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Biodiversity and Diplomacy on the High Seas: Ex Anambas 2002

An international expedition explores the biodiversity of the Anambas and Natuna island groups.

On 11th March 2002, the pride and joy of the Indonesian research fleet, the *Baruna Jaya VIII*, was anchored off the World Trade Centre in Singapore. It was about to set sail on a scientific expedition to study the marine biodiversity of the Anambas and Natuna Island Groups located in the middle of the South China Sea. First conceived almost five years ago, it was about to become a reality! That morning, 24 marine biologists from China, Indonesia, Malaysia, Philippines, Singapore, Taiwan, Thailand, and Vietnam bundled aboard a ton of luggage and equipment!

It was a historic occasion, being the first scientific effort in more than a century to explore these islands! More significantly, it was an expedition wholly planned and executed by the countries surrounding the South China Sea! Oddly enough, the expedition had its roots in politics, not science. Prof Hasjim Djalal, then Ambassador-at-large of Indonesia and the Director of Pusat Studi, is a central figure in an informal political process called "The Workshop on Managing Potential Conflicts in the South China Sea".


Expedition ship, Baruna Jaya VIII, anchored off Teluk Jebung

The expedition was an initiative of the workshop to promote regional scientific cooperation, termed in foreign affairs as 'a confidence building measure'.

Prof Djalal ensured it became a reality by coordinating the monetary and manpower contributions from various foreign ministries, whilst requesting the assistance in the scientific, logistics and planning aspects from the Raffles Museum of Biodiversity Research and Indonesian Institute of Sciences (LIPI). The result came to be known as "Ex Anambas".

Too many islands, too little time

With just 10 short days available to us, we conducted careful analysis everyday with the ship's captain to seek out the best sites. Multi-national teams were despatched by zodiacs to survey and collect the fauna of beaches, rocky shores, mangroves, coral reefs and even adjacent inland streams. In this short time, we dived, snorkeled, waded deep into mud and streams, seined, used line fishing, grabbed with our bare hands, trawled at night, etc. with bone-aching intensity, and threw in a visit to the major fish market! All in all, we managed to sample some 60 sites within the Anambas and Natuna island groups.

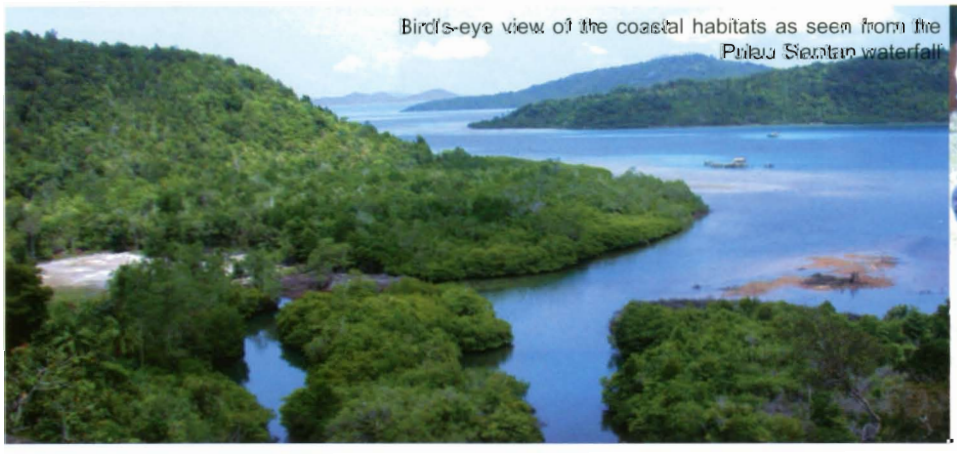
Some secrets and some luck

The ship's deck was soon awash with a fascinating array of seastars, urchins, fish of all sorts of shapes and colours, crabs, prawns, worms, sea cucumbers, squids and seahorses! We must have sorted, washed, preserved and catalogued over 3,000 specimens.

