



Portuguese “Teacher on Board” National Program: Report on a Teacher’s Experience on the EMEPC/M@rBis/Selvagens 2010 cruise

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The former Task Group for the Extension of the Continental Shelf (EMEPC) now task group for maritime affairs (EMAM) has developed a national program, called “teacher on board”, to broaden the participation of teachers in technical and scientific cruises in the North-Atlantic Ocean. This program aims to give teachers a clearer insight into ocean sciences, and a better understanding of ocean technology and research studies in order to increase their level of science literacy. The “teacher on board” program provides a unique learning environment and is driven by the active participation of teachers on the several research activities on offer, with the ships embedded scientists. In exchange, teachers are expected to bring this knowledge back to their classrooms, to their colleagues and to society in general, through scientific educational projects that involve the community.

In this presentation we report on the “Teacher on board” activities during the “EMEPC/M@rBis/Selvagens 2010” cruise, held in June 2010 on the Maritime protected area of Selvagens Islands, South of Madeira Island. This campaign was held in the scope of the Portuguese Marine Biodiversity Information System and its main objectives was to inventory all maritime species from this protected area, from the abyssal plain to the emersed areas.

I report my evolvment on research activities carried out in life science scientific teams; as well as the follow-up work done in the Lagos Science Museum.

During near a month I had the opportunity to live and work side-by-side with the scientists on board and also actively participate on different scientific tasks. I was able to take part on sampling and identification in the intertidal zone; identification of species from the subtidal zone; and collaborate with the team studying the *Calonectris diomedea borealis*, a protected bird which nests on those islands. Additionally I had the possibility to follow a Remote Operated Vehicle (ROV) scientific dive.

As a result of my participation in this program, I’m developing a project called “feets in puddles”. The main objective of the project is to share with other teachers all knowledge obtained during the program. Practical workshops for science teachers are the first step of my project. I will conduct practical classes to science teachers on selected beaches, providing them the tools and guidance they need to perform field trips with their students. The focus will be on the different steps involved in scientific work, including planning, sampling and identification of biological species in the intertidal zone. Then I will follow up the teacher’s field trips with their students, helping and guiding whenever they need. The main goals are to promote practical work with student’s involvement in observing and manipulating equipment and real biological samples in an out-of-school setting. Students involved in deciding some of the features of practical tasks (the apparatus and equipment they will use, the data they will collect, how they will analyze and interpret data) are more likely to think about what they are doing and therefore, learning more from it.

Furthermore, a qualitative research study will be carried out to determine what teachers learned from working side-by side with scientists., How their understanding of the nature of science and scientific inquiry changed and how they bring those new or renewed teacher conceptions and knowledge back to their students and to the society, and finally how can we improved these type of program to enhanced the scientific literacy of Portuguese students.