



Interview with James Borton:

“Science Diplomacy” as a Solution to the South China Sea Disputes?

By Jonathan Spangler and James Borton / *Perspectives*, 1 / 2015

The South China Sea Think Tank interviews James Borton about “science diplomacy,” prospects for international cooperation on environmental issues, and Taiwan’s role in the South China Sea.

James Borton is a veteran environmental policy researcher, former foreign correspondent for *The Washington Times*, editor of the book *The South China Sea: Challenges and Promises*, and a non-resident research fellow at the Saigon Center for International Studies (SCIS) at the University of Social Sciences and Humanities, Ho Chi Minh City, Vietnam.

South China Sea Think Tank: “Conflict.” For many, that’s the first word that comes to mind when they hear “South China Sea.” What do you think of?



James Borton: Rival nations have wrangled over this territory for centuries but China’s economic and military rise has sparked concern about their control of atolls, islands, sandbanks and reefs. Never mind that this sea is a major shipping route and home to rich fishing grounds that offer a cheap source of protein for people. Robert Kaplan rightfully calls the South China Sea “the 21st century’s defining battleground.” It’s no wonder that other claimants, especially Vietnam and the Philippines have engaged in recent clashes with China’s navy and fishing vessels over disputed territorial claims. CNN’s circulated images of China’s rapid military modernization and assertive behavior in the SCS cannot help but translate into renewed fears of conflict.

SCSTT: What would you say motivates claimants?

JB: China’s completed reclamations on eight maritime features in the South China Sea cannot be explained by either basic economic motives or by the important but declining fishing stocks around the Spratly Islands. SCS surveys reveal that the oil and gas reserves are largely insignificant and coupled with the high cost of deep-water drilling and the propensity of political risk render energy extraction unprofitable. In fact, most of the natural resources lie outside the areas affected by



China's artificial island-building. The reality is not that there is unexplored gas and oil fields under the Spratlys but rather it's the tankers filled with oil and gas that floats past them. More than half of the world maritime trade passes through the SCS with the globe's busiest shipping lane passing right by the Spratlys. Control this flow and China controls the energy security of Asia. This leads to only one conclusion: China's has buttressed its claims in the disputed waters and features 700 miles from its coast to fortify its military foothold in the South China Sea. The construction of a runway on Fiery Cross Reef and the Spratlys is part of a Chinese military strategy that includes bolstering its naval strength beyond the mainland and into the open seas.

SCSTT: In our previous conversations, you've talked about the idea of "science diplomacy." What first sparked your interest in that?

JB: After meeting Professor John McManus, a South China Sea coral reef specialist from the Rosentiel School of the University of Miami and learning about his pioneering efforts to generate support for a marine protected area in the Spratlys as early as 1992, I thought that his important science-driven



environmental policy needed to be examined more fully to address the mounting SCS political and environmental problems. The problems are disturbing. Nearly 80 percent of the sea's coral reefs have been degraded or under serious threat in places from sediment, overfishing, destructive fishing practices, pollution and climate change. Recent biological surveys in the region and even off Mainland China reveal that the losses of living coral reefs, present a grim picture of decline, degradation and destruction.

The scientific community supports the overwhelming evidence that China's continued reclamation of atolls and rocks through the dredging of sand in the Spratlys disrupts the fragile marine ecosystem. The area has been recognized as a treasure trove of biological resources and is host to parts of Southeast Asia's most productive coral reef ecosystems. It seems that there is a developing consensus among SCS marine biologists that their science needs to be communicated to policymakers now, or barring that, the larger issues of food security and indiscriminate destruction of coral reefs will lead to an ecological catastrophe. More scientists like McManus appear to be joining the ranks to alert the policy shapers and general population that science diplomacy is the glue for building constructive collaboration and partnerships.



SCSTT: Your recent book, *The South China Sea: Challenges and Promises*, has contributions from a great team of top South China Sea scholars, including quite a few representing the Vietnamese perspective. What do you hope will be the main takeaway for readers of the book?

