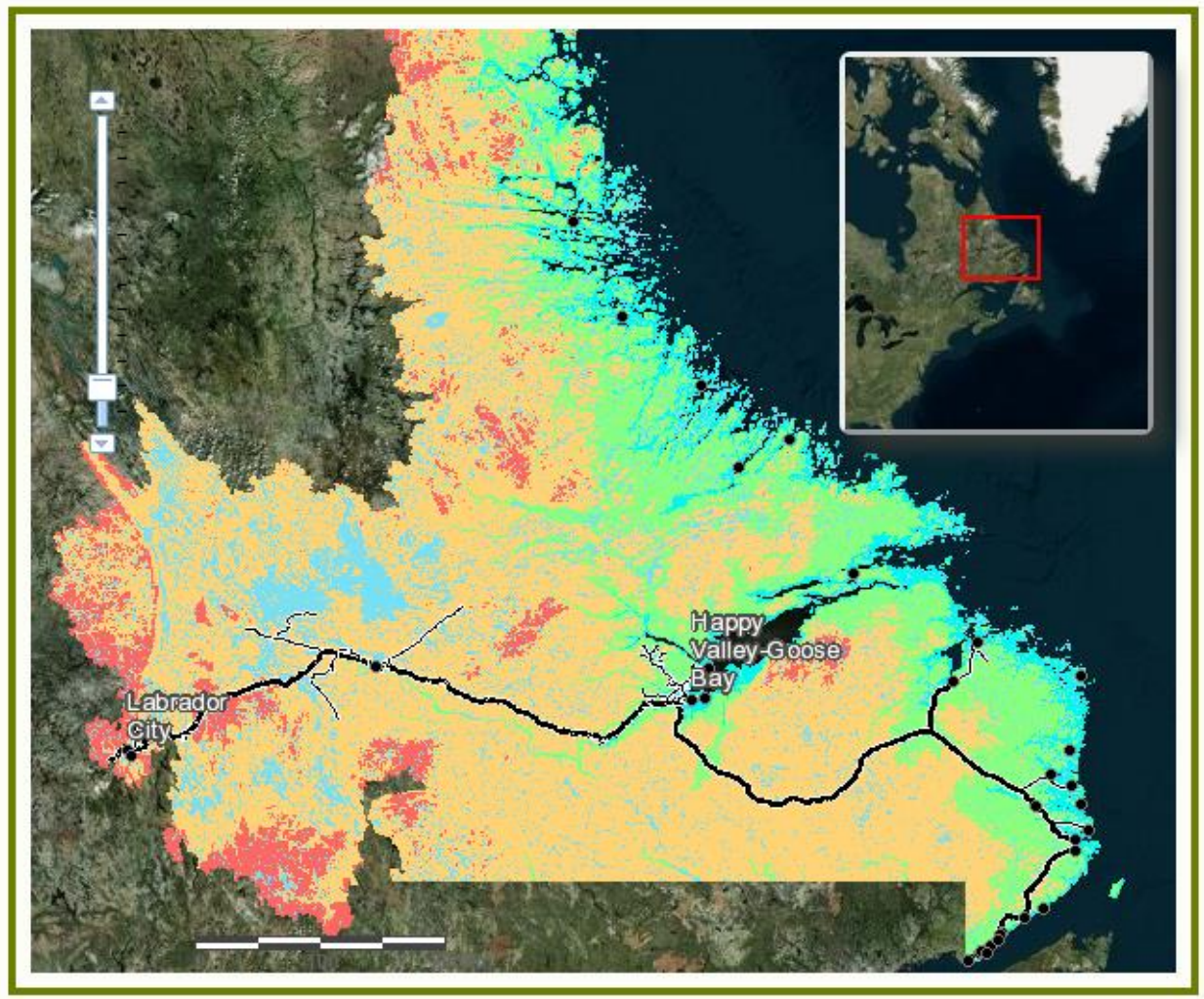
- Map Overlays
- Human Footprint
  - Labrador Human Footprint - Overall
    - Large Reservoirs
    - Waterbodies
    - Labrador Human Footprint
      - 9 - 10
      - 7 - 8
      - 5 - 6
      - 3 - 4
      - 1 - 2
  - Labrador Human Footprint - Compo
  - Island of Newfoundland Human Foc
    - Large Reservoirs
    - Waterbodies
    - Island of Newfoundland Human Fo
      - 9 - 10
      - 7 - 8
      - 5 - 6

