



CANADIAN ASSOCIATION OF PRAWN PRODUCERS
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February 2, 2018

Standing Committee on Fisheries and Oceans
Sixth Floor, 131 Queen Street
House of Commons
Ottawa ON K1A 0A6
Canada

Dear Mr. Simms,

The Groundfish Enterprise Allocation Council (GEAC) and the Canadian Association of Prawn Producers (CAPP) are making this joint submission to the Standing Committee on Fisheries to provide our perspective on the application of Marine Protected Areas (MPAs) and some other forms of area closures in Canada.

The Past Role of GEAC and CAPP In Protected Area Planning:

We would first like to provide the committee with an understanding of our commitment to and leadership in achieving effective marine conservation in Atlantic Canada and the Eastern Arctic. We ask the Committee to refer to Annex 1 which holds select media releases that were issued by CAPP and GEAC in 2007 and 2010, announcing voluntary closures in Atlantic Canada that we initiated to protect sensitive benthic features in the Scotia-Fundy and Newfoundland & Labrador regions. In addition to these initiatives, we have presented the Department of Fisheries and Oceans (DFO) with areas that our member companies have identified as being important candidates for protection and have encouraged DFO to implement spatial closures to protect these important values. In some cases, our member vessels have provided the primary information to delineate special areas indicated by sensitive benthic features. This relationship requires trust from both the Department and industry that confidential fishing information will not be mischaracterized or used in an inappropriate fashion.

We remain actively engaged in all aspects of MPA network planning across the Atlantic and Eastern Arctic regions, including involvement in CSAS processes aimed at ensuring that appropriate values are chosen to help delineate sensitive marine areas as candidates for protection, acting as peer-reviewers to help guide the development of avoidance protocols for scientific surveys, identifying candidate areas for closure, liaising with other fleet sectors to gain support for closure proposals and working with our membership to support DFO in achieving their targets. We have contributed our own expertise and knowledge to the underlying design

methodology and have arranged for external expert opinion to help define areas needing conservation. We have supported area closures where they made sense, and pushed for changes where we felt there was room for improvement or where certain factors related to the fishing industry had not been properly characterized.

It is with this experience in mind that we provide the following considerations to the FOPO.

Aligning Conservation Objectives with MPA Outcomes:

We are fortunate that Canada has a dynamic, modern fisheries management system that includes safeguards to prevent the over-exploitation of our marine resources. This includes applying the precautionary approach in developing annual catch thresholds, establishing reference points designed to prevent impairment of productivity, creating high-levels of compliance monitoring by vessel-monitoring systems, at-sea observers and dockside monitors, implementing temporal fishery closures to protect spawning activity, and employing adaptive management approaches that respond to environmental and ecosystem change. With this comprehensive management system, there is very little linkage between effective fish stock rebuilding strategies and the application of Marine Protected Areas, especially for “open-shelf” marine resources that do not reside in localized ecosystems like tropical reef structures and are subject to dynamic oceanographic influences at a large scale.

Where objectives are aligned with ecosystem approaches and values are identified that can be conserved through a spatial protection measure, an MPA-approach may be warranted. However, as has been communicated repeatedly to the FOPO, year-round spatial closures are not an effective replacement for good fisheries management that includes scientific establishment of catch limits, temporal spatial closures to address sensitive periods in the life-cycle of directed and bycatch species, and rigorous conservation and protection regimes. It is notable that with limited application of MPAs, Canada’s management system continues to be validated by the Marine Stewardship Council, the gold standard for third party certification of sustainability.

With the exception of temporal closures during spawning periods, semi-permanent spatial protection of aggregations of temporarily depleted species is not considered an effective method of rebuilding stocks. Such an approach may actually do a disservice to the values that would benefit from more focused spatial protection (sensitive benthos, unique areas and representative marine features/ecosystems).

Setting Targets:

It continues to be our opinion that the establishment of MPAs should be undertaken in absence of a specific prescribed targets. There are inherent risks associated with spatial targets that are magnified when a time constraint is put on their establishment. In this case, the 2017 and 2020 targets have led to areas being considered for protection that may not necessarily provide for the conservation values that are stated. An example of this is provided below.

