

Nunavut Wildlife Management Board

Presentation on:

Community-based Monitoring Network

RM002-2014

June 16th 2014, Cambridge Bay



012-01-28 16:27Z
lat: 60° 49' 59.3592" N
lon: 94° 35' 14.6880" W



012-10-01 16:23Z
at: 69° 6' 25.8648" N
on: 105° 3' 10.8108" W



012-03-22 22:03Z
at: 63° 33' 14.7138" N
on: 100° 41' 46.4910" W

Harvest Study 1996-2001

- 28 communities participated, 6018 harvesters
- Data collected on a monthly basis through telephone/in-person interviews
- Data included kill location, sex and age class

The 2nd Harvest Study

- (2006) A company was hired to review the first harvest study and to undertake a second harvest study
- Some short comings identified in the first study were:
 - Harvester recall
 - Inconsistencies in data collection methods
- June 2010 the NWMB met with co-management partners to discuss options for a way forward

A New Concept

- Meeting Outcomes
 - Significant interest in a 2nd study
 - Greater Inuit involvement/communication needed
 - Additional information required (e.g. migration patterns, predation, effort, etc.)

The Community Based Monitoring Network (CBMN)

- CBMN relies upon harvesters recognized by their respective communities as highly skilled and accomplished hunters to record wildlife observations and harvests.
- Intent is to help compile information needed to address concerns affecting wildlife management, conservation, and Inuit harvesting rights.



Location

- Data collection started in January 2012 in 3 Communities



Community-Based Monitoring Network Database

-  Upload
-  Route
-  Harvest
-  Observation
-  Dashboard
-  Download
-  Timesheets
-  Help
-  Logout

Data Upload

Community
Data Clerk

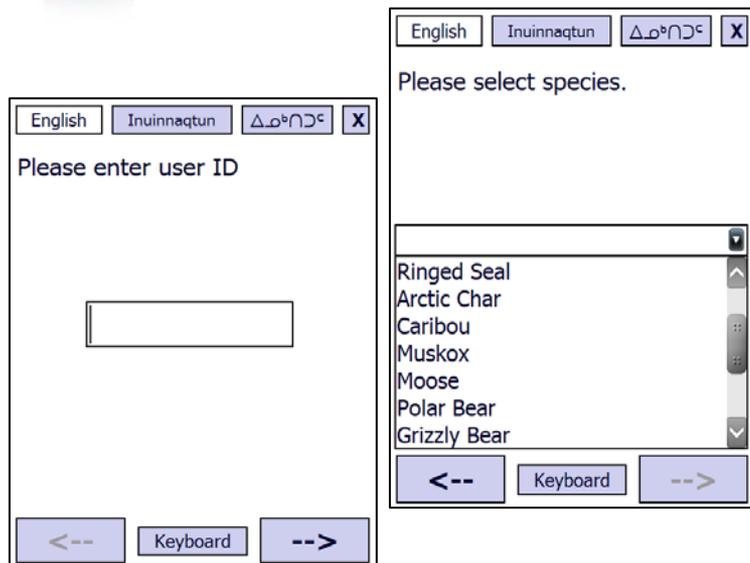
Harvester

Data
Files

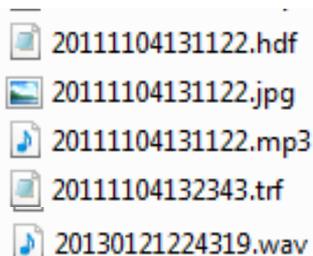




CBMN Mobile Application



- Tri-lingual (English, Inuktitut, Inuinnaqtun)
- Wildlife Harvests
- Wildlife Observations
- Photos (geo-tagged)
- Recording of audio files (traditional knowledge)
- Automatic documentation of travel routes (internal GPS)



