



# DOCENT DOINGS

UNH Marine Docents

February 2009

## Calendar of Events:

### Saturday, February 7<sup>th</sup>

Nor'easter Bowl- part of the National Ocean Science Bowl at U Maine, Orono.

### Saturday, February 7<sup>th</sup>

10 am to 2 PM. Farmer's Market at the Exeter Congregational Church on Front St. - up the hill from the Band Stand.

### Thursday, February 12<sup>th</sup>

February Monthly Meeting at the Durham Community Church. 9:30 -11:30 AM.

**\*\*Please remember to bring your cups\*\***

### Thursday, February 12<sup>th</sup>

Seacoast Science Center. 6pm. Heritage Dinner Series: *Corsets, Explosive Harpoons and Steam Power: The Last Days of Arctic Whaling* with NH Consulting Nautical Archaeologist David Switzer. Tickets are \$45 per person for members; \$55 non-members. Contact Ashley at 436-8043 Ext. 20 for reservations/payment by February 5<sup>th</sup>.

### Tuesday, February 17<sup>th</sup>

"*An Island Kingdom*", come and view the entire documentary by Andrea Melville about the Isles of Shoals at Great Bay Discovery Center's, Judd Gregg Center. Time: 1:00 PM, all are welcome. RSVP to Dari at [dari.ward@unh.edu](mailto:dari.ward@unh.edu) or 749-1565

### Thursday, February 19<sup>th</sup>

Strategic Update Session for the Gundalow Company at Stoodley's Tavern, Strawberry Banke from 7:00-8:30 PM.

### Thursday, March 5<sup>th</sup>

March Monthly Meeting at the Durham Community Church. 9:30 - 11: 30 AM.



## *Coordinator's Column*

I am choosing to use this space this month to highlight three major events we will undertake during the next six months that I would like you to make a priority. (And no, it is not the Nor'easter Bowl...)

The first is our opening of the "Docent side" of the Web site this month. We will start using the password protected part of the Web site for lots of communication with you, and you with us, and I would ask that you make a concerted effort to participate in this changeover. There are a number of key aspects of this. First, updating your contact information; second, completing the "pink" sheet process on-line;



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[dari.ward@unh.edu](mailto:dari.ward@unh.edu)

[www.unh.edu/marine-education](http://www.unh.edu/marine-education)

and third, using the various tools, like the calendar, to remain up-to-date. There will be training in all of this at the February monthly meeting on the 12<sup>th</sup>, and lots of help available from that point on.

The second event is the Pollard School “Day of the Coast” on Thursday, April 23<sup>rd</sup>. This is what I refer to as an “all hands on deck” event. That means that it should be on your calendar unless you absolutely cannot participate. We need help in all program areas, and in the logistics of many other aspects of the day, so everyone who proudly wears one of our blue shirts should be there.

The third event is the GOMMEA “Best of New Hampshire” day on Saturday, May 16<sup>th</sup> at various locations around the Seacoast. We are inviting all GOMMEA members and the interested public to tour New Hampshire’s marine education locations and discover what we have to offer. We are meeting this month to work out the details of the day, but it is clear that we will need UNH Marine Docent volunteers to help us as ambassadors, tour guides, and logistical help. Please put it on your calendar if you can.

Thank you for all you do, and for planning to help with these events. One of the best parts of this job is being able to count on your help, and you all deliver time and time again. Thanks for that...

Mark  
(mark.wiley@unh.edu)



*Seacoast Science Center*

We are looking forward to having the docents in training visit the Center on Wednesday, February 4<sup>th</sup> at 9 am.

There are many ways to volunteer at the Center. A list of upcoming trainings is listed below. These trainings are for docents who are interested in teaching school groups and the general public.

