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Talking innovation in the cradle of aquaculture

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By Michael Tlusty, Ph.D.

New England Aquarium's Michael Tlusty: 'China has been living, breathing, and innovating aquaculture longer than any other country'



(/wp-content/uploads/2016/05/Innovation_illus.jpg) Innovation in aquaculture is so very important. While regulations and certifications can eliminate the worst actors and ensure production meets specific criteria, I have long argued that we need innovation to avoid complacency.

It will be through innovation that we can lessen our **impacts and be more efficient**

(https://www.researchgate.net/publication/229895340_Environmental_improvement_of_seafood_through_certification_and_ecolabelling_Theory_and_analysis), and to continue the **journey toward sustainability** (<http://www.mdpi.com/2071-1050/4/9/2038>). The Global Aquaculture Alliance (GAA) also understands the importance of innovation (hence it is accepting applications for its fourth annual **Innovation & Leadership Award** (<https://www.aquaculturealliance.org/news-events/newsroom/gaa-accepting-applications-for-global-aquaculture-innovation-leadership-award/>)) and will hold an innovation panel as part of the **GOAL 2016** (<https://www.aquaculturealliance.org/goal/>) conference.

Given my interest in aquaculture innovation, and that I helped shape and am a judge of the Innovation & Leadership Award, I signed on to be part of this panel without thinking about the venue. But as we all know, and if some of us happened to have forgotten, then let me remind you that China has been living, breathing and innovating aquaculture longer than any other country.

Quite simply, China is the cradle of aquaculture development, with techniques going back 4,000 years ago, **predating printed history** (<http://www.fao.org/docrep/field/009/ag158e/ag158e02.htm>). So what can someone from an young, upstart producing country (U.S. production started with **fish culture in 1812 by the Philadelphia Academy of Science** (<http://www.aces.edu/dept/fisheries/education/documents/HistoryofAquaculture.pdf>)) and is currently **ranked 15th** (http://www.nmfs.noaa.gov/aquaculture/aquaculture_in_us.html) in global production) say to the grandfather of aquaculture?

"I have long argued that we need innovation to avoid complacency."

Rather than panic (although I did at first), I realized that is the beauty of innovation – it is a meeting of the minds. It is coming up with a **new approach to an old (and chronic) problem** (<https://www.smashingmagazine.com/2012/09/changing-perspective-new-look-old-problems/>), that results in **significant change** (<http://scottberkun.com/2013/the-best-definition-of-innovation/>). Sometimes we are so entrenched in trying to survive we miss the solutions right in front of

us. Other times, we lack the creative spark necessary to get to the next level. How many times at a conference coffee break have you heard the slightest whisper of an idea that set your creative wheels in motion?

There are as many **mothers of innovation as there are of invention** (<http://scottberkun.com/2015/many-mothers-of-invention/>), and while innovation can be the result of long and hard work in a specific direction, it is often taking advantage of a necessity or opportunity or the combining of different ideas in a way that creates change. A panel on innovation, and all of GOAL for that matter, creates the opportunity for a coming together of ideas. Ideally, we can meld these ideas together and come up with new approaches to old problems.

So in the months leading up to GOAL, to be held in Guangzhou, I challenge you to answer three questions, one about history, one about the future, and the final about you. First, it is hard to know where you are going without understanding where you have been. So question No. 1 is:

- ***What has been the greatest innovation in aquaculture to date?***

Second, if we define innovation as being significant positive change to solve a chronic problem ...

- ***What do you feel is the main challenge that aquaculture still needs to solve?***

This answer is critical as it will help us focus future innovation, as well as discussion during the panel! And finally,

- ***How innovative is the GAA membership and Advocate readership?***

Of course there are many **theories about how innovation spreads** (<http://www.ou.edu/deptcomm/dodjcc/groups/99A2/theories.htm>), and this can be tied to your "personality" type.

Are you the type of person that seeks out the newest thing, or are you an early adopter who tries new things early but not first? Do you wait until it becomes commonplace? Do you wait until it becomes not just common but also safe, or do you just not want to try new things at all? Which one are you?

Now that you have answered these three questions in your head, please share them with us! To make it worth your while, if **you enter your answers here** (<https://docs.google.com/forms/d/11VKYKQvCricKs9fQWFG91byrCKAj9-3QQMbjcGSX4SU/viewform>), you will be automatically entered into a drawing to win stuff. The drawing will take place during the innovation panel at GOAL, but we will send you any winnings even if you are not present. Please let us know where you think we have succeeded, and where we still need to succeed, and come to GOAL to see how everyone else answered these three simple questions.

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