



ONTARIO DIVER

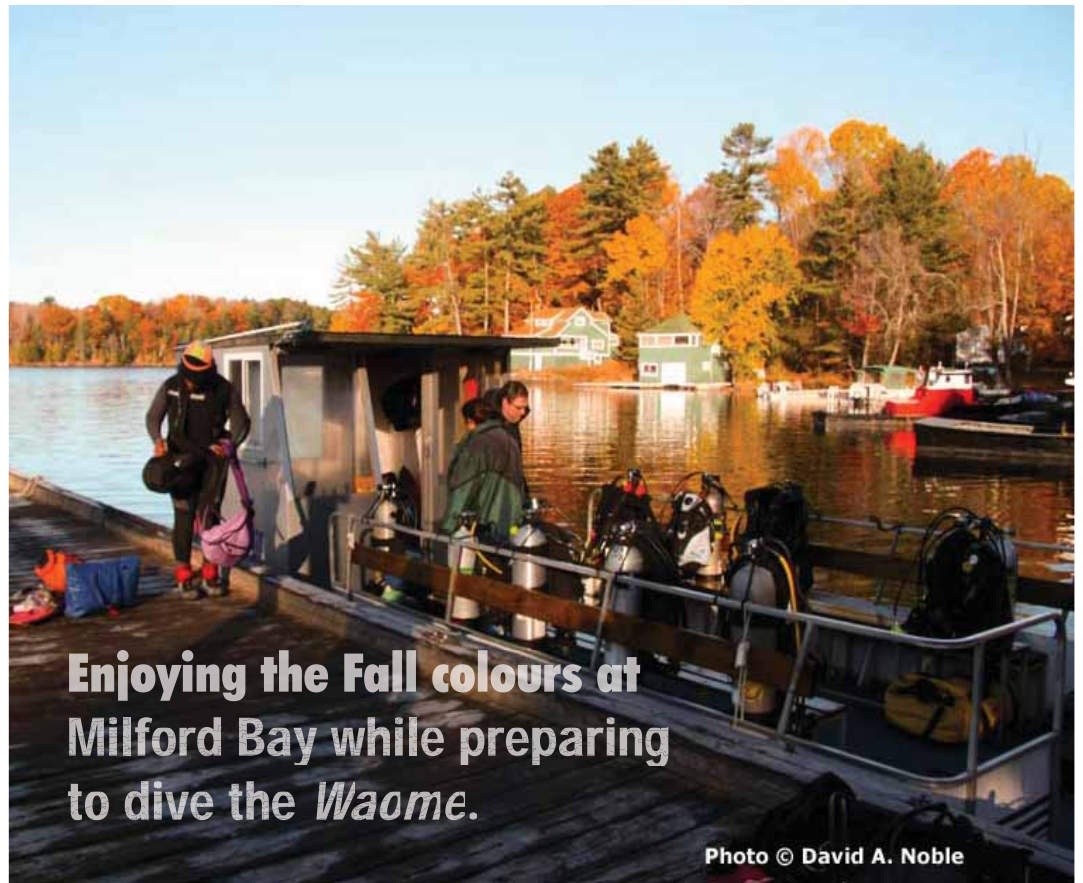
FALL 2011

It must be Fall!

The OUC AGM
is coming up
November 13

Board
nominations
are OPEN

Get involved
& make a
difference



Enjoying the Fall colours at
Milford Bay while preparing
to dive the *Waome*.

Photo © David A. Noble

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President's Corner

Raimund J. Krob

OUR MISSION

To help support and promote the sport of scuba diving in Ontario through safety, advocacy, cultural and environmental awareness, self-governance, education ...and fun!

Greetings Fellow Ontario Divers:

This will likely be my last "President's Corner" as I'm not planning on standing for re-election at OUC's 2011 AGM (on Sunday, Nov. 13th).

During my several years as OUC Regional Coordinator, Director of Sport Safety, followed by ~6-years as OUC President, I've worked with a lot of amazing people, made a lot of good friends, learned a great deal, and broadened my horizons immeasurably.

What possessed me to devote so much of my time to our sport, you may ask?

Well, when you've gotten as much enjoyment out of diving as I have, then you inevitably want to give something back.

And serving on the OUC team was one of the ways that I chose to do so.

If you're of a similar mind-set, are available, capable, and ready to make a serious commitment, then please contact me and I can answer any questions you might have about the various roles in OUC and the responsibilities associated with them.

The positions entail no small amount of hard work, but they are also immensely rewarding.

Among the many memories I will cherish most from my long association with OUC are:

- Working with all the dedicated and talented people that comprised the OUC Team, including fellow members of the Board of Directors, Regional Coordinators, Portfolio Coordinators and Volunteers.
- Leading the development of Fathom Five Scuba Diver Safety Awareness Program and monitoring the subsequent improvements.
- The wonderful times we had continuing the Annual Ice Floe Race tradition
- All of the many, many events we maintained a presence at, including OUC's annual "Scuba Swap", NDA's annual "Shipwrecks" symposium, the Ultimate Travel Show, UHMS' annual Diving & Medicine symposium, the Outdoor Adventure Show (in particular the 2010 show where I had the pleasure of introducing Rick Mercer to scuba diving in the OUC-coordinated Scuba Demo Tank), and the annual Ontario Museum of Archaeology symposium.

...continued

- Celebrating OUC's 50th Anniversary Year in 2008, with many of our past Presidents in attendance
- Helping investigate diving incidents and working hard with police, government, survivors, and fellow Board Members to draft recommendations to prevent recurrence.

After the November 13th AGM I intend to execute my succession plan with my successor, in such a way as to set them up for success, and then make myself available in an advisory / consultative capacity for a while, if needed.

Speaking of successors and success, OUC draws its Board Members, its Regional Coordinators, its Portfolio Coordinators, and all of its many volunteers from its Membership base, which today consists largely of Member Clubs (and a few handfuls of Commercial and Individual Members).

Because our Club Membership has been declining over the past number of years, it has been getting increasingly difficult to fill all the positions on the OUC Team with the necessary volunteers.

This means that if we are to survive and thrive in the future, we will not only need to work hard on retaining and growing our existing Club Membership base, but we will also need to work even harder to attract new members from the tens of thousands of Ontario's divers who affiliate themselves with scuba Retailers and other organizations.

This will be one of several key priorities the new Board of Directors will need to address.

