

Scientific and Social programme

Wednesday, 22 June

- 08:45 – 09:15 Registration
- 09:15 – 09:45 Opening
Iosu Madariaga, Deputy Minister for Environment of the Basque Government
Carmelo Garitaonandia, Vice-chancellor of the Campus of Biscay, UPV/EHU
Arantza Iriarte, Symposium Co-chair, UPV/EHU
Sergio Seoane, Symposium Co-chair, UPV/EHU
- 09:45 – 10:15 Opening Plenary Presentation
I. Marigómez, PIE, University of the Basque Country (UPV/EHU)
Sentinel mussels unveil long-term trends in ecosystem health status in the Bay of Biscay
- 10:15 – 10:35 Coffee break
- Session 1. Climate-ocean relations and physical oceanography*
(Chairs: Jon Saenz and Moncho Gómez Gesteira)
- 10:35 – 11:05 **Valencia V. Fontán A., Borja Á., Goikoetxea N., González M.** (Keynote)
1986-2015: Three decades of oceano-meteorological data in the SE Bay of Biscay. Main trends, regime shifts and anomaly patterns observed
- 11:05 – 11:25 **González-Rojí S.J., Sáenz J., Ulazia A., Ibarra-Berastegi G., Esnaola G., Fontán A., González M.**
Using high resolution atmospheric models to study atmospheric-oceanic coupling over the Bay of Biscay
- 11:25 – 11:45 **Fernández-Nóvoa D., deCastro M., Costoya X., Gómez-Gesteira M.**
Variability of the main river plumes of the Bay of Biscay under the influence of forcing drivers and teleconnection indices
- 11:45 – 12:05 **Costoya X., Fernández-Nóvoa D., de Castro M., Gómez-Gesteira M., Lazure, P.**
Effect of river discharges on thermohaline structure along the French continental shelf
- 12:05 – 12:25 **Laporte-Fauret Q., Ganthu F.**
Implementation and validation of a new method to take into account for small-scale seagrass patchiness within a 3-dimensional modelling system at regional scale
- 12:25 – 12:45 **Rodríguez L., Gómez-Gesteira M., Santos F.**
Migration duration of the European Anguilla eel.
- 12:45 – 14:00 Lunch
- 14:00 – 14:20 **González-Pola C., Ivey G., Jones, N., Kelly S., Bluteau C., Somavilla R.**
Internal tide dynamics and enhanced mixing in the Avilés Canyon System, southern Bay of Biscay

14:20 – 14:40 **Solabarrieta L., Frolov S., Cook M., Paduan J., Rubio A., González M., Mader J., Charria G.**

Comparison of real and simulated trajectories in the Bay of Biscay, using HF radar derived currents

14:40 – 15:00 **Caballero A., Rubio A., Boyra G., Ferrer L., Cotano U., Aldanondo N., Urtizberea A.**

Mesoscale slope dynamics and its influence on juvenile anchovy abundances

15:00 – 15:20 **Cano D., González-Pola C., Somavilla R., Tel E., Rodríguez C., Ruiz-Villarreal M., Lavín A.**

Sensor Networks and derived products at Biscay AGL observatory. State of the art operational oceanography at IEO

15:20 – 15:50 Coffee break

Session 2. Fisheries and Aquaculture
(Chair: Haritz Arrizabalaga)

15:50 – 16:10 **Cort J.L., Abaunza P.**

The impact of massive fishing of juvenile Atlantic bluefin tunas on the spawning population (1950-2009)

16:10 – 16:30 **Arregui I., Galuardi B., Goñi N., Lam C.H., Fraile I., Santiago J., Lutcavage M.E., Arrizabalaga H.**

Fidelity of juvenile bluefin tuna to the Bay of Biscay

16:30 – 16:50 **Goñi N., Onandia I., Uranga J., Martinez U., Lopez J., Boyra G., Arrizabalaga H., Arregui I., Santiago J.**

Towards a fishery-independent abundance index for East Atlantic juvenile bluefin tunas: first outputs of a directed acoustic survey in the Bay of Biscay

16:50 – 17:10 **Fernández-Zapico O., Punzón A., Serrano A., Landa J., Ruiz-Pico S., Velasco F.**

Trends on the ontogeny of the dominant flatfish species on the southern Bay of Biscay. Ecology and distribution patterns

17:10 – 17:30 **Ferrer L., Caballero A., Ibaibarriaga L., Uriarte A., Urtizberea A., Aldanondo N., Rubio A., Cotano U., Santos M.**

Impact of oceanographic conditions on the dispersal of anchovy eggs and larvae in two contrasting years of recruitment success in the Bay of Biscay

17:30 – 17:50 **Modica L., Rodríguez-Cabello C., Ruiz S., Fernández O., Velasco F., Sánchez F.**

Historical trends of demersal elasmobranchs populations in the Cantabrian Sea

17:50 – 18:10 **Kermorvant C., Caill-Milly N., D'Amico F., Bru N., Sanchez F., Brown J., Lissardy M.**

Clam monitoring: optimization of a recurring survey in the Arcachon Bay using spatially balanced sampling