- February 4<sup>th</sup>, 10 am. Live Animal Exhibit Training: This training is great for volunteers who want to be exhibit interpreters at the Center.
- February 18, 10 am. *GeoAdventures: Assignment Gulf of Maine*. This training is for those who like multi-media adventures and who would like to learn to present our 12-minute program in the Gregg Interactive Learning Studio. It is also great for volunteers who want to try on their acting hats. You will learn how to run the show and how to incorporate educational messages about environmental stewardship and geo-caching.
- March 4, 10am. Marine Animals Magnified (MAM). If you like microscopes and studying animals up close you will like this training. As a docent you will be able to teach this in-depth and engaging program. Marine Animals Magnified is often scheduled for elementary and middle school students.

Please go to the calendar section of our website at [seacoastsciencecenter.org](http://seacoastsciencecenter.org) for all the upcoming activities at the Center.

If you would like to be a Center Docent or have any questions regarding the above information, please contact Michele Wensman at [volunteer@seacentr.org](mailto:volunteer@seacentr.org) or 436-8043 ext.21.

*Michele Wensman*

*Great Bay Discovery Center*

Children’s Bay Ventures

Kitten Knitten

February 7<sup>th</sup>, 9:45 – 2:00 Ages 7 - 11

Come learn about NH’s wild cats and learn how to take care of your pet cats in the winter.

A visit from the SPCA and a chance to knit a toy for one of their cats will end the day. Bring a lunch and dress appropriately for outdoor play.

Kids' Snowshoe program/ Trekking for Tracks  
9:45 - 2:00 Ages 7 - 11  
February Vacation Week 24, 25, 26 or 27. Same program each day. Explore the grounds of the Discovery Center on snow shoes. Pizza lunch provided. Dress appropriately for extended outdoor activities.

Call the Center at 778-0015 to register or for more information

Brown Bag Lunch Lecture: What's Happening to our Frogs?/Professor Stacia Sower, Wednesday, February 11<sup>th</sup>.

12:00 in the Gregg Center; bring a lunch and the Center will provide drinks and dessert. No registration required.

Sheila Roberge  
Volunteer Coordinator  
[sheila@greatbay.org](mailto:sheila@greatbay.org) 603.778.0015

### *The Gundalow Company*

The strategic planning continues . . . and we want to hear what you have to say! Please join us for a Strategic Update Session on Thursday, February 19 from 7:00-8:30 PM at Stoodley's Tavern, Strawberry Banke

Launched to promote awareness of local environmental issues, the *Captain Adams* remains an ideal platform for carrying this message. We're eager to share our new five-year vision with you and to get your input on maximizing our impact as we move forward.

February 19 will focus on programming; the next session on February 25 will be all about marketing. Please RSVP: [info@gundalow.org](mailto:info@gundalow.org), 603.433.9505.

And if you're interested in being involved this winter, here are two opportunities:

*Volunteer* to present our classroom program in local schools! Programs last 50-60 minutes and may be scheduled consecutively in one school. Content, equipment, and training provided.

*Volunteer* to organize and compile newspaper archives! The articles will be provided and you can work at home or in our office. Be the first to read these historical accounts of gundalows!

Please contact Barbara at 603.433.9505 or [education@gundalow.org](mailto:education@gundalow.org) for details.

603.433-9505 [gundalow.edu@hotmail.com](mailto:gundalow.edu@hotmail.com)

*Barbara and Molly*

### *Great Bay Coast Watch*

Greeting Great Bay Coast Watchers! Below are the sampling dates for 2009. I am hoping you will contact us to let us know if you plan to sample with the watch this season. Karen Diamond will also be staying on as the Program Assistant to Great Bay Coast Watch.

#### Sampling Dates 2009

Tuesday	April 28 <sup>th</sup>
Tuesday	May 26 <sup>th</sup>
Tuesday	June 23 <sup>rd</sup>
Thursday	July 23 <sup>rd</sup>
Monday	August 24 <sup>th</sup>
Monday	September 21 <sup>st</sup>
Wednesday	October 21 <sup>st</sup>
Thursday	November 5 <sup>th</sup>

We also will need to plan a date to sand and paint secchi disks this month. If you are interested in volunteering for this activity, please send me an email or give me a call.

