UNESCO supports summer school to share insights on plastics in aquatic environments

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Among the multiple human pressures on aquatic ecosystems is plastic litter. Increasingly detected and quantified in marine and freshwater systems, there is growing concern about the potential negative effect of plastics. The UNESCO Regional Bureau for science and Culture in Europe is supporting the Summer School on Plastics in Marine and Freshwater Environments to take place on 16-21 July 2017 at the German Federal Institute of Hydrology in Koblenz, Germany.

While the use of plastic materials has generated huge societal benefits, the 'plastic age' comes with downsides. Durability, unsustainable use, and inappropriate waste management cause an extensive accumulation of plastics in natural habitats. In particular, one issue of emerging concern is the accumulation of plastics in the aquatic environments, both marine and freshwater. The subject has gained worldwide attention in the last years. Plastic litter is found in marine and freshwater ecosystems all around the globe. Many plastics degrade slowly in the environment and may have long-term adverse ecological and economic impacts, including the dispersal of persistent organic pollutants. Macroplastics pose a health risk to aquatic animals, because of possible entanglement and ingestion. Ingestion of plastic may cause internal bleeding, abrasion and ulcers, as well as blockage of the digestive tract. Plastic debris may act as a vector for contaminants, including persistent organic pollutants and heavy metals. They can also transport non-native species and be colonized by microbes including possible pathogens. In littoral zones, the accumulation of sinking plastic debris and the dragging of fishing nets may disrupt bottom sediments, displace or smother infauna, and affect the structure and functioning of benthic microbial communities.

The summer school will provide the state of the art in research, measures and management options of plastics in marine and freshwater environments. Thereby, the focus of the school will be to initiate an international network of scientists, politicians and other experts in this field, in order to share insights into the current (country specific) situation, discuss related challenges and enhance collaboration opportunities in the future. The summer school will include topics such as: Awareness raising, Education and capacity development, Monitoring and management (regulations), Impact and risk assessment (societal, economic etc.) and Plastics industry. The Summer School will brings together scientists, young professionals, experts from different governmental authorities and technicians from the water and environmental sector from Africa, Asia, Latin America and Europe. The format of the workshop will be a combination of presentations and a World CafÃ© offering the participants and the lecturers an exchange of ideas. Participants will discuss 4 different subjects: Plastics and Society (Awareness raising Citizen science); Plastics and Science; Plastics and Policy (Management options Regulations Education); and, Plastics in the World of 2050.

The summer school is jointly organized by the German Federal Institute of Hydrology (BfG); the International Centre for Water Resources and Global Change (ICWRGC); the International Centre for Advanced Studies on River-Sea Systems (DANUBIUS-RI; the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB); UNESCO-IHP's International Initiative on Water Quality (IIWQ); in close cooperation with the UNESCO offices in Abuja, Jakarta and Venice. Specifically, the UNESCO Regional Bureau for science and Culture in Europe, Venice (Italy), will provide financial support to 5 selected participants from South-Est European countries (Bosnia and Herzegovina, Serbia and Slovenia).

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