JB: That China's expansionist behavior offers an array of challenges not only for Vietnam and ASEAN but also for Washington. The international community cannot accept that one nation has the right to nationalize the open sea for its strategic purposes. The sea and all of its marine life is transnational and so, by its very nature, transcends national maritime jurisdictional boundaries. The sea will be there long after all sovereignty issues disappear over the horizon.

SCSTT: What's the current state of cooperation on science and environmental issues in the South China Sea?

JB: Professor Hai Dang Vu from the Diplomatic Academy of Vietnam and Professor Aldo Chircop, former Chair in Marine Environment Protection at the IMO's World Maritime University in Malmo, Sweden, both environmental law experts, have proposed marine protected areas (MPAs) in both



the contested and uncontested areas of the SCS. They believe that these systems can be tailored to address the specific structure, function and processes of the its large marine ecosystem as they may be defined in spatial terms. I believe they are calling for a special designation as a particularly sensitive sea area under the IMO framework for added protection. All this points to the generation of a possible network of MPAs. Vietnam conducted regular Joint Oceanographic and Marine Scientific Research Expeditions in the East Sea in cooperation with the Philippines from 1996 to 2007. These experiences have contributed to forming a cooperation model on marine science research. After all, all good science is a collaborative exercise. What this offers is validation for a shift in interactions between scientists, resource managers and policy makers through international marine science partnerships.

As a footnote in marine research cooperative models, it's noteworthy that China and Vietnam collaborated in a Comprehensive Oceanographic Survey in the Gulf of Tonkin in 1959–60 and 1962, where large numbers of specimens of marine fishes and invertebrates were collected and deposited in the Marine Biological Museum of the Chinese Academy of Sciences in Qingdao for taxonomic and biodiversity studies.



South China Sea Monsoon Experiment (SCSMEX) was initiated in 1998, which was an international field experiment with the objective to better understand the key physical processes for the onset and evolution of summer monsoons over Southeast Asia and southern China aimed at improving monsoon predictions. The scientists were from Taiwan, Australia and America.

SCSTT: How does environmental policy fit in amidst all the political and diplomatic tensions in the region?

JB: It is the centerpiece in this complicated South China Sea chessboard. After all, the United Nations Convention on the Law of the Sea (UNCLOS) entered into force in 1994 and presently has 152 Parties, although U.S. ratification is still pending. There are at least two vital parts of that law and maybe forty specific articles that directly apply to marine scientific research or at least the development and transfer of marine technology. Here are a few of the relevant articles: the promotion of marine science and technology capacity building, particularly in developing countries; the encouragement and facilitation of international cooperation in marine scientific research and development; and the establishment of regional marine science and technology centers. In short, the lessons



learned from other marine-based scientific collaboration point to improved communication and working partnerships between seeming adversaries. This focus on the environmental challenges enables a new conversation or, better yet, the shaping of a compelling narrative with a strong educational outreach. This year Vietnam and the Philippines have reaffirmed their maritime cooperation focusing as much on shared fishery data, marine science research and marine environment protection.

Science ability, the role to integrate research and the collaborative monitoring of data can only boost geopolitically informed decisions. These interactions among scientists, policy managers, and the public, now shaped effectively and instantaneously through social media, help direct and define strategies for peaceful co-existence in the fragile management of precious marine resources.

SCSTT: Shallow waters often serve as sanctuaries for biodiversity. What kind of marine life are we looking at around the islands and sea features of the South China Sea?

JB: There have been approximately 1,787 fish species recorded within the South China Sea; however, only a few of these are



endemic to this sea. Only a handful of mostly tiny islands, atolls, and reefs—the Spratly Islands to the south, the Paracel Islands to the north—break up the largely featureless maritime plain that separates Vietnam from the Philippines along the east-west axis and Hong Kong from Borneo from north to south. Taiping is the largest of the Spratlys at 1.4 kilometers in length and 0.4 kilometers wide. Despite its inconsequential size, it's the only one with its own freshwater.

