

MEDIA COVERAGE OF AGRI-FOOD ISSUES IN NOVA SCOTIA

ANNUAL SUMMARY
May 10- April 11

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INTRODUCTION

The intent of this analysis is to measure the exposure that a wide range of agri-food issues have gained in the media in Nova Scotia. Tracking this information over time will help to inform decision makers about the agri-food topics that the public are exposed to. It will also provide a historical context to these topics looking back over time. While the analysis does not measure public opinion, it does measure an important information component that will shape public opinion.

Over time, such an analysis can be used as a tool to help predict how important an issue will become to the public, and thus to business and government. The analysis of the information gathered will provide additional quantitative insights not currently monitored. All underlying data and articles can be obtained from devanm@gov.ns.ca.

SAMPLE FRAME

Agri-food newspaper articles printed in the online metro edition of the Chronicle Herald newspaper are collected and analyzed.

Limiting the analysis to this newspaper was based on a decision to limit the resources necessary to gather this information but to still provide a representative picture of news that Nova Scotians are exposed to.

The Chronicle Herald's average daily circulation of 107,353 is over 85,000 higher than the second ranked Nova Scotian newspaper¹. It also caters to the increasing demand for electronic media with a full online edition.

ANALYSIS

NUMBER OF ARTICLES

Figure 1 shows the total number of agri-food articles by month. In total, there were 1,377 agri-food related articles during the study year. The topics with the largest number of articles were: agri-food business (151 articles), local food (91), and resource conflicts (85). Table 1 displays the top 5 issues (sub-topics) during each month of the analysis.

Figure 1. Agri-food articles by month

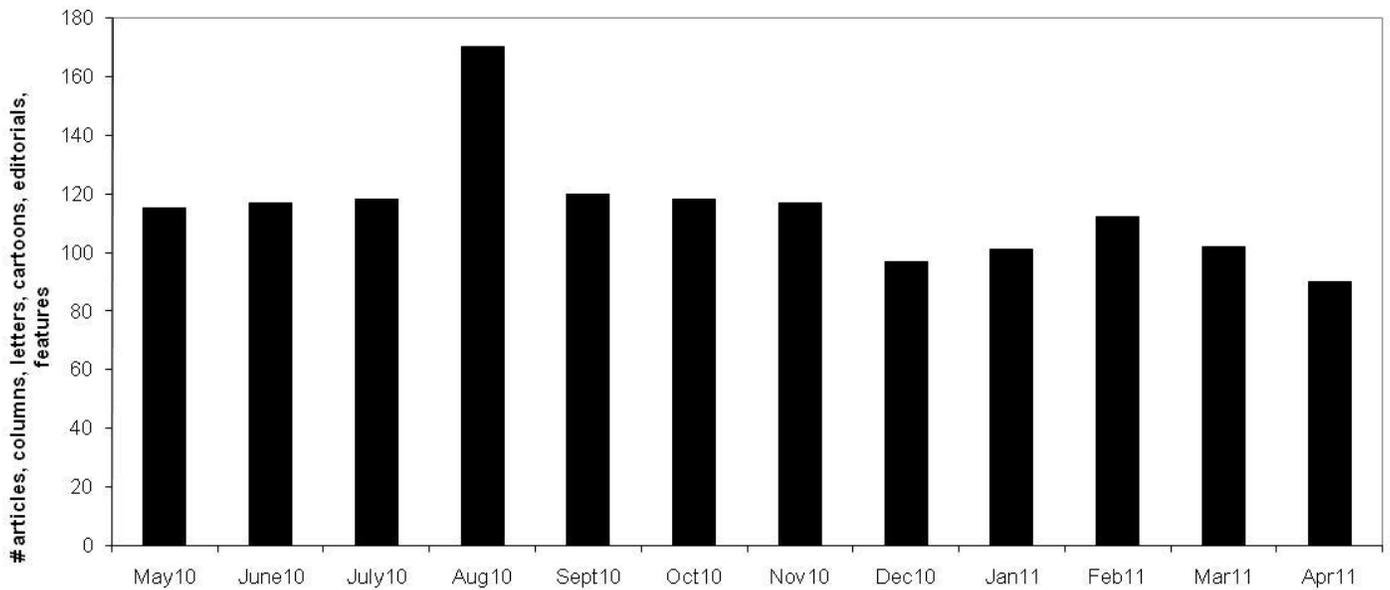


Table 1. Top 5 agri-food sub-topics by month

Sub-topic and number of articles	May		June		July	
	Gulf of Mexico oil spill	15	Federal gov't gives up control of lighthouses	13	Gulf of Mexico oil spill	11
	Oil/gas drilling on George's Bank	13	Gulf of Mexico oil spill	12	Farmers' Dairy strike/lockout	5
	Fishing boat accidents	5	Sable Island seal cull	5	3 tied at* ³	3
	Sable Island seal cull	4	2 tied at* ²	3		
	2 tied at*	3				
	August		September		October	
	Potash Corp. takeover bid	9	Fishing boat accidents	5	Potash Corp. takeover bid	11
	Gulf of Mexico oil spill	6	Oil/gas on George's Bank (banned)	4	Local food in restaurant reviews	4
	Biosolids	5	Biosolids	4	5 tied at* ⁶	3
	Local food availability	5	Oil/gas in Gulf of St. Lawrence	4		
	3 tied at* ⁴	4	6 tied at * ⁵	3		
	November		December		January	
	Potash Corp. takeover bid (withdrawn)	7	Bluenose II refit	20	Greenwich agricultural land rezoning debate	6
	Larsen's Berwick plant closure	5	Aquaculture expansion	3	Bluenose II refit	5
	Keith's to brew in other provinces	5	6 tied at* ⁸	3	China-Canada seal trade agreement	3
	4 tied at* ⁷	3			Study on health of military personnel	3
					Lobster gear damaged in storm	3
	February		March		April	
	Food price inflation	8	Food price inflation	7	Food safety (nuclear radiation in Japan)	5
Animal welfare (seals)	8	Food safety (nuclear radiation in Japan)	6	Local food in restaurant reviews	5	
Greenwich ag land rezoning debate	7	Greenwich ag land rezoning debate	6	Food price inflation	3	
Aquaculture (general)	6	Maple industry spotlight	3	E. coli in walnuts	3	
Bluenose II refit	5	9 tied at* ⁹	2	5 tied at* ¹⁰	2	

NOTES:

* Sustainable fisheries, Apple Blossom Festival.

*² Rural high-speed internet, government department ban on bottled water.

*³ Vegetarian diets, ferries in SW Nova, local food in restaurant reviews.

*⁴ Local food price competitiveness, farmers' markets spotlight, Bluenose II refit.

*⁵ 2010 Culinary Tourism Summit, Japanese dolphin hunt, Potash Corp. takeover bid, local wine spotlight, Barney's River oil spill, Gulf of Mexico oil spill.

*⁶ Seal hunt, biosolids, Windsor Pumpkin Festival, Feed NS "Food Fight", NSDA and Immigration Nominee Program.

*⁷ Biosolids, Halifax farmers' markets, Oil/gas ban on George's Bank, Fundy tidal power.

*⁸ Environmental impact of fur, food charity, food banks, industry spotlight (Christmas tree), industry spotlight (wine), lobster exports to EU delayed by storm.

*⁹ Animal welfare (general, seals), food packaging, hunger, N Korea food aid, Boston Seafood Show, healthy eating (youth), harbor storm damage funding, local food in restaurant reviews.

*¹⁰ Animal welfare (seals), Ocean Choice plant closure in PEI, food charity, Northumberland lobster license buyback program, Gulf of Mexico oil spill.

RANKING OF EXPOSURE BY SCORES

A scoring system was devised to objectively rank the exposure of various agri-food topics during 2010-11 (see appendix). The score is based on the following components: # of articles, # images, # of characters, # front page articles, and number of articles where the agri-food topic was mentioned but was not the main theme (secondary theme).

The score is intended to measure the media exposure given to each agri-food topic. A high score indicates high exposure (visibility) while a low score indicates less exposure. It is a more sophisticated measure of exposure than number of articles alone.

The top 15 agri-food themes ranked by exposure score are listed in Figure 2. The top five themes for both agriculture and fisheries are separated in Figure 3. Change in exposure scores from the previous year are displayed in Figure 4. A table listing scores for all topics is given in the appendix. A brief explanation of the 5 topics with the highest scores follows.