With the establishment of the 5% target, there was a ramping-up of activity, and regional staff within the Department began an accelerated process of identifying areas that could 'count' towards this target in an ambitious timeline. Existing closures were identified, and a push was initiated to make them contribute under various vehicles. In Scotia-Fundy region, the Haddock Box was identified as a candidate given its large size (over 10,000 km²) and existing fisheries exclusion.

On the advice of the Advisory Committee at the time, this area was first closed to mobile gear in 1987 with the aim of recovering the haddock stock by limiting the exploitation of juvenile haddock. However by 1988, the Groundfish Advisory committee advised DFO that the boundaries of the box were incorrect (which was later validated by DFO). However, the closure remained as it was first established. The remainder of the Groundfish industry (fixed gear fleets) were also excluded from this area in 1992. Beyond some limited scallop, sea cucumber and shrimp fishing activity, the box has remained generally closed to bottom contact fishing.

The values of the closure have always been in question. Haddock stocks in 4VW remain in moratorium, having demonstrated no real benefit from the closure and likely being driven by oceanographic environmental changes. Other Groundfish stocks have waned in the interim period. This has been communicated in scientific publications that have demonstrated that there are no clear linkages between the establishment of the closed area and improved ecological functions.

Although industry had generally accepted this closure for the last three decades, everyone knew it was not achieving the outcomes for which it was established – namely the protection of juvenile haddock to promote the recovery the 4VW haddock stock.

In 2017, DFO approached industry participants with the intention of announcing that this region would qualify as an 'Other Effective Area Based Conservation Measure' to contribute to the 5% target. Industry was provided draft conservation objectives for the site that were expanded beyond simply haddock, giving the box credit for re-establishing local Groundfish stocks by 'managing bottom disturbance'. This was clearly an unsubstantiated and false claim, and actually prompted industry to re-consider whether to accept this area closure. The final objectives now referencing "...managing benthic disturbance that supports juvenile and adult haddock and other Groundfish species", continue to be inconsistent with the science on the matter.

To be clear, industry was not averse to a continued closure in the area, but the rationale/objectives are inappropriate. It is ironic that this region was identified by DFO as an ecologically and biologically significant area and could easily have been transferred into an MPA supported by the diverse array of untouched habitats therein. Although the outcome of a refugia and an official MPA are largely similar, the lack of clear links to the legitimate values being protected and conservation objectives of the closure has created concerns about future iterations of spatial management.

In this situation, the desire by the Department to meet a spatial and temporal target within a compressed timeline eclipsed the embracement of both the correct tool and identification of the real conservation values desired for protection. We view this circumventing of process as a disappointing decision by the Department, perhaps ultimately to the detriment of all stakeholders.

We have heard groups espouse the importance of achieving high targets, with some groups suggesting that 30% of marine and coastal areas should be protected as no-take zones, citing other jurisdictions where 80% of domestic waters were closed for protection. We suggest that each of those situations must be carefully examined to understand how they differ from Canada. For instance, in Palau, 80% of waters are set aside for conservation. This island nation is surrounded by coral reefs with deepwater edges on either side. The paucity of nearby shallow-water habitat means that these reefs act as aggregation areas and are easily targeted by harvesters – these are situations where spatial protection has been demonstrated to provide real conservation benefits. The coast of Canada is a much different and extensive shelf environment and should be treated as such – many areas are simply not accessible and fishery removals are addressed by a science-based fisheries management framework that establishes allowable catches based on the productivity and ecosystem function of the species in question. To the extent that decision-making is to be scientifically rather than politically driven, the conservation value of marine protected areas as a fish protection measure in an open-shelf system (such as those found in Canada) is largely absent.

The Importance of Consultation and Engagement:

The FOPO has heard from presenters about the clear need for effective consultation and engagement, and we support these positions based on real experiences of our membership.

