

CECOMA 2016

Challenges in the Environmental Management of Coastal and Marine Areas

LAS PALMAS DE GRAN CANARIA, SPAIN

25-29th January of 2016



TOGETHER WE WILL BUILD A BETTER WORLD

ORGANIZED BY ECOAQUA
&
UNIVERSITY OF LAS PALMAS DE GRAN CANARIA

IN COLLABORATION WITH
IUCN



Table of Contents

PROGRAMME CECOMA 25-29TH JANUARY 2016	1
LOCATION:	6
SESSION 1 - INTEGRATED MANAGEMENT OF COASTAL AND MARINE AREAS	7
INCLUDING AQUACULTURE IN THE MANAGEMENT OF COASTAL AND MARINE AREAS THROUGH THE DEVELOPMENT OF INTEGRATED MULTI-TROPHIC AQUACULTURE.....	8
WHY EXPERIENCE AND KNOWLEDGE MAY CHANGE OUR WAY TO APPROACH THE ENVIRONMENTAL CHALLENGES?	9
THE BIODIVERSITY DATABASE OF THE CANARY ISLANDS. ANALYTICAL TOOLS IN CONSERVATION.	10
MARINE PILOT - MSFD & INSPIRE EXPLORATORY PROJECT	11
ALIEN SPECIES IN THE BALTIC SEA: DANGER OR CHANCE?	12
REGULATING AND MANAGING MARINE LIVING RESOURCES: FIVE DECADES OF TRIUMPH AND FAILURE IN THE EUROPEAN UNION	13
SESSION 2: STRUCTURE AND FUNCTION OF COASTAL & MARINE ECOSYSTEMS	14
THE ROLE OF GLACIATION-RELATED SEA LEVEL OSCILLATIONS IN SHAPING THE PRESENT MACARONESIAN ISLAND BIOTAS	15
OPEN OCEAN FISH FARMING: SOME TECHNICAL CONSIDERATIONS FOR A BETTER UNDERSTANDING OF ENVIRONMENTAL THREATS AND ADVANTAGES.....	16
QUANTITATIVE ANALYSIS OF SEAWEEDS ON THE INTERTIDAL ROCKY COASTS OF SANTIAGO ISLAND, CAPE VERDE ARCHIPELAGO	17
AN 'ENDEMIC' FISH COMMUNITY ASSOCIATED TO SEAGRASS MEADOWS OFF THE CANARY ISLANDS	18
SEASONAL AND SPATIAL PATTERNS IN THE MORPHOLOGY AND LIFE STORY OF THE BROWN MACROALGAE <i>CYTOSEIRA ABIES-MARINA</i> (FUCALES, PHAEOPHYCEAE) IN THE ROCKY INTERTIDAL FROM GRAN CANARIA (EASTERN ATLANTIC): ENVIRONMENTAL DRIVERS OF VARIATION.....	19
SESSION 3 - RESPONSIBLE USE OF COASTAL & MARINE RESOURCES	20
BUILDING GLOBAL NETWORKS OF MPAS: CHALLENGES, ADVANCES AND OPPORTUNITIES	21
THE NEED FOR TECHNICAL AND LEGAL TOOLS TO SUPPORT A COMPETITIVE AND SUSTAINABLE ECOTOURISM ASSOCIATED TO MARINE FARMS AT SPAIN.	22
MODELING THE EFFECTS OF FISHING MANAGEMENT SCENARIOS ON THE GRAN CANARIA MARINE ECOSYSTEM	23
THE REAL IMPACT OF RECREATIONAL FISHERIES IN CANARY ISLANDS	24
FIRST STEPS TOWARDS ENVIRONMENTAL FISHERIES CERTIFICATION CONSIDERING THE STANDARD OF THE MARINE STEWARDSHIP COUNCIL (MSC): THE CASE OF OPTUNA & ISLATUNA, ARTISANAL LIVE BAIT TUNA FLEETS (CANARY ISLANDS, SPAIN)	25
PREPARATORY ACTION FOR THE IMPLEMENTATION OF THE INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS (BWM CONVENTION): IDENTIFICATION OF SPECIES IN LAS PALMAS PORT.	26
SESSION 4 - EFFECTS OF GLOBAL CHANGE IN COASTAL AND MARINE ECOSYSTEMS	27
RESPONSES OF NEARSHORE AND COASTAL BIODIVERSITY AND ECOSYSTEMS TO CLIMATE CHANGE: COMBINING LONG-TERM OBSERVATIONS, EXPERIMENTS AND MODELLING.....	28
LAND-SEA INTERACTIONS IN A CHANGING SCENARIO: NEW CHALLENGES IN THE ENVIRONMENTAL MANAGEMENT OF SHALLOW MARINE COSTAL AREAS.....	29
EFFECTS OF OCEAN ACIDIFICATION ON FEEDING RATES OF JUVENILES SEA URCHINS <i>PARACENTROTUS LIVIDUS</i> AND <i>DIADEMA AFRICANUM</i>	30