Figure 2. Exposure score of agri-food themes

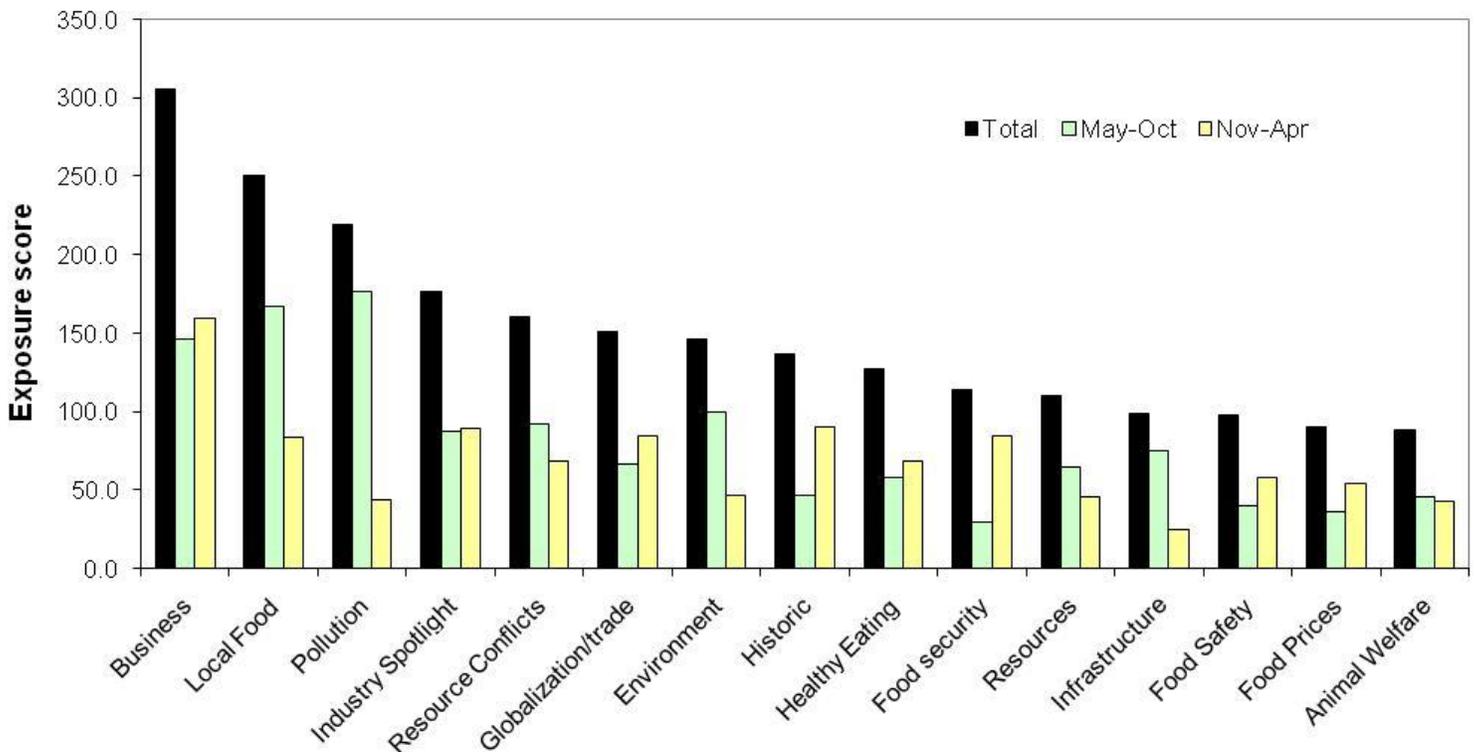


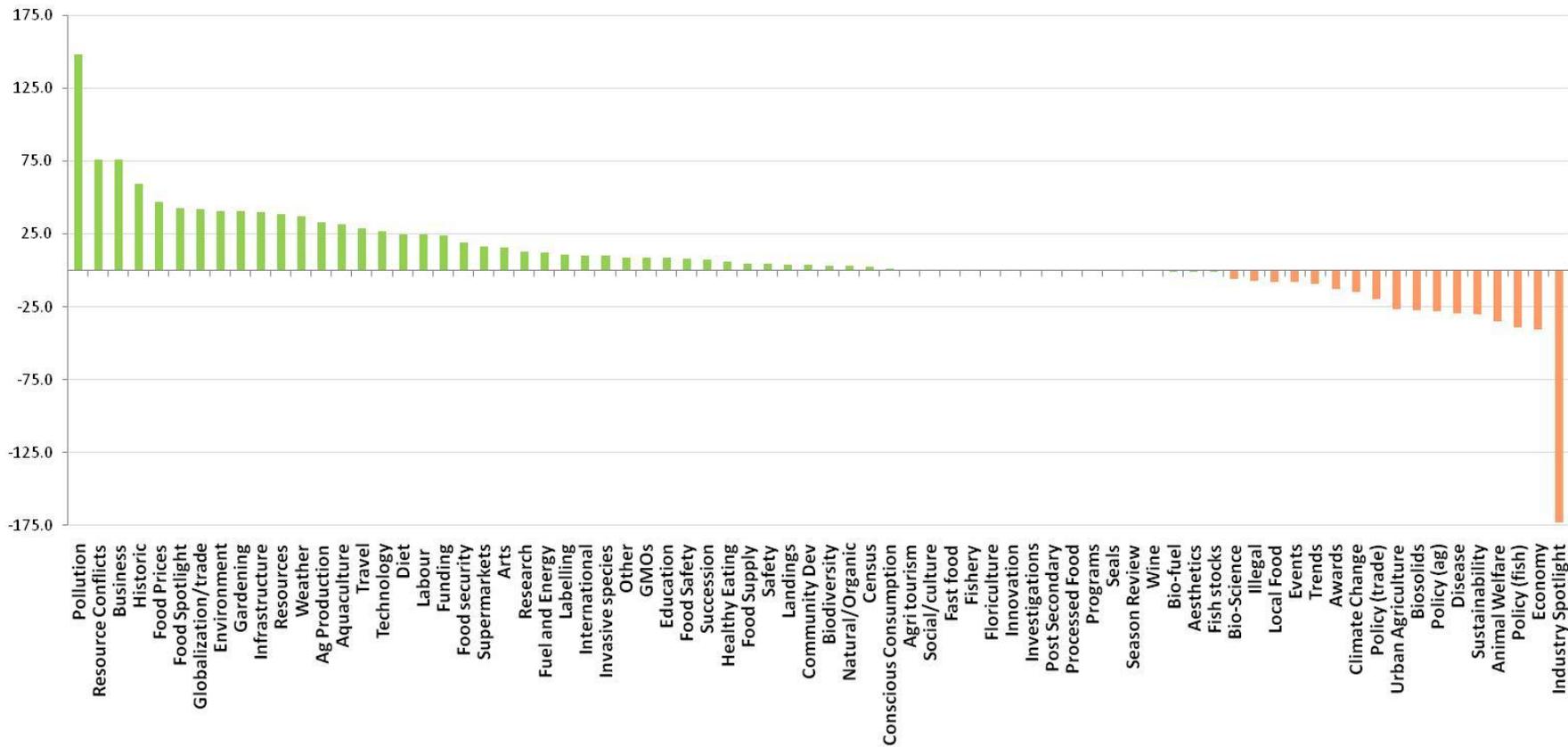
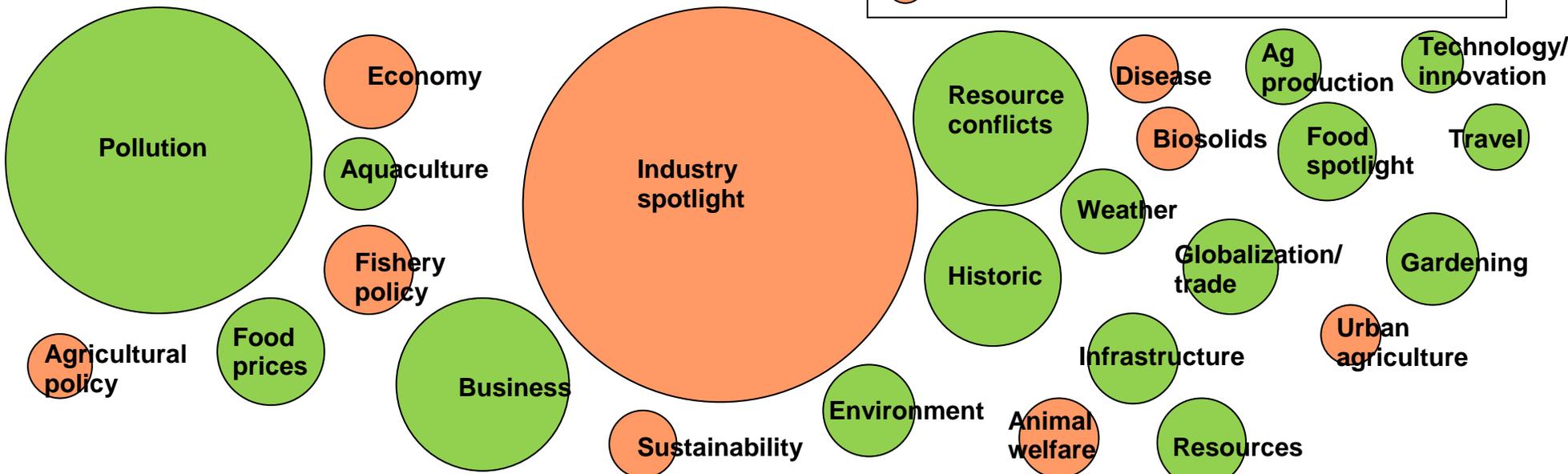
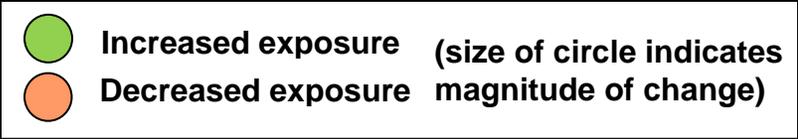
Figure 3a. Exposure score of agriculture themes

AGRICULTURE THEME	EXPOSUREⁱⁱ	SLANTⁱⁱⁱ	TOP ISSUE
Local food	220.5	Positive	Local food in restaurant reviews/ farmers' markets
Agri-business	159.4	Neutral	Potash Corp takeover bid
Industry spotlight	101.9	Positive	Wine
Globalization/trade	84.4		Secondary theme
Food prices	79.2	Highly negative	Global food price inflation
<p><i>Note: A slant score is only given to a theme in articles where that theme is the main topic of the article. No slant is given to a theme when it is secondary to an article.</i></p>			