Output data files

Data tables for trips, harvests and observations

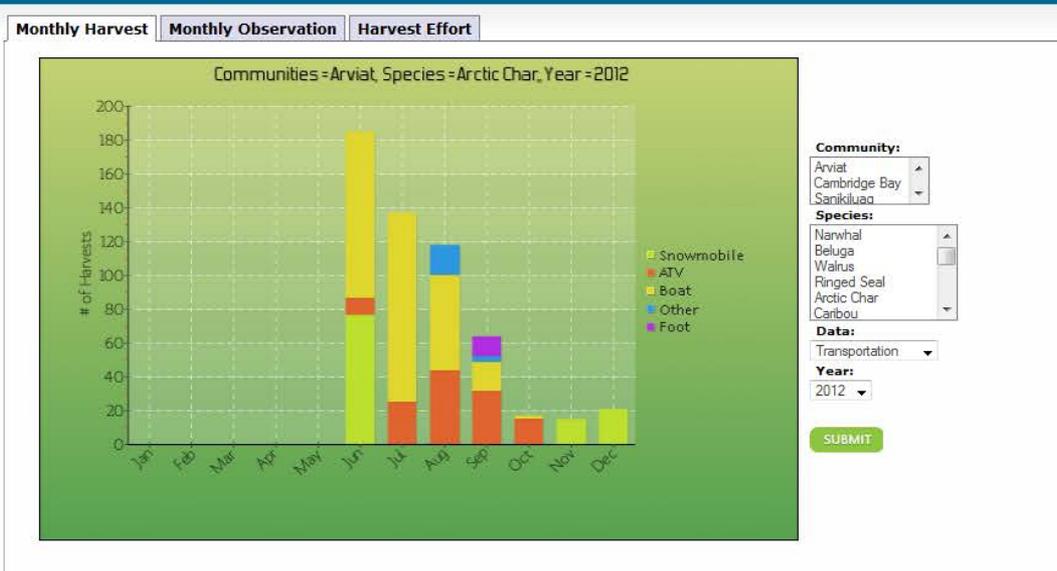
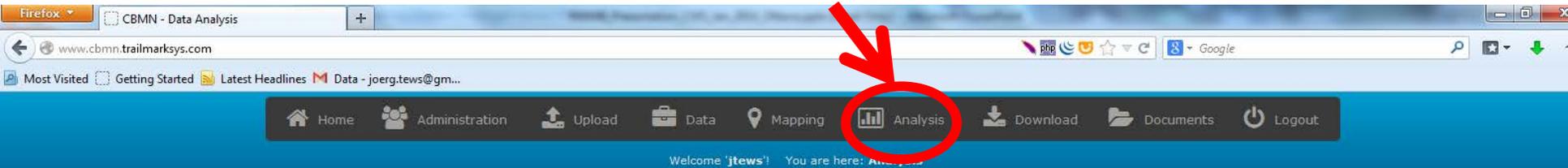
Firefox CBMN - Trips
 www.cbmn.trailmarksys.com
 Home Administration Upload **Data** Mapping Analysis Download Documents Logout
 Welcome 'jtews'! You are here: Data > Trips