RELATIONSHIP INTERSPECIFIC AND ENVIRONMENTAL OF OCTOPUS VULGARIS AND PAGRUS PAGRUS THROUGH CATCHES OF THE GRAN CANARIA FISHING FLEET.....	31
OVEREXPLOITATION OF THE GALAPAGOS SAILFIN GROUPER: THE NEED FOR COMMUNITY BASED COLLABORATIVE EFFORTS TO ESTABLISH MANAGEMENT REGULATIONS.....	32
SESSION 5 - ECOSYSTEM CONSERVATION AND AQUACULTURE	33
HOLISTIC APPROACHES TO UNDERSTAND THE FUNCTIONING AND RESILIENCE OF COASTAL ECOSYSTEMS: FROM GENES TO ECOSYSTEM SERVICES PROVIDED BY SEAGRASS MEADOWS.....	34
DEVELOPMENT OF MARINE AQUACULTURE IN BRAZIL: INSIGHTS ON ENVIRONMENTAL INTERACTIONS.....	35
LARGE SCALE EFFECTS OF AQUACULTURE ESCAPEES ON FISHERIES LANDINGS: EVIDENCES FROM THE MEDITERRANEAN SEA.....	36
COMBINING ECOLOGY AND AQUACULTURE FOR <i>IN SITU</i> MARINE CONSERVATION INITIATIVES: SEAHORSE IN GRAN CANARIA ISLAND (NE ATLANTIC) - A CASE STUDY.....	37
A KINETIC ASSAY FOR NITRATE REDUCTASE (NR) IN <i>ULVA RIGIDA</i>	38
SEA URCHIN <i>DIADEMA AFRICANUM</i> POPULATIONS AT THE SELVAGENS ISLANDS	39
SUSTAINABLE PRODUCTION OF ABALONE <i>HALIOTIS TUBERCULATA COCCINEA</i> IN INTEGRATED MULTI-TROPHIC AQUACULTURE SYSTEMS.....	40
IDH ACTIVITY IN PLANKTONIC ORGANISMS: A NEW PROXY FOR POTENTIAL CO ₂ PRODUCTION AND RESPIRATORY METABOLISM AT THE BASE OF THE FOOD CHAIN	41
SECURING THE FUTURE OF CRITICALLY ENDANGERED ANGEL SHARKS THROUGHOUT THEIR NATURAL RANGE	42
POSEIDON PROGRAM: CITIZEN SCIENCE FOR THE STUDY OF MARINE BIODIVERSITY IN THE CANARY ISLANDS	43
BEST III AND THE CHALLENGES OF DEFINING COASTAL AND MARINE KEY BIODIVERSITY AREAS IN MACARONESIA.....	44
“BIO-BASED ECOSYSTEMS”: AN EUROPEAN CHALLENGE FOR THE 2016-2020 THROUGH SUSTAINABLE INNOVATION IN FOOD, FEED AND BIO-BASED INDUSTRIES WITHIN THE MARINE AND TERRESTRIAL SECTORS. THE CASE OF THE EUROPEAN AQUAPONIC HUB FA 1305.....	45
POSTER SESSION.....	46
P1 - COASTAL SUSTAINABILITY INDICATORS. A PROPOSAL FOR AGRICULTURE AND LIVESTOCK DEVELOPMENT WITHIN THE FRAMEWORK DPSIR (GRAN CANARIA, SPAIN).	47
P2 - COASTAL SUSTAINABILITY INDICATORS. A PROPOSAL FOR TOURISM AND URBAN DEVELOPMENT WITHIN THE FRAMEWORK DPSIR (GRAN CANARIA, SPAIN).....	48
P3 - FEASIBILITY OF DEVELOPMENT OF AN INDIVIDUAL BEHAVIOUR-BASED MODEL OF FERAL HORSES (<i>EQUUS FERUS CABALLUS</i>) IN SABLE ISLAND, NOVA SCOTIA, CANADA	49
P4 - ARE ZOOPLANKTON SECONDARY PRODUCTION MODELS ABLE TO PREDICT GROWTH IN THE MARINE MYSID <i>LEPTOMYSIS LINGVURA</i> (G.O. SARS, 1866)?.....	50
P5 - RESPIRATION OF PRIMARY AND SECONDARY PRODUCERS MEASURED BY DIFFERENT METHODOLOGIES.....	51
P6 - IMPACT OF INCREASING <i>p</i> CO ₂ ON MARINE POTENTIAL RESPIRATORY ACTIVITY	52
P-7 IMPACT OF RECREATIONAL FISHING ON FISH POPULATIONS DURING THE LAST 50 YEARS IN CANARY ISLANDS.....	53
P8 - SHELL ALLOMETRIC DIFERENCES IN BROWN MUSSEL UNDER LONGLINE CULTURE REGARDING WILD POPULATION (CANARY ISLANDS, SPAIN).....	54
P9 - DEFINING, ASSESSING AND VALORISING KEY MARINE HABITATS IN THE MACARONESIAN ARCHIPELAGOS.....	55