In closing, it's been both an honour and a privilege to serve you and the sport, and now it's time for me to move on and let someone else (maybe you?) lead OUC into the future.

Yours in safe, respectful, & enjoyable scuba diving,

Raimund J. Krob
President
Ontario Underwater Council

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OUC: Promoting the sport of scuba diving in Ontario through safety, advocacy, cultural and environmental awareness, self-governance, education, and fun since 1958.

Did You Know?

The initial idea for Fathom Five National Marine Park came from a university research paper by David Good, a diver from Kitchener, and was first presented to the Government in 1968. OUC was asked to participate in the planning of the new park. It is not too often that the Government consults members of the public in this phase of their work.

...HUH!

Read more on page 18

ONTARIO DIVER

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If you would like to volunteer to fill these key positions, please e-mail the President at ouc.president@underwatercouncil.com

Letter from the Editor

On the future direction of OUC

These comments are the opinion of the writer

With the release of the recent AGM announcement and call for nominations to the Board, OUC's intention was to encourage the members to take positive action to fill the nomination slate. The response has so far been disappointing.

Over its more than five decades of service to the sport diving community, OUC has always relied on a strong volunteer commitment to create and run its programs. The Council is in fact all of *us*, the OUC members and not *them*, some independent management group...not yet anyway. Gone are the days when government funding allowed for an office of paid employees. OUC now needs to be self sufficient financially and administratively. Just like the club executive are club members, so too is the OUC Board made up from its member club and commercial members and now needs your assistance to ensure that this continues. Granted, resources are stretched thin these days (even more so for smaller clubs) but what is the alternative? Government intervention in the manner of an FQAS? In Ontario, we have so far enjoyed the privilege of self regulation and risk management. A strong Council will help to maintain that privilege. I would like see the clubs and commercial members get together, or at least start a discussion between them to brainstorm some affirmative actions. In this newsletter you will see more of What OUC Does for You and what would be lost without the Council.

OUC wants the members to rally, even give them a new mandate, tell them what they want from the Council if not what it provides now and what they can do to help make it happen. It is perhaps time to redefine what the Council does and for fresh young blood to implement it.

To that end, come out to the AGM on November 13. You will have an opportunity to have your say on the future direction of OUC at a pre AGM open forum. I will be there. Will you?

...my 2 cents.

Marianne Collins
General Editor

Web link to the Nomination Form:

<http://underwatercouncil.com/downloads/aggm/OUC%20Nomination%20Package.pdf>

On OUC Visibility

How many times have we heard that we don't know what the OUC does? OUC has recently been sending its Board meeting Minutes to each member Club via its President. This will help the club's executive in its responsibility to inform its members of the happenings of the OUC, as the club and its members ARE the OUC.

It is the Board's intention that the Club Presidents share Board meeting Minutes with its executive and members. Why? Individual OUC members within the clubs are Blue members with NO vote of their own. The clubs carry the votes for them and as such are the agents for their members. The distribution of the Board Minutes is part of OUC's effort to share what is happening with the OUC Board and part of a Visibility Plan that they are working on to better serve the membership.

Along with an open invitation to member clubs to listen-in on the Board meetings via tele-conference and the posting of the Minutes on the OUC website, all of these gestures are in direct response to feedback received from the membership. Clubs are encouraged to take advantage of these opportunities to keep in touch with the activities of their OUC Board.

The Board welcomes any other suggestions to facilitate information exchange with its members.

News & Events

Fall 2011 - OUC & Member Events



DEMA is an international organization dedicated to the promotion and growth of the recreational scuba diving and snorkeling industry. This non-profit, Membership-based organization promotes scuba diving through many initiatives including consumer awareness programs, media campaigns and sponsorship of the DEMA Show.

DEMA Show 2011 will take place November 2-5, 2011 at Orange County Convention Center Orlando, FL

Read more about the Show on the DEMA website:
<http://www.dema.org/>

OUC 2011 AGM

OUC's 2011 AGM will be held Sunday, November 13th. All members are welcome to attend. We request that all wishing to attend, please contact the OUC office or watch for details on a pre-registration page coming soon.

Nominations for OUC Board of Directors now being accepted. OUC will have 4 out of 5 Board positions up for election at the 2011 AGM. Anyone who is a member of the greater Ontario scuba community (diver, retailer, club, charter operator, etc.) and is capable, committed, and motivated about serving the sport is eligible. Your nominations and your votes will determine the future of the OUC at the 2011 AGM.

Read more on page 10 in this issue....here.

DEMA 2011



While not an OUC event, the DEMA Show is an industry trade show for all dive professionals. DEMA Show 2011 will take place November 2-5, 2011 at Orange County Convention Center Orlando, FL
Read more about the Show on the DEMA website:
<http://www.dema.org/>

OUC welcomes our newest Commercial Member: GreenSea Diving



GreenSea Diving specializes in Private and Customized PADI dive courses from Discover SCUBA to Divemaster, as well as Diving Holidays and Boat Charters. Comox Valley. B.C.

Website: www.greenseadiving.ca
Read more about GreenSea Diving on the Commercial Membership page of the OUC website.

http://underwatercouncil.com/?action=cms&cmspage=reg_other&parent_cmspage1=membership&parent_cmspage2=members

Congratulations to Draw Prize Winners

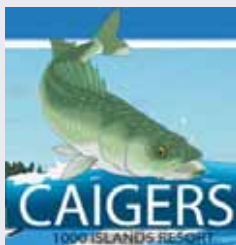
Announcing the Winners of "Thousand Island Pleasure Diving AND Caiger's Resort" Draw!

FOR:
one night's accommodation at Caiger's Resort
PLUS
one day of diving (2 tanks for 2 people) with
Thousand Island Pleasure Diving.

Thank you Caiger's and Thousand Islands Pleasure diving for the generous prize donation.

Congratulations to Wayne Simon, the lucky winner of the draw at *the 2011 Ultimate Travel Show* at the Metro Convention Centre!

And congratulations also to Leslie Jefford, the lucky winner of the draw at the International Centre *2011 Outdoor Adventure Show!*



Caigers Resort website
<http://www.caigers.ca>



Thousand Islands Pleasure Diving
<http://www.islanddiver.ca>



Wayne Simon receives his 2011 Ultimate Adventure Show prize from OUC President, Raimund Krob.



Leslie Jefford happily accepts her 2011 Outdoor Adventure Show prize.

