Project Seahorse
ADVANCING MARINE CONSERVATION

PSNews

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Amanda Vincent nominated for world's leading conservation award

Amanda Vincent, Project Seahorse's director, is one of 29 animal conservationists nominated to receive the Indianapolis Prize, the world's leading award for animal conservation. Amanda has been nominated for putting seahorses on the global conservation agenda.

Six finalists will be announced in the spring of 2010. The Prize Jury will then determine the winner who will be announced in mid-2010 and honoured at the next Indianapolis Prize Gala, to be held Sept. 25, 2010, in Indianapolis.

Amanda's passion and commitment is responsible for putting seahorses on the global conservation agenda. She was the first person to study seahorses underwater (1986), the first to document the extensive trade in these fishes (1996), the first to initiate a seahorse conservation project (1996) and the first to find solutions that could secure the future for wild populations.

Amanda is considered the global authority on these fishes, whether measured through practical conservation gains or academic research. Her success in advancing seahorse biology, habitat protection, fisheries management, and trade regulation comes from work largely beyond her terms of employment as a university professor.

"These conservationists are all living an adventure that battles the odds, achieves great victories and builds a future worth living in" said Michael Crowther, CEO of the Indianapolis Zoo, the organization responsible for initiating the conservation award.

Amanda Vincent working with Traditional Chinese Medicine Practioners (top), looking at dried seahorses with associate director Heather Koldewey in Hong Kong (middle) and plotting MPAs with the Project Seahorse Foundation team in the Philippines (bottom).

Ecologically sound seaweed farming in the Danajon Bank

The Provincial Government of Bohol, Philippines is planning a 25,000 ha expansion of seaweed farming area in the Danajon Bank, a rare double barrier reef, as part of their provincial food security program.

Prompted by concerns of the expansion's impacts on the ecology of the Danajon Bank, Project Seahorse Foundation convened a workshop in August, facilitated by FISH Project's Prof Nygiel Armada. Ten pre-eminent Filipino marine scientists formulated a set of recommendations for sustainable, ecologically sound seaweed farming in the Danajon Bank. The recommendations (left) are based on the principles of long-term sustainability, reducing the impact of seaweed farming on sensitive marine habitats, and seaweed farming's compatibility with other coastal users/uses. They were presented to the Provincial Government and have generated much interest.

The Project Seahorse Foundation staff are now actively following up with the implementation of these recommendations in the region.

Recommendations to the Provincial Government of Bohol:
1. That seaweed farms should not be established over coral reefs and seagrass beds; and mooring and anchoring structures should not be attached to corals;
2. That good sea water quality should be maintained at farm sites to serve as indicator that the farms do not exceed environmental carrying capacity (farming intensity and volume of seaweeds that the environment can support);
3. That social services such as waste disposal, education, and health should be provided to the expected human settlements for the seaweed farms;
4. That an environmental management body should be developed by enhancing existing bodies like the Coastal Law Enforcement Council (CLEC), and said body should have monitoring and research-related responsibilities in partnership with academia;
5. That future expansion of the seaweed industry in Bohol should consider areas outside Danajon Bank because of the high turbidity and lower current speeds in its western portion. Moreover, Danajon Bank is likely to be nominated as National/World Heritage site because of its uniqueness as one of only four double barrier reefs in the world, and the only one in the Philippines; and
6. That the total potential area for seaweed farm expansion in the Bohol part of Danajon Bank is 7,857 ha based on water depth of 15 meters. A reserve area for coral reefs and seagrass beds should be set aside equivalent to 15% of total area, as mandated by R.A. 8550 or the Fisheries Code. The potential farm areas under the jurisdiction of the provinces of Leyte and Cebu are 5,754 ha and 3,703 ha, respectively.

Comings & transitions

Angie Nellas was appointed Project Seahorse Foundation Senior Biologist. Angie is the first Philippine-based Senior Biologist in the history of PSF. As Angie is familiar with the Philippine context of developmental issues in marine sciences, work partnerships, and growth opportunities, it is expected that she will propel PSF to a more prominent position in the national marine scientific circle through creative and innovative strategies and approaches.

Joining Angie in the Biological Team at PSF is Edwin Dumalagan, Jr. as Field Biologist. Edwin hails from Mindanao and obtained his Bachelor of Science in Marine Biology from Mindanao State University.

Dr. Melissa Evanson joined the PS team in August as our new Senior Research Assistant. Melissa is an environmental scientist who has spent the last several years working in aquatic and fisheries sciences. She holds a BSc in marine biology from UBC and an MSc in fish toxicology from the University of Guelph. Recently, she completed her doctorate in environmental science and engineering from UCLA specializing in salmon life history strategies and population dynamics. She has worked in consulting for the past six years with a focus on species recovery planning, stock assessment and environmental assessment of impacted coastal areas.