Figure 3b. Exposure score of fisheries themes

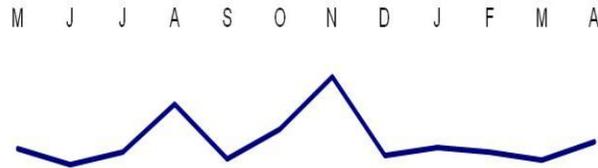
FISHERIES THEME	EXPOSUREⁱ	SLANTⁱⁱ	TOP ISSUE
Pollution	182.2	Highly negative	Gulf of Mexico oil spill
Historic	116.7	Neutral	Bluenose II refit
Resource conflicts	85.4	Negative	Offshore oil/gas exploration
Environment	85.0		Secondary theme
Fish stocks	82.1	Neutral	Seals impact on fish stocks
<p><i>Note: A slant score is only given to a theme in articles where that theme is the main topic of the article. No slant is given to a theme when it is secondary to an article.</i></p>			

Figure 4. Change in exposure of agri-food themes



Agri-business

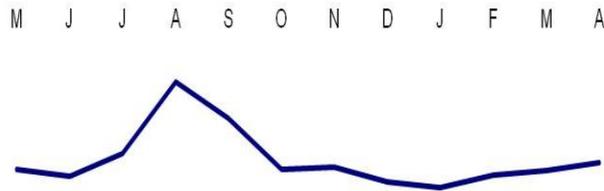
The agri-business theme received the highest exposure score for the year. The theme had the highest exposure score during four months and never scored lower than 5th.



Business is a very broad category consisting of articles highlighting individual businesses, performance, transactions, expansions, closures and many other sub-topics related to agri-business. The main business topic during the year was the attempted takeover of Potash Corp of Saskatchewan by BHP Billiton of Australia. The takeover was ultimately rejected by the Canadian government. Other important topics included the Larsen's plant closure in Berwick and the decision by Keith's to brew its beer in other parts of Canada.

Local food

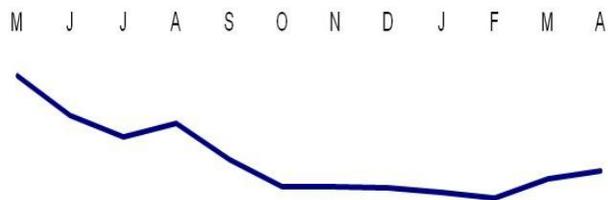
Local food received the highest exposure score in August and September with the August exposure score setting a record as the highest monthly exposure score since the study began in May 2007. Local food fell as far as 14th (during January).



Local food coverage generally consisted of spotlight pieces on local food businesses, restaurant reviews specifically mentioning local food, and articles about farmers' markets around the province (Halifax's new Seaport Market, which opened in August received the most exposure).

Pollution

The pollution theme had the highest exposure score in May, June, and July due to fishery-related coverage of the fallout of the Gulf of Mexico oil spill. The Deepwater Horizon oil rig exploded on April 20th, 2010 and is estimated to have

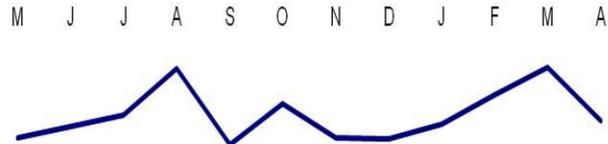


gushed 780 million liters of oil before being stopped five months later. The impact on fisheries is not expected to be known for some time. Run-off from mink farms in Yarmouth County also received media attention under the pollution theme.

Industry spotlight

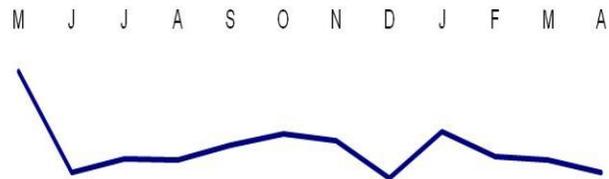
After attaining the highest exposure score in the previous year, the industry spotlight theme dropped to fourth in 2010-11. This theme had the highest exposure score in

March due to spotlight articles on the maple industry. There has been a significant drop off in media coverage of the seal industry and its protestors in comparison with recent years. The seal industry is still one of the main sectors covered, however, along with lobsters and wine.



Resource conflicts

While never reaching the top spot during the year, the resource conflict theme rounds out the top five agri-food themes in terms of exposure score. The ranking is primarily due to two debates that occurred during the year- one regarding agricultural land development and the other regarding offshore oil/gas exploration.



The former was largely related to the approval by Kings County council to allow 152 hectares of agricultural land owned by farmers to be rezoned for development. This decision was highly polarized and was ultimately overturned by the provincial government due to an inadequate demonstration of the need to remove the land.

After the Gulf of Mexico oil spill, the question of whether oil/gas development should be allowed on George's Bank was thrust into the spotlight. The province decided to extend a moratorium on exploration to 2015.

GEOGRAPHIC OCCURRENCE OF ARTICLES

Figure 5.

Places referenced in articles

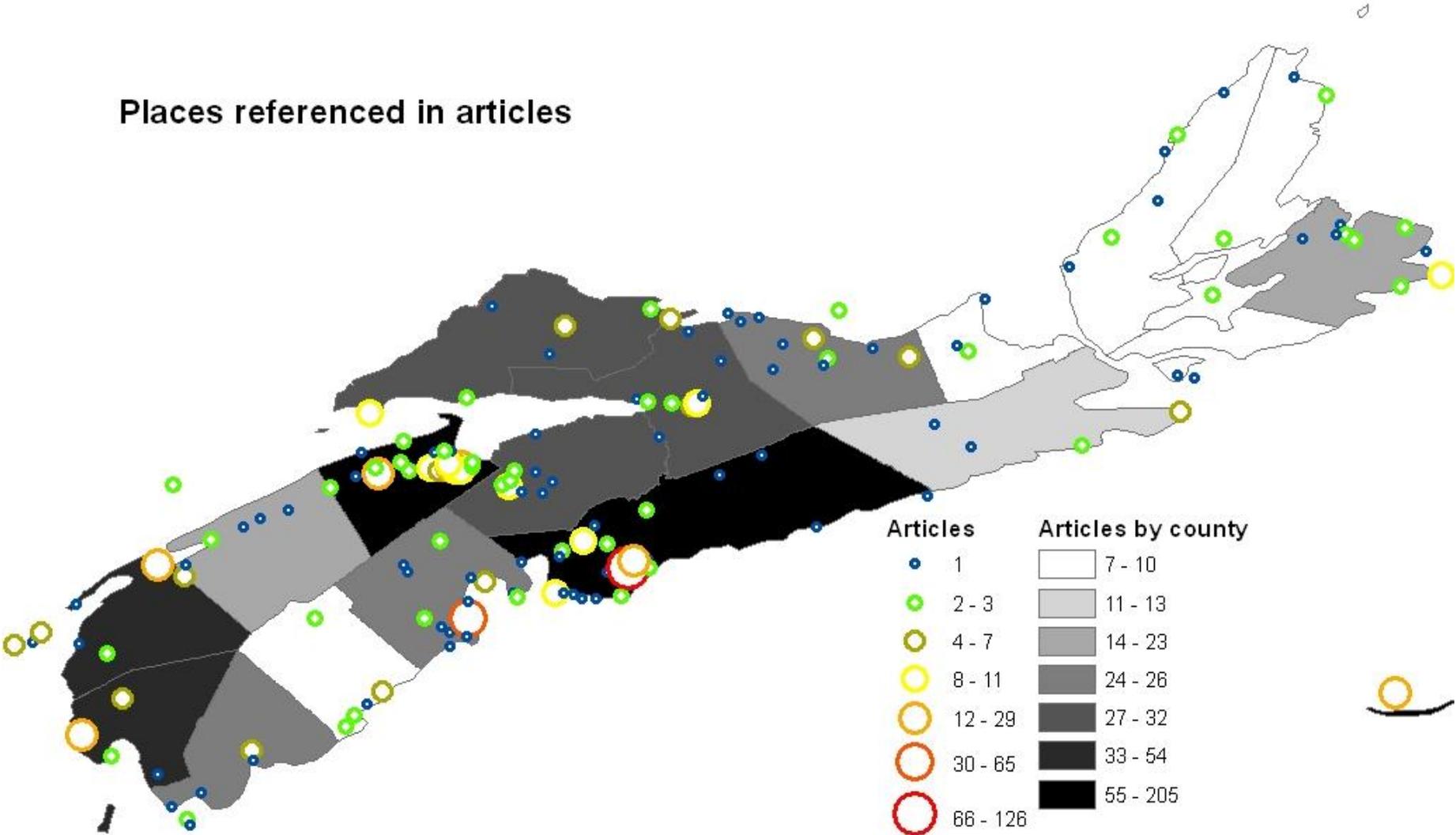
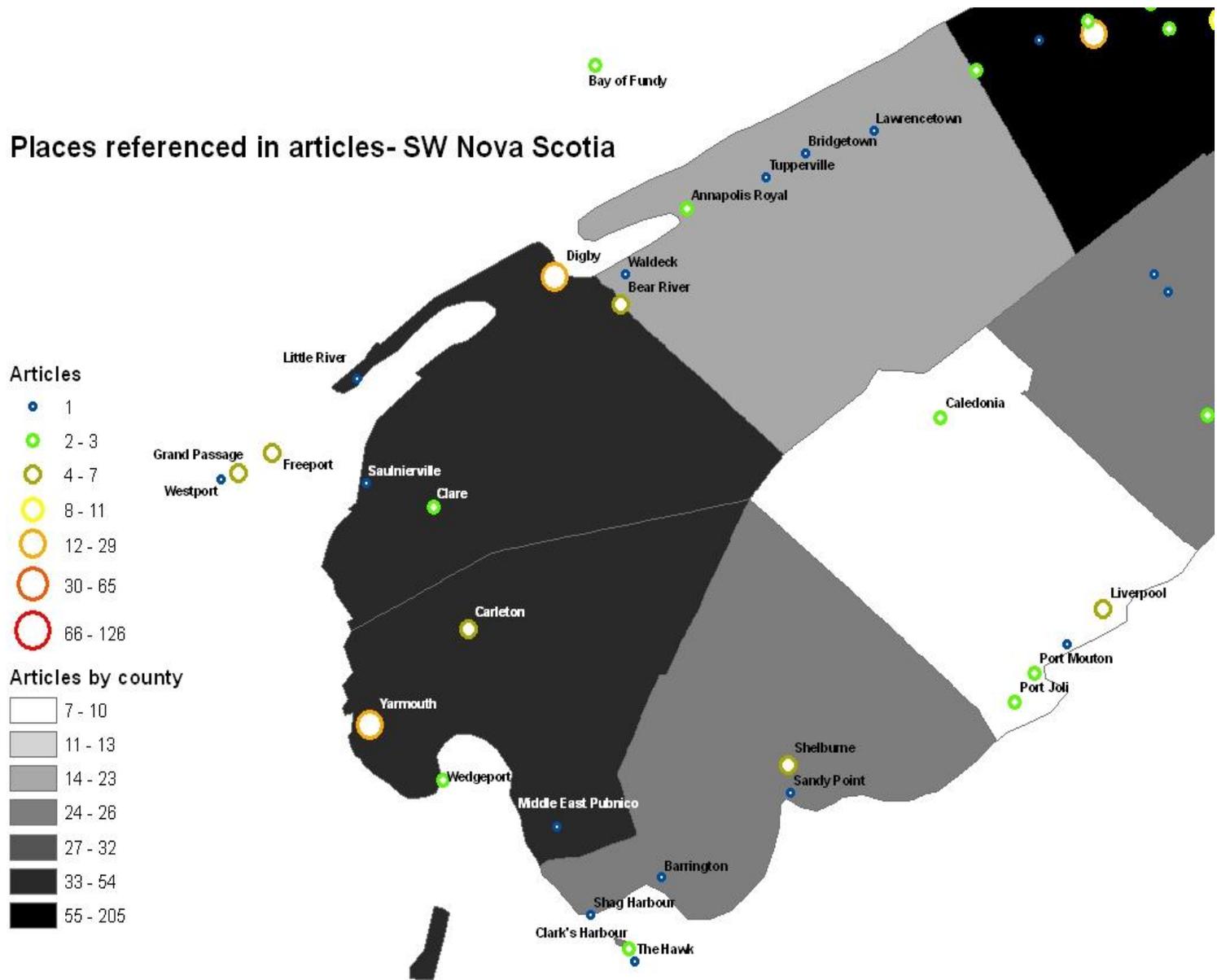