More OUC Visibility

OUC assists its Club and Commercial members with opportunities to advertise to large markets at events like the Ultimate Travel show and the Outdoor Adventure Show at a much reduced cost.

EUC fundraiser held

August 27, 2011 - Centennial Beach, Barrie

2011 Dive 4 A Cause a win for Cystic Fibrosis



For the 5th year, the Etobicoke Underwater Club held its annual fundraiser on the shores of Kempenfeldt Bay on Saturday August 27 2011.

Divers explored the wreck of the J.C. Morrison, while collecting colored closepins to exchange for a poker hand in possibly the first Poker Run to ever have been held at Centennial Park.

And for even more FUN..

The Dive 4 A Cause Event was featured on Rogers TV in Barrie on a show called *Celebrate the County* which promotes upcoming events in Simcoe County. The film crew taped the show on Friday in advance of the event, on location at Centennial Park. 8 Event organizers and guests were interviewed in the format of a talk show by the 2 show hosts, Jennifer Robinson and Glenn Coulson. The show aired on the Friday night and ran several times over the weekend.

The light hearted antics of the interviewees and the interviewers in getting fully suited up and in costume to boot, earned the segment prime real estate in the show's *Best of* show roundup.

Cheryl Woods, Director of Community Development for Cystic Fibrosis talked about CF and what fundraising events like this mean for the charity. Cheryl was thrilled by the media coverage and everyone involved had a great time. ■



Barrie Firefighters Farrell, Smith & Dawes present Eleonora Kolar 2011 Dive 4 A Cause Chair, with a \$500 donation in support of Cystic Fibrosis Canada.

Photos courtesy of Camilla Sherriff, EUC

Barrie Firefighters made the day extra special with a donation of \$500 to the Cause! Proceeds will support the vital work of Cystic Fibrosis Canada, funding research and education about this very serious genetic disease that affects both children and young adults.

Pledges in excess of \$5000 were collected. Donations to CF can still be made online thru www.dive4acause.com.

CF survivor Megan & her grandfather, Bill Poland pictured with members of Barrie Fire Department



And if you'd like further info on the dive club visit www.euc.ca



Participating members of SUCI

Dive 4 A Cause team with Barrie Firefighters



Participants eagerly register for the dive



Bill 13 When Wreck Diving Was Threatened

Julien LeBourdais

In November 1999, members of the dive community suddenly heard that Bill 13, “An Act to Preserve Ontario’s Marine Heritage and Promote Tourism by Protecting Heritage Wrecks and Artefacts”, had passed both first and second readings in the Ontario Legislature. The act would prohibit divers from entering a wreck, touching a wreck, or disturbing the silt anywhere within the debris field unless they had a licence (for that specific wreck). In practical terms, this proposed legislation would outlaw wreck diving in Ontario.



Exploring the wreck of the
Alice G in Tobermory.

Photo © Marianne Collins 2011

Since legislation requires three readings to become law, there were rumours flying around that Bill 13 would be passed by Christmas. Scuba diving as we knew it would become severely restricted. We all wondered how such a piece of proposed legislation could appear so fast – without any prior discussion.

Months earlier, Toby Barrett, Conservative MPP for Haldimand-Norfolk-Brant (along the north shore of Lake Erie), had been approached by a couple of individuals who were reportedly dedicated to preserving shipwrecks in Ontario. They convinced Mr. Barrett that Ontario shipwrecks should be given the same protection as other heritage sites. Their argument was strengthened by the ongoing legal dispute between a local commercial diver and the Ontario government over ownership of a deep wreck in Lake Erie and the controversy surrounding the removing of the ship’s bell and other artefacts from the wreck of the Edmund Fitzgerald in Lake Superior.

Toby Barrett, not a member of the cabinet, drafted a private member’s bill. Generally, private member’s bills have low priority in the legislature and have very little chance of being passed. However, this bill was sponsored by a government member and to the casual observer, looked like a fairly non-

controversial issue – preserving Ontario’s heritage and history – who could argue with that?

In fact, many in the dive community did argue. Barrett and other MPPs were deluged with letters, emails and phone calls as soon as the word got out. Most of the reaction was rational and helpful; some of it less so. Letters demanding Barrett resign from the legislature, mind his own business and stay out of matters that were not his concern did not help the cause of sport diving in Ontario. In fact, preserving Ontario’s natural heritage was one of his responsibilities as a member of the provincial legislature.

Some in the dive community had not noticed that Bill 13 had been referred to the Standing Committee on General Government. This is a committee with members from all parties that considers proposed legislation and invites input from the public. Some in the dive community were unaware that passing second reading is a procedural matter and has little to do with the likelihood of a bill being passed. Third reading is the important step and this could not occur until the committee hearings had taken place. Worries that Bill 13 would “be passed by Christmas” were unfounded.

For decades, the Ontario Government has regarded the OUC as the major organization representing sport diving in Ontario. Every OUC president (including myself 2001-2003) has had periodic meetings with various Ontario cabinet ministers and other government officials. This relationship has been ongoing. However, this proposed legislation did not originate with a government ministry so the OUC was not consulted in advance and we were blindsided like everyone

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else. However, OUC President Beth Cornwell and the board quickly became involved as soon as word got out.

Beth's first move was to widely distribute copies of Bill 13, encourage the dive community to contact their local MPP, and host a meeting of stakeholders at the OUC on Dec. 12, 1999. This meeting was well attended and many comments and opinions were expressed. Beth received assurances from Toby Barrett's office that the bill could not be considered by the committee until late spring 2000 at the earliest.

Beth Cornwell's main contribution at this point was to calm the rhetoric. She recognized that change comes through negotiation – not confrontation. Beth realized that Toby Barrett had likely been “sold a bill of goods” and probably had little awareness of sport diving in Ontario. She set about to change all that. Throughout the spring of 2000, Beth initiated a number of meetings between Toby Barrett and members of the dive community. He came to learn that most divers are concerned about the preservation and well being of Ontario's shipwrecks. Barrett also came to appreciate the significance of Ontario sport diving as a recreational activity and commercial business. In March, Barrett was invited by Beth Cornwell to attend Underwater Canada, the largest consumer scuba show in Canada (produced by the OUC). At Underwater Canada, Barrett mingled with sport divers, dive shop owners, charter boat operators, instructors, and international diving speakers – all of whom expressed their concerns about the proposed legislation and showed their enthusiasm for responsible shipwreck diving. During his visit to Underwater Canada, Barrett supplied the OUC with proposed amendments to Bill 13 that went a long way to satisfying the concerns of the dive community. Hearings were finally scheduled for October. Prior to this date, Toby Barrett supplied us with more amendments that went even further towards satisfying our

concerns. Under his amended bill, 95% of Ontario wrecks would be accessible to sport divers without any restrictions. Restrictions would only apply to certain wrecks, mostly newly-discovered, where adequate archaeological assessment had yet to be completed.

