



Tuna keychains are prizes in Tokyo's version of the claw crane game; fresh or flash-frozen varieties available (© Laurene Schiller)

Eating Bluefin

By Laurene Schiller

Typically, when I start writing about the situation regarding the decline of bluefin tuna¹ — which has been primarily driven by demand from the Japanese sashimi market since the late 1970s — my go-to introductory sentences include the words "luxury", "expensive", and "wealthy consumer". The use of this terminology stemmed from a personal belief that bluefin was part of the upper echelon of gastronomic extravagance: the marine equivalent to a Kobe steak or Périgord truffles. Thus, you can imagine my complete surprise when I was in Tokyo this past month and saw it on the menu of every seafood restaurant in which I ate,

¹ There are three species of bluefin tuna, each residing in a separate part of the world. However, all of these species have undergone dramatic stock depletions since commercial fishing began.

or passed on the street. Literally, every single one — from 49th floor fine dining establishments, to curbside take-out lunch stands. I honestly could not believe that this fish was still so ubiquitous and, in many cases, inexpensive, when there is so much international pressure to reduce catches and allow for populations to recover.

Bluefin intrinsically holds a special place in my heart; it was the fish that made me decide to go into the field of fisheries science. And so, for me, the thought of eating it would be akin to how some people would feel about eating dog, or horse, or koala. Still, in going to Japan, I promised my travel companion that I would try everything. This decision was also based on one of my fundamental beliefs that in order to have an opinion (good or bad) on anything, it is important to have experienced it first-

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hand, and not simply judge based on hearsay or emotion. Still, I know that some may say that a fisheries scientist eating one of the most overfished species in the world could be considered hypocritical, so I will address that thought in a minute.

Tuna is a key component of modern Japan's cultural identity

At any rate, we were less than two days into our travels in Japan when I had to live up to my word. Midway through a ten-course culinary extravaganza at a *ryokan*² in Hakone, I found myself staring at a small plate of beautifully arranged sashimi. I knew right away that two of the three pieces were bluefin. Although it might sound silly to some, it actually took me a while to get the nerve up to even poke at it with my chopsticks. All I could think about was when I had visited the world-class aquarium in Monterey Bay and seen these pelagic fish up close and personal for the first time. People sometimes wonder if fish can feel and perceive their surroundings; I guarantee that anyone who has ever looked a bluefin in the eye will know the answer to that question. However, I did my best to put sentimentality aside and kept true to my promise. And honestly, it was the most delicious fish I have ever eaten.

Tuna are everywhere in Japan. And I don't just mean fresh tuna, but tuna culture. There are tuna mascots, tuna murals, tuna t-shirts, and keychains, and stickers, the list goes on. They even have those rip-off mechanical claw vending machines with tuna toys for prizes. It quickly became obvious that tuna is so much more than just a fish — it is a key component of modern Japan's cultural identity. And bluefin is the most iconic of all. However, as mentioned above, populations of this species continue to be rapidly overexploited with no serious conservation or



Bluefin sashimi as part of the meal at the ryokan (© Laurene Schiller)

fishing targets in place. So, in addition to attending a joint symposium on current ocean issues, the other purpose of my trip to Japan was to serve as a rapporteur among a small group of fisheries scientists. Although the agenda was quite unstructured, the overall aim of our gathering was to discuss current and potential management strategies for Pacific bluefin tuna.

Alas, my revolutionized view of Japanese tuna culture combined with a trip to the morning bluefin auction at Tsukiji Market, and four days of intense discussion on all matters scientific, economic, and political, has made me realize that this is a far more complicated issue than simply setting quotas or raising consumer awareness. Perhaps unlike any other wild biological field, fisheries science is unique in that the wellbeing of the studied organisms has a direct connection to the wellbeing of humanity at large. While my friends have asked me why I want to save the fish, this is not a complete representation of why I do what I do. I don't just want to "save the fish". Personally, yes, I do think that bluefin are much more beautiful in the wild than on a plate, but I understand that I am in the minority on this matter. So, ultimately, my goal as a fisheries scientist is to ensure they can survive sustainably into the future as both

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The *Sea Around Us* Project website can be accessed at www.seaaroundus.org and contains up-to-date information on the Project.

The *Sea Around Us* Project is a scientific collaboration between the University of British Columbia and The Pew Charitable Trusts that began in July 1999. The Pew Charitable Trusts work around the world to establish pragmatic, science-based policies that protect our oceans, wild lands and climate. Pew also sponsors scientific research that sheds new light on the dimensions of and solutions to the problems facing the global marine environment.

a vital component of their natural marine ecosystem and also as food for those who enjoy them in that manner.