Dr. Phil Molloy joined PS in October as a Research Fellow. Phil's research spans conservation and evolutionary ecology. He is interested in fisheries ecology and the effects of protected areas and other fisheries management tools on marine communities and ecosystems. He also tackles questions on the evolution of mating systems and life histories. Where possible, he links these two areas of research by using life-history and evolutionary theory to understand species' responses to conservation efforts.

In September, Danika Kleiber left the PS Research Assistant office and headed down the hall (four desks away) to begin life as a Project Seahorse PhD student. Her background in women's studies and biology will finally be put to good use as she explores women's participation in fisheries and conservation in the Philippines. She will be researching women's fishing and marine resource extraction activities, as well as women's participation in conservation planning and management.

James Hehre joined the PS team as a PhD student in September to explore questions about human impacts on the environment. He is looking at the ecological impacts of seaweed farming in the Philippines. He completed his MSc in Environmental Science and Policy at John Hopkins University in Baltimore, Maryland.

New PS Publications

Ban, N. (2009). Minimum data requirements for designing a set of marine protected areas, using commonly available abiotic and biotic datasets. Biodiversity and Conservation 18(7): 1829-1845.

Ban, N.C., Hansen, G.J.A., Jones, M. and Vincent, A.C.J. (2009). Systematic marine conservation planning in data-poor regions: Socioeconomic data is essential. Marine Policy 33(5): 794-800.

Ban, N.C. and Vincent, A.C.J. (2009). Beyond marine reserves: Exploring the approach of selecting areas where fishing is permitted, rather than prohibited. PLoS ONE 4(7): e6258.

Ebeling, J. and M. Yasué (2009) Market-based conservation and global governance: Can forest certification compensate for poor environmental law enforcement in Ecuador and Bolivia? J Envir Manag, 90: 1145-1153.

Naud, M.J., J.M.R. Curtis, L.C. Woodall and M.B. Gaspar (2009) Mate choice, operational sex ratio, and social promiscuity in a wild population of the long-snouted seahorse Hippocampus guttulatus. Behavioural Ecology 20(1): 160-164.

Randall, J.E. and S.A. Lourie (2009) Hippocampus tyro, a new seahorse (Gasterosteiformes: Syngnathidae) from the Seychelles. Smithiana Bulletin 10: 19-21.

Theberge, M., Dearden, P. and M. Yasué (2009) Using underwater cameras to assess the effects of snorkeler and SCUBA diver presence on coral reef fish abundance, family richness, and species composition. Ecological Monitoring and Assessment. Available at www.ncbi.nlm.nih.gov/pubmed/19353295.

Woodall, L.C., H.J. Koldewey, S.V. Santos and P.W. Shaw (2009) First occurrence of the lined seahorse Hippocampus erectus in the eastern Atlantic Ocean. Journal of Fish Biology (2009) 75, 1505–1512

Yasué, M. and P. Dearden (2009) The importance of supratidal habitats for wintering shorebirds and the potential impacts of intensive shrimp aquaculture. Envir Manag. 43: 1108-1121.

PS Annual Report 2008 - see it online at www.projectseahorse/aboutus/annual.html

New look website

In September we launched our new-look website. Check it out and let us know what you think: www.projectseahorse.org

All publications are available from our website.

PS Celebrating Cultural Diversity

Exploring more than marine conservation in the Philippines, Jennifer Selgrath, a Project Seahorse PhD student, recently performed a solo dance at the International Rice Research Institute (IRRI) Cultural Night. This annual event showcases performing arts from the home countries of IRRI researchers and collaborating institutions, such as SeaLifeBase and WorldFish where Jennifer is a visiting scientist.

Jennifer's dance was inspired by the wonder of exploring tide pools and reef flats – subtly bringing the ocean to a room of agricultural scientists! She performed an improvisational dance, which belongs to the Modern and Contemporary Dance genres of North America, Europe, and elsewhere. The dance is not choreographed before it is performed, but rather is composed in the moment of performance in a dialogue between the unknown and the known.

Some of the shows highlights included male hip-shaking dances from Iran, a band of stringed and wind instruments from Laos, a singer-songwriter from Spain, and a live rendition of Japanese game shows. "It was a wonderful experience to perform alongside people from all over the world. We are at this research institute to exchange ideas about science, but our cultural diversity means that we can also explore the richness of our cultures."