The OUC was invited to make a presentation to the Standing Committee on General Government at the Ontario Legislature on October 11, 2000. Beth Cornwell asked me (I was an OUC board member) to prepare a brief and deliver it orally to the committee. Beth would appear beside me. Because of the OUC's recognized position representing the sport diving community, we were given 15 minutes – including questions from committee members. Other individuals and groups who also made presentations were given 10 minutes.

Through private discussions, we knew that these hearings were no longer significant. By now, Toby Barrett realized he had originally been misinformed and, if truth be told, would be happy to see Bill 13 go away. However, hearings were scheduled and he risked looking foolish if he backed out. We knew that our best approach was to compliment him on his amendments, recommend Bill 13 not be passed, make some proactive and positive recommendations, and just wait. Time would run out, the bill would not be given third reading, and Bill 13 would “die on the order paper”. This means that the legislature would have adjourned automatically wiping out all unfinished bills. That's exactly what happened - Bill 13 was dead. Toby Barrett had no intention of reintroducing the bill in the next session of the legislature.

Bill 13 did not become law because OUC President Beth Cornwell spent months educating and informing Toby Barrett until he watered down his original proposals and began to have serious doubts about the merits of his own proposed legislation. If these behind the scenes actions had not occurred, Bill 13 in its original

form could have passed third reading. To the public and to members of all parties in the legislature, Bill 13 looked like a motherhood issue – preserving our heritage and the environment. There was no evidence of general opposition to it. The dive community did oppose Bill 13 but it is relatively small in Ontario and many of its objections could be considered self-serving.

Our experience with Bill 13 is a very good example of the value of the Ontario Underwater Council representing the interests of all sport divers, retailers, dive clubs, instructors and training agencies across the province. The dive community is not a very large group and doesn't have a lot of political or economic clout. However, there are times when we need to speak with one rational voice. We've seen it work.



There is no doubt that many in the dive community played a role in defeating Bill 13. In my opinion, however, OUC President Beth Cornwell deserves the lion's share of the credit. Rather than being negative or confrontational, she set about to inform and educate MPP Barrett – making positive suggestions – and allowing the process to work. We all owe her a debt of gratitude each time we dive on a wreck.

Sadly, Beth Cornwell passed away in 2008. When I jump into the water to explore my favourite shipwreck, I think of her. ■

OUC AGM

Nominations are OPEN

OUC is now accepting nominations for the following 4 (out of a total of 5) Board of Directors positions:

1. President (2 year term)
ouc.president@underwatercouncil.com
2. Director of Sport Safety (1 year balance of 2 year term)
ouc.safety@underwatercouncil.com
3. Director of Membership (2 year term)
ouc.membership@underwatercouncil.com
4. Director of Communications (2 year term)
ouc.communications@underwatercouncil.com

All positions listed above will become vacant at the 2011 AGM on Sunday, November 13th. Anyone who is a member of the greater Ontario scuba community (diver, professional, club, retailer, charter operator, etc.) and who is capable, committed, and motivated about serving the sport is eligible to be nominated. The nomination form and instructions may be found on OUC's website www.underwatercouncil.com on the Volunteering Opportunities page <http://underwatercouncil.com/?action=cms&cmspage=careers>

Over its more than five decades of service to the sport diving community, OUC has always relied on a strong volunteer commitment to create and run programs, to lobby government agencies, and to monitor and influence diving safety in many different facets of our sport. Today we are even more reliant on the efforts of volunteers to ensure that our organization can continue to move forward. We have been very fortunate that concerned and committed divers, such as yourselves, have always stepped forward and now we need your assistance again to ensure that this continues.

If you are interested in serving on the OUC Board in one of these capacities, and would like to know more about the role and its responsibilities, please visit our website at www.underwatercouncil.com and look in the Volunteering section, or contact the existing Board Members directly via the e-mail addresses provided. Naturally the outgoing members are all fully committed to helping the incoming members take over their new roles.

If we do NOT fill these Board positions then OUC will not be able to continue to serve its members and the sport as they deserve, and in the worst case scenario may have to dissolve. The Board is optimistic that we will not have to resort to this final measure, however we must prepare for the possibility.

Your nominations and your votes will determine the future of OUC at the 2011 AGM. ■

Interested in giving back to the sport?

Q: Who can be a Director of the OUC?

A: Anyone who wishes to help support Scuba Diving in Ontario!

Q: What do I need to be on the Board?

A: You need to be/become a member of the OUC.

A: You need to be nominated.

Q: How can I be nominated?

A: You can approach an OUC member club and be put forward by the club's executive.

A: You can approach a current Director of the OUC and be nominated.

Q: When are the elections?

A: Elections are held every fall at the AGM (Annual General Meeting).

Q: How else can I help if I don't want to be a Director?

A: There are numerous areas where OUC can use your help and enthusiasm.

A: Help with committees, portfolios, etc.

See the next page for a "summary" of job descriptions.

You should also review in more detail, the Volunteering web page on the OUC website at: <http://underwatercouncil.com/?action=cms&cmspage=careers>

The AGM Voting Member Package

will be distributed to the membership shortly and in advance of the meeting. In the meantime the following proposed agenda items will help you plan your attendance.

AGM Agenda Items

- **Pre AGM Seminar: OUC Presentation on the State of the Union followed by a facilitated brainstorming session on the Future Direction of OUC.**

All members will have an opportunity to offer their feedback. Bring your suggestions for new directions for the incoming Board.

***Brainstorming defined:** a group creativity technique by which a group tries to find a solution for a specific problem by gathering a list of ideas spontaneously contributed by its members.*

- **OUC Annual General Meeting**
New business for discussion by the membership:

1. 2012 OUC membership and insurance premium fees

- **OUC Elections**



OUC Board of Directors

Roles and Responsibilities:

The following are summary job descriptions for each position on the OUC Board of Directors. These should help you when making your decisions on helping out the OUC

Q: Who can be a Director of the OUC?

A: Anyone who wishes to help support Scuba Diving in Ontario!