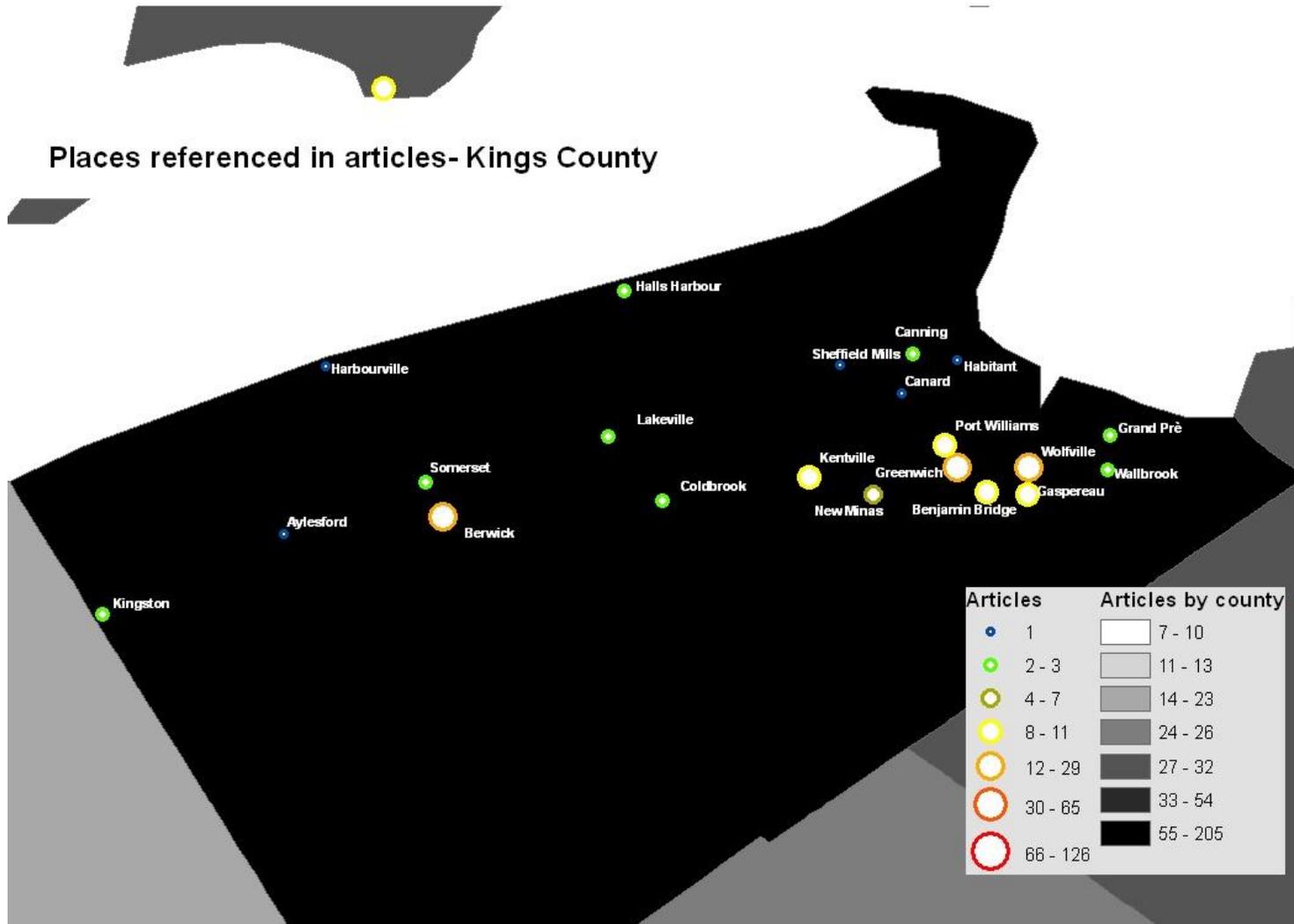
Figure 5a.

Places referenced in articles- SW Nova Scotia



Yarmouth and Digby had the most site-specific coverage among Yarmouth, Annapolis, Digby, Queens and Shelburne counties. The major theme in these towns related to the discontinuation of the Yarmouth CAT ferry to the United States and the importance of this link to the local fisheries. The Digby to Saint John ferry continues to run and has seen an increase in traffic. Bear River (wine production), Freeport-Westport-Grand Passage (aquaculture development), Shelburne (aquaculture development) and Liverpool (various topics) also received significant coverage.

Figure 5b.



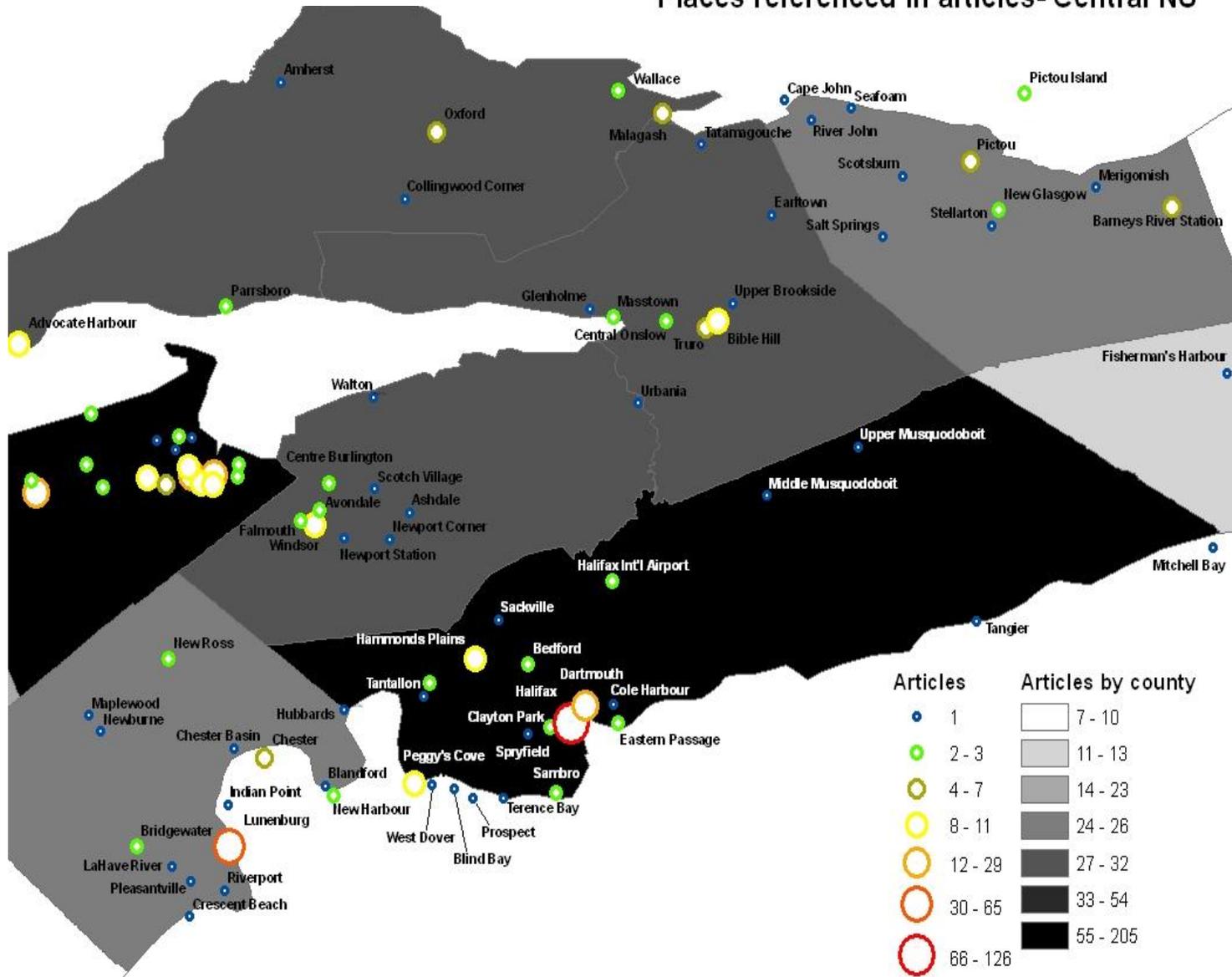
Kings was second to only Halifax County in number of agri-food articles during the year.