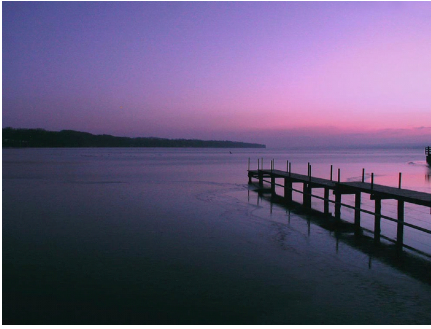
Thank you ~

*Dari Ward*

[dari.ward@unh.edu](mailto:dari.ward@unh.edu) 749-1565

## *Docent In Depth*

JoAn Randolph Walker



*JoAn requested that this article be dedicated to the memory of her close friend and fellow docent Kay Williams, who passed away this past December. JoAn has great admiration and respect for Kay.*

JoAn Walker, a recipient of the Silver Oyster Award in 2008, has been a UNH Marine Docent since her move to New Hampshire in 1999 and has made significant contributions to the Salt Marsh Team and the Great Bay Discovery Center.

JoAn was born in Utica, New York and has an older brother, a kind and 'gentlemanly' person who now lives in Florida. Her father was CEO of International Heater Company. JoAn lived in Utica until she completed high school and left for college. She attended Utica Public Schools and remarks that it was a city school system, quite diverse, offering an excellent education. She has always enjoyed outdoor activities such as riding, skiing, sailing and especially tennis. She played most team sports except basketball. JoAn is also an experienced swimmer and was a lifeguard and swimming instructor. She attended a summer camp on Lake Champlain, where campers were required to speak French at all times except when they were sailing, for safety reasons. Mornings were spent in French lessons and afternoons doing plays and poetry in French. JoAn found these five summers a very broadening experience, and credits her father with the wisdom to send her there. She feels her father taught her a great deal about independence, personal strength and self respect. Due to his influence she never felt limited by her gender—he often remarked to her that she could do as much as and perhaps more than men, and that she was lucky to be female. When JoAn was old enough to start dating, her father took her out for a special evening to a nice restaurant, opened car doors for her and generally demonstrated to her how she should expect to be treated by a date. She explains with pride that as president of their country club her father was influential in changing the club by-laws to stop discriminatory membership practices.

JoAn attended University of New Hampshire, was a member of the Alpha Chi sorority and graduated with a Bachelor's Degree in Psychology. She met and dated Thomas Walker at UNH. JoAn describes him as "very intellectual", President of the Student Senate and a member of the Air Force Reserve Officer Training Corps. Following graduation from UNH JoAn became a stewardess for United Airlines. Tom meanwhile continued with the Air Force and became a pilot. JoAn had planned to fly domestic flights for two years, then international flights for two years, then return to the US and attend graduate school while flying domestic flights part time. However, once Tom completed flight school he was told he would be stationed in Libya, and JoAn decided to stop working, marry him and move to Libya herself. JoAn describes making her own arrangements for her trip to Libya, as Tom had gone on ahead of her. She sailed on a steamer with only three other passengers, did not feel well for most of the trip, and discovered once she reached Italy that she was pregnant with their first child. Thomas Randolph (Randy) was actually born in the Air Force Base Hospital in Tripoli, delivered by the only doctor available at the time, a psychiatrist who had never delivered a baby! Randy is now a lawyer, is married with three children and lives in Wolfeboro, NH. JoAn and Tom returned to the United States after one and a half years in Libya when Tom was granted an 'early release' from the Air Force. They settled in Reading, MA. and for a short time Tom did some crop dusting to earn money, but then became an insurance agent and soon had his own insurance agency. He stayed in the Air Force Reserves for almost twenty years. Daughter Jennifer was born, followed by Scott and finally Valerie. Jennifer now lives in Darien, CT. and has fraternal twin girls. Scott still lives in Reading. Valerie spent her last college year in Edinburgh, Scotland, and decided to stay, later marrying a Scot and having three children. JoAn feels fortunate to be able to visit three of her children and five of the eight grandchildren fairly easily; she also gets to Edinburgh every 1-2 years, and Valerie comes to visit here as often as possible.