PRESIDENT

- Manage the Board of Directors
- Explore and sponsor future direction and growth of the OUC
- Explore various fundraising initiatives
- Establish better relationships with manufacturers and retailers
- Re-establish the OUC as the voice of diving in Ontario
- Define the role of the OUC as a consumer advocate
- Liaise with other Provincial Councils

DIRECTOR - Safety

- Ensure that the OUC works towards a high degree of safety awareness across the diving community. Responsible for the publication of the OUC Report on Scuba Diving Related Incidents
- Review periodically and upgrade as necessary all OUC forms and publications relating to diver safety. Coordinate OUC's involvement with the provincial Coroner's Office at inquests.
- Implement and maintain all OUC risk management programs.
- Provide consultation to other Director portfolios as relates to safety / risk management

DIRECTOR - Membership

- Ensure the continuation of the Council's strong and diverse membership base, while further developing strategies for obtaining new members from non traditional sources of new divers.
- Increase commercial and individual membership
- Formalize retail and club visitation and appropriate reporting method to track
- Prepare plan to get more individual members who have been trained through stores

DIRECTOR - Communications

- Ensure that the OUC maintain information of Ontario dive sites and that it is readily available to the diving community. Ensure that all other council publication and information services are published in an accurate and timely manner.
- Assist in maintaining an exciting and informative website to encourage membership and provide information to Ontario divers.
- Assist with increasing the Council's visibility and media coverage

What does OUC do for YOU?

How does the Ontario Underwater Council serve the divers of Ontario?

The Roles of the OUC

Each of the component parts of the OUC, are important to the dive community.

Role	Activities	Impact on the dive community
Safety Role	<p>Activities are related to:</p> <ul style="list-style-type: none"> • accident investigations • risk mitigation recommendations • Dive flag awareness programs (ABMP) • Interface with Transport Canada related to boating safety and transport of dangerous goods • Support for Dave Cooper Hyperbaric Fund project to obtain a hyperbaric facility in the Brockville area. • Developing and maintaining the OUC's Clean Air Program known as CAPIP. (Canadian Air Purity Inspection Program) 	<p>Without OUC it is expected that the dive community would overwhelm the investigating agencies in the determination of cause of accidents. Agencies/ Authorities would lose confidence in the diving community and stop providing information regarding accidents.</p> <p>Dive flags are becoming better recognized by the boating community.</p> <p>Scuba related accidents will hopefully decrease over time.</p> <p>Coroners do occasionally recommend creation of a regulatory body to enforce new standards on divers. OUC speaks for the dive community and helps to prevent government intervention.</p> <p>Without OUC as a self-governance body, the likelihood that the sport of diving will become government regulated (like Quebec) increases.</p>
Advocacy Role	<p>In its advocacy role, OUC is the primary contact with government, dive organizations, police, coroner, etc.</p>	<p>The OUC acts on behalf of individual divers, Dive Clubs and Commercial entities to work with various levels of government to protect the diving assets of all of our interests.</p> <p>Without the OUC it is expected that the sport will have little leverage to maintain their interests and that over time Ontario divers will lose access to many resources.</p>
Cultural & Environmental Awareness	<p>OUC works directly with several Ministries (Provincial and Federal) to promote the cultural preservation of our resources,</p> <p>OUC is available to perform safety and environmental assessments for artificial reef programs.</p>	<p>The OUC is a valuable advocate for protection of our underwater resources. Resources may more quickly be damaged or depleted without this voice.</p> <p>Without the OUC, parties wishing to place artificial reefs (ships) would not have an independent body to perform safety and environmental inspections. This lack could cause an increased cost to those parties and would likely make the approval process prohibitively tedious.</p>

...continued

Role	Activities	Impact on the dive community
Self-governance	<p>OUC promotes self-governance of the sport by maintaining interfaces to government agencies, including police, coroner, EMS.</p> <p>OUC maintains the Incident report's, and performs related analysis and mitigation of risks. OUC prepares presentations which are available to all diving organizations related to significant incidents.</p> <p>OUC interfaces with municipal governments when they are taking away access to dive sites.</p> <p>Through the OUC, Dive Clubs have access to Liability insurance.</p>	<p>The government agencies do not release information to the general dive community and look to the OUC as a single responsible organization to disseminate data.</p> <p>OUC investigates, drafts, and communicates recommendations to prevent scuba fatalities like the ones that occurred in the Niagara River in September of 2007 and on the Birmingham crane in Oakville in 2010.</p> <p>OUC makes recommendations on how the dive community can continue to use dive sites while minimizing negative impact to residents.</p> <p>Without the OUC to manage / negotiate with the insurance company, the rates for insurance will likely go up in cost, and without a body to show attempts to educate divers and mitigate risk, the insurance may not be available.</p>
Education	<p>OUC works with other organizations to develop safe standards for dive students.</p> <p>OUC maintains the Risk Mitigation and Insurance Requirements document and all associated web pages, which pass on the safety message to all Ontario divers.</p> <p>OUC has developed and maintains the Aviva Barth Memorial Program to educate boaters and divers on the proper recognition and use of the Diver Down flag.</p>	<p>Potentially the rates of incidents will go up and scuba will be dropped as a curriculum in schools.</p> <p>Without the OUC, the rate of incidents may increase and people will speak out to local government to regulate the industry to make it safer.</p> <p>Without the OUC and these projects, the incident of divers being hit by boats will continue and no one will be there to explain the importance of getting the message out.</p>
Fun!	<p>OUC helps organize events to help promote the sport of Scuba diving:</p> <ul style="list-style-type: none"> • Ice Floe Race • Adventures Underwater • Evening for Divers by Divers • Outdoor Adventure Show • Ultimate Travel Show 	<p>OUC assists Clubs and Commercial members with opportunities to advertise to large markets at a much reduced cost.</p> <p>OUC helps provide media visibility promoting its member clubs and commercial interests.</p>



Safety Corner

Dave Noble

Oxygen Toxicity and Dealing with Divers Convulsing at Depth

Oxygen toxicity is a problem which occurs when a diver is breathing oxygen at higher than normal partial pressures. This may occur when using nitrox / enriched air mixes above 21%.

Diving to / beyond recommended limits (MOD) of Nitrox (gas mixes) increases risk of Oxygen Toxicity hit.