ID	Community & Harvester			Time					Trip			Data		Actions
	Trip	Community...	Harvester...	User	Upload	Dec 2013	Start	End	Time	Transport...	Distance	Waypoints	H	
3945	Cambridge Bay	rangohiatok	47	3rd, 20:45	Dec 2013	1st, 19:59	1st, 21:34	1hrs	Snowmobile	14.88	46	0	0	
3946	Arviat	skeepseeyak	30	5th, 16:57	Dec 2013	5th, 06:46	?	?	Snowmobile	36.35	165	0	0	
3990	Sanikiluaq	toqaituq	51	6th, 17:13	Dec 2013	2nd, 06:51	2nd, 11:10	4hrs	Snowmobile	29.53	8	2	0	
4005	Arviat	jsavikataaqsr	12	10th, 15:54	Dec 2013	6th, 07:53	7th, 19:37	1d 11hrs	Snowmobile	144.64	278	0	0	
4006	Cambridge Bay	dkaomayok	39	10th, 20:39	Dec 2013	6th, 08:55	6th, 12:08	3hrs	Snowmobile	44.27	155	0	4	
4007	Cambridge Bay	dkaomayok	39	10th, 20:41	Dec 2013	6th, 12:54	6th, 14:11	1hrs	Snowmobile	15.54	57	0	1	
4008	Arviat	jsavikataaqjr	26	13th, 12:40	Dec 2013	6th, 07:52	7th, 19:17	1d 11hrs	Snowmobile	164.47	484	0	0	
4009	Cambridge Bay	gangohiatok	41	19th, 00:54	Dec 2013	4th, 09:06	4th, 14:55	5hrs	Snowmobile	78.73	191	2	1	
4010	Cambridge Bay	gangohiatok	41	19th, 01:04	Dec 2013	5th, 08:44	5th, 15:32	6hrs	Snowmobile	86.56	207	0	0	
4011	Cambridge Bay	gangohiatok	41	19th, 01:07	Dec 2013	6th, 09:02	6th, 13:56	4hrs	Snowmobile	78.43	159	0	1	
4012	Cambridge Bay	gangohiatok	41	19th, 01:10	Dec 2013	8th, 08:51	8th, 16:30	7hrs	Snowmobile	138.32	339	0	1	
4013	Cambridge Bay	gangohiatok	41	19th, 01:31	Dec 2013	10th, 11:39	10th, 13:21	1hrs	Snowmobile	8.59	37	0	1	
4014	Cambridge Bay	gangohiatok	41	19th, 01:43	Dec 2013	12th, 10:41	12th, 13:59	3hrs	Snowmobile	30.25	137	0	1	
4015	Cambridge Bay	gangohiatok	41	19th, 01:49	Dec 2013	13th, 11:25	13th, 15:49	4hrs	Snowmobile	80.48	156	0	1	
4016	Cambridge Bay	gangohiatok	41	19th, 01:54	Dec 2013	14th, 10:04	14th, 15:35	5hrs	Snowmobile	77.69	184	0	1	
4017	Cambridge Bay	gangohiatok	41	19th, 01:56	Dec 2013	16th, 11:08	16th, 14:35	3hrs	Snowmobile	34.42	122	1	0	
4018	Arviat	tmuckpah	23	20th, 12:30	Dec 2013	7th, 09:51	?	?	Snowmobile	106.02	313	0	0	
4019	Arviat	tmuckpah	23	20th, 12:37	Dec 2013	14th, 13:08	14th, 17:35	4hrs	Snowmobile	54.04	149	1	0	
4020	Arviat	skeepseeyak	30	20th, 16:34	Dec 2013	11th, 09:16	?	?	Snowmobile	27.05	100	0	0	
4021	Sanikiluaq	rtookalook	11	30th, 14:49	Dec 2013	3rd, 21:26	4th, 03:00	5hrs	Snowmobile	0.02	2	0	0	
4022	Sanikiluaq	rtookalook	11	30th, 14:49	Dec 2013	4th, 19:10	4th, 22:00	2hrs	Snowmobile	6.71	3	2	0	
4024	Sanikiluaq	rtookalook	11	30th, 14:53	Dec 2013	19th, 01:06	19th, 04:26	3hrs	Snowmobile	4.08	2	1	0	

Example: Harvest Summary Table for Cambridge Bay, 2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Arctic Char	0	0	0	20	0	257	2,724	1,669	28	28	0	0	4,726
Arctic Fox	2	7	1	0	0	0	0	0	0	16	3	0	29
Red Fox	0	1	0	0	0	0	0	0	0	0	0	0	1
Wolf	0	0	4	0	9	0	0	0	0	0	1	7	21
Wolverine	0	0	0	0	0	0	0	0	0	0	0	3	3
Caribou	0	0	0	0	9	6	4	10	11	15	41	0	96
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0
Muskox	19	0	17	1	0	0	0	5	0	6	2	0	50
Grizzly Bear	0	0	0	0	0	0	0	1	0	0	0	0	1
Polar Bear	0	0	2	0	0	0	0	0	0	0	0	0	2
Beluga	0	0	0	0	0	0	0	0	0	0	0	0	0
Narwhal	0	0	0	0	0	0	0	0	0	0	0	0	0
Ringed Seal	0	0	1	0	1	17	0	2	9	0	3	1	34
Walrus	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	4	0	49	43	0	4	1	0	1	0	102
Rock Ptarmigan	-	-	-	-	-	-	-	-	-	22	0	0	22
Cod	-	-	-	-	-	-	-	-	-	-	1	0	1
Harbour Seal	-	-	-	-	-	-	-	-	-	-	2	0	2
Harp Seal	-	-	-	-	-	-	-	-	-	-	3	0	3
Total	21	8	29	21	68	323	2,728	1,691	49	87	57	11	5,093