During the expedition itself, specialists realized that some of the species of fish, crustaceans and mollusks collected were new to science! Exciting news and imagine this - the complete post-expedition analysis will take some two years to complete - what gems will be uncovered then?! We were often lucky in more ways than one - late one night, a trawl pulled up a tiny but beautiful blue-ring octopus which we examined. Next morning, Anuwat Nateewathanam of Thailand, our cephalopod expert, declared that not only was the tiny creature a new species, its bite could have killed us within hours!

Sleep is a luxury

We were usually sleep deprived from sorting and photographing specimens or planning late into the early hours of the


Birds-eye view of the coastal habitats as seen from the Pulau Siantan waterfall


Turtle rescue at Pulau Laut


Teams about to embark on a survey

morning, but the *Baruna Jaya VIII* was a wonderful ship to be on board – it had an excellent lodging and lab facilities (even a laundry service!) and extremely enjoyable food!

One of the Philippines scientists, Miledel Quibilan or "Megs", an experienced voyager, leaned over and warned me one evening that such luxurious conditions were not common place during most expeditions!

The 'market raid'

Early one morning, the ship dropped anchor off Tarempa Bay, home of the biggest wet market in the islands. A gold mine of marine life from nearby islands was on sale and within easy reach! But we had just fallen into an exhausted sleep hours earlier. Unfortunately, we had earlier explained the importance of the 'market raiding expedition' to Mr. Satria Djambek, the Indonesian foreign ministry official assisting the expedition. Regaled by tales of the early morning raids of such precision and speed, 'Pak Djambek' enthusiastically pounded our cabin doors in the darkness! We groaned, but some of us struggled up and later bought one example of each and every fish that looked different in record time! A close examination later saw half the purchase rejected by the fish experts (common species), but the ship's cook was happy by the present of fresh fish for his kitchen!

Dynamite and pirates

The beautiful islands did reveal evidence of dynamite fishing on several reefs, no signs of replanting in degraded coastal habitats, and a fish trade supplying boats from East Asia that could strip the reefs of larger fish. Piracy by sea faring people in some areas was a worry, and Captain Lettu Muddan, the Indonesian Navy officer attached to the expedition, discussed this issue with the local village headmen in each site. He would report the details to senior officers in Jakarta.

It's a small world

In what we thought was a remote village, we met local inhabitants who could speak Vietnamese! An abandoned refugee boat that had run aground nearby explained it all. Nguyen Van Nguyen, one of our Vietnamese scientists, was visibly moved. As a child in the 1970s, he had seen his people leaving for the inky darkness of the sea, never coming back. As they ventured through the South China Sea, some boats had even reached the Anambas islands! They had stayed long enough before resettlement, sharing homes, and the local islanders had picked up their language! Most of the 'boat people' who made it that far were eventually resettled in Europe and America.

Luck of the innocent

On another remote beach on a blazing hot day, a large turtle was caught by its neck in a wooden fence close to land. It would be hours before the sea would rise again, and the heat would have killed it. By sheer luck, our coastal sampling teams chanced upon it, and the entire group kicked into action to free the creature. With the waterline now a considerable distance away, they lifted the heavy animal up, and huffed and puffed as they carried it back to the sea. That was one lucky turtle!

More on the internet

After 10 days, we were good friends and the rapport had helped us become more efficient in our work. But it was time to return! We returned to Singapore with a sizeable load: specimens, more than 1,500 digital and slide photographs, and an invaluable understanding of the biology and environmental conditions of the Anambas and Natuna islands. Little had been known previously, and now, just for starters, photographs, articles and all our sampling locations are available to all on the internet (see: http://rmbr.nus.edu.sg/exanambas/). One of the Malaysian scientists, Yusri bin Yusuf, has uploaded expedition photos to ReefBase as well (see: http://www.reefbase.org/). More to follow!

Friendship on the high seas

What better way to cooperate than to help unravel the endless secrets of the sea? Government officials agreed, and at the next meeting of the "The Workshop on Managing Potential Conflicts in the South China Sea", the group proposed a follow-up expedition in the near future. The Philippines suggested "Ex Palawan", and we eagerly await the unraveling of more secrets of the sea, and the chance to discover more friends amongst the scientists of this second South China Sea expedition!

—by N. Sivasothi

(Photos by Joelle Laï)

The Ex Anambas team says, 'Goodbye.'