Some training agencies teach the use of two depth limits to protect against oxygen toxicity. The shallower depth is called the “maximum operating depth” (MOD). General Recreational limits range from a ppO₂ of 1.2 to 1.4 (1.4 bar or 140 kPa). The deeper depth, called the “contingency depth” (COD), is reached when the partial pressure reaches 1.6 ppO₂ (1.6 bar or 160 kPa), but these limits are as with all tables, theoretical, and do not preclude the possibility of getting a hit. Diving at or beyond this level exposes the diver to the risk of central nervous system

(CNS) oxygen toxicity. This is extremely dangerous as onset is often without warning and can lead to drowning, as the regulator may be spat out during convulsions, which occur in conjunction with sudden unconsciousness (general seizure induced by oxygen toxicity).

Scuba training agencies recommend that divers be conservative in their dive planning and not dive to the limits. This is even more important as it relates to the use of enriched become unconscious, the glottis will relax and the airway will open. This will allow the rescuer to begin a safe ascent with the victim.

While this article is specifically referencing Oxygen Toxicity as the cause for seizure, it is the same protocol to be used regardless of the cause of the seizure.

General Comments to Rescues

It is important, as always, in a rescue scenario to remember to keep yourself (the rescuer) safe. It will be much worse to have to deal with 2 victims if you get hurt.

If you can no longer continue to bring the victim to the surface, then send the diver up buoyant and follow at a safe pace yourself. You can't help a victim unless he/she is on the surface.

If you require mandatory decompression stops, you will need to evaluate the impact of missing them against the need to get the injured diver to medical help. Consider your options at the surface. Is there oxygen readily available? Is EMS readily available? Is a recompression chamber an available option?

And lastly, if you are looking after a buddy team who have arrived with a problem, do NOT forget to keep an eye on the rescuer while you are dealing with the obvious victim. It has happened that the injured diver survived but the rescuer did not. ■

The Value of Continuing Education

Continuing Education, sounds like going back to school. Sounds expensive. Sounds boring. Well when it relates to diving, you might want to rethink those ideas. If you've just gotten certified, you may be having a few nerves. What better way to build your confidence, by diving with other people and meeting new dive buddies?

When you became an Open Water Diver you received a certification card. That was your license to learn. Many of the dive skills needed to be a safe, competent diver are learned after the Open Water Course.

Continuing the adventure is one of the best moves you can make. By going beyond Open Water Diver (or any other level you are at), you can:

- Learn additional skills specific to your interests
- Be more confident in and around the water
- Continue to develop your dive skills
- Better understand the aquatic world
- Dive where only divers with appropriate advanced training can go
- Work with new/more technical equipment
- Learn from people with more formal training and experience

Learning skills related to your interests will usually increase the fun you have diving. Often there may be frustration trying to learn the differences between skills learned in the air world compared to the underwater world. Photography is a great example of this. A course here will get you taking amazing underwater pictures much quicker.

The main thing for a newly certified diver to remember is that you have

only mastered the most basic skills to allow you to dive safely.

The recommendation I make to my new divers, is to consider training for advanced skills of Navigation, Deep, Advanced Buoyancy, and perhaps Night. This will give you understanding of the safety issues and give you more confidence in your day-to-day diving.

A diver with this experience and confidence is much more noticeable than a new diver. In fact you should consider the full specialties in Deep and Buoyancy as well as completing a course at the Rescue level.

Many new divers argue that they want to take more time to practice before moving on. For most, this may be a mistake. You need to find buddies to dive with, and you don't want to learn things that you may have to un-learn later. Your instructor will help you to plot an appropriate learning path for you.

You need to remember to dive within your limits of training and confidence and not be pushed by your buddy to do things you are not comfortable with.

And lastly REMEMBER this: ANY diver can abort ANY dive at ANY time without having to explain to anyone else.

Even the most experienced instructors and technical divers follow this credo. Some divers have a three strike rule, some - a one strike rule, whatever you decide, don't be pressured. Stay alive to dive another day. ■

David Noble

OUC Director of Sport Safety
PADI Course Director
DAN Instructor Trainer

“Stay alive to dive another day”

PFOs and Diving...

Raimund Krob

Two experiences I was personally involved in (one long ago and one just recently) prompted me to poke around a little bit into the topic of PFOs (Patent Foramen Ovale) and diving.

This article is the result of that poking around. By way of disclaimer, I don't pretend to be a doctor, or a trained researcher, or an authority of any kind. Nevertheless, I hope this article will pique your curiosity, and maybe prompt you to conduct more reading / research of your own and draw your own conclusions:

Before we get to what a Patent Foramen Ovale is, I think it's important to first understand what a Foramen Ovale is. A Foramen (Latin for "hole") Ovale (Latin for "oval") is an opening in the wall that separates the right atrium and the left atrium in the developing (fetal) human heart. (There is a flap that can cover the hole, but while in the womb, the pressure differential causes the flap to stay open)

The function of the Foramen Ovale is to allow oxygenated blood from the umbilicus to enter the fetal heart via the right atrium and flow directly into the left atrium and from there to the fetus' body and brain, in the process largely bypassing the (non-functional and "submerged") developing fetal lungs. (So you could be forgiven for thinking that your mom was your very first organic re-breather ☺)

At birth, the pressure differential causes the flap to close over the Foramen Ovale, and the infant's blood flow then becomes that of the human adult's namely:

1. from the body's veins into the right atrium,
2. from the right atrium into the right ventricle
3. from the right ventricle to the pulmonary artery
4. from the pulmonary artery to the (now fully-functional) lungs
5. from the lungs to the pulmonary veins
6. from the pulmonary veins into the left atrium
7. from the left atrium into the left ventricle
8. from the left ventricle back out to the body
9. and back to 1. again.

Over time, the flap covering the Foramen Ovale is supposed to grow closed. If the flap doesn't grow completely closed then it's referred to as a Patent Foramen Ovale (PFO). (If the flap doesn't grow closed at all, then it is referred to as an Atrial Septal Defect (ASD))

What is the incidence of PFO in the general population?

Various studies put the incidence of PFOs in the general population somewhere between a low of 10% and a high of 34%.

In other words, in a room of 100 divers (and assuming that divers are evenly represented in the general population), somewhere between 10 and 34 divers will have PFOs.

So what's the concern about diving with a PFO?

At present there doesn't seem to be much hard data to conclusively determine a link between PFOs and diving incidents but there are a number of indicators (like the personal ones I mentioned at the outset of this article) that suggest that something may be going on that we might want to take a closer look at.