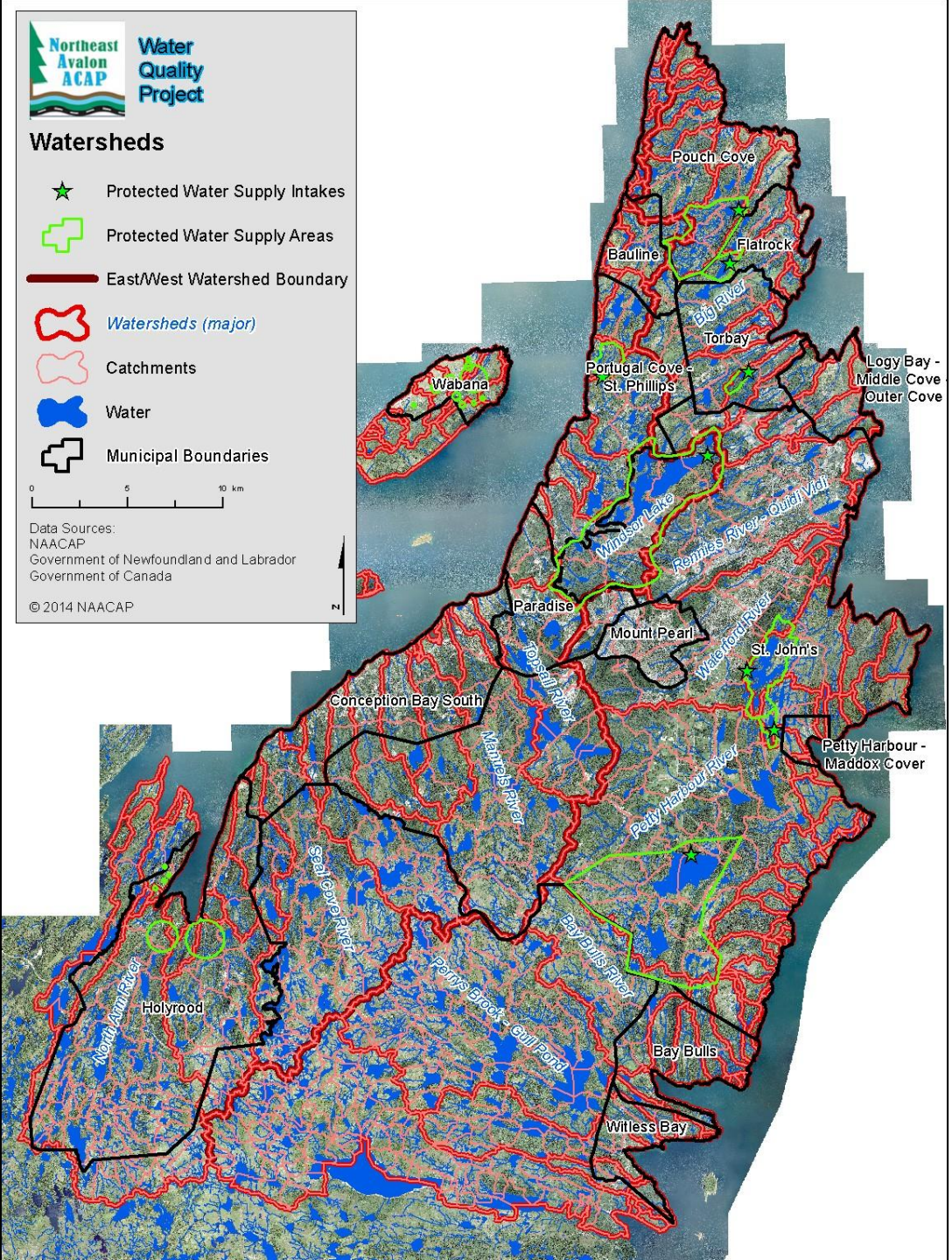


Enduring Features

Three characteristics of the non-living world —elevation, geology and landform — are referred to here as "enduring features". In combination with climate, they are important determinants of Labrador's biological diversity. In many ways they describe the ecological potential of the landscape. Combined into "ecological land units" (ELUs), they uniquely characterize landscape variability. Read more.