We have been proactively engaged with DFO and have even then experienced significant challenges. For instance, in 2010 we actively engaged DFO to identify a high-concentration area of the rare *vezella* glass sponges. We encouraged our membership through internal compliance processes to close the area to mobile gear fishing. We provided DFO with notice of our actions, helped to define boundaries alongside DFO with the understanding that we were achieving our conservation outcomes together. Abruptly, DFO ceased discussions with us. Much to our surprise, an area was then officially closed by a 2013 announcement with boundaries that extended beyond anything contemplated by industry, resulting in the loss of productive fishing grounds and the termination of a directed fishery. This could easily have been avoided with effective discourse during the process.

With experience on the water, we are able to bring together the voices of the harvesters. We are able to identify candidate areas using our own extensive data holdings and develop on-board research programs to help provide additional data needed to ‘get it right’. We observe with regret that at this juncture, protectionism is a one-way street whereby areas are closed, and not opened/reviewed for effectiveness. This severely taints the perspective of industry in these conversations.

The Need for Proper DFO Peer-Reviewed Science:

We would like to highlight the importance of proper DFO peer-reviewed science in evaluating candidates for area closures. We must ensure that decisions are being made with the support of the science community not just within the Department but are endorsed by external experts as well. At this very committee, perspectives have been brought forward by internationally respected academics and it is important that we listen to their advice on both sides of the issue.

While the need for science-based decision making has been strongly endorsed by this Government, its rush to achieve its 5% target by the 2017 deadline did create some very alarming slippage in their principles.

We previously referenced the example of the Haddock Box, where the rationale and boundaries for closure were set based on flawed information/analysis, an area that remains closed under a new set of flawed rationale.

We are compelled to bring to your attention a 2017 initiative by DFO that would have closed virtually the entire shrimp fishery in Shrimp Fishing Area 1. Even though this longstanding fishery occurs at a different time of the year than when Narwhal use the area as one of their overwintering sites, DFO proposed its closure based on the simplistic rationale that any shrimp harvested from this area may be to the detriment of the Narwhal population, a rationale that at face-value would close many fisheries/areas in Atlantic Canada. After industry pressed for the scientific information that had led to the proposal, the Department directed local scientists to conduct a risk assessment and produce a report within a matter of days. While these scientists managed to assemble data confirming that shrimp do reside in the area, and that shrimp had been determined to be part of the diet during part of the year in some Narwhal samples from another area, there was virtually no additional information tabled or assessed, including the trajectory of Narwhal populations, the relative importance of shrimp in the diet of Narwhals, the importance of this particular area to overwintering Narwhals, nor the likely impact of the harvest of any levels of shrimp in this area relative to their total consumption, etc. Consequently, the so-called risk assessment was easily refuted by a subsequent review conducted by ecologists at the University of Washington. Sadly, DFO's intent to expedite closure of this shrimp fishery in order to achieve the 5% target, resulted in undue pressures being placed on its own scientists, a very poor risk assessment, and a serious breach in trust with the industry.

This process was clearly wrong, and thankfully it is not indicative of the norm. However, it did happen in 2017 and it must not be allowed to happen again. Closures must not be imposed upon industry without sufficient rationale and study that will withstand critical scrutiny of experts, both within and outside the Department.

Incorporating Connectivity:

Much has been said about the need for considering and maintaining connectivity between sites in the design of an MPA network. Let us reflect for a minute to consider what is known about connectivity and how it may be applied in this context.

Connectivity is generally referred to as the extent by which species may be linked across their range by the exchange of recruits, larvae, eggs or adults. The scale of connectivity differs whether we are speaking of snow crab larvae dispersing from the Gulf of St. Lawrence to the Scotian shelf or local haddock larvae caught in a gyre in Southwest Nova Scotia. In some cases, the scale of connectivity is unknown (i.e. corals and sponges), meaning that integration of this knowledge in the planning of an MPA is difficult if not impossible.

In some other jurisdictions, MPAs have been suggested to be at a scale of 25-100 km², with a spacing of 50 – 100 km. These are considered trade-offs, with larger areas (>1000 km²) being able to protect even the broadest moving species (tunas and sharks) which means they can be much further apart. The current closures in Canada have an average size of over 6,500 km², which increases to over 7,300 km² once small inshore areas are removed. Most of these are clearly operating on a scale beyond which local processes occur and is within a realm not studied or understood by Science.