Which brings me back to my aforementioned point on hypocrisy. In addition to the overarching goal of finding a sustainable fishing solution for bluefin, I study these fish with the hope of being able to provide accurate information to the public so that they may make informed decisions about what they choose to eat. I do not think it is about telling others what to do, but rather about making sure people are aware that there is an ecological cost to everything we do in life; I understand that in going

to Japan to (hopefully) do some good for tuna and tuna fishers, I substantially increased my carbon footprint as a result of the flights it took to get there. Ultimately, however, it is important to decide how to act based on all available information. With regard to eating bluefin, I was completely aware of the ecological impact of my decision. And, for me, the cost to long-term sustainability outweighs however much I enjoyed its taste. So, while I can now understand why people love to eat it, I will refrain from doing so again 



Stunning view of the vieux port from the Pharo Palace, where the conference was held (© Beau Doherty)

Off to Marseille!

By Beau Doherty

In October I headed to Marseille, France, for the 3rd International Marine Protected Areas Congress. It was my first major conference and I joined over 1,700 participants from around the world. The conference took place at the spectacular Pharo Palace, which sits on a cliff with incredible vistas of Marseille's *vieux port* (old harbour) and which was built in the 19th century for Napoleon the 3rd.

The conference was four days of jam-packed action, each of which had a theme ranging from the use of science and knowledge for better management and enforcement, to

regional approaches and partnership with the industry. There were nearly 130 sessions throughout the week geared towards these themes (many can be viewed at www.oceanplus.tv). Since the congress was more about finding solutions for creating and managing MPAs, the sessions were less about individual presentations and more about fostering discussion and networking among the participants.

I co-chaired a session, along with Regen Jamieson of the New England Aquarium, titled "Historical time series



The Calanques of Marseille: a nice place to empty your head after one week of the conference (© Frédéric Le Manach)

and how they support MPAs". Regen presented research on historical whaling logbook data in Kiribati's Phoenix Islands Protected Area, and I — along with Frédéric Le Manach and Dr. Daniel Pauly — presented work from the *Sea Around Us* Project's catch reconstructions,¹ using Mayotte as a case study. Many of the participants were interested in the use of catch reconstructions and historical data to deal with large gaps (missing or incomplete data) in official catch statistics. There was a real understanding of the need for more complete time-series and the use of past information to avoid shifting baselines and achieve conservation goals, and this was emphasized during the following plenary session.

Throughout the week, I met many inspiring people from around the world working hard to protect our oceans. I also got a chance to visit the nearby Calanques, which are these stunning white limestone cliffs that dip into the blue Mediterranean, so I couldn't resist taking a dip myself.

One of the highlights for me was listening to two Pitcairn islanders — one of which was the mayor — speak passionately about their wish to create a marine reserve

¹ This project aims to improve historic estimates of marine landings for every region of the world from 1950-2010. More information and results at www.seaaroundus.org.

in their islands. Pitcairn is a British Overseas Territory composed of 4 remote islands in the South Pacific with a population of around 55 people. These two people — i.e., almost 4% of Pitcairn's total population — had spent several days travelling on boats, planes and trains halfway around the world to speak with us... and I thought I had come a long way. It would have been an amazing cap off to the week, had the British government announced there and then their support to create the largest marine reserve in the world in Pitcairn, but sadly this ribbon has yet to be cut. The residents of Pitcairn both delivered truly heartfelt messages about their vision and desire to protect the marine ecosystems in their home islands and preserve this natural treasure for the world.² Hopefully the British government will hear their message loud and clear.

Finally, an interesting outcome of this non-scientific congress was that each session had to summarize its findings and recommendations for MPA policies. These summaries were then presented to representatives of governments (including 19 Ministers) and international institutions and NGOs, over a two-day political conference in Corsica that immediately succeeded the conference in Marseille. There, the French Minister of Ecology Philippe Martin and HSH Albert II of Monaco announced the creation of a Trust fund³ for the management of marine protected areas in the Mediterranean 

² More information on the proposed marine reserve in Pitcairn can be obtained at the "Protect Pitcairn: An Underwater Bounty" campaign at www.pewenvironment.org

³ More at: www.impact3.org/en/news/all/382-french-announcements-at-the-ajaccio-conference

Verbatim

From Douglas C. Harris, Faculty of Law at Allard Hall, The University of British Columbia.

«Hello Daniel.

I've never been to a concert and heard the lead singer cite a fisheries scientist, but it happened last night in Buffalo when Gord Downie of the Tragically Hip, in a solo concert, described your shifting baselines idea and cited you! It's not a citation that will show up in a citation count, but a 1,000 plus were introduced to a clear explanation of your idea and much of what it entails from Downie. To be fair, it was about half concert and half Downie holding forth on the state of Lake Ontario. Still it was nice to hear.»