Greenwich led coverage with the polarized debate over whether council should allow development on agricultural land. While council approved an application to rezone 152 ha of land, the decision was ultimately rejected by the province. Wolfville (local food), and Berwick (Larsen's hog plant closure) also saw significant coverage in Kings.

Towns with moderate coverage included Gaspereau (wine), Benjamin Bridge (wine), Port Williams (ag land development) and Kentville (various topics).

Figure 5c.

Places referenced in articles- Central NS

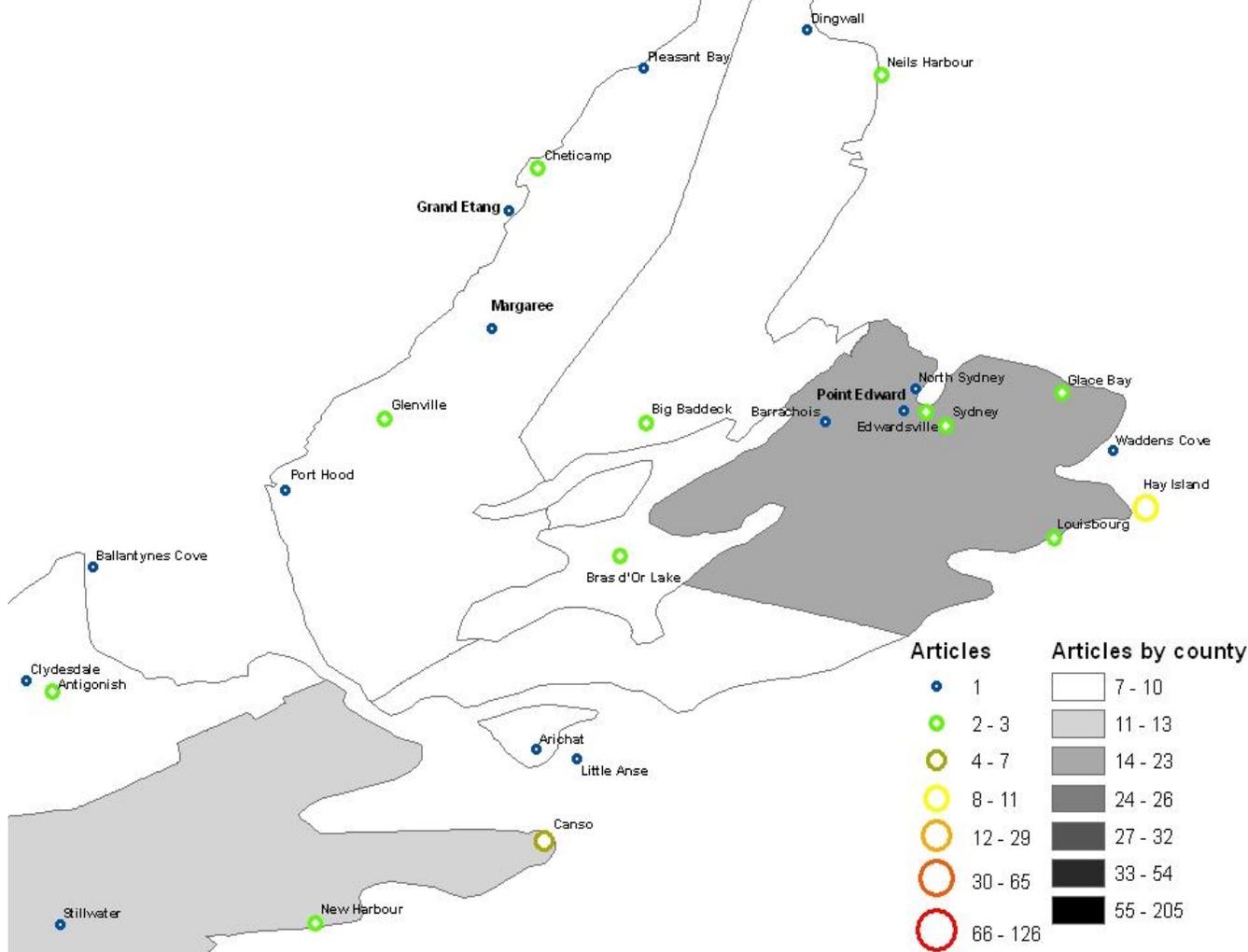


Halifax once again received the most coverage in the province. The major topics were local food in restaurant reviews, the opening of the Seaport Farmers' Market, food and wine festivals, business articles related to Clearwater and other local businesses, the decision of Keith's to brew in other provinces, and the debate over biosolids use on farmland.

The Bluenose II refit received substantial coverage in Lunenburg during the year along with fishery-themed articles. Hammond's Plains (Farmers' Dairy strike/lockout) and Bible Hill (various topics) received moderate media exposure.

Figure 5d.

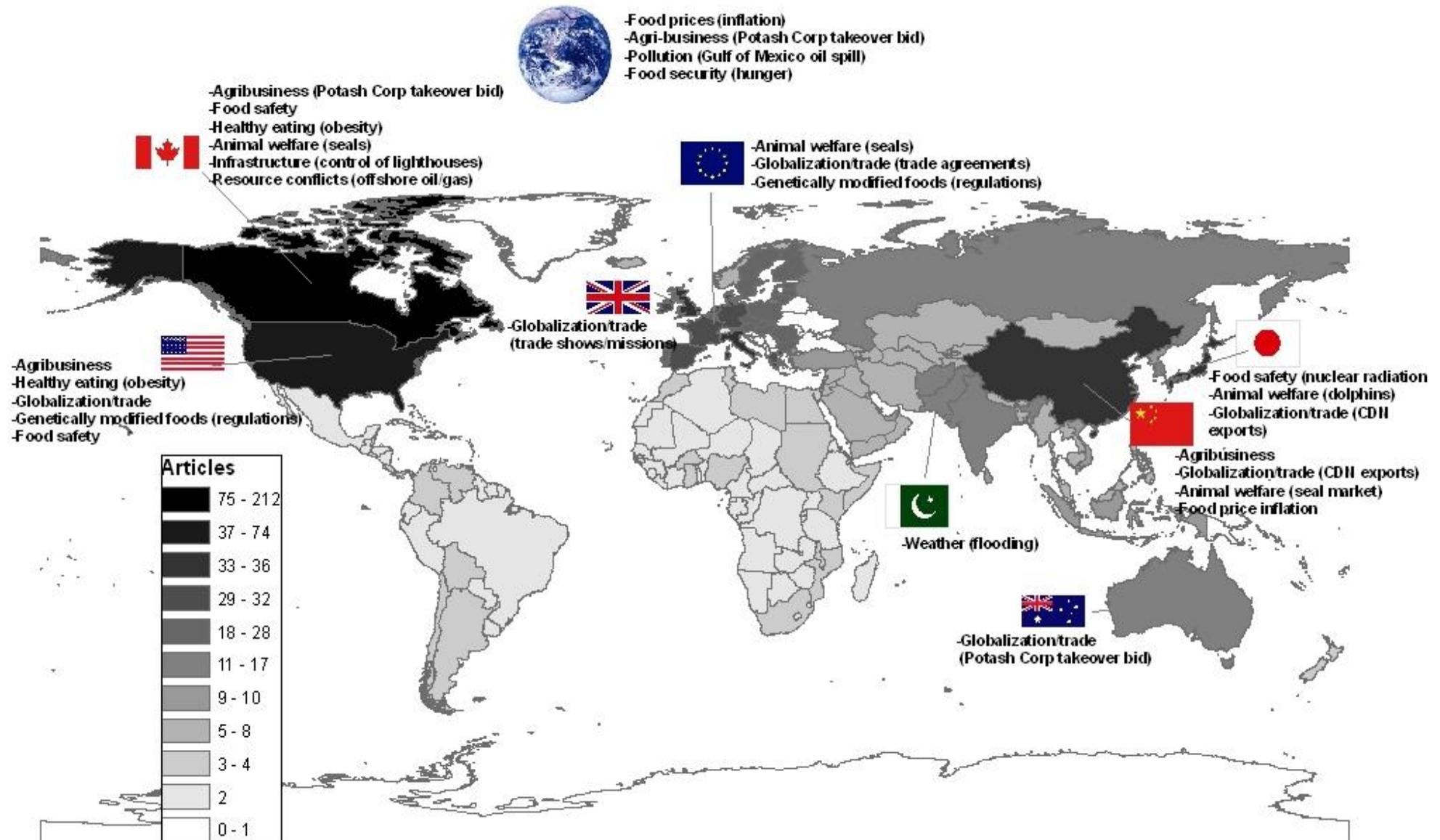
Places referenced in articles- NE Nova Scotia and Cape Breton



Controversy surrounding the proposed Hay Island seal hunt received the most attention in north-east Nova Scotia/Cape Breton for the second straight year.