The Walker family stayed in Reading, MA. for close to forty years. Early in their marriage JoAn and Tom and his brother and family purchased a property and a summer home on Lake Wentworth in Wolfeboro, NH. JoAn has spent almost fifty summers there, taking full advantage of all the lake activities, especially swimming which she still enjoys. Although JoAn was an "at home" mother for quite a while, once her children grew older JoAn considered pursuing a graduate degree in psychology. In order to earn money for tuition she started a small business in 1978 selling high quality

educational toys. The "Balloon Shop" had a store in Lexington, MA. and one in Wolfeboro, NH. JoAn had no business background and worked long hours on her own for several months until she was able to hire some employees to help out. As it turned out she was quite successful with the toy stores, staying with them until she retired in 1996 and sold the business to an interested employee. Sadly JoAn's husband had a massive heart attack and died suddenly in 1994.

JoAn thought for a while of modernizing and winterizing the Lake Wentworth home for year-round living. She decided however that the setting is too isolated, so she purchased her condominium in Stratham. The condominium reflects JoAn's love of nature, bordering a wooded area and a beautiful pond, close to the Squamscott River and salt marshes. She enjoys her location between University of New Hampshire and Phillips Exeter Academy, taking advantage of cultural offerings of both institutions while living in a country setting. As she was still considering her move to NH, JoAn read an article in a Wolfeboro newspaper about a UNH Marine Docent sponsored trip to the Isles of Shoals. She signed up for the trip and found the docents a very intriguing and friendly group who quickly welcomed her. She mentions Ann Graf, Sylvia Jones and Kay Williams as some of the first docents she met. She admired their enthusiasm and the quality of the program and quickly decided to join the UNH Marine Docent class in 1999 as one of twenty Docents in Training. JoAn actually commuted from Reading to her classes for a while until she settled in to her Stratham home. After her "swim-up" JoAn tried the Seaweed team for a short time, but realized she didn't live close enough to the ocean to collect seaweed needed for her programs, so she soon switched to the Salt Marsh Team. Her proximity to a salt marsh has made this a successful endeavor, and she enjoys working with this team. Their SeaTrek presentations are mostly to elementary age children, but they also work with older children and adults. JoAn explains they keep the program current by communicating first hand with the school teachers and incorporating their ideas into the SeaTrek programs. They have made an effort to focus on environmental issues such as the protection and restoration of our salt marshes. JoAn is also a familiar face at Great Bay Discovery Center, where she leads tours for the Fall Cultural History Program and the Spring Natural History Program once or twice weekly. She has great admiration for the staff at Great Bay Discovery Center; describing them as warm, encouraging and caring.

In addition to her Docent activities JoAn is a knitter and loves to read. She notes that her first reaction to

her own retirement in 1996 was "Hooray, now I can read as much as I want!" She belongs to two book groups in her condominium area, reading fiction, biographies and history. She also gets to the WADE study group when possible, although she is not as active as she used to be. She continues to love being outdoors, and gardens whenever possible. She discontinued her Cross Country skiing activities only a year ago. She still enjoys swimming in Lake Wentworth, but not in pools.

The same wanderlust that prompted JoAn to become a stewardess has stayed with her through her adult life. In addition to the time spent in Libya, JoAn and Tom traveled to Switzerland, England, Scotland and Ireland. She later broadened her horizons, traveling to Turkey, Guatemala and Costa Rica. JoAn enjoys domestic travel as well and recently visited a friend in Seattle for three weeks. JoAn is currently in Bhutan and India for almost a month with Boston-based Overseas Adventure Travel. Soon after her return, she plans to travel south to Savannah, Charlottesville and Hilton Head with a friend.

JoAn believes it's important to be exposed to different cultures and traditions, and noted that she had been surprised and saddened by the demeaning treatment of women in Libya. She plans to continue to 'keep moving' as long as possible, and to live her life to the fullest. Her many contributions to the Docent program are evidence that she has done so for many years.