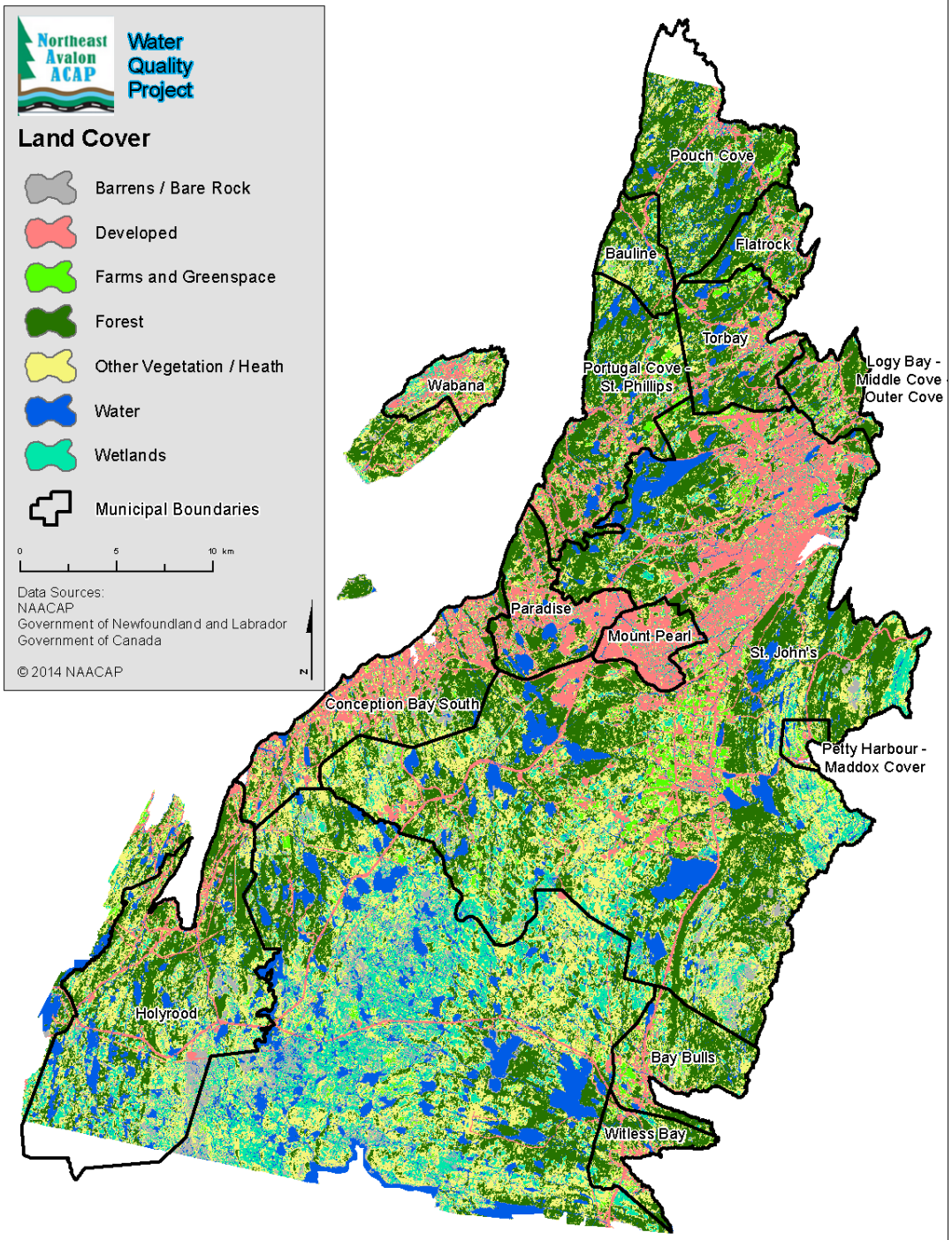


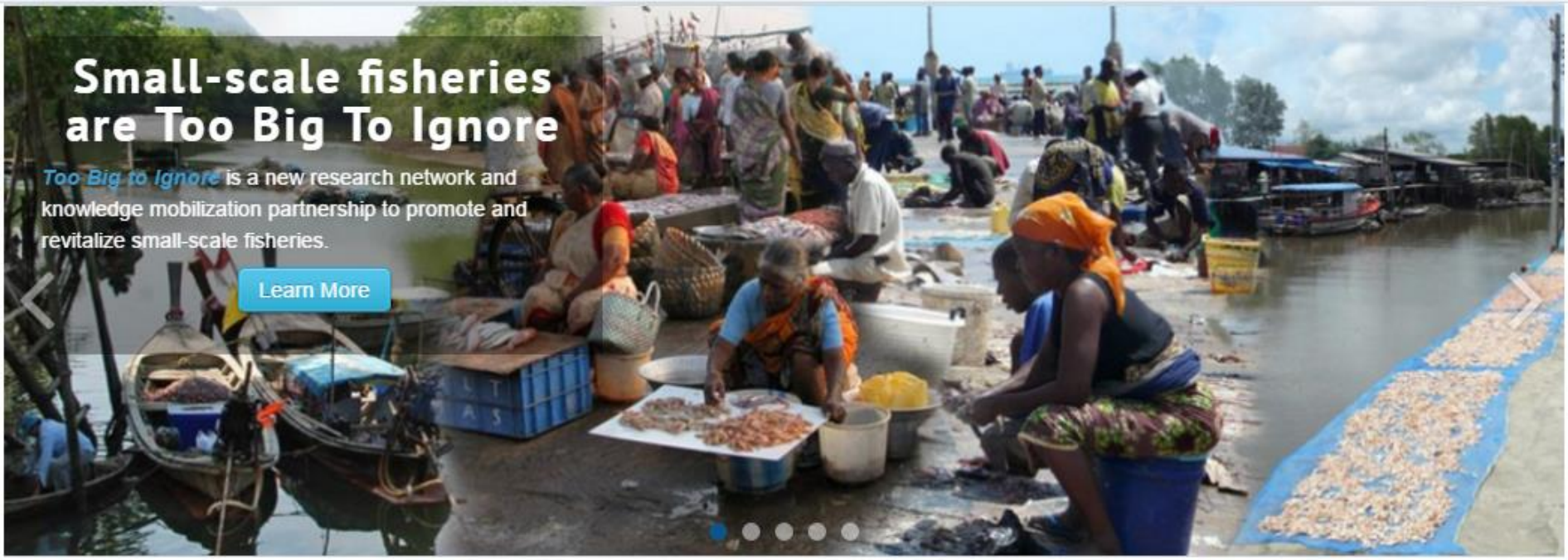




Randal's role:
delineation of elevation, multi-scale watersheds, land cover and intactness in support of drinking water quality management

https://www.mun.ca/harriscentre/reports/arf/2012/Edinger_Hermanutz_Water_12_13_Final.pdf


Northeast Avalon ACAP
Water Quality Project
Land Cover
Barrens / Bare Rock
Developed
Farms and Greenspace
Forest
Other Vegetation / Heath
Water
Wetlands
Municipal Boundaries
0
5
10 km
Data Sources:
NAACAP
Government of Newfoundland and Labrador
Government of Canada
© 2014 NAACAP
N
Pouch Cove
Bauline
Flatrock
Torbay
Portugal Cove - St. Phillips
Logy Bay - Middle Cove - Outer Cove
Wabana
Paradise
Mount Pearl
St. John's
Conception Bay South
Petty Harbour - Maddox Cover
Holyrood
Bay Bulls
Witless Bay



Randal's role: analysis, design and development of the crowdsourcing platform Information System for Small-scale Fisheries

