Special Seminar Announcement
13:15 Wednesday 2 March 2016 (John Muir Building room S48)

“From Science to Policy: Biology, Ecology and Fisheries Management of a Brazilian Mangrove Crab”

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Abstract: In Brazil’s mangrove forests, the crab *Ucides cordatus* is harvested since pre-historic times and provides the (often only) income source for thousands of socially marginalized crab harvesters. Today, many crab populations are suffering from habitat degradation, disease and fishing pressure. This talk will provide a summary of some key results from Karen’s research, and that of her students and collaborating partners, involving descriptive and experimental field and laboratory studies on the biology (e.g. reproductive rhythmicity, triggers for larval settlement, maturity, growth, behaviour), functional role and fishery of *U. cordatus*. This research already has and will further improve policies to help sustain healthy crab populations and fisheries-dependant livelihoods. Ongoing work involving eight study sites along the Brazilian coast is generating the necessary scientific knowledge to allow a robust *nation-wide* prediction of the occurrence of mating *en masse* in *U. cordatus*. This will allow improving the placement of fisheries bans for this vulnerable species. Our predictions are already tested in a real-world scenario: Managers of an extractive reserve are now performing their monitoring for law compliance precisely according to our predictions. Future studies will focus on the effects of climate change on the reproductive rhythmicity of mangrove crabs and on their responses to other environmental stressors.

Karen Diele is a Reader in Marine Sciences at Edinburgh Napier University since 2012 and Co-Director of Research at St Abbs Marine Station. She gained her MSc degree at the University of Wuerzburg and her PhD degree at the University Bremen, in collaboration with the Leibniz Center for Tropical Marine Ecology (ZMT), Germany. She has been working closely with traditional fishermen in Amazonian mangroves for more than 15 years and was coordinator for a 10 years ZMT-UFPa bilateral research programme on Mangrove Dynamics and Management in Northern Brazil. She also researched in Vietnam and Australia. Karen’s work focusses on the (i) dynamics and management of coastal ecosystems and their associated benthic fauna/fisheries resources, (ii) linkages between biodiversity and ecosystem functions and services and (iii) life cycles, behaviour and functional ecology of marine invertebrates, and their responses to environmental stressors. She has been working in mangrove forests, seagrass meadows, rocky shores and biogenic reefs and recently formed a new working group on the effects of underwater sound on marine invertebrates.

Dr Ted Henry will be hosting Dr. Diele and will be pleased to coordinate meetings with her during her visit to HWU. Please contact Ted ([T.Henry@hw.ac.uk](mailto:T.Henry@hw.ac.uk)) (0131 451-4315) to set up a time to meet if you wish. He will be taking Dr. Diele to lunch on campus on 2 March before the seminar, contact Ted if you would like to join.