## *Sustainability*

### THE PROBLEM OF OUR FOOD QUALITY

Our own Diane Woods has again taken the lead in offering another course provided by the Northwest Earth Institute - this one on food featuring the text: Menu for the Future. Having recently finished it I thought it would be appropriate to deal with the serious problems of our contemporary diet for the next several articles. After all, nothing is more important, relevant and personal than the question of what we eat. The focus of this one and the next will be on the gathering nutrient crisis we are facing and which is already having a profoundly negative impact on American's health. This affects us primarily in two ways: First, through what is being produced by our industrialized farm complex and secondly, what is being done to that produce by our current food processing industry.

As I begin to sketch in what can only be described as a parlous situation concerning what we Americans are presently eating, I lead off with the byline of the

January 1, 2008 issue of Time magazine: "The Sorry State of American Health: Despite advances in medicine, Americans are less healthy than we used to be, and the next generation may be even worse off". You may have seen some of the statistics mentioned in the Time article: 67 % of Americans are currently over-weight or obese, 27 % blood pressure too high, 40% get no exercise, more than a doubling of diabetes since 1997, etc. As to the origin of these problems and other chronic conditions such as cancer, heart attacks, diabetes and stroke, the authors of the article although mentioning lack of exercise, place the major blame on a system designed to respond to illness rather than to prevent it. One more grim statistic: It is predicted that if things continue the way they are presently, approximately one third of our children will eventually develop diabetes 2. This would bring a loss of life span of 11 or 12 years plus a lifetime of continually contending with heart disease, cancer and stroke. And this, of course, would amount to a medical tragedy. But this would be especially tragic because generally diabetes 2 is eminently preventable and even curable simply by better diet and more exercise. The picture you get is a medical system costing twice as much as it does in other industrial nations yet at the very bottom concerning its effectiveness in promoting health. Now there is no doubt that the authors have identified a major flaw in our medical care. Yet I see another factor at work, perhaps even more important and pervasive than the failing of American medicine, in fact a veritable elephant in the living room, here I refer to the nutrient quality of the food which issues forth from our industrialized farm complex and our food processing corporations. Naturally, Time does not mention this aspect, their being owned by a large corporation.

I refer first to an article from our text Menu for the Future by Marco Visscher aptly entitled "Unhappy Meal". He finds the prevailing farming methods are bringing about an alarming shortage of minerals according to recent reports gathered by the United Nations Food and Agricultural Organization. He goes on to present a list of disturbing trends reported by another recent study: The vitamin and mineral content in beans had declined by 60%, by 70% in potatoes, 80% in apples, cauliflower 50% decline in vitamin C, broccoli a 50% decline, and in wheat a decline in protein from 90% to 9%. Can these shocking figures be authentic? Unfortunately Visscher does not identify that recent study that he mentions. I contacted our UNH Agricultural Extension Service in pursuit of further verification but the best they could do was to point out the obvious – that soil conditions inevitably vary according to just where they take the samples. On

further reading I found this in Michael Pollan's recent book In Defense of Food (which I strongly urge you to read) where on p. 115 he cites ongoing studies conducted by the USDA (US Department of Agriculture). These show that since the widespread use of chemicals in the 1950's, of 43 crops studied, the nutritional quality has substantially declined: Vitamin C content by 20%, iron by 15%, riboflavin by 38%, calcium by 16%, etc. While I cannot vouch for the accuracy of Visscher's grim statistics there seems no reasonable doubt as verified by Pollan, that something fundamental is going on with our food supply and which is an increasingly significant factor concerning the deteriorating health of the American people detailed in the Time article.

