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To Evolve, or Not To Evolve?— That Is the Question

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KEY POINTS

- Formal and informal educational experiences and opportunities contribute to personal and professional development and growth.
- Mentors provide encouragement and guidance to their mentees as they pursue new experiences and opportunities.
- Professionals must learn how to evolve and adapt to a rapidly changing social, political, economic, and ecological environment.
- Melding knowledge, skill sets, experiences, and personalities will best prepare us for the future.

ROAD RACES AND REMINISCING

Just last month, I (M. J. G.) found myself on the course of the Fifth Third River Bank Run in downtown Grand Rapids, Michigan, dodging marathon runners, spectators, and police officers, as I attempted to maneuver myself from the outskirts of the city, through the marathon course, to the Amway Grand Plaza Hotel. It was there that I was planning to meet with my friend and former supervisor, Ralph Riley. Riley is an ecologist that I met 10 years ago. At that time, I was an outgoing and enthusiastic high school student, who was actively searching for opportunities and experiences that would help me learn more about and understand what I wanted to do professionally in the future. While in my guidance counselor's office one day, I happened upon an application for a program dedicated to exposing students to scientific field work and data collection and analysis through intensive, short-term research experiences. With support and encouragement from my high school biology teacher, I applied for and was fortunate to receive this once-in-a-lifetime opportunity through Earthwatch Institute's Student Challenge Awards Program (SCAP). I still remember the day I opened my program acceptance letter, for my Dad gifted me with a larger-than-life-size (a trophy size!) rainbow trout mylar balloon. Working alongside Riley and a team of five other high school students from all over the country, I traveled to the Puget Sound, where I was trained on the spot and quickly put to work gathering data and information about the ecology and geomorphology of salmon-bearing streams in the Pacific Northwest.

Since our first meeting in the SeaTac airport, I have maintained contact with Riley, one of my mentors, with whom I frequently discuss my interests and progress as an individual and a developing professional. In the last 10 years, my relationship with Riley and other mentors, along with a variety of my own opportunities and experiences, have allowed me to better define my interests, hone my skills, and successfully evolve as an individual and a developing professional, thus enabling me to contribute to the profession and to society in new and innovative ways. For example, over the course of this journey, I learned that one should not simply learn to learn, but instead strive to use what they learn to impact something or make a difference.



Molly J. Good working in a salmon-bearing stream in the Puget Sound as part of Earthwatch Institute's Student Challenge Awards Program in 2006. Photo credit: Ralph Riley.

Formal and informal education, along with the presence of good mentors, is paramount in readying developing professionals for success in a changing environment and an evolving profession.

Recognizing the need to adapt and the desire to improve myself, while at times scary, has increased my capacity to learn through new opportunities and experiences and, above all, inspired me to evolve or morph with the times and provide meaningful leadership in future challenges.

To us, formal and informal education along with the presence of good mentors, is paramount in readying developing professionals for success in a changing environment and an evolving profession. But, one cannot or may not be willing to take advantage of new experiences and opportunities alone, for they are often unfamiliar, uncomfortable, and anxiety-

producing as the outcome is not always predictable. Great mentors, however, provide the necessary encouragement to pursue and the guidance to navigate through the uncertainties of change, enriching one's learning experiences. Through this process mentors also serve as a source of intellectual and personal support and a much-needed safety net in times of this uncertainty or misunderstanding.

FOR THE TIMES THEY ARE A-CHANGIN'

Just as we have evolved as developing professionals and engaged citizens in our community over our lives, so has the fisheries profession. To stay relevant and to help chart the path to a more sustainable future, one requires an understanding of the skills that one should experience and master in order to deal with a rapidly changing environment, in which emerging issues and threats to fisheries and aquatic ecosystem sustainability are inevitable. When these challenges arise, professionals should have the skills that allow them to feel secure, be confident, and function effectively in teams to address these changing needs meaningfully.

Current and future professionals have a responsibility to continue their lifelong learning, and motivate others to learn, in order to adapt to the ever-evolving fisheries science and management profession.

In light of the challenges our fisheries resources and profession will face in the coming years, not to mention our own personal challenges that life provides each of us, fisheries professionals will need to work in interdisciplinary teams, which include not only fisheries-related scientists and managers, but also policymakers, legislators, and the public. All of these people will need to work together to mitigate and prevent damage to our fisheries resources in the future. Additionally, the profession will require new skills and disciplines that allow for the engagement of new types of individuals including more innovative and novel thinkers, strategists, problem solvers, politicians, and effective communicators to address future problems our fishery resources and society will face.

Whether or not all educational institutions are working to develop future professionals to be what the profession truly needs now and in the future may be debated. What cannot be debated, however, is that new knowledge and skills learned throughout one's lifetime are necessary if one is to make a continuing difference in the future sustainability of fisheries and aquatic ecosystems.