Data Analysis



Interactive Mapping



The screenshot shows the 'TM - Maps' web application interface. The browser address bar displays 'www.cbmn.trailmarksys.com'. The navigation bar includes icons for Home, Administration, Upload, Data, Maps (circled in red), Analysis, Download, Documents, and Logout. Below the navigation bar, a welcome message reads 'Welcome 'kies' you are here: Maps'. The main content area features a map of a coastal region with a satellite view. A data popup is visible over the map, displaying the following information:

- Species: Ringed Seal
- User: [Image]
- Date: 2014-03-13 11:27:22
- Coords: 56.774, -70.395

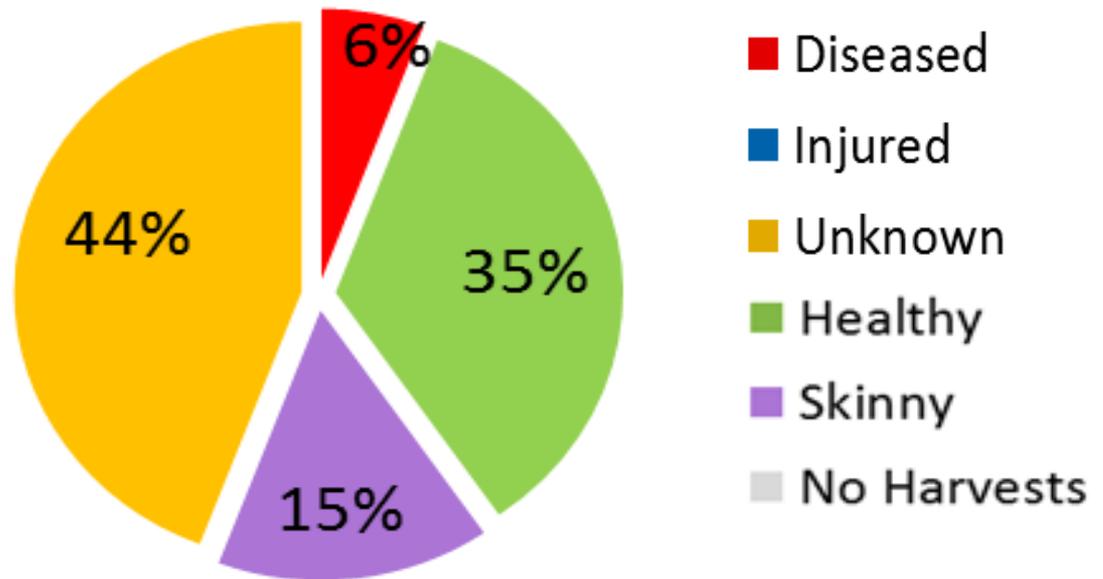
To the left of the map, a vertical zoom control is shown with a scale of 2014-03-13 19:08Z, Lat: 56° 46' 26.5080" N, Lon: 70° 23' 41.9270" W, and 20140313112722. Below the map, a Google logo is visible. On the right side of the map, there is a sidebar with the following controls:

- Data Type: Trip and Harvest
- Community: Sankiluq
- First Day: 12.03.2014
- Last Day: 14.03.2014
- Harvester: All...
- Species: Northern Pintail, Other, Polar Bear, Red Fox, Ringed Seal (selected), Beak Ptarmigan
- SUBMIT button