Marine biologists and taxonomists may want to undertake a systematic survey to determine how many multi-cellular species are located specifically near the coral reefs. Vietnamese fishermen tell me that the major commercially available fish species found are yellow croaker, filefish, chub mackerel, Chinese herring, and various species of shrimps. Although the number of fish species in the South China continues to decline, the remaining coral reefs contain more unique sea creatures. The variety of species living on a coral reef is greater than anywhere else in the world. It's estimated of 70–90% of fish caught are dependent on coral reefs in Southeast Asia and reefs support over 25% of all known marine species. The problem is that these coral reefs are being destroyed daily.



SCSTT: What environmental damage and threats are we facing here?

JB: Unfortunately, fragile coral reefs are threatened by ocean acidification, overpopulation, overfishing, reclamation, sedimentation and destructive fishing practices. Even China recognizes that their coastal waters have been wrecked by rapid industrialization and also the need to transplant coral reefs wrecked by reclamation damage. All this happened despite China's passage in 1982 of the Marine Environment Protection Law. Most marine scientists are in agreement that China's marine environments, especially in the South China Sea and Yellow Sea, are among the most degraded marine areas on earth. Loss of natural coastal habitats due to land reclamation has resulted in the destruction of more than 65% of tidal wetlands around China's Yellow Sea coastline. The dredging on these SCS atolls kills reef formations with the dumping of sand and concrete. Furthermore, the placement of personnel on these reclamations only succeeds in bringing sewage, garbage, marine debris, oil and gas spillage into the once pristine waters.

Marine scientists have made it clear that many populations of reef fish do not migrate and mix with others across oceans. Instead new studies suggest that larvae tend to settle near where they were born. So many species of fish exist in small



geographic ranges, and destroying even one small section of reef does lead to extinction.

SCSTT: We've learned from your articles that some of the fishing going on here isn't your basic nets and fishing lines. Could you tell us a bit more about what kind of fishing operations are taking place?

JB: For sure, the rapid rise in marine catches has been largely brought about by the significant increase in fishing vessels and, of course, the size of these trawlers and their mega-holding tanks. China has over 30,000 commercial fishing trawlers engaged mainly in bottom trawling and some in the use of gillnets. Vietnam has at least 20,000 commercial fishing trawlers that are soon to be replaced by steel hulled vessels with larger capacity since the government has now made available subsidies in the form of low-interest loans to modernize their colorful wooden boats. It's easy to see that, with the increased number of fleets from the Philippines, Indonesia, Malaysia, Japan and Taiwan, there's a modern fishing war unfolding.

These super trawlers with their modern technology, such as remote sensing, sonar and Global Positioning Systems, together with incentives and subsidies, has brought deep-water



and high sea areas and habitats with high production, such as continental slopes, seamounts, cold-water coral reefs, and deep-sea sponge fields, into the reach of fishing fleets trying to exploit the last refuges for commercial fish species. Fishing vessels are now operating at depths greater than 400 meters and sometimes as great as 1,500 to 2,000 meters. With fish catches plummeting, fierce competition among fisheries in the region contributes to more open conflicts between fishing fleets.

Perhaps the most worrisome fisheries problems in the South China Sea are the destructive practices of dynamite and cyanide fishing. This widespread practice of the use of dynamite is found from Indonesia to southern China and even off Vietnam's coasts. This deleterious practice typically occurs on or near coral reefs causing further destruction of the fragile ecosystems.

Gill nets are used at all levels of fishing from commercial scale to the family or personal scale throughout the SCS. Gill nets are designed to allow the fish to begin to swim through but trap the fish at the gills, preventing their escape. Also, the use of these nets are a major threat to sea grass beds.

I am reminded of what Paul Greenberg wrote: "To be sure, the postwar assault on fish sprang from an honorable intention to feed a growing population that boomed in a prosperous



postwar world. But as in war, everybody loses when there is nothing left to fight for.”

It's clear to fishermen since they are the world's sentinels for our fish supply that marine fisheries represent a significant, but finite, natural resource for all coastal nations.

SCSTT: Historically, many attempts to promote international cooperation on environmental issues have struggled to achieve their goals. Is there any precedent for international environmental cooperation in the South China Sea?