19:30 – 21:00 Welcome food and drinks

Thursday, 23 June

Session 3. *Biodiversity; ecosystem structure and functioning*
(Chairs: Yolanda Del Amo and J.I. Saiz-Salinas)

- 09:00 – 09:20 **Chaalali A., Brind'Amour A., Dubois S., Le Bris H.**
Ecological role of an engineer species, *Haploopsis nirae*, for coastal benthic invertebrates and demersal fish
- 09:20 – 09:40 **Villate F., Iriarte A., Uriarte I., Sanchez I.**
Seasonal and interannual variability of mesozooplankton and the relationship to environmental factors in two contrasting estuaries of the Bay of Biscay
- 09:40 – 10:00 **Muñiz O., Revilla M., Rodríguez J.G., Laza-Martínez A., Seoane S., Franco J., Orive E.**
Potential effects of the phytoplankton community on bivalve aquaculture in Basque coastal waters (southeastern Bay of Biscay)
- 10:00 – 10:20 **Susperrégui N., Del amo Y., D'Elbée J., Jude F., David V., Bru N., D'Amico F., Raimbault P., Bichon S., Bourasseau L., Lienart C., Savoye N., Rouaud V., Soulier L., Gaudin P., Pigot T.**
Planktonic biodiversity in the French Basque coast in relation with marine pelagic mucilage occurrence
- 10:20 – 10:50 Coffee break
- 10:50 – 11:10 **Bonnin A., Goñi N., Louzao M., Arrizabalaga H.**
New data on albacore diet and internal parasites in the Bay of Biscay and surrounding waters
- 11:10 – 11:30 **Lopez-Lopez L., Preciado I., Muñoz I., Decima M., Molinero J.C., Tel E.**
Does upwelling intensity influence feeding habits and trophic position of planktophagous fish?
- 11:30 – 11:50 **Ramos E., Puente A., Echavarri-Erasun B., Juanes J.A.**
Are environmental conditions involved in clam population decline?
- 11:50 – 12:10 **Muguerza N., Díez I., Quintano E., Enjamio A., García-Sánchez M., Veiga A., Pérez-Ruzafa I., Pérez-Ruzafa A., Gorostiaga J.M.**
Baseline characterization of rocky subtidal benthic vegetation of the north and southern Iberian Peninsula
- 12:10 – 12:30 **Ortega M.M., Barrenetxea M.**
Distribution, growth and recruitment of *Actinia equina* (Cnidaria, Anthozoa) in the Cantabric Sea: crevices vs. rock pools.
- 12:30 – 14:00 Lunch
- 14:00 – 14:20 **Boyé A., Legendre P., Grall J., Gauthier O.**
Spatial and temporal variations of *Zostera marina* meadows in Brittany: relationship between habitat complexity and macrofaunal diversity
- 14:20 – 14:40 **Sánchez F., Rodríguez A., García-Alegre A., Gómez-Ballesteros M.**
Hard bottoms bathyal habitats and epibenthic communities of Le Danois Bank

- 14:40 – 15:00 **Robert A.E., Dubois S.F., Le Bris H., Pinsivy L., Laffargue P.**
Biological traits analysis revealed combined effects of bottom trawling and sedimentary features on benthic ecosystem functioning in the Northern Bay of Biscay
- 15:00 – 15:20 **Quillien N.**
Dynamic ecosystems under anthropogenic stress: how does macrotidal sandy beach fauna respond to green tides?
- 15:20 – 15:40 **Gallon R., Labrune C., Lavesque N., Grall J., Grémare A., Gauthier O.**
RESOMAR data providers
Biogeographic patterns of marine macrobenthic invertebrates in French Waters
- 15:40 – 16:00 **Serrano A., Cartes J., Punzón A., Arronte J.C., Ríos P., Lourido A., Papiol V., Frutos I., García-Alegre A., Blanco M.**
Epibenthic communities of a NE Atlantic deep seamount
- 16:00 – 17:00 Coffee break and poster session 1
- Session 4. Geology; erosion; transport and sedimentation*
(Chair: Alejandro Cearreta)
- 17:00 – 17:20 **Baumann J., Chaumillon E., Schneider J.L., Schmidt S., Bonnin J.**
Are sediments of land-reclaimed coastal lowlands suitable for recording storm-induced marine floods?
- 17:20 – 17:40 **Michel G., Dupré S., Ehrhold A., Baltzer A., Battani A., Imbert P., Deville E.**
Multi-data characterization of methane seeps on the Aquitaine Shelf
- 17:40 – 18:00 **Liria P., Epelde I., Uriarte A., Garnier R., González M., Gainza J., Jaramillo C., Medina R., Monge-Ganuzas M.**
Laida beach morphodynamic evolution in response to the supratidal beach nourishment actions performed in 2015
- 18:00 – 18:20 **Gainza J., Garnier R., Nuñez P., Jaramillo C., González M., Medina R., Liria P., Epelde I., Uriarte A., Monge-Ganuzas M.**
Accelerating the beach recovery by ploughing the intertidal bar: Field experiment and numerical simulations
- 18:20 – 18:50 **Zabaleta A., Antiguada I., Barrio I., Probst J.L.**
An approach to the conceptual model of Suspended Sediment Delivery from small catchments into the Bay of Biscay
- 20:30 Conference Dinner