Just what is there about present farming methods that would lead to such a decline in nutrient quality? There may be several reasons. But I am convinced that one of the major ones stems directly from one of the most egregious violations of the laws of ecology in our time. An explanation calls for a little history: It all began in mid-nineteenth century when Justus Baron von Liebig (famous as the father of organic chemistry) concluded that only three chemicals (or three macronutrients) – nitrogen, phosphorus, and potassium, (known in the periodic table as NPK) are necessary for plants to not only grow but thrive. This conclusion has been tacitly accepted ever since. The trouble is, soil is an exceedingly complex interactive system of literally billions of various kinds of bacteria, many kinds of fungus, worms, grubs, etc. plus all the many nutrients essential to a healthy human diet. There is a lengthy list of micronutrients (including minerals and vitamins) besides Liebig's three big macronutrients. Not only do we have a limited knowledge of what all these micronutrients are, we know even less about how they interact with each other, especially how they interact in our bodies. The first law of ecology cautions us that in living systems everything tends to relate to everything else in that shared system. The point is, Liebig's famous formula NPK is a typical result of applying inappropriate reductionist logic to a living system. That is, reducing an infinitely complex interactive system to one or a few discrete elements and then mistaking this abstraction for the concrete whole. To say the least, as Michael Pollan notes (p.114) of his recent book In Defense of Food this NPK formulation is an extreme simplification of a very complex reality, in this case with negative implications for human nutrition. Yet it has stuck. Go today into any store selling chemical fertilizers and you will be handed a bag labeled NPK in varying proportions. Indeed, this rank violation of the laws of ecology is universally used in today's industrial farm complex which produces the food we consume. It is used because it

is relatively cheap and easy to use on the huge farms.

I digress here with a personal note: From my experience in 60 years of gardening plus going through the Master Gardener course both at the University of Vermont and UNH, I have learned that each vegetable crop during the course of a growing season absorbs from the soil certain nutrients some of which are unique to that vegetable. And if that vegetable is grown repeatedly on the same piece of ground, the soil becomes increasingly deficient in those nutrients. Therefore, there is the necessity in gardening generally to rotate ones' crops or replace the nutrients. It is as simple as that. Consider what is being done regularly at the huge industrial farms raising soy beans or corn year after year on the same acreage. Knowing the chemical limitations of NPK is it any wonder that crops grown on that land are producing increasingly nutrient-poor produce? They can pour on all the NPK they want but that will not prevent the progressive degradation of the nutrient quality of that soil if it is not fed annually with the full spectrum of nutrients contained for example in animal manures or by some kind of green manuring method. Another way of describing what goes on with these huge farms is that they sacrifice quality on the alter of quantity.

What our American farms have all too often become is well depicted by Tom Philpott in his article in our text Menu for the Future (pp. 28-29) In Iowa, which typifies the general trend, relatively small farms devoted to raising many kinds of produce utilizing animal manures, since WW2 have steadily devolved into a relatively few huge farms limited to only a few monocrops (soy, corn and wheat) entirely dependent upon yearly infusions of NPK. Philpott sees Iowa as kind of a : "...vast machine whose inputs are artificial fertilizer, pesticide, hybridized and genetically modified seeds, and one of the world's richest store of top soil...Other outputs include nutrient runoff from fields, manure spills and air pollution from confined animal feeding operations and degradation of topsoil by chemical use." (my emphasis) A final comment here – so far one half of this fabulously rich store of topsoil has already been lost to American farming methods. Another sobering commentary in our text is that of James Horne, President of the Kerr Center for Sustainable Agriculture and Maura McDermott, its Communications Director. They comment on some of the damaging aspects of these farming methods. One of the most destructive, they note, is monoculture (same crops on same soil year after year). This together with ever increasing use of

chemical fertilizers (especially ammonium nitrate) and heavy machinery promote soil erosion and compaction which depletes the soil of its "life and health" (p26) Putting it bluntly, our farmers are mining this precious resource rather than using it as a renewable resource.

In conclusion it must be said that these huge industrial farms now provide indispensable produce for the world's billions of people. To be sure, the nutrient content of this produce is steadily declining. But there is no quick and easy way to replace this farming system with its enormous amount of NPK spread on the fields year after year. But this inexorable decline our farming methods are bringing about should be seen as a clear warning that this system is unsustainable. Eventually it will have to be overhauled for the sake of the health of our people and that of the rest of the world. Yet this is by no means the worst of our gathering nutrient crisis. There is another level of our food chain which cries out to be addressed. And that is what is being delivered to our supermarkets by our food processing corporations whose mode of operation further degrades nutrient quality. I intend to deal with that issue next month. So stay tuned. In the meantime buy local and organic whenever you can.

*Raymond T. Jones, Ph.D.*



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