The thinking behind why PFOs and diving might be problematic goes something like this:

- In the human heart, PFOs allow nitrogen bubbles to cross from the right atrium into the left atrium.
- Once these nitrogen bubbles are in the left atrium, at the very next heart-beat, they are pumped into the left ventricle and from there to blood vessels leading directly to the body and the brain.
- (In divers without PFOs, most nitrogen bubbles in the right atrium are pumped to the right ventricle, and then directly out to the lungs, where they are eventually exhaled)
- Nitrogen bubbles in the blood vessels leading to the body and brain are, simply put, not good, and generally speaking, the bigger the bubbles, and the more of them there are, the more damage they can do.

Note that a nitrogen bubble can travel in a blood vessel without causing any major problems up until the point where the diameter of the blood vessel becomes smaller than that of the bubble. At that point the bubble becomes a blockage, past which little or no blood can flow. In this respect, there's not much difference between a gas bubble in the bloodstream and a clot in the bloodstream, as both can block blood from flowing past them.

If a bubble or clot blocks a blood vessel in the brain, it can cause what is commonly known as a stroke, and as mentioned previously, the bigger the blockages and the more of them there are, the more severe the stroke symptoms can be. In other words, micro-bubbles can cause micro-strokes, massive bubbles can cause massive strokes.

If a bubble blocks a blood vessel in the body (often in the vicinity of joints where the diameter of blood vessels may be smaller) it can cause what is commonly known as "the bends" (or decompression sickness / DCS).

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Divers are not the only people who can get bubbles in their bloodstreams.

For example, heart surgery patients, while they are on cardio-pulmonary bypass (CPB) machinery, may also be subjected to varying amounts and sizes of air bubbles entering their bloodstreams.

These air bubbles may cause what is commonly known as “pumphead” or “postperfusion syndrome”. Some of the more famous “pumpheads” are said to include former US President Bill Clinton, and former US Vice-President Dick Cheney, both of whom were heart surgery patients on CPB. The key difference between pumpheads and divers though is that while pumpheads are only exposed to gas bubbles in their bloodstreams once or twice in a lifetime, divers with PFOs potentially expose themselves to nitrogen gas bubbles in their bloodstreams every time they dive in a way that causes those bubbles to form in their bodies.

Most common factors that can cause bubbles to form in divers’ bodies:

- Depth:
 - Generally speaking, the deeper you go, the greater the ambient pressure, and the more nitrogen gas dissolves in your body, and the greater the likelihood that that dissolved nitrogen will come out of solution in the form of bubbles on your ascent.
- Bottom Time:
 - Generally speaking, the longer you stay down, the more nitrogen can dissolve in your body, and the greater the likelihood that that dissolved nitrogen will come out of solution in the form of bubbles on your ascent.
- Ascent Rate:
 - Generally speaking the faster your ascent rate, the quicker the reduction in pressure, and the greater the likelihood that that dissolved nitrogen will come out of solution in the form of bubbles on your ascent.

TRY THIS AT HOME: Next time you feel like enjoying your favourite bottled carbonated beverage, take one bottle, remove the cap quickly, and observe the rate of bubble formation. Drink contents of bottle. Next, take another bottle and very slowly and very gently, eeeeeeease the cap off the bottle, and observe the rate of bubble formation. Compare the two rates of bubble formation. You should see that the bottle where you removed the cap quickly forms more bubbles and more quickly than the bottle where you eased the cap off (Don’t forget to drink the contents of the second bottle too ☺).

- Post-dive physical exertion:
 - Generally speaking, the more you physically exert yourself immediately after a dive, the greater the likelihood that the dissolved nitrogen in your body will come out of solution as bubbles (think of what would happen to the rate of bubble formation if you took the top off a bottle of your favourite carbonated beverage and gave it a good hard shake).

- Dehydration:
 - Generally speaking, the more dehydrated a diver is, the greater the likelihood of nitrogen bubble formation on ascent. To avoid this, stay well hydrated before and after diving.
- PPN2 (concentration of nitrogen gas in the breathing gas):
 - Generally speaking, the greater the concentration of nitrogen in the breathing gas, the more nitrogen dissolves in the body, and the greater the likelihood of nitrogen bubble formation on ascent. Normal compressed air breathing gas contains approximately 80% nitrogen and 20% oxygen. Recreational Nitrox breathing gas mixes can contain as little as 60% nitrogen and 40% oxygen, and so reduce the amount of nitrogen absorption, and the likelihood of nitrogen bubble formation on ascent.
- Post-Dive Temperature increase:
 - Generally speaking, the greater the increase in ambient temperature after a dive, the greater the likelihood that the dissolved nitrogen in your body will come out of solution as bubbles (think of what would happen to the rate of bubble formation if you took the top off a bottle of your favourite carbonated beverage and put it in a hot bath).
- Ambient Surface Pressure:
 - Generally speaking, the less the pressure you return to at the surface, the greater the likelihood of nitrogen bubble formation on ascent. Because of the significantly reduced ambient surface pressure at altitudes above 1,000’, special “Altitude Diving Limits” rules apply. It is also for this same reason that we have the flying-after-diving restrictions we do.

How can I tell if I have a PFO or not?

PFOs CANNOT be detected by stethoscope.

The means by which PFOs can be detected include, but are not limited to:

- Trans-Esophageal Echocardiography (TEE)
- Echocardiogram (ECG)
- Doppler Ultrasound / Transmitral Doppler Ultrasound, aka “Saline Bubble Test”
- Cardiac Magnetic Resonance Imaging (MRI)
- Cardiac catheterization
- Angiography

Can anything be done to “cure” a PFO?

Yes, there are a number of surgical procedures that are possible for curing (or closing) a PFO.

All carry with them varying elements of risk and cost, and the outcomes are not 100% certain.

If you know you have a PFO, and you want to have it fixed, discuss with your doctor and/or have them recommend you to a specialist.

If I don’t know whether I have a PFO or not, what can I do in the meantime?

Even though there is a lack of hard data to conclusively link PFOs with diving injuries, it still makes good sense for all of us to adopt conservative diving practices for all of the factors that influence bubble creation.

Bottom line: Plan your dive conservatively, and dive your plan conservatively. ■

From the Archives

Articles reprinted from OUC publications

THE BEGINNINGS OF FATHOM FIVE NATIONAL MARINE PARK

Reprinted from
OUC Diving News
Sept 1964 Issue 5

Our wrecks

Bob Peters

We wish to bring to the attention of all the members of the Ontario Underwater Council, a situation which has recently arisen in Georgian Bay. A Salvage company is at present breaking up wrecks which have long been favourite diving sites in the vicinity of Tobermory.

