# **EXPANDING OUR HORIZONS** Marine Science Seminar for Youths

# 26<sup>th</sup> March 2015 – 9.30am to 12.30pm Intercontinental Hotel, St. Julians, Malta

This event opened by the Hon Minister for Education and Employment Evarist Bartolo and Dr. Adriana Vella, conservation biologist and Senior Lecturer at the University of Malta will be followed by presentations by Prof. Philip Hammond (UK) on cetacean ecology, Prof. Gianni Pavan (Italy) on bio-acoustics, Dr. Barbara Taylor (USA) on conservation of endangered cetaceans and Dr. Jay Barlow (USA) on estimating abundance of cetaceans follow and by Dr. Adriana Vella (Malta) on field to genetic tools for conservation.

#### Marine Surveys for Conservation in the UK

Prof. Philip Hammond, SMRU, University of St Andrews, Scotland, UK

Distribution and abundance of cetacean populations. Priorities for research to increase knowledge, improve ecological understanding and inform conservation needs in a rapidly changing world.

#### Underwater sensing technologies for marine mammals research and conservation

Prof. Gianni Pavan, University of Pavia, Italy

Underwater technologies have evolved considerably in the last decades. The development has been driven by military research, by industrial interests for the exploitation of marine resources, and only in the last decade by interests related with the study and protection of marine mammals and of marine life in general. Most ecological and zoological studies are now aimed at conservation and most of these concern the underwater noise generated by human activities. An overview of the evolution of underwater bio-acoustics research and of the new trends of research will be presented.

### Saving Vaquita: Mexico's imperiled porpoise

Dr. Barbara Taylor Southwest Fisheries Science Center, NMFS, NOAA, USA

With fewer than 100 individuals left, learn what Mexico is doing, the role of scientists and how their fate connects to global conservation efforts for cetaceans. Even with a single threat, death in artisinal gillnets, is daunting to resolve when economic needs of fishermen combine with organized crime in illegal wildlife trafficking.

## "Counting California's Cetaceans"

Dr. Jay Barlow, NOAA-SWFSC-PRD, USA

Abundance and trends are of key importance in evaluating the impacts of human activities on cetacean populations. This presentation reviews the methods that have been used to estimate the abundance of whales, dolphins and porpoises along the U.S. West Coast over the past 25 years.

#### From local to regional perspectives in marine conservation research and applications

Dr. Adriana Vella, Conservation Biology Research Group, Department of Biology, University of Malta, Malta

With numerous marine species found to decline in population sizes and increasing threat to marine life, conservation tools have had to advance to meet the challenges of accurate and speedy assessments. Financial shortage may have limited the potential of conservation genetics and various innovative tools now available to provide effective knowledge and solutions for the urgent local to regional needs. Nonetheless conservation genetics and field research in Malta by the Conservation Biology Research Group of the University of Malta have allowed the development of these necessary marine monitoring and investigative tools for the benefit of students and necessary research for the many every day applications.