

Reporting requirements for marine and terrestrial PAs

Drawing the line

Summary

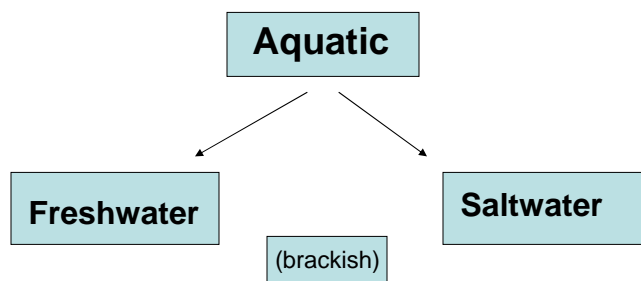
- Definitions
- Accounting for freshwater
- Separating marine from terrestrial
- A decision...

Getting the terminology straight

- Need for a consistent terminology
 - Aquatic : water related
 - Marine: salty subset of aquatic
 - Freshwater: non-salty subset of aquatic
 - Brackish: transitional between the two.
- How these facts are applied is a matter of policy
- CARTS is limited to factual data
- CARTS subsets can be modified to reflect policy decisions or specific needs



Subdividing the hydrosphere in the MPA context



A Need for Documented, Meaningful Reporting

- Higher profile of MPAs means greater need for reporting
- Reporting needs consistency to be meaningful
- Meaningful reporting must be documented
- Tools are needed to report on terrestrial and marine PAs
- Straightforward for fully terrestrial or marine sites
- Need to subdivide sites straddling both terrestrial and marine ecosystems



What about Freshwater?

- Current MPA network development excludes freshwater (except for the Great Lakes)
- Large inland water bodies remain unaccounted for in a comprehensive National PA network.



Large lakes in Canada are not a trivial matter

The largest lake situated entirely in Canada is Great Bear Lake (31 328 km²) in the Northwest Territories. Great Slave is the deepest lake in Canada at 614 metres- 6th deepest in the world. The highest major lake (over 100 square kilometres) in Canada is Chilko Lake, B.C. Its elevation is 1 171 metres and area is 158 square kilometres.

(Canada Info Link)

Need to draw the line

- Freshwater aquatic traditionally subsumed under terrestrial
- OK for smaller surface water bodies
- Not OK for very large lakes
- How large is a large lake?

3km² and larger

Region	Lakes 3 km ² to 100 km ²	All others above 100 km ²	Total
Atlantic Provinces	1,761	31	1,792
Quebec	8,182	93	8,275
Ontario	3,837	62	3,899
Prairie Provinces	5,245	137	5,382
British Columbia	838	23	861
Yukon, NWT & Nunavut	11,328	217	11,545
All of Canada	31,191	563	31,754



Five largest lakes in Canada

Lake	Principal Location	Area km ²
Great Bear Lake	Northwest Territory	31,328
Great Slave Lake	Northwest Territory	28,568
Lake Winnipeg	Manitoba	24,387
Lake Athabasca	Saskatchewan	7,935
Reindeer Lake	Saskatchewan	6,650



CANADA'S 15 LARGEST LAKES

LAKE	PROVINCE/ TERRITORY	AREA (KM ²)*
SUPERIOR**	ONTARIO	82 100
HURON**	ONTARIO	59 600
GREAT BEAR	NWT	31 328
GREAT SLAVE	NWT	28 568
ERIE**	ONTARIO	25 700
WINNIPEG	MANITOBA	24 400
ONTARIO**	ONTARIO	19 000
ATHABASCA	ALTA/SASK	7935
REINDEER	SASK/MAN	6650
NETTILLING	NUNAVUT	5542
WINNIPEGOSIS	MANITOBA	5370
NIPIGON	ONTARIO	4848
MANITOBA	MANITOBA	4630
LAKE OF THE WOODS**	ONTARIO	4350
DUBAWNT	NUNAVUT	3833

* TOTAL LAKE AREA, INCLUDING ISLANDS



A proposal for resolution

- Determine an appropriate cutoff size:
 - PA in water body larger than cutoff size becomes a fresh water PA in its own right
 - PA in a water body smaller than cutoff size means it remains part of the terrestrial ecosystem.
- Identify large inland water bodies
- Create FPAs?...(Freshwater Protected Areas)
- Perhaps the topic of a future CCEA AGM?



Separating marine from terrestrial

- What this is NOT:
 - A policy exercise
 - A permanent commitment
- What this IS:
 - A cartographic exercise
 - An attempt at national consistency
 - A MUST for planning and reporting



A simple solution

- Use high water mark to separate marine from terrestrial
- Use CanVec as standard national cartographic basis for the separation
 - Document exceptions (provincial standards) in metadata if needed
 - GIS allows reporting on any spatial framework
- Treat islands in the ocean as we treat lakes on the land



Le message en français suit.

November 3, 2009

1- New Release: CanVec 1:50 000 now available!

This 5th release of CanVec offers:

- Addition of 154 new datasets;
- Update of National Road Network (NRN) for 9 provinces and territories;
- Update of geographical names for the entity Named feature;
- 324 datasets now contain the entities Contour and Elevation point (metric);
- Correction of discrepancies.

For more information, please refer to [CanVec - Release notes](#) (PDF version, 108 KB).

Note: An improved symbology file (Style Sheet) is now available in the GeoGratis FAQ section. Tested with the ArcMap 9.2 version.



Path forward

- Recommendations are vetted by all jurisdictions
- CCEA and CARTS team get a mandate to apply these recommendations
- CARTS schema is modified accordingly
- Each jurisdiction provides new geometry (zones) to CARTS (including official numbers)
- CARTS reports consistently on MPAs



Merci!
Questions?