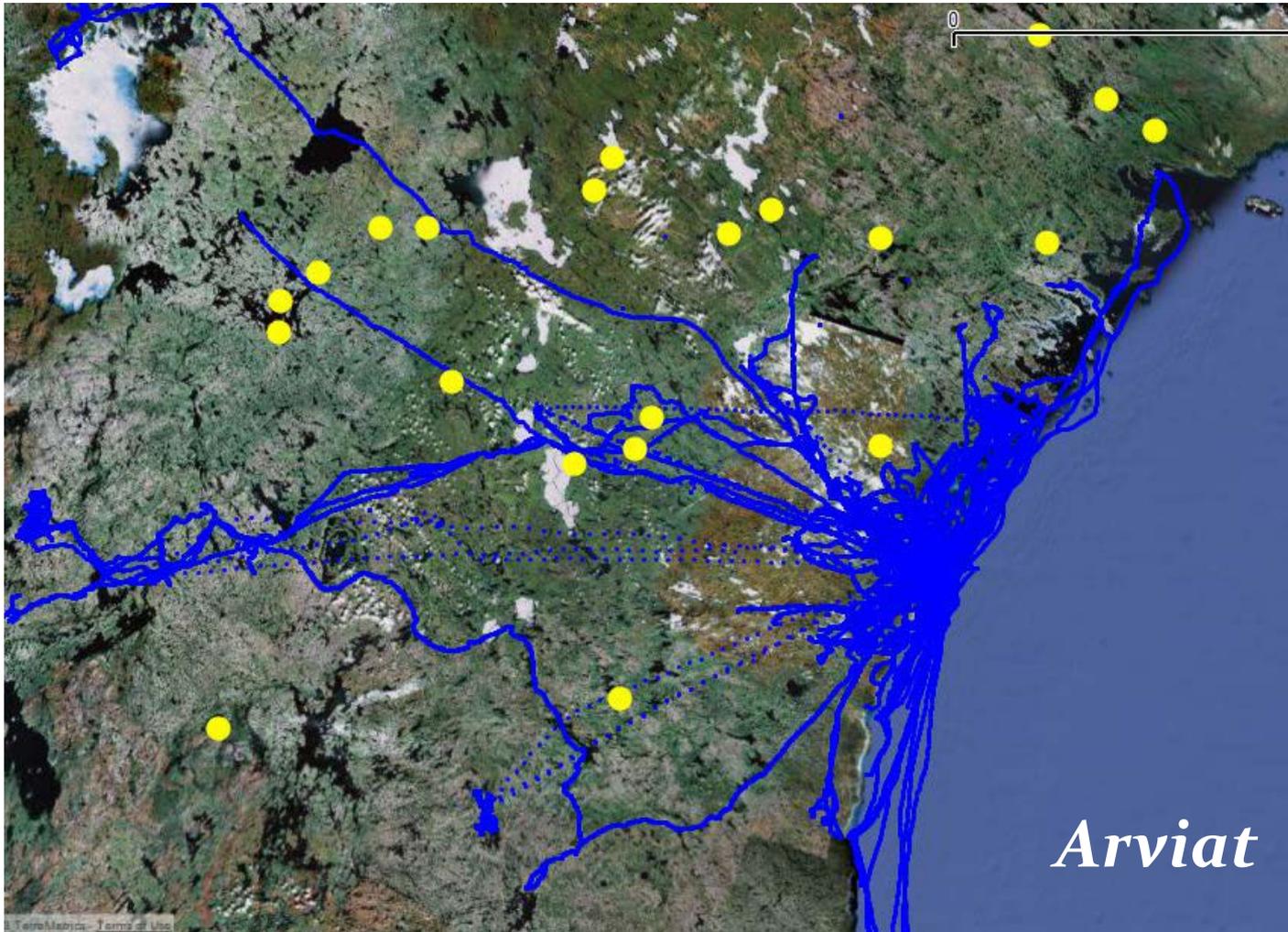
At the bottom of the map area, the text 'Map data ©2014 Google Terms of Use Report a map error' is displayed.

Example: Population Health

Physical condition
of harvested
caribou in Arviat
in February 2012



Documentation for Traditional Use and Land Use Issues



Hunting travel routes and current exploration and mining sites (yellow dots).

Arviat

Feedback from Community Participants

- Overall feedback from community participants has been positive.
- 100% of current participants stated that if the CBMN is to be extended they would continue to participate
- Participants have provided many suggestions on ways to improve the CBMN



Participant Comments - Sanikiluaq

- “This will be very useful for monitoring movements”
- “A worthwhile project”
- “It is interesting technology and I enjoy being able to work with other hunters”
- “MESAs are good and easy to use, to transport and to take pictures”



Participant Comments - Cambridge Bay

- “I think it is great for future studies, like how animals migrate”
- “Getting information for the community is what we need. It's something that should have been done long before”
- “I'm glad to share my knowledge about wildlife”
- “It is good to know what we are harvesting and at what time of year”



Participant Comments - Arviat

- “Our participation in the study will help to improve the understanding about the wildlife”
- “Our feedback is important to future generations”
- “We are making a difference because the information collected comes right from the hunter”



Questions or Comments?