In the context of the existing MPA 'Network' Plan, we should well understand that we do not have sufficient information at these scales to integrate connectivity in the design of the network, and should instead, at least in the near-term, understand that we are building an array of individual sites. When sufficient science understanding emerges for this issue to be quantitatively assessed, the layout of sites on the landscape may need to be re-visited, but we are doing this process a disservice in the interim by referring to the current design process as a 'Connected Network', as connectivity has not been considered in its establishment.

Understanding the Impacts:

When assessing both the benefits and cost of a proposed closure to harvesting activity, care must be taken to ensure a long-term perspective is taken. We routinely include survey data on larval fish distribution, plankton productivity and other metrics that extend back to the 1970s but DFO has restricted its window of assessment of fisheries impacts to the 2008 to 2014 period. The ongoing regime change in our marine environment has been well discussed and reviewed by both DFO and peer-reviewed literature, suggesting that the recent bloom in shellfish may be drawing to a close as some Groundfish populations begin to recover off our shores.

The Groundfish fishery in Atlantic Canada has undergone a varied history since our jurisdiction was extended beyond 12 miles in 1977. After extension, a period of strong growth was experienced until 1992 when many Groundfish stocks collapsed coincident with a massive shift in oceanographic conditions. Many stocks were placed under moratoria at that time and are just now beginning to show signs of significant improvement with expectations that commercial

operations will expand in the coming years. Without consideration of the areas that supported economically important harvesting activities in the past, we are in danger of losing access to these areas because of a failure to consider them in our initial design of closed areas. Thus, we are likely hampering our next generation of harvester from being able to garner a living from our fishery resources and sustaining the many rural communities they call home. This is clearly problematic.

From a conservation perspective – we must also acknowledge the reality of effort displacement due to fishery closures. An unintended consequence of closures can be the redeployment or significant increase of effort to other areas imposing impacts on other species or benthic features. In the context of a sessile shellfish species, this may be local-overharvest as productive areas are made unavailable.

The Need for Subsequent Monitoring and Evaluation:

The underlying rationale by which an MPA is established should determine the need for subsequent monitoring and evaluation. For instance, if the Government of Canada is seeking to protect unique features, or high concentrations of coral/sponges, then the need for monitoring/evaluation of the measure is of limited value, unless these attributes disappear from the area of protection for some reason. If an area closure is to protect functions affecting high biodiversity, then monitoring and evaluation of its effectiveness would be difficult to achieve. If, however, objectives are established that relate to the recovery of depleted species, anticipated spill-over effects, or other tangible biological processes, active monitoring and an adaptive approach should be applied that allow the effectiveness of the closure to be assessed, and boundaries to be changed in a timely fashion.

With this tool of evaluation, the benefits of spatial protection measures can be communicated and shared with stakeholders, thus increasing the level of support for these initiatives. This ingredient is missing from the DFO Plan. Unfortunately, areas are being set aside with little monitoring to understand their contribution to achieving the stated objective. Reflecting on the Haddock Box example noted above, if a closure does not actually contribute to the objective established for it, then changes must be made to it, and/or a science-based dialogue should be conducted about creating change in the objectives.

Concluding Statements:

While MPAs may have a role for protecting unique features, high concentrations of sedentary corals/sponges, and representative marine habitat and biodiversity areas, there is emerging scientific evidence that MPAs are a relatively blunt instrument that should not be considered for the direct conservation/management of species in jurisdictions where more effective modern fisheries management techniques are employed. Canada is a leader in fisheries management and a model on the world stage – these achievements should not be taken lightly, nor should we substantially alter our path towards one whose effectiveness is under significant debate in the scientific literature.