Jennifer Selgrath (middle, top) at the International Rice Research Institute Cultural Night in the Philippines

Volunteer's perspective: Notes from Ria Formosa lagoon

Written by Jamie Sziklay

Initially finding a seahorse within the environment of the Ria Formosa, Portugal felt like a game of Where's Waldo. Differentiating between the two European seahorse species (Hippocampus guttulatus and H. hippocampus) also seemed unimaginable. The Ria Formosa, a natural park bursting with biodiversity and consisting of marshy lagoons and islands, once claimed to be the habitat of the densest population of seahorses in the world. Today that population has significantly decreased.

I am volunteering with Iain Caldwell, a Ph.D. student with Project Seahorse, as he attempts to learn how and why their populations have shifted.

The Ria poses a myriad of challenges in terms of diving. In low visibility

Volunteer Jamie Sziklay searching for short-snouted and long snouted seahorses in Ria Formosa, Portugal

I must strain my eyes to keep Iain's bright yellow fins from fading. In the strong currents I swim using every muscle in my body just to stay in place. Sometimes we find ourselves having to walk the boat through exposed sand and seagrass during low tide. Learning to conduct environmental surveys in these conditions without getting tangled up by sample bottles, clipboards, data sheets, current meters, and foldable quadrats has been a challenge in itself.

Notwithstanding all the minor (and some major) complications, we have days that make everything worthwhile. We have found one location that seems to be a seahorse paradise. We witnessed one tagged seahorse give birth only moments after Iain took its picture. Most promisingly, we have found juveniles. These juveniles offer a glimmer of hope that the seahorse populations in the Ria Formosa will once again be as abundant as they once were.

Continuing the IODE legacy

In May, PhD students Iain Caldwell and Sarah Foster were guest speakers at IODE's National Annual Meeting in Victoria, BC. They spoke about population declines in many marine species, including seahorses. Both Iain and Sarah currently hold IODE War Memorial Scholarships. This appears to be a Project Seahorse tradition as Amanda Vincent is also a previous recipient of the same scholarship.

IODE Canada is a national women's charitable organization dedicated to enhancing the quality of life for individuals through education support, community service and citizenship programs.

Sarah Foster, Marie Locke, IODE War Memorial Officer, and Iain Caldwell

Over 5000 people marched over the Cambie Street Bridge in Vancouver in a rally called "Bridge tc a Cool Planet". The rally was part of the International Day of Climate Action (24 Oct). More than 5200 events, all demanding that governments radically reduce carbon dioxide (CO_2)emissions to 350ppm (we are currently at 387ppm), were held in 181 countries. This was probably the most widespread day of environmental action in our planet's history, and Project Seahorse was a part of it.

Many of us attended the rally and a mini-event later that evening, hosted by Project Seahorse PhD students, Nick Hill and Kerrie O'Donnell.

"We're extremely concerned about the effects of climate change on coral reefs and the implications it has for the work we do. Coral reefs face many threats, including direct exploitation and poor land-use practices. But if CO_2 levels remain above 350ppm we will probably see the extinction of coral reefs within our lifetimes. What then for the communities that rely on them for their livelihoods and other ecosystem services?" said Nick Hill.

We took a photo incorporating the number "350" and sent it off to 350.org - an international environmental NGO with the goal of cutting atmospheric CO_2 emissions by 80% by 2050. 350.org in turn collected similar images from around the world and delivered them to the media and world leaders to raise awareness of the urgent need for an international climate treaty.

Congratulations!

Hazel Panes was awarded a Fellowship from the Netherlands Fellowship Programme to attend a course on Fisheries data collection and analysis, at Wageningen University this November. It was a great training opportunity. Hazel used PSF existing datasets on seahorse catch landings and other related datasets, so that her outputs could contribute towards PSF's capacity in data collection and analysis.

Two Project Seahorse PhD students, Sarah Foster and Marivic Pajaro, defended their theses in November and passed with flying colours. Dr. Foster's thesis focused on the issue of bycatch, specifically addressing the impacts of tropical shrimp trawling on small fish species. She is now taking a well-deserved break in Mexico and will return to Vancouver in January to work on new marine challenges. Dr. Pajaro's thesis combined biological and social research to look at indicators of effectiveness in Community-Based Marine Protected Areas. She has returned to her home in the Philippines and will continue working on marine conservation efforts.

New PhD student, Danika Kleiber was awarded the University of British Columbia Four Year Fellowship, the Simons Foundation Doctoral Scholarship and the Resource Management and Environmental Studies entrance scholarship.

And then there were three....

Andaya, Amanda and Kian

We are delighted to announce that Dr. Amanda Vincent, co-founder and Director of Project Seahorse, gave birth five weeks early to a very healthy baby boy, Kian Yuhai Vincent, on 25th May 2009.

Amanda is currently enjoying her parental leave with Kian and her daughter Andaya. She will return to work in mid 2010.

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