http://issf.toobigtoignore.net

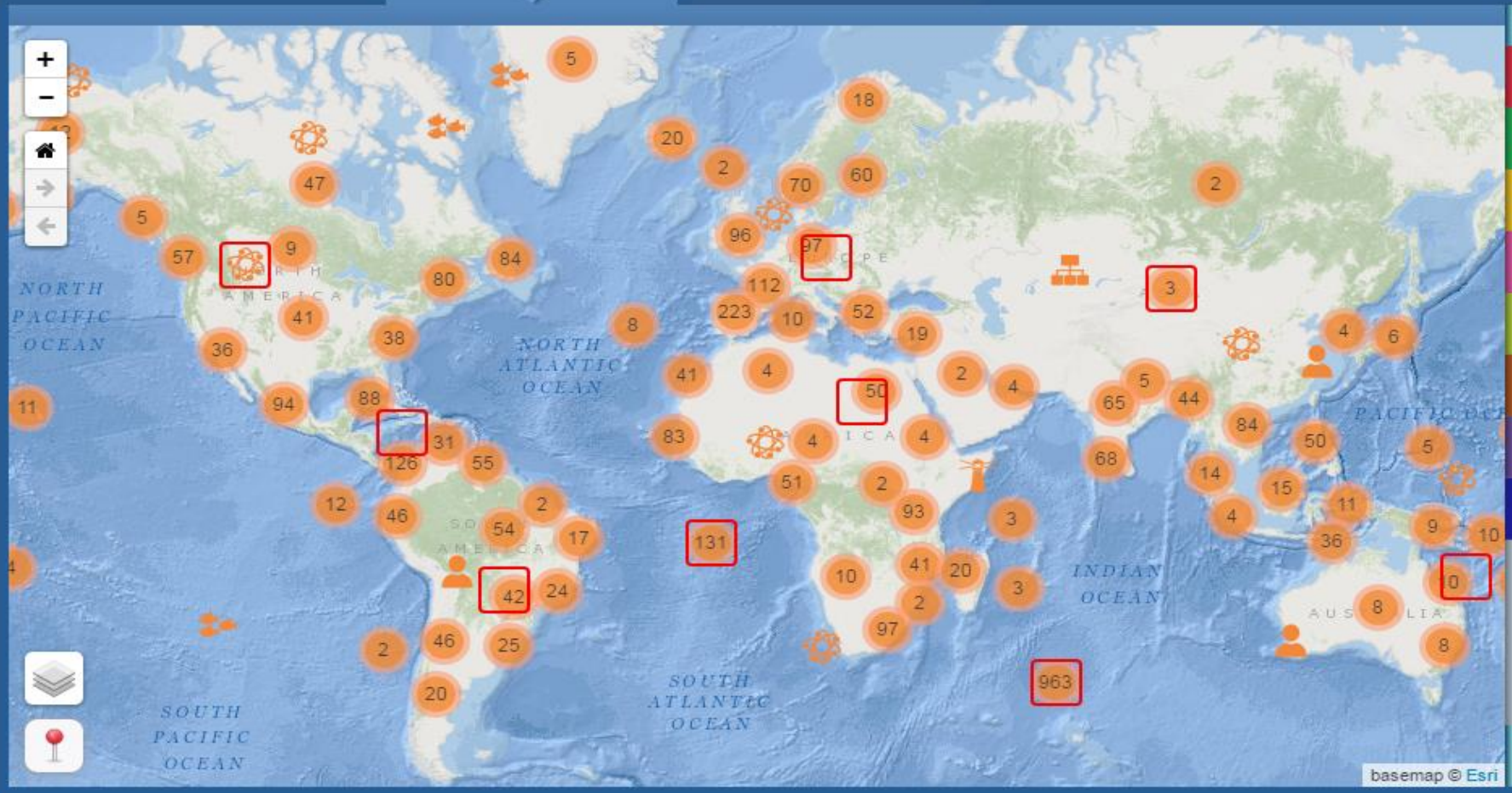
Select Language | Login | Sign up | HELP