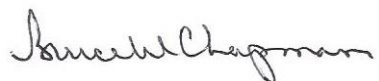
In summary, we ask that the Committee consider several important points:

1. **Develop Real Conservation Objectives** – Objectives for each site should be linked to tangible outcomes. Protection of unique features or high concentrations of corals/sponges is easily demonstrated but using closures in whole or in part to help recover depleted species susceptible to larger environmental forces is untestable and unrealistic.
2. **Reconsider the Targets** – The aim of this process is to ensure that those unique and significant values requiring protection are, in fact, protected. Although targets have forced both DFO and industry to accelerate work on spatial management, this has come at the expense of rigorous review of the conservation objectives and the process underlying the establishment of spatial protection. Canada should ensure that international commitments about targets do not force a broader application of spatial protection measures that ignore the value of our modern fisheries management system.
3. **Improve consultation** – Although we have been actively involved in the process, we have noted the absence of many key fishing industry representatives in conversations about marine protected area planning. DFO needs to find and listen to people engaged in the industry. Consultation to date has been ad hoc and limited in scope. Industry participants should not just be informed of a proposed closure but should be canvassed to help identify important areas and to address gaps in information held by DFO.
4. **Follow proper DFO peer-reviewed science** – We must follow robust science when proposing and furthering closed areas. We must be wary of proposals that may have roots in gear-conflict, provincial, or quota sharing disputes. Due to the evolving state of knowledge on Marine Protected Areas in the open-shelf marine context, we must also be vigilant when assessing the veracity of scientific publications on the matter.
5. **Accept that our Understanding of Connectivity is Limited** – We should accept that this abbreviated process precludes the establishment of a true connected network of MPAs. This should be accepted and evaluated at a future point in time. Currently, we are developing a series of individual sites at scales larger than science is able to offer insight on.
6. **True Assessment of Impacts** – Any establishment of closed areas must include a fulsome assessment of lost economic and harvesting relative to real conservation benefits that will have been derived from these closures. We must not limit our analyses to artificial/convenient time series of data.
7. **Support Evaluation Through Monitoring and Adaptive Management** – The establishment of spatial protection should be considered a first step. The requirement to monitor the effectiveness of the measure and willingness to adapt and adjust to the information collected is a key part of any modern management system. Where objectives are not being achieved, we must adapt by re-evaluating, relocating or otherwise altering our management approach. This could best be achieved through a sunset provision, with a renewal period(s) only when there is sufficient scientific

evidence that the specific closure is actually providing for pre-stated conservation objectives/benefits that can be measured and identified.

We thank you for the opportunity to make this submission.

Sincerely,



Bruce Chapman
Executive Director – Canadian Association of Prawn Producers



Dr. Kris Vascotto
Executive Director – Groundfish Enterprise Allocation Council

Cc: Catherine Blewett, Deputy Minister, Fisheries and Oceans Canada
Alexis McIntyre, Director of Policy, Minister Leblanc's Office

Annex 1: Announcements of Industry-Led Spatial Closures

Media Release

“Canadian Fishing Companies Launch Coral Conservation Initiative ”

May 3, 2007

OTTAWA – Canada’s offshore shrimp and groundfish harvesters have introduced new measures to conserve coral concentrations in the Atlantic and Arctic Oceans, according to Bruce Chapman, on behalf of the Canadian Association of Prawn Producers (CAPP), the Groundfish Enterprise Allocation Council (GEAC), and the Northern Coalition (NC).

“We’re really proud of this,” said Ros Perry of the Northern Coalition. “Our coral conservation program is one of the most progressive industry initiatives in the world – a real example of stewardship of marine resources.”

As part of this initiative, these fishing organizations established a 12,500 square kilometer Coral Protection Zone in the northern Labrador Sea. “This is by far the largest coral protection zone in Canadian waters, and is one of the larger such closures in the world. In its size, it rivals the larger terrestrial areas that have been protected in Canada.” Chapman added that fishing captains have known about coral concentrations within this area for years, and have made a conscious effort to avoid contact with these structures when fishing in the vicinity. This large closed area is near the confluence of the Hudson Strait and the Atlantic Ocean, and may in time prove to be beneficial for other marine life residing in or migrating through the area. “Our fishing captains are on the front lines of this effort – recognizing that the people working on the water are sometimes in the best position to initiate effective conservation measures that can co-exist along with their fishing activity.”

Under the program, “fishing captains will chart and circulate information about areas where other important concentrations of coldwater corals are encountered, and will avoid setting fishing gear near these concentrations,” said Chapman. This action may lead to additional closed areas in the future. “Essentially, we are taking a lead role in identifying and protecting important coral concentrations, in support of conserving ecological features and processes of the marine environment.”