On August 17, the Maitland Clipper, a steel-hulled fishing tug converted to salvage work, arrived at Tobermory harbour. The crew stated that they were to tear apart all the wrecks in the area in order to salvage the metal for their personal profit. The local residents called a meeting to see if this vandalism could be stopped. They decided to inform the Receiver of Wrecks, the Historical Society and the O.U.C. of the situation.

The day following the meeting, Bob Peters was requested to contact the Council and during the next few days the matter was discussed with Ben Davis, George Burt and Ross Cowan. It was felt that the Receiver of Wrecks should be able to stop this unnecessary mass destruction of these wrecks. However, from further inquiries, it became obvious that in these circumstances the Receiver of Wrecks is unable to stop this work. All that is required of the salvage operator is for him to declare the items salvaged and to pay customs duties on the value that he may receive for them. Ross Cowan advanced the idea that the area should possibly be declared a National Historical Park so that the wrecks would then be permanently protected. It appears that this may well be the only solution to the problem. The Member of Parliament for the Bruce Peninsula has already brought this problem to the floor of the House of Commons, with the result that Mr. Pickersgill has said the matter will be looked into. However, we have little assurance that Government action is likely to follow for some time, if ever.

Salvage operations are still continuing and on Monday, Sept. 7 the anchor from the Whitmore (*Wetmore? Editor's comment*) was loaded by truck and delivered to a customer. The chain has also been sold. Other agencies besides ourselves are interested in putting an end to this business. Included are the Dept. of Lands and Forests, the Provincial Government, but like ourselves, they are powerless for only Federal action can alter the situation. We believe that the O.U.C. should initiate a campaign and enter into direct contact with the Dept. of Transport and through our local M.P.s bring sufficient pressure to bear so that some change is made in the law. Preferably through the establishment of a National Historical Park in the Georgian Bay Area.



circa 2011. Divers exit the water at the TUGS in Fathom Five National Marine Park.

Reprinted from
OUC Diving News
March-April 1973 Vol. 6 No. 2

FATHOM FIVE COMMITTEE REPORT TO SPRING GENERAL MEETING April 15, 1973

Stan McClellan

Interest in the development of Fathom Five Provincial Park appears to be high and it is important that everyone have the facts and information that is up to date. Over the past few months, many false rumors and misinterpreted factshave been circulating throughout the Council. In order to clarify these, I feel that some basic background facts are required and are herewith presented:

1. Fathom Five Provincial Park is a project of the Ontario Government under the direction of the Ministry of Natural Resources. It is not a Council project. With a few exceptions, because of the environment of the park, it is being treated as any other provincial park.
2. The initial idea came from a university research paper by David Good, a diver from Kitchener, and was first presented to the Government in 1968. Since his submission the project has begun to materialize although it is far from completion.
3. In 1971, the Ministry undertook some preliminary field investigations to assist in their planning. Studies were made in biology, limnology, geology and history by a group of individuals under contract to the Ministry. Some of these people were by

...continued

chance members of the O.U.C. while others were not. In 1972, additional studies were made and a firm of Consultants were hired to prepare the Master Development Plan.

4. In January of 1972, I was asked by Mr. Tom Lee of the Ministry Planning Dept. to have the Council appoint a liaison person to assist them in their planning with respect to the organized diving aspect. They had been made aware that the Council was the body representing the majority of organized divers in Ontario. Late in Sept. I was asked to assist in clarifying some of the points but the Interim Statement was at that time pretty well prepared. The issuing of this document created a minor crisis both from the divers view and the resulting flood of protests to the Ministry. Since that time, we have discussed some of these and changes have been made, most to the benefit of the divers.

The Council was fortunate to have been asked to participate in the planning as was the Ministry, that the Council was available. It is not too often that the government utilizes members of the public in this phase of their work.

The Master Plan has now been completed by the Consultants, Strong, Moorhead, Sigsby Limited, and although the final printing is not completed, we have met with the Ministry this past week to discuss the situation as it now stands. Since the exact contents and policy statement cannot be released until the Minister does so, I can only report on my discussions of this past week. The following are some of the major points discussed and the approximate scheduling of the park -- all subject to change of course.

The final printing and release to the public is expected no later than June 1, 1973. The Master Plan document will be sold to the public at a cost of approx. \$5.00.

2. The park is primarily designated as an historical park although some emphasis will also be on the geological and biological features. For this reason, prime programming will be on the preservation and protection of all wrecks and natural features within the park. It will be illegal to remove any artifacts or material from the sites and this was strongly emphasized. Unfortunately considerable material was removed last season from the Arabia.

3. Safety is also a major concern and for this reason the registration of all divers will eventually be a requirement. This will enable park staff to be aware of involvement both in numbers and general location. Use of the divers flag will be mandatory and it should go without saying, that we ourselves require this and have for some time.

4. The full park facilities will of course be phased over a period of years, and therefore it will be a gradual change for all participants in the area. The final phasing schedule is not yet developed and I cannot outline exactly what it might be. The scheduling for this year however includes additional field research and detailed design of the land based facilities. Registration of divers will not begin this season, but an information office will be open to the public. I have been assured that it will be open on weekends this year. Some basic interpretive programs are likely to be available. An O.P. P. detachment will be established in Tobermory and a part of their duties will include patrols. At least one of the officers will be a qualified diver. It is also expected that Customs Officers and Park Staff will assist in patrols.

5. There will be no fees charged this year nor is it likely that this will occur for some time. When it does, they will be similar to those charged for any other Provincial Park. Current rates are \$1.00 day use permits and a seasonal day use permit is \$10.00. Camping fees are \$3.50.

6. Other than encouraging the use of the divers flag and the protection of underwater sites, no other regulations affecting the divers are expected to be in effect this season.



circa 2011. The Visitor Centre for Bruce Peninsula National Park and Fathom Five National Marine Park

7. None of the current diving areas will be restricted to diving this season but common sense should dictate when and where to dive. During heavy boating season we should use extreme caution in the harbours and main channel areas. Originally it had been suggested that diving be restricted in the harbours, however this will only occur in the future if and when serious conflict of use develops. It is probable that certain areas will always be open to the divers although perhaps on a partial restricted basis. It is necessary to remember to respect all private property. ■



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Fall 2011

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