The loss of town status was a final blow after the collapse of the local fishery and fish processing sector in Canso. In February, the town received some positive news with the announcement that Canso Seafoods Ltd would start processing and hoped to create up to 100 jobs, beginning with sea cucumber processing.

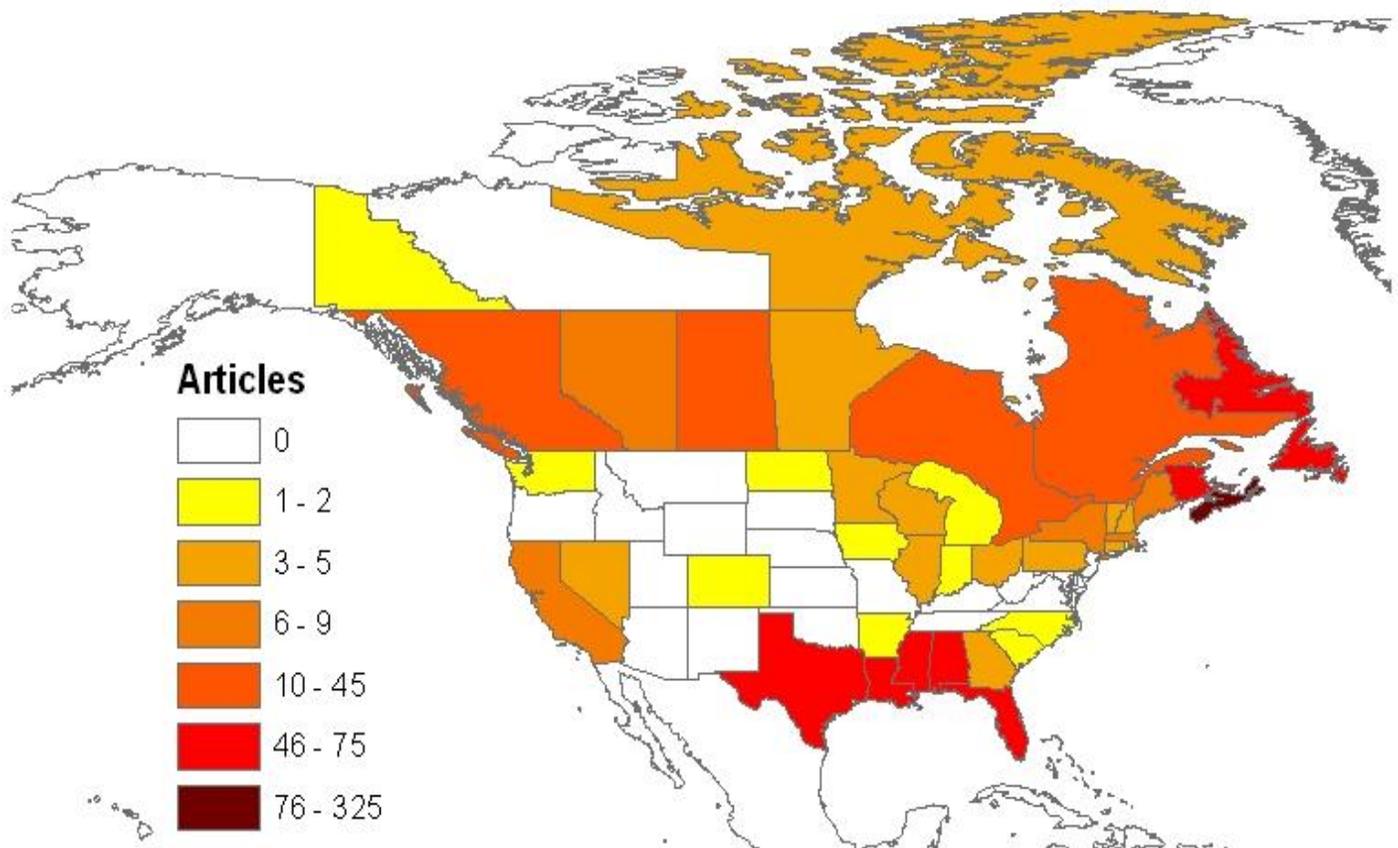
Figure 6. Media coverage by country/jurisdiction



Not surprisingly, most agri-food media coverage in Nova Scotia focused on North American issues, although other parts of the planet did receive a large amount of attention (Figure 6). Global issues were led by renewed concerns over world food price inflation. The UN Food Price Index reached a record high in January after climbing for seven consecutive months. The failed Potash Corporation takeover bid, pollution from the Gulf of Mexico oil spill and food security were also issues that received significant attention.

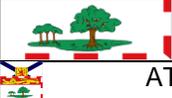
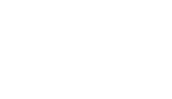
Canada had the most coverage of any country with the Potash Corp takeover bid as the issue with the most articles. Food safety coverage related to a number of individual advisories including food allergies, E. coli, listeria, salmonella, and Japanese nuclear radiation in the wake of the March tsunami which heavily damaged a power plant and affected crops and livestock. More attention was given to healthy eating after a study was released stating that one out of four Canadians are considered obese. The continued debate between Canada and the EU over a trade ban on seal exports again received substantial coverage, along with a federal government decision to reduce control of lighthouses and the issue of whether or not to drill for oil/gas on George's Bank, a rich fishing ground.

Figure 7. Media coverage by US/Canadian jurisdictions



Nova Scotia led North American media coverage with two resource debates (Figure 7). The provincial decision to overturn Kings County council's decision to develop a parcel of agricultural land near Greenwich temporarily culminated a lengthy, polarized debate over agricultural land protection in the province. The question of offshore oil/gas exploration was given extra attention after the Gulf of Mexico oil spill. The province ultimately extended a ban on drilling on George's Bank until 2015. The number of articles and main themes for the other Canadian jurisdictions are listed in Table 2.

American coverage was dominated by the Gulf of Mexico oil spill which shut down fisheries in the Gulf for months. The full impact of the spill is not yet known. Other states with substantial coverage included California (travel-wine regions), Maine (historic-Sherman Zwicker Grand Banks schooner failed attempt at return to Lunenburg), Massachusetts (trade shows/missions), and New York (various themes).

Table 2. Canadian jurisdictions referenced in agri-food articles			
		Number of articles	Major themes
	NOVA SCOTIA	288	Resource conflicts (offshore oil/gas, agricultural land development), historic (Bluenose II refit), local food, industry spotlight, infrastructure (lighthouses)
	CANADA	212	Agri-business (Potash Corp bid), food safety, healthy eating (obesity), animal welfare (seals), infrastructure (lighthouses), resource conflicts (offshore oil/gas)
	SASKATCHEWAN	42	Agri-business (Potash Corp takeover bid)
	NEW BRUNSWICK	36	Aquaculture (development, fish escapes, environmental debate)
	PRINCE EDWARD ISLAND	30	Pollution (Gulf of Mexico oil spill benefits PEI oyster, shrimp, mussel farmers)
	ATLANTIC CANADA	29	Animal welfare (seals)
	ONTARIO	29	Agri-business, labour (Loblaw contract negotiations), awards
	NEWFOUNDLAND	28	Resource conflicts (off-shore oil/gas), fish stocks (cod stocks improve), historic (fishing history), animal welfare (seals)
	QUEBEC	25	Resource conflicts (off-shore oil/gas), animal welfare, agri-business, industry spotlight
	BRITISH COLUMBIA	23	Aquaculture, healthy eating, travel
	ALBERTA	6	Agri-business
	MANITOBA	4	No dominant theme
	MARITIMES	4	No dominant theme
	NUNAVUT	3	No dominant theme
	YUKON	1	Healthy eating
	NORTHWEST TERRITORIES	0	n/a