ISSF Information System on Small-scale Fisheries

Contribute

Too BIG To IGNORE

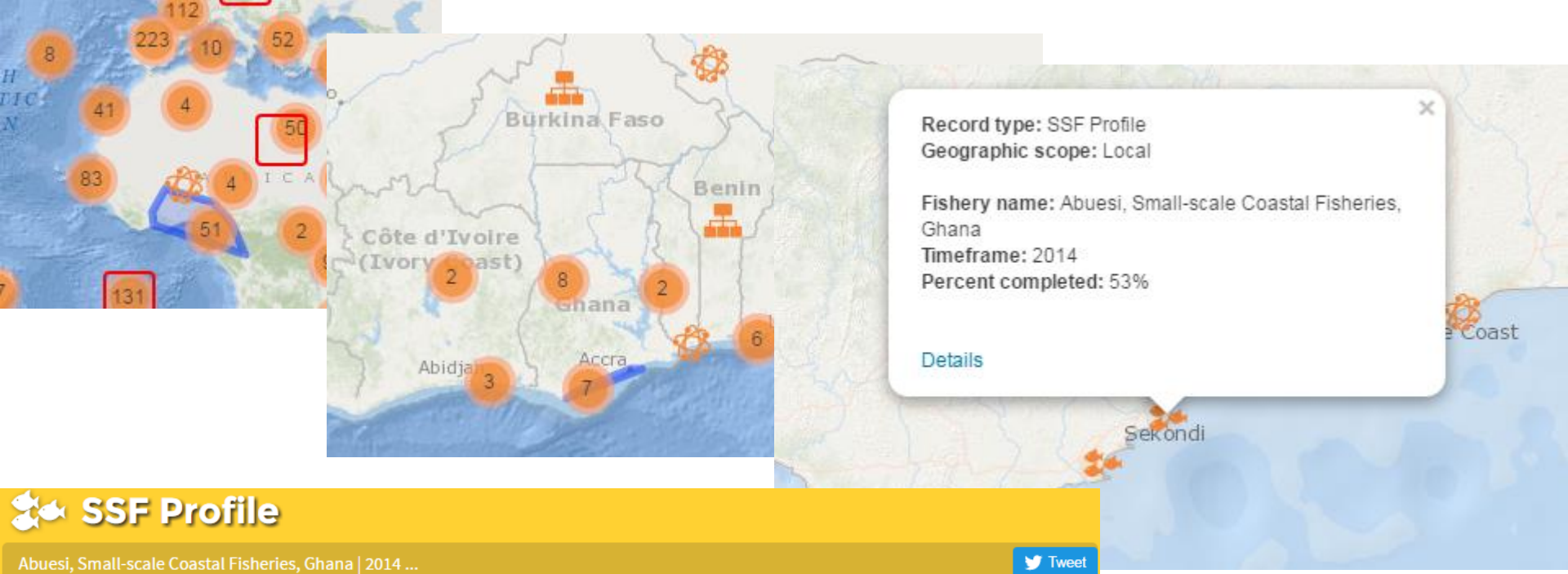
Map | Table



Search | Export Data

Current Search Terms: None (showing all 2744 records)

Advanced Search



SSF Profile

Abuesi, Small-scale Coastal Fisheries, Ghana | 2014 ... Tweet

Background

Fishery name	Abuesi, Small-scale Coastal Fisheries, Ghana
SSF Defined?	Not explicitly
SSF Definition (if applicable)	
Data time frame	2014
Contributor	gfreduah (George Freduah)
Contribution date	06/19/2015

Geographic Scope

Local	Abuesi, Shama District Assembly, Western Region of Ghana. (Aboesi)	Rural, less developed	Ghana

53% completed

Generate Report

Compare Profiles

- Download a 'fillable' PDF form in English, French, Spanish, or Portuguese to see what information is required in an SSF Profile and to complete the form offline.
- Click here for an example of an SSF profile: Pontal do Parana, Brazil.

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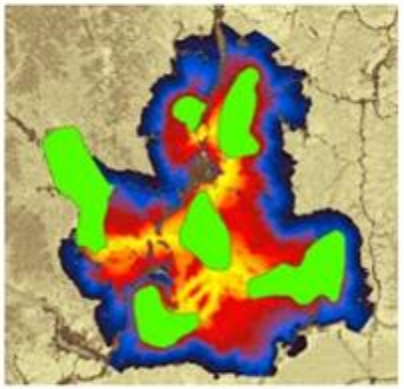
Linkage Mapper



Linkage Mapper is a GIS tool designed to support regional wildlife habitat connectivity analyses. It consists of several Python scripts, packaged as an ArcGIS toolbox, that automate mapping of wildlife habitat corridors. We developed Linkage Mapper for the Washington Wildlife Habitat Connectivity Working Group's (WHCWG) 2010 statewide connectivity analysis, and are making them public for use in other wildlife connectivity assessments.