JB: Antarctica is the one place that arguably is the archetype for what can be accomplished by science diplomacy. Under the Antarctic Treaty, no country actually owns all or part of Antarctica, and no country can exploit the resources of the continent while the Treaty is in effect. It is a classic example of international cooperation. Over time, the Antarctic Treaty developed into the Antarctic Treaty System, which includes protection of seals and marine organisms and offers guidelines for the gathering minerals and other resources. Additionally, the Arctic Council has been able to effectively steer the passage of domestic legislation, international regulations, and, most importantly, international cooperation among the Arctic States.



Eight nations—Canada, Denmark (Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States—have territories (claims) in the Arctic, and the domestic laws of these nations govern actions taken within their territorial waters. Also, it's worth noting the success of the Red Sea Marine Peace Cooperative Research, Monitoring and Resource Management Program (RSMPP) where Israel and Jordan signed off on an ecosystem monitoring agreement and shared science data collection in the Gulf of Aqaba in 2003. RSMPP offers a model for improving international relations and building capacity through marine science cooperation in the South China Sea. These two opposing countries chose to promote the long-term sustainable use and conservation of their shared marine resources.

SCSTT: Even so, it's pretty clear that issues of territorial sovereignty are the current priority for littoral states. Why should governments care about environmental conservation?

JB: The escalating territorial dispute in the South China Sea is as much an ecological crisis as it is a geopolitical one. Dredging, land reclamation and the construction of artificial islands appear to be swamping centuries old reefs in sediment,



endangering ecosystems that play a key role in maintaining fish stocks throughout the region. If a nation can no longer feed its people, then there are riots, instability and war. Who has forgotten about the 2008 global food crisis that triggered food riots in more than 30 countries?

The earlier call for a “Green Revolution” may have now been supplanted by a “Blue Economy” mantra, especially in the South China Sea. Climate change continues to show us that we live in a world without borders. This is even more certain about our oceans. Our leaders and scientists are examining how we think and act on a global scale to address the pressing environmental issues. Our oceans’ health is fundamental to life on this planet. Marine scientists along with responsive and responsible governments realize that protection of a marine ecosystem may be the smartest investment of capital that we as a society can ever make.

SCSTT: What will it take to motivate regional actors to address these issues?

JB: The urgency is that the South China Sea is being overfished and polluted, and that’s threatening the food supply of millions of people. I believe that the marine science message about the dire consequences associated with the wanton destruction of



coral reefs, and the depletion of fishing grounds must be heard now by all claimant nation leaders. The fragile South China Sea marine environments must be managed collectively by all claimants or there will be nothing left to dispute. Perhaps marine scientists will summon Ministries of Education among all claimants to roll out an environmental message about “Saving the South China Sea.” How about essay competitions engaging students from middle school to university to address this compelling and vital environmental issue? Social media networks coupled with NGOs can bring pressure upon all governments to respond to the environmental crisis. The answer is to educate the region’s citizens and mobilize changing attitudes about the awareness the need for conservation of the ocean and the coastlines.

SCSTT: Would you say that governments are using the “environmental argument” out of a genuine interest in protecting marine habitats in the area? Or is it more out of political and diplomatic self-interest?

JB: “Human beings are at the center of concerns for sustainable development.” So the Rio Declaration begins. All responsible and especially authoritarian governments know that the needs



of their poor must be met. If the overfishing persists and the coral reefs are destroyed, then these SCS nations, rank and file, will experience the dire consequences of having squandered their resources, inequitably distributed wealth, and degraded their landscapes. People will take to the streets. “The centre cannot hold,” claims W.B. Yeats, and he’s so right. After all, governments, including China, no longer legislate population growth and so it is abundantly clear that, with dramatically escalating populations, a marine conservation policy surely must be adopted so that there will be resources for tomorrow.

SCSTT: You’ve suggested that Taiwan may have a key role to play in this. Tell us a bit more about that.