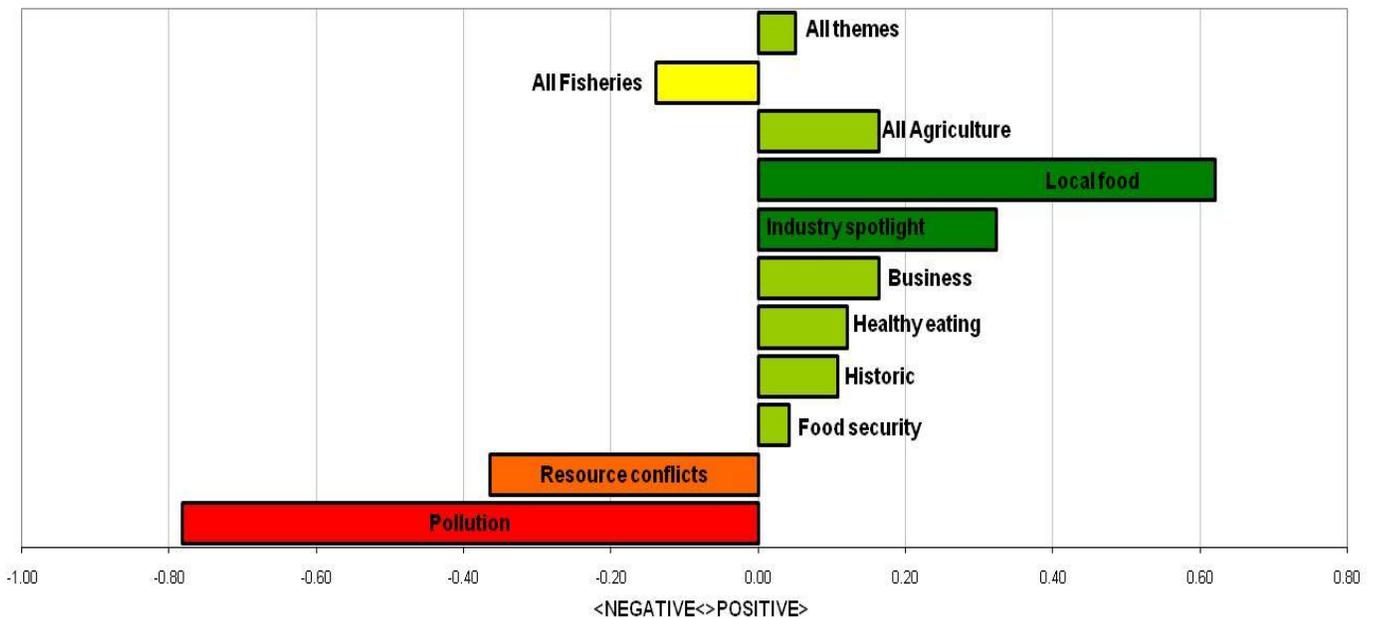
SLANT

The slant (or angle) of an article was captured during data collection. The slant ranges from -1 (completely negative) to 0 (neutral) to 1 (completely positive). The slant was determined subjectively by weighing the positive and negative aspects of each article against each other. The slant does not imply any author bias, but rather attempts to measure the general feeling that coverage of a topic would give to its audience.

The slant of the agri-food topics which received the highest exposure scoresⁱ are displayed in Figure 8. The pollution theme received the most negative coverage, while local food received the most positive coverage.

In general, agri-food received slightly positive coverage as a whole during the year with agriculture-related articles as slightly positive and fisheries-related articles slightly negative. Coverage during the previous year (May 2009- April 2010) had also been slightly positive.

Figure 8. Slant of agri-food themes



ⁱ The environment and globalization/trade themes are not included as the primary driver of the exposure score for these themes was secondary articles (see appendix for a detailed description of exposure score methodology).

Pollution

The pollution theme received a highly negative slant during the year. The coverage driving the negative slant was largely dominated by the negative impact on fisheries from the Gulf of Mexico oil spill.

Resource conflicts

This theme received a moderately negative slant. The majority of coverage related to two debates: (1) whether to allow non-agricultural development on agricultural land, including one specific issue in Greenwich, Kings Co. and (2) whether to extend a moratorium on off/shore oil gas exploration in Atlantic Canada (particularly after the Gulf of Mexico oil spill).

Food security

While the food security theme received a slightly positive slant for the year, there were a number of negative sub-themes. Issues surrounding food banks and food bank use, as well as global food security concerns were slightly overshadowed by positive articles about charitable food donations and fundraising. While the latter articles were positive, the underlying growing need for charity to feed the poor is not a positive development.

Historic

The initial handling of the Bluenose II refit, which was the main sub-theme during the year, was given a slightly negative slant. This was outweighed by highly positive historic-theme coverage regarding agricultural/fishing history, lighthouse spotlight articles, and a nomination for Grand Pré to become a world UNESCO heritage site.

Healthy eating

Healthy eating continued to receive significant attention during the year. Much of the coverage was due to positive initiatives highlighting healthy diets and cooking as well as strategic business initiatives such as Walmart reducing sodium in its offerings and Nestle investing \$510 million into improving its healthy eating line. On the negative side, continued coverage of the obesity epidemic dampened positive coverage.

Business

Articles highlighting various agri-food businesses were generally highly positive. Business closures such as the Larsen's plant in Berwick were highly-negative as was the decision by Keith's to brew beer in other provinces. The major sub-theme, the potential Potash Corp takeover bid, was slightly negative.

Industry spotlight

Positive coverage of sectors such as wine, maple and lobster outweighed negative coverage of the lobster, sealing, and floriculture sectors. The lobster coverage was split between positive outlooks for the season as well as a successful license buyback program on the Northumberland Strait and low prices once the season got started. Local floriculture businesses were having a hard time competing with low-cost big box stores.

Local Food

Once again, local food articles were overwhelmingly positive with local food in restaurant reviews, local wine, and the opening of the Halifax Seaport Farmers' market the most prominent sub-themes. The only negative coverage related to the availability of local food products in supermarkets and complaints that local foods are more expensive than imported goods.

SUMMARY

This report summarizes the exposure that agri-food related topics received in Nova Scotia's main newspaper between May 2010 and April 2011. This is the fourth annual publication of the media analysis which has now been collecting data on agri-food themes for 48 months. Opportunities and threats for existing and proposed agri-food ventures can be derived from this analysis. An issue's attainment of high media exposure, or lack thereof, over extended periods of time, as well as the slant that an issue is given, is important information to note by stakeholders. Over time, coverage related to specific sectors will be collected and should provide additional information for use in strategic planning.

Articles related to the agri-food business theme were most common, followed by articles on local food and resource conflicts. A scoring system was devised to rank exposure of agri-food topics based on total number of articles, number of images, size of article, number of front page articles and number of articles where a topic was a secondary theme. Agri-business received the highest exposure score, followed by local food and pollution.

The local food, industry spotlight, and agri-business themes received the most positive coverage of topics with the highest exposure. The pollution and resource conflicts themes received the most negative coverage

In general, the media exposure of agri-food issues increased over the previous year. Exposure score increased 18 percent and there were 80 more articles (6 percent increase).

After a dip in agri-food exposure in 2009-10, a year in which the global recession dominated headlines, agri-food issues once again saw increased presence in the media spotlight. While the exposure of some major themes dropped off somewhat during the year (local food, seal/lobster industry coverage), others emerged to grab significant attention such as pollution (Gulf of Mexico oil spill) and resource conflicts (off shore oil/gas exploration, development on agricultural land).

During the next year, themes that have attained the highest exposure over the past four years should continue to receive significant exposure (agri-business, local food, industry spotlight, healthy eating, food safety etc). A resurgence in food prices globally should also lead to that theme and food security being central agri-food issues in 2011-12, along with other themes that will reflect an increased awareness and interest among the public regarding the food we eat, how it is produced, and the factors that impact the global food system.

APPENDIX

List of agri-food topics, by exposure score and number of articles- May 10 April 11

RANK	TOPIC	# OF ARTICLES		EXPOSURE SCORE	PREV YEAR RANK	+/- RANK	SLANT ***
		Primary	Secondary				
1	Agri-business	151	81	305.1	3	(+2)	0.16
2	Local food	91	102	250.3	2	--	0.62
3	Pollution	78	107	219.4	18	(+15)	-0.78
4	Industry spotlight	48	104	176.3	1	(-3)	0.32
5	Resource conflicts	85	51	160.2	13	(+8)	-0.36
6	Globalization/trade	32	210	150.8	6	--	0.48
7	Environment	14	264	145.8	8	(+1)	0.36
8	Historic	58	34	137.0	15	(+7)	0.11
9	Healthy eating	58	63	126.8	5	(-4)	0.12
10	Food security	42	62	111.4	10	--	0.04
11	Resources	23	118	109.6	17	(+6)	-0.02
12	Infrastructure	52	54	98.8	20	(+8)	0.06
13	Food safety	51	51	97.4	11	(-2)	-0.79
14	Food prices	34	46	90.1	28	(+14)	-0.71
15	Animal welfare	51	26	88.3	4	(-11)	-0.48
16	Weather	27	63	86.5	24	(+8)	-0.39
17	Fish stocks	34	69	84.4	12	(-5)	-0.09
18	Food spotlight	30	11	76.1	34	(+16)	0.83
19	Sustainability	12	122	75.8	7	(-12)	0.06
20	Events	34	25	69.9	14	(-6)	0.90
21	Travel	19	31	64.6	29	(+8)	0.91
22	Research	7	62	59.1	26	(+4)	0.79
23	Economy	7	90	58.0	9	(-14)	-0.14
24	Social/cultural	7	85	55.5	21	(-3)	0.79
25	Technology/innovation	13	38	54.2	35	(+10)	0.65
26	Aquaculture	27	33	49.6	40	(+14)	-0.12
27	Fuel and energy	16	54	47.2	31	(+4)	0.36
28	Ag production	6	72	47.0	44	(+16)	0.67
29	Gardening	9	10	40.3	65	(+36)	0.97
30	Labour	22	11	39.7	42	(+12)	-0.17
31	Safety	23	6	37.4	32	(+1)	-0.65
32	Biosolids	16	2	37.1	19	(-13)	-0.50
33	Fishery policy	10	43	35.5	16	(-17)	0.18
34	Funding	10	31	30.6	49	(+15)	0.38
35	Arts	11	8	28.5	47	(+12)	0.75
36	Natural/organic	7	33	28.4	36	--	0.96

