

the open ocean and the nutrients made available for photosynthesis by upwelling processes. The fate of the nutrients were analysed by model results integration in boxes, residual circulation and their area of influence was obtained by off-line lagrangian tracers simulations.

P6.4

Preparing the future generations of environmental managers: exploring the risks of marine pollution with young students in the scope of the Ecorisk project

Costa S¹, Ribeiro DC¹, Guilhermino L^{1,2}

¹CIIMAR/CIMAR-LA – Interdisciplinary Centre of Marine and Environmental Research, Laboratory of Ecotoxicology and Ecology, Rua dos Bragas, 289, 4050-123 Porto, Portugal

²ICBAS - Institute of Biomedical Sciences of Abel Salazar, Department of Population Studies, Laboratory of Ecotoxicology, Rua de Viterbo Ferreira, 228, 4050-313, Porto, Portugal

Corresponding author: scosta@ciimar.up.pt (S Costa)

The early contact of children with science and their further and increasingly involvement in priority environmental problems is crucial for the sustainable development of our Society. Today children will be the future policy makers and environmental managers of tomorrow. Therefore, one of the priorities of the project “ECORISK - Ecological risk assessment of oils and hazardous and noxious substances in the NW Portuguese coast” is to carry out activities with children, and basic and secondary school students to increase their knowledge and sensitivity regarding marine biodiversity, services provided by marine ecosystems, and the need of protecting them against major treats such as pollution, climate changes and invasive species. Two of the workshops organized so far were “Playing in the sea bottom” where children learned about marine biodiversity and pollution through the creation of small sculptures representing sea species using debris commonly found in the beaches, and an hands-on experiment entitled “Oil spill...and now?”, where the children simulated an oil spill in bowls (using vegetable oil), its effects on birds and evaluated the effectiveness of several clean-up measures. Several other activities have been carried out with a very positive feedback.

P6.5

Dynamics of exchanges between the Ria Formosa and the ocean: role of environmental forcings

Fabião J¹, Rodrigues M¹, Jacob J², Cravo A², Fortunato AB¹, Carneira S³, Azevedo A², Bruneau N⁴

¹Laboratório Nacional de Engenharia Civil, Portugal

²Universidade do Algarve, Portugal

³Formerly at Universidade do Algarve, Portugal

⁴Formerly at Laboratório Nacional de Engenharia Civil, Portugal

Corresponding author: mfr Rodrigues@lnec.pt (M Rodrigues)

The Ria Formosa (South of Portugal) is a highly productive coastal lagoon, very important from both economic and ecological viewpoints. It supports several economic activities that, simultaneously, depend on the health of the ecosystem (e.g. tourism) and might be potential threats to its quality. Understanding the processes that affect the productivity of this ecosystem is thus essential to support its sustainable management. The COALA project aims to study the exchanges of nutrients, chlorophyll and particulate matter between the Ria Formosa and the ocean and how this dynamics is influenced by the main forcings (e.g. tide), combining field surveys and numerical modelling in a multidisciplinary approach. A duly validated hydrodynamic model, SELFE, and a lagrangean model were used to study the influence of the environmental forcings on the dynamics of exchanges lagoon – ocean. Several scenarios were simulated with different wind conditions, bathymetric configurations and discharged flows from local wastewater treatment plants. Results suggest a considerable influence of wind direction and bathymetry in the amount of particles exported out of the system at short time scales. The analysis of transport patterns of potential pollutants (nutrients among others) discharged by the wastewater treatment plants contributes to support the management of the Ria Formosa.

P6.6

Collaborative coastal governance – new methodologies for old problems

Ferro FM¹, Vasconcelos L¹, Raposeiro PD¹, Silva SF¹, Ferreira JC¹, Marteleira R², Silva F³, Caser U⁴

¹Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal

²S.O.S. - Salvem o Surf, Portugal

³Instituto do Mar (IMAR), Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Portugal

⁴Mediatedomain, Lda, Portugal

Corresponding author: f.ferro@campus.fct.unl.pt (FM Ferro)

The involvement of stakeholders in the decision making processes and the growing awareness of coastal resources value are of recognized importance, as it may encourage local communities to become themselves promoters of sustainability through the use and dissemination of good practices. To promote this, participatory methodologies for integrated coastal management were explored within two projects. Through the development of the eco-social dialog and the promotion of active participation of local communities, the