JB: Let’s do examine Taiwan. There’s wide recognition that the international marine research station on the Dongsha [Pratas] Island has succeeded in internationalizing science research cooperation. In fact, both APEC and ASEAN acknowledge the impact of scientific collaboration that has been achieved and is still ongoing. In conversations with Professor McManus, he emphasized that Dongsha’s unique oceanography makes it an exceptional coral reef ecosystem that seemingly proves resilient to climate change. Also, it’s most credible that a national park was established around Dongsha atoll. The



research center, with its new lab facilities and even a research vessel, continues to attract marine researchers from the region to share studies and data. This center has literally become a crucible bringing together marine scientists who recognize Taiwan's focus on peace and prosperity, reconciliation and cooperation. Although President Ma Ying-jeou's Peace Initiative was ignored by both China and Japan, it reframes and reinstates a much needed idealism. I am tempted to equate his actions with a strand of Wilsonianism since his plan acknowledges "nationalism" while calling for a politically plural world. Taiwan is a responsible stakeholder in the South China Sea. It also confirms that any movement towards proper management of the SCS disputes should involve Taiwan since it controls the largest land feature in the SCS.

SCSTT: Why Taiwan? Why not another claimant, non-claimant, or international organization?

JB: Taiwan's complex cross-strait relationship with Mainland China underscores that sovereignty and security form the core of their relationship. Despite missed opportunities, missteps and suspicions of bad faith, there is peaceful coexistence marked by negotiation and rapprochement. Under Ma's leadership, there have been at least 20 formal agreements inked



with Mainland China offering prosperity in trade and social order dividends. Certainly, one can point to the cross-strait Economic Cooperation Framework Agreement (ECFA) as a success. Other SCS claimant nations can learn from Taiwan's example. Despite ongoing conflict management and confidence-building efforts in the South China Sea, there is still no clear path to the resolution of the complex multilateral sovereignty and the maritime boundary disputes. Intergovernmental Panel on Climate Change assessments for the region forecast significant climate and ecological change to the detriment of the region's coastal inhabitants, ecosystems, and economies. South China Sea nations need to place marine conservation cooperation at the center of all development activity in order to enhance the prospects of adaptation to climate change. With diminishing marine resources, all claimant nations are increasingly mindful of the need for sustainability. It's my belief that Taiwan's relationship with Mainland and the internationalization of Dongsha atoll reaffirms the nation's commitment to peace, conservation and sustainability in the SCS.

SCSTT: How does your own research aim to contribute to all of this?



JB: While the intractable geopolitical SCS impediments remain, the Spratlys might be seen as a “resource savings bank,” where fish, as trans-boundary residents, spawn in the coral reefs and encircle almost all of the South China Sea waters, before returning home. I hope to be invited to Taiwan as a visiting environmental writer to research why Dongsha is a crucible for scientific cooperation and to better understand a successful marine protected area. The Taiwanese government recognized Dongsha atoll’s prominence as a model for the sustainability of fishery resources in the SCS and was designated as the first marine protected area in March 2004. There’s much to be learned from speaking with marine scientists and policy shapers. The tipping point is that the assemblage of the South China Sea is increasingly shaped in scientific terms. By examining Dongsha, perhaps I can communicate why and how this scientific paradigm may be applied in other possible marine protected areas.

SCSTT: You’ve visited and spoken to people whose lives have been affected personally by the South China Sea disputes. What’s one thing that really stood out for you in these conversations?



JB: It is about their sense of hope and resilience. The fishermen want to catch more fish and do not want to be attacked or rammed and sunk by other neighboring boats. The coastal populations want unpolluted waters and access to fish. Families want a better future. As I have suggested in my articles, there's a new conversation and narrative among marine scientists and policy shapers. All this points to science helping to make the case for joint development of marine resources.

SCSTT: To wrap up here today, as you know, the vast majority of information about the South China Sea focuses on the obvious problems and rarely on potential solutions. What opportunities would you say the future holds?

JB: Because of the scale of the destruction of coral reefs, the decline of fish stocks, the reclamation projects, there are increasing signs that claimant nations want to sign fisheries agreements, just as Japan did with Taiwan in 2013. This again is an excellent model on how to preserve sovereignty claims in contested waters while taking the higher road towards sustainability goals. I fully expect ASEAN in 2016 to ratchet up its direction towards realistic environmental protection goals for the South China Sea. We will see more marine science



driven joint working groups in 2016. It bodes well that next month in Haiphong, there's a major East Sea environmental conference. Stay tuned as the dialogues reach more policy shapers.

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