**FIRST STEPS TOWARDS ENVIRONMENTAL FISHERIES CERTIFICATION
CONSIDERING THE STANDARD OF THE MARINE STEWARDSHIP COUNCIL (MSC):
THE CASE OF OPTUNA & ISLATUNA, ARTISANAL LIVE BAIT TUNA FLEETS
(CANARY ISLANDS, SPAIN)**

Bilbao A^{1*}., Pérez Y¹., Castro J.J²., Hernández V²., Santana A.T²., García N³., Pavón N¹

¹ GMR Canarias S.A.U. c/Los Cactus 68, Polígono Industrial de Arinaga, 35118, Agüimes, Gran Canaria, Islas Canarias, España. albertobs@gmrcanarias.com

² Grupo de investigación en Biodiversidad y Conservación (BIOCON), de la Universidad de Las Palmas de Gran Canaria, 35017, Las Palmas de Gran Canaria, España.

³ Fundación Canaria Parque Científico Tecnológico (FCPCT), de la Universidad de Las Palmas de Gran Canaria, 35017, Las Palmas de Gran Canaria, España.

According to the United Nations Environment Programme (UNEP 2009) “(...) *at the present time, the MSC label is seen as something of the ‘gold standard’ of eco-labels*” (...) “*The MSC is an independent, global, non-profit organization whose role is to recognize well-managed fisheries and to harness consumer preference for seafood products bearing the MSC label of approval*”. In the Canary Islands the Producers Organization (OPP) OPTUNA (Lanzarote) and ISLATUNA (Tenerife) are estimated to capture around 60% of the main tuna species. The purpose of our research was to conduct a pre-evaluation of the live bait tuna fishery developed by these OPP to assess the possibility of initiating, with the best guarantees, an evaluation process for achieving the certification of the fishery according to the principles and criteria for sustainability fishing of the Marine Stewardship Council (MSC). We follow the requirements and guidance of the MSC (version 1.3). Also, we have consulted various sources of information (ICCAT, government, scientific databases, legislative bulletins, own data - unpublished - collected in various research projects on fisheries in the Canary Islands). In addition, we established contact with MSC during the process to make the best possible adaptation to their requirements. Finally, we visited the islands of Lanzarote and Tenerife to interview the managers of the OPP who provided key information about the organization and the fishing activity conducted. We define 5 Units of Certification (UoC) for live bait, considering the 5 main tuna species of commercial interest (“bonito listado” · *Katsuwonus pelamis* · SKJ – “barrilote” · *Thunnus alalunga* · ALB – “rabil” or “albacora” · *Thunnus albacares* · YFT – “tuna” o “albacora” · *Thunnus obesus* · BET – “patudo o atún rojo” · *Thunnus thynnus* · BFT). According to the methodology of the MSC standard, to consider that a fishery is likely to pass a process of evaluation, scoring of each of the 3 core Principles (1/ Sustainable fish stocks, 2/ Minimising environmental impact, 3/ Effective management) must be greater than 80. Our results indicate that UoC-SKJ could pass an evaluation process. On the other hand, the UoC-BET could also be close to pass. Of note, we have been conservative in our ratings since we were in a framework of a pre-assessment. As general recommendations, to fulfill MSC requirements we strongly recommend an analysis of the bait characteristics and its impact on tuna and other fisheries in the Canary Islands.

Project funded by the “Eje 4”- Sustainable Development of Fisheries Areas, co-financed by the European Union through the European Fisheries Fund (EFF), the “Consejería de Agricultura, Ganadería, Pesca y Aguas del Gobierno de Canarias) and the “Ministerio de Agricultura, Alimentación y Medioambiente del Gobierno de España”.

References

UNEP (2009) Certification and sustainable fisheries, 166 pp.

Keywords: artisanal fisheries; certification; MSC; live bait; tuna; Canary Islands