37	Recreational fisheries	9	3	27.6	n/a*	n/a*	0.11
38	Climate change	7	29	27.6	27	(-11)	-0.43
39	Diet	8	14	27.0	56	(+17)	0.66
40	Invasive species	10	12	25.3	43	(+3)	-0.58
41	Conscious consumption	10	22	25.2	38	(-3)	0.88
42	Agricultural policy	11	26	24.9	22	(-20)	0.18
43	Urban agriculture	12	14	24.7	23	(-20)	0.63
44	Labeling	11	15	23.9	45	(+1)	0.02
45	Education	9	22	21.8	46	(+1)	0.97
46	Supermarkets	7	24	21.3	52	(+6)	-0.07
47	Disease	4	33	20.5	25	(-22)	-0.19
48	Biodiversity	6	25	20.5	41	(-7)	-0.38
49	International	2	34	20.3	48	(-1)	0.00
50	Awards	11	12	18.6	33	(-17)	1.00
51	Illegal	11	10	16.3	39	(-12)	-0.82
52	Trade policy	3	27	15.9	30	(-22)	-0.42
53	Trends	5	19	15.6	37	(-16)	0.70
54	Other	6	1	12.2	55	(+1)	0.54
55	Genetically modified organisms (GMOs)	8	4	12.2	53	(-2)	-0.25
56	Succession	4	13	10.5	54	(-2)	-0.06
57	Agri-tourism	2	8	7.4	50	(-7)	1.00
58	Food supply	1	7	4.5	64	(+6)	-0.75
59	Landings	2	2	3.7	n/a**	n/a**	0.00
60	Community development	1	0	3.5	n/a**	n/a**	1.00
61	Census	1	0	2.4	n/a**	n/a**	-1.00
62	Bio-science	1	0	0.7	51	(-11)	1.00

Notes:

*Recreational fisheries is a new theme as of current year.

** Theme had no exposure score during previous year.

*** slant is on articles where topic was *primary theme* only

Figure A1. Agri-food related letters from public to Chronicle Herald

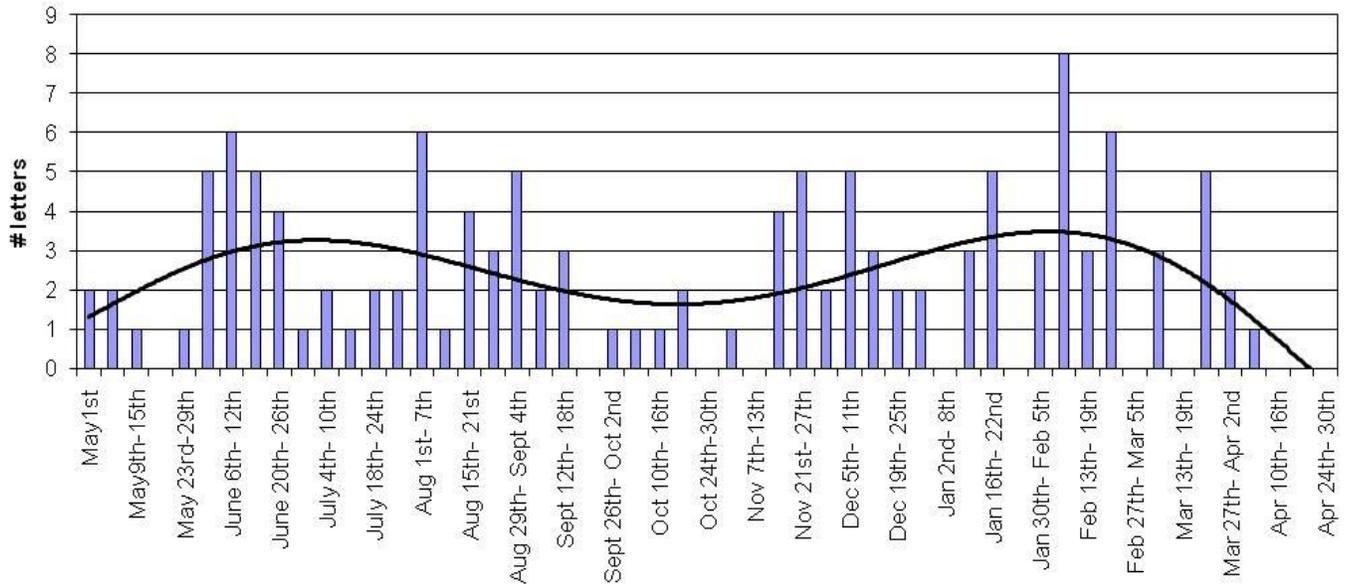
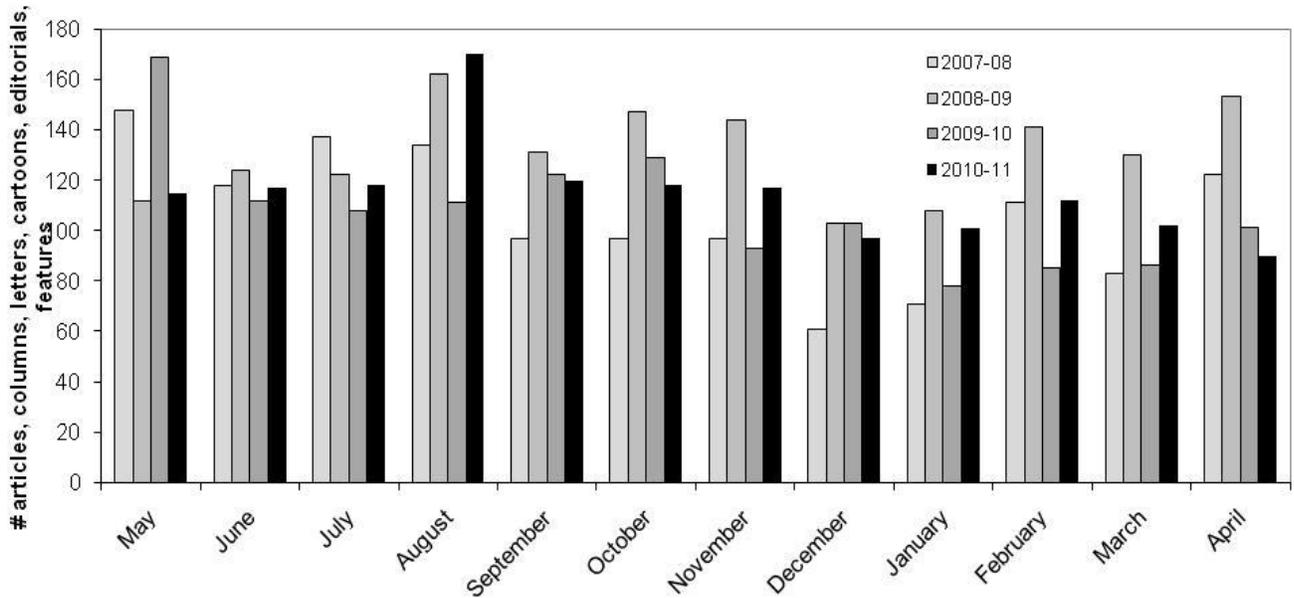


Figure A2. Agri-food articles, monthly comparison



How exposure score is calculated

The content analysis uses a simple scoring system to rank exposure of agri-food articles. While number of articles is the most easily understood measure of exposure and is included in the analysis, the exposure score also factors in the size of these articles, number of images and if articles are on the first page of the newspaper. Also, agri-food themes that are referenced in an article but are not the primary theme, are included in the score.

The following variables and their hypothesized impact on the probability of an agri-food topic being noticed by a reader were factored into the scoring system.

Variable	Hypothesized impact
Number of articles	+
Number of images (pictures, tables etc.)	+
Number of characters	+
First page article	+
Secondary theme	+

At the completion of each month, data for these five variables were tabulated for each agri-food topic. The values were entered into the following exposure score formula:

EXPOSURE SCORE_i=

$$\sum (ARTICLES_i / MEAN_{articles} + IMAGES_i / MEAN_{images} + SIZE_i / MEAN_{size} + SECOND_i / MEAN_{second} + FRONT_i \times 2.5)$$

i= any specific agri-food theme

ARTICLES= number of articles where theme *i* is primary theme.

IMAGES= number of images in articles where theme *i* is primary theme.

SIZE= number of characters (letters) in articles where theme *i* is primary theme.

SECOND= number of articles where theme *i* is included but is not the primary theme.

FRONT= number of front page articles where theme *i* is primary theme.

MEAN= average of articles, images, size, second, front from 2007-08.

Dividing by the mean of each variable overcomes the problem of these variables having different scales (i.e. number of articles in most months is generally less than 20 while number of letters is measured in hundreds of thousands). A bonus of 2.5 point per front page article is added to the exposure score. The range of exposure scores has been between 0 and 68.8.

¹ Canadian Newspaper Association. 2009. 2007 Daily Newspaper Paid Circulation Data. Available from: www.cna-acj.ca/en/system/files/2009CirculationDataReport_1.pdf . Accessed [25 June 2010].

ⁱⁱ Exposure score takes into account # of articles, size of article, # of images, theme appearing as an underlying theme in another article, and front page articles. Full methodology is available from the author.

ⁱⁱⁱ A score between -100 and 100 is assigned to each article in an attempt to assess how positive or negative the issue is presented. There is no implication of a bias simply whether the issue would seem “good” or “bad” to a reader. Highly negative= -100 to -75. Negative= -74 to -25. Neutral= -24 to +24. Positive= +25 to +74. Highly positive= +75 to +100.