This is only one of several steps that CAPP, GEAC and the NC have taken to conserve coral concentrations. Others measures include:

- A coral monitoring program has been incorporated into research surveys conducted by industry.**
- Fishing captains work cooperatively with independent at-sea observers to collect data on encounters with coral.**

- Fishing captains stop fishing and retrieve their gear if they believe they are in an area where large tree-like corals may exist, even outside Coral Protection Zones.
- Fishing captains do not fish in Coral Protection Zones already established by DFO.

Chapman says that the harvester organizations have taken these “practical and cost-effective” measures to conserve sensitive marine structures that are vulnerable to fishing activities – even in the absence of scientific conclusions that coral species are threatened in the northwest Atlantic, and without being pressured by Government. Chapman noted that today’s announcement is a continuation of other industry initiatives to conserve sensitive ecosystems, noting that industry helped Government to identify and establish coral closures on the Scotian Shelf, and emphasizing it was a GEAC proposal that led to the closure of four large seamount areas in 2006.

“These initiatives are entirely consistent with the Rio Declaration of Sustainable Development,” says Chapman. “We recognize the benefits in being a responsible partner in this area.”

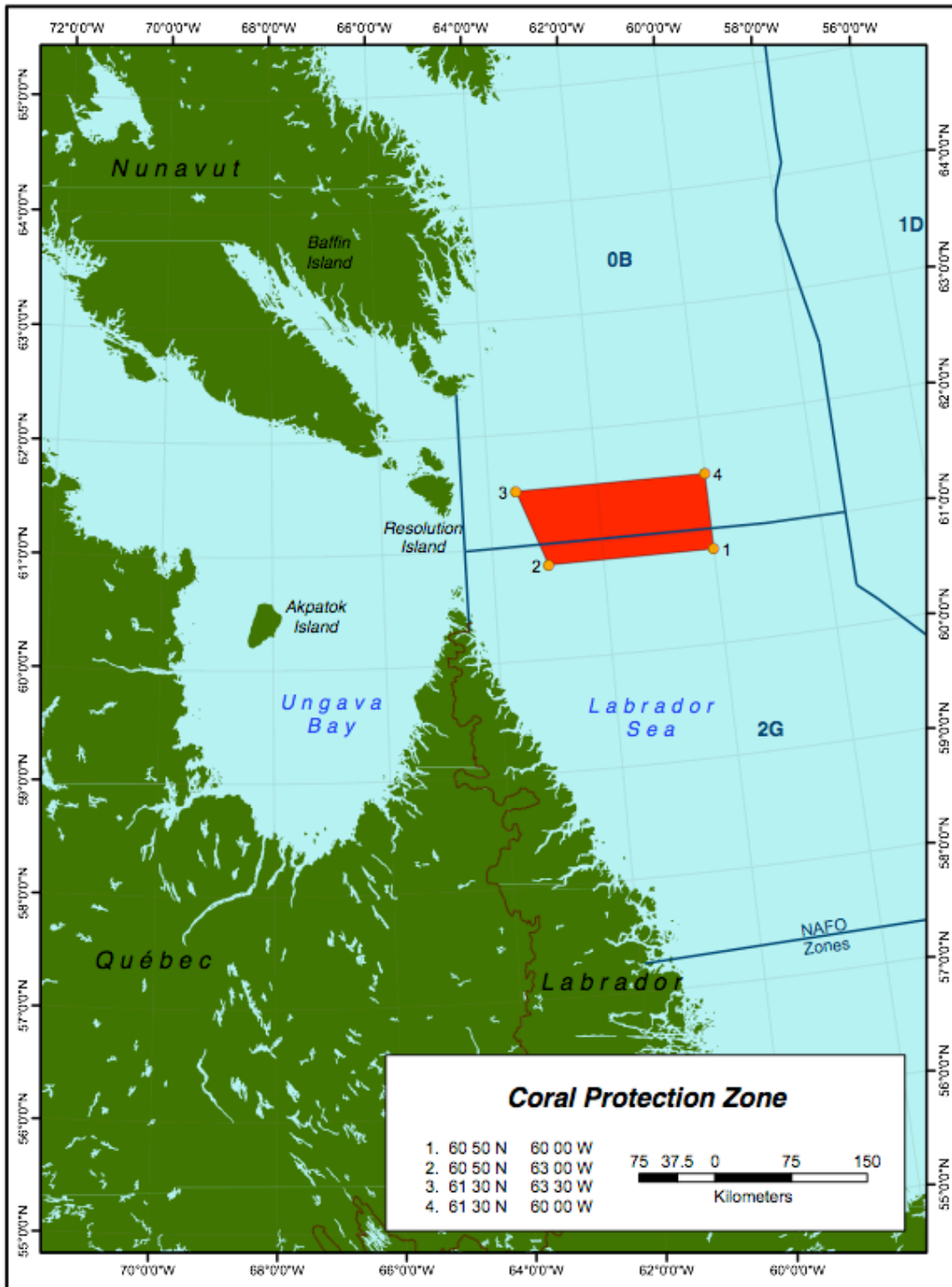
The operations of member companies of CAPP, GEAC and the NC support the employment of over 3,000 people located throughout Atlantic Canada.