Thus, if we care about our future, then we must take advantage now of education, in whatever form it comes, for us to evolve to be impactful and successful in an ever-evolving profession. For example, the American Fisheries Society (AFS) is one organization that has provided opportunities for me (W.W. T.) to learn throughout my life. Over time, and with encouragement and support from my colleagues and mentors, I transitioned from being an active AFS member at the state and division to the national and international domains, eventually becoming the president of AFS. In these roles, not only did I learn more about fisheries and aquatic ecosystems, but I also learned hard life lessons about teamwork, inclusivity, leadership, communication, and the value that each and every



William (Bill) Taylor and Molly J. Good discussing the future. Photo credit: William Taylor.

individual brings to the team in solving problems at all levels of governance. I was able to seamlessly bring the unique set perspectives and skills I had acquired, often through the school of hard knocks, into my next role as an educator and administrator at Michigan State University (MSU). My involvement in AFS and other professional societies and community organizations facilitated my learning in ways that could not have been achieved through other means, and it has allowed me to, in return, provide mentoring to other developing professionals like Good.

Broadly speaking, the fisheries science and management profession appears to be evolving to consist of diverse professionals with wide-ranging knowledge bases, varied skillsets, and rich educational and life experiences. We hope that this evolution continues, for it brings together a variety of professionals of different ages, life history experiences, educational backgrounds, genders, and races to act toward the common goal of enhancing the status of fisheries and aquatic resources throughout the world. In reality, the fisheries science and management profession has evolved into a true mosaic of all segments of society including, most notably, students, educators, scientists, managers, academics, policymakers, law enforcement officers, legislators, and communicators, who must combine their knowledge, skillsets, and experiences to ensure sustainable and productive fisheries and aquatic ecosystems.

HERE'S WHAT YOU NEED TO SUCCEED

Current and future professionals have a responsibility to continue their lifelong learning, and motivate others to learn, in order to adapt to the ever-evolving fisheries science and management profession. This type of learning can be achieved by pursuing relevant educational opportunities and experiences, identifying and establishing mentor-mentee relationships, and participating in leadership and personal development trainings or workshops.

Relevant Educational Opportunities and Experiences

Formal and informal types of education can lead individuals to take advantage of opportunities and experiences that they would not discover elsewhere. For example, I (M. J. G.) was able to further my learning about forest ecology and salmon



William (Bill) Taylor, Captain Denny Grinold, and John Robertson, former chief of the Michigan Department of Natural Resources Fisheries Division, discuss lifelong learning on the stern before some Lake Michigan salmon fishing. Photo credit: William Taylor.

biology with the Earthwatch Institute through an opportunity I first heard about in my high school biology class. This educational experience not only introduced me to the sciences at a young, impressionable age, but it also helped me understand that a future career in this field was possible. Up until this point in my life, I simply knew that I enjoyed spending most of my childhood days up to my knees in muck, wrangling and observing frogs, newts, and fish—basically, anything I could get my hands on. How fortunate was I, at seventeen years old, to realize that I had found my lifelong passion?

Mentor-Mentee Relationships

It is impossible to take advantage of educational and life opportunities and experiences without the support and guidance from a great set of mentors. The best kind of mentor recognizes the strengths and the potential to evolve in his or her mentees and, thus, encourages his or her mentees to pursue new things. The best mentors not only allow but advocate for their mentees to continue their lifelong learning by identifying and engaging in new and exciting (although, at times, stress-inducing!) ventures with a goal to be impactful or make a difference in the profession and society. Great mentors also encourage their mentees to take on new challenges while still providing necessary guidance and support in unfamiliar or uncomfortable situations. Effective mentoring, though challenging, is worthwhile to all because it always works both ways; just as a mentee will learn from his or her mentor, a mentor will undoubtedly learn from his or her mentee as well.

Leadership Experience and Personal Development Training

Additionally, developing professionals in the fisheries science and management profession should actively seek out educational opportunities and experiences that bolster their leadership skills. Leadership skills take time to develop, and the best way to work on acquiring more leadership experience is by pursuing leadership positions or participating in other training or workshops. AFS, for example, offers many positions for developing professionals and current professionals that provide leadership experience, whether you wish to work as part of the AFS Student Subsection for a Chapter or for the Society. AFS also offers many opportunities to comfortably build one's skillsets and improve his or her personal and professional development. Over time, these types of educational

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opportunities and experiences can lead to the growth of a network of people with diverse personalities, cultural backgrounds, and skillsets, which will be best equipped to handle changes in the environment and the profession.

DON'T SINK LIKE A STONE

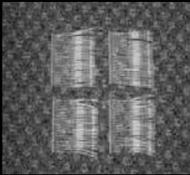
As we have discussed in this article, it is up to us to meld our knowledge, skillsets, experiences, and personalities as we approach emerging issues and challenges that threaten the sustainability of fisheries and aquatic ecosystems not to mention our own self-worth. We must never stop learning, and we must acknowledge that, through lifelong learning, we will continue to evolve and adapt over our lifetimes. As the famous American singer-songwriter, Bob Dylan, would say, "If your time to you is worth savin', then you better start swimmin'." We are confident that—for us in the fisheries science and management profession—swimmin' is something we can and should continue to do, especially if we can do it better each and every day.

For more information about lessons regarding educational opportunities and experiences, mentor-mentee relationships, and effective leadership, please consider reading, *Future of Fisheries: Perspectives for Emerging Professionals* by W. W. Taylor, A. J. Lynch, and N. Leonard (2014). ^{AFS}

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