Downloads

Linkage Mapper 1.1.0
Linkage Mapper Lab Exercise

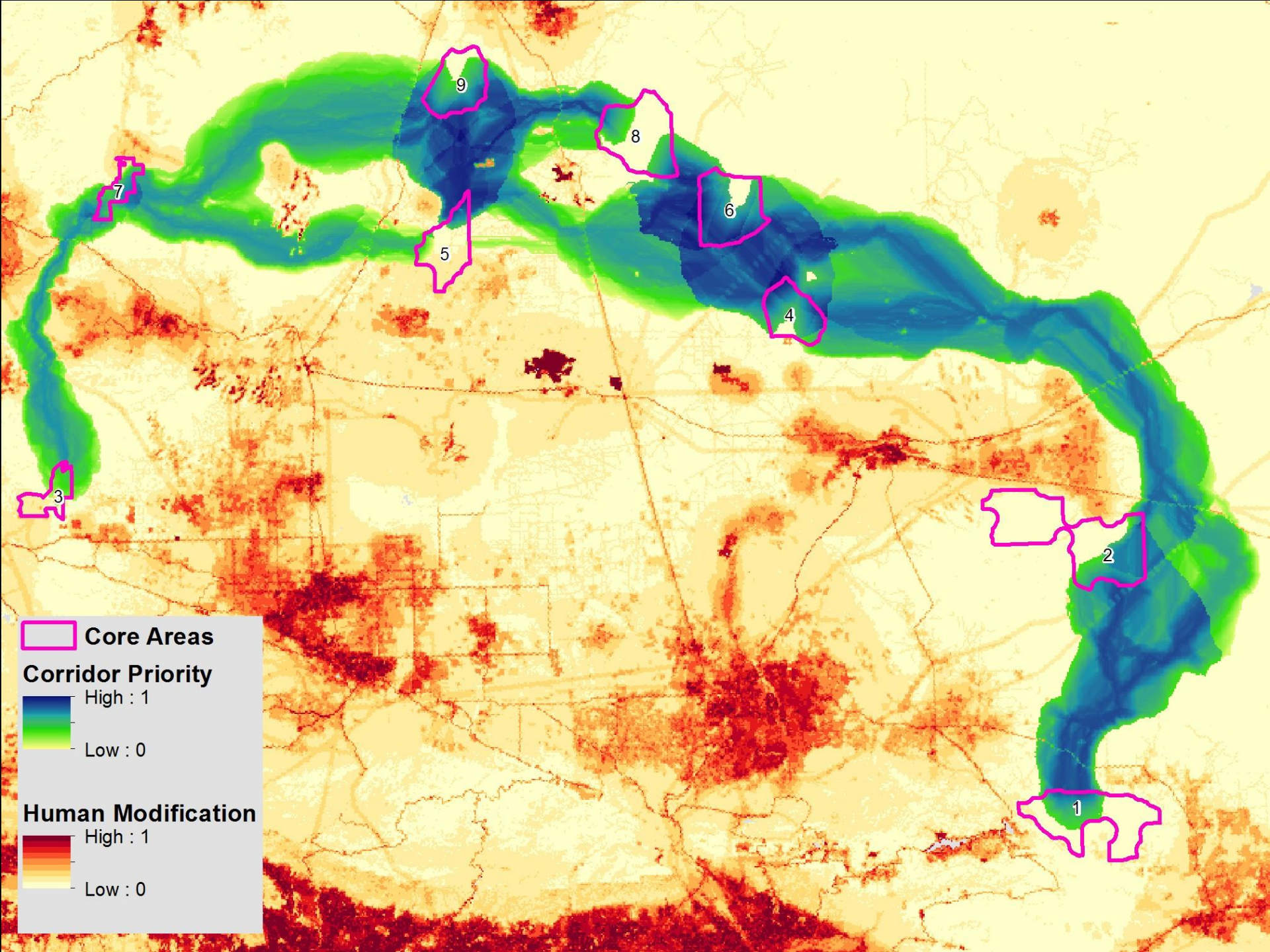
Linkage Mapper uses GIS maps of core habitat areas and resistances to identify and map linkages between core areas. Each cell in a resistance map is attributed with a value reflecting the energetic cost, difficulty, or mortality risk of moving across that cell. Resistance values are typically determined by cell characteristics, such as land cover or housing density, combined with species-specific landscape resistance models. As animals move away from specific core areas, cost-weighted distance analyses produce maps of total movement resistance accumulated.

The tool identifies adjacent (neighboring) core areas and create maps of least-cost corridors between them. It then mosaics the individual corridors to create a single composite corridor map. The result shows the relative value of each grid cell in providing connectivity between core areas, allowing users to identify which routes encounter more or fewer features that facilitate or impede movement between core areas. Linkage Mapper also produces vector layers that can be queried for corridor statistics.

The code is **optimized for ArcGIS 10.0**, but is also tested for ArcGIS 9.3, 10.1, and 10.2.

Randal's role: analysis, design and development of enhancements to the Linkage Mapper ArcGIS geoprocessing tools

http://www.circuitscape.org/linkagemapper


9
8
7
6
5
4
3
2
1
Core Areas
Corridor Priority
High : 1
Low : 0
Human Modification
High : 1
Low : 0