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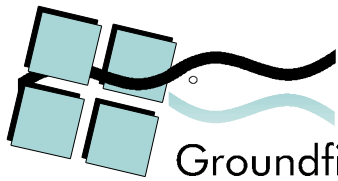
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Media Release

Fishing Companies Take Action to Protect Concentration of Rare Glass Sponges off the Coast of Nova Scotia

October 18, 2010

Halifax – Atlantic Canada’s offshore groundfish fishing companies have voluntarily closed 332 square kilometres of the Emerald Basin off the coast of Nova Scotia to protect a concentration of rare glass sponges. “These sponges, known to fishermen as “Russian Hats” are very rare, and the concentrations located in this area of the Scotian Shelf may be unique in the world.” stated Ellen Kenchington, Research Scientist with Fisheries & Oceans Canada.

Bruce Chapman is the Executive Director of GEAC, representing offshore fishing companies. He observed that this “practical and cost-effective” measure was taken to protect this rare concentration that is vulnerable to fishing activities. Chapman noted that today’s announcement is a continuation of other industry initiatives to conserve sensitive ecosystems, noting that industry helped Government to identify and establish coral closures on the Scotian Shelf, promoted the closure of four large seamount areas in 2006, and established a large coral conservation area near the Hudson Strait in 2007.

Faith Scattolon, Regional Director General of Fisheries & Oceans Canada, commended GEAC for taking this action, noting “it is admirable to see the fishing industry take proactive action to conserve rare and vulnerable marine species.”

“These initiatives are entirely consistent with the Rio Declaration of Sustainable Development,” says Chapman. “We recognize the benefits in being a responsible partner in this area.”

The operations of member companies of GEAC support the employment of over 2,000 people located throughout Atlantic Canada.

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For further information, contact:

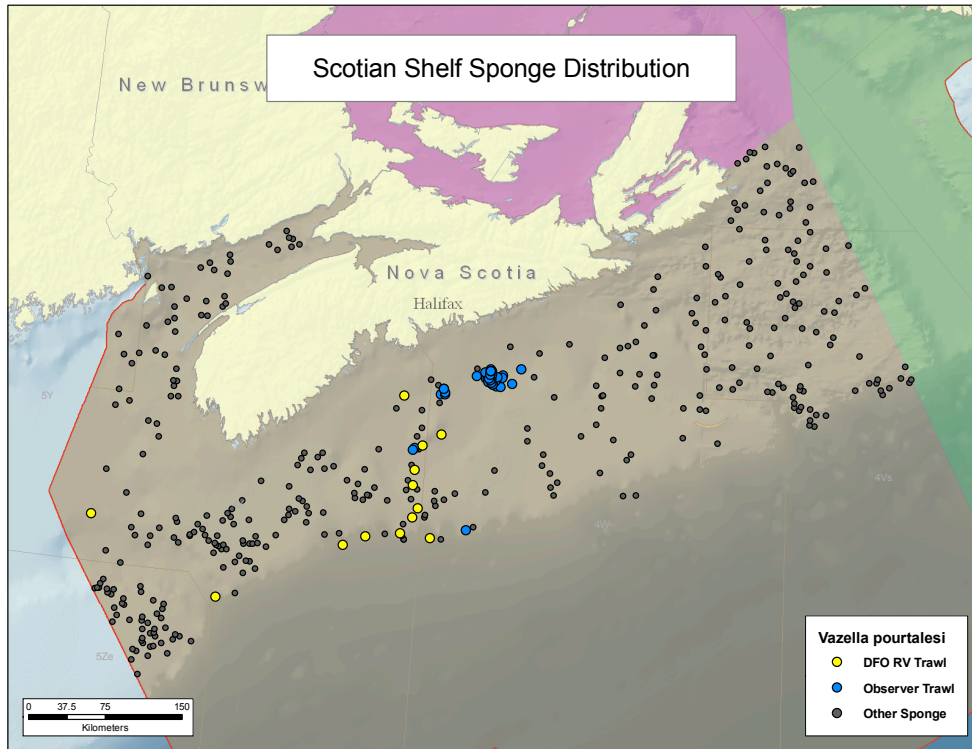
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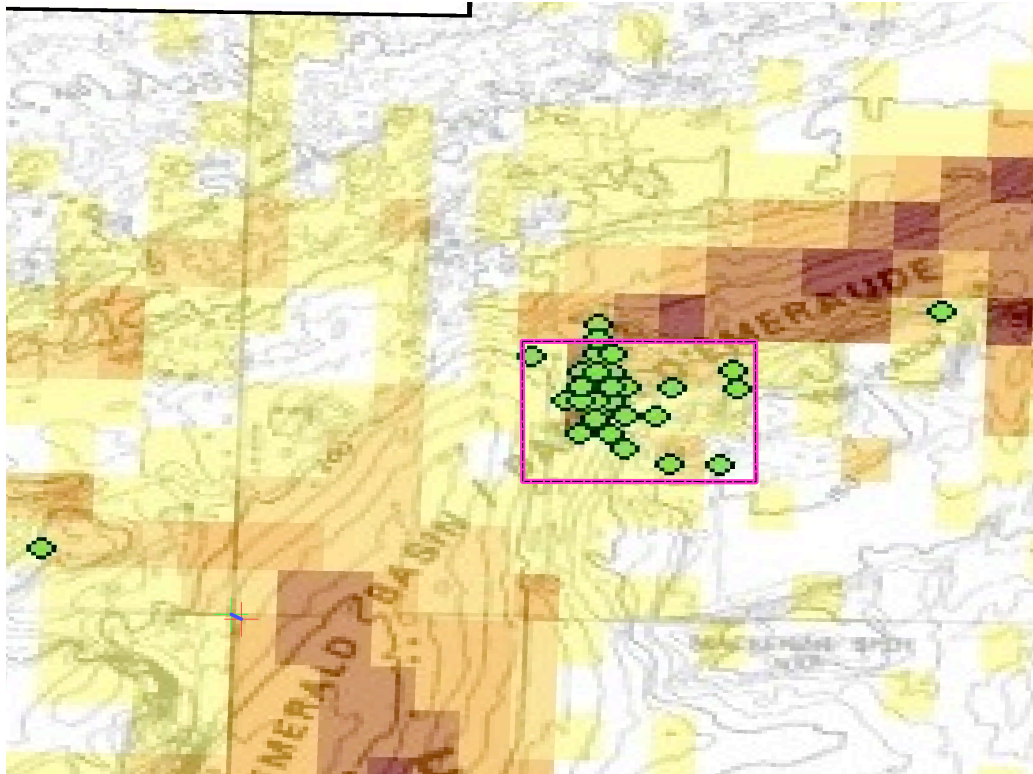
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Glass Sponge (Russian Hat)



http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2010/2010_041-eng.htm



Closed Area: Map & Coordinates

- NW) 62 degrees, 42 minutes East, 44 degrees, 18 minutes North
- NE) 62 degrees, 27 minutes East, 44 degrees, 18 minutes North
- SE) 62 degrees, 27 minutes East, 44 degrees, 09 minutes North
- SW) 62 degrees, 42 minutes East, 44 degrees, 09 minutes North