Friday, 24 June

Session5. *Biogeochemical Cycles and Anthropogenic effects; quality assessment and ecosystem management*

(Chairs: Miren Cajaraville and Pierre Anschutz)

- 09:00 – 09:20 **Anschutz P., Buquet D., Charbonnier C.**
Nutrient sequestration in Aquitaine lakes limits nutrient flux to the coastal zone
- 09:20 – 09:40 **Borja Á., Uyarra M.C.**
From data to marine environmental status assessment: innovative tools for European seas management
- 09:40 – 10:00 **Gil-Uriarte E., Bilbao E., Marigómez I., Soto M.**
Xenostrobus securis: a challenge to classic Biomonitoring studies?
- 10:00 – 10:20 **Valencia A., Ruiz M., Serrano M.T., Cancio I., Ortiz-Zarragoitia M.**
Endocrine disruption and contaminant exposure assessment in male thicklip grey mullets, using liver and gonad histopathological and molecular biomarkers
- 10:20 – 10:40 **Briaudeau T., Izagirre U., Marigómez I.**
Screening sentinel fish species for biomonitoring programmes in the Bay of Biscay: histopathological and biomarker approaches
- 10:40 – 11:20 Coffee break and poster session 2
- 11:20 – 11:40 **Mijangos L., Delgado A., Kortazar L., Ziarrusta H., Olivares M., Zuloaga O., Fernández L.A., Prieto A., Etxebarria N.**
Analysis of emerging organic contaminants in the estuaries of Biscay: identification of potential sources
- 11:40 – 12:00 **Rial D., Leon V., Bellas J.**
Integrative assessment of coastal marine pollution in Santander Bay and Galician Rías
- 12:00 – 12:20 **Huguenin L., Lalanne Y., Bru n., Lissardy M., D'Amico F., Milon E., Castege I., de Casamajor M.N.**
Biodiversity and indicator species in intertidal boulder fields: a case study on the French Basque coast
- 12:20 – 12:40 **Serrano H., Cearreta A., Irabien M.J., López, I.**
Anthropocene geological record of the environmental regeneration process in the Bilbao estuary (N Spain)
- 12:40 – 13:00 **Pouso S., Uyarra M.C., Borja A.**
Does recovery of ecosystems equal to the recovery of ecosystem services? The Nervión estuary and recreational fishing ecosystem service case study
- 13:00 – 14:30 Lunch
- 14:30 – 14:50 **Mengual B., Cayocca F., Le Hir P., Garlan T.**
Trawling contribution to residual sediment dynamics over the French continental shelf of the Bay of Biscay (France)
- 14:50 – 15:10 **Aylagas E., Borja Á., Dell'Anno A., Corinaldesi C., Tangherlini M., Michel C.T., Irigoien X., Danovaro R., Rodríguez-Ezpeleta N.**

A new biotic index based on bacterial diversity for the assessment of marine environmental status

15:10 – 15:30 **Franco J., Bald J., Garmedia J.M., González M., Martín I., Menchaca I., Muxika I., Revilla M., Rodríguez J.G., de la Sota A., Uriarte A., Zorita I.**

Detecting abrupt changes and gradual trends in water quality: the 1990-2015 data series of the Nervión estuary (SE Bay of Biscay) analyzed by the Kolmogorov-Zurbenko Adaptive filter

15:30 – 15:50 **Garmendia J.M., Valle M., Borja Á., Chust G., Franco J.**

Zostera seagrasses in the Basque coast: Is Butroe estuary a suitable recipient site?

15:50 – 16:10 **Uyarra M.C., Borja Á.**

What is the environmental status of the Basque Coast? From individual ecosystem components to integrated assessments

16:10 – 16:30 Awards and Closing of symposium

Posters

Topic: *Climate-ocean relations*

P1- Biscay AGL Observatory: Measurements of Atmospheric and Oceanic Variables in the Cantabrian Sea.

Rodríguez C., Cano D., González-Pola C., Lavín A., Marcos E., Somavilla R., Vitoria A.

P2- Isolation of *Vibrio* species from the Bay of Biscay

Ogayar E., Orruño M., Montánchez I., Kaberdin V.R., Arana I.

P3- An Exploratory Data Analysis of the Basque Government oceanometeorological buoys

Bilbao B., Maruri M.

Topic: *Physical oceanography*

P4- Improving Lagrangian mixed-layer drifter data with an onboard ADCP

Herrera J.L., González J., Varela R.A., Piedracoba S.

P5- Numerical analysis of poleward along-shore current pulses on the shelf of the Bay of Biscay

Le Cann B., Kersalé M., Marié L., Serpette A., Lathuilière C., Rubio A., Lazure P.

P6- The Basque coastal marine warning system

Gaztelumendi S., Egaña J., Liria P., González M., Aranda J.A., Anitua P.

P7- Damages analysis in Basque Country coastal area

Gaztelumendi S., Egaña J., Liria P., Epelde I., González M., Aranda J.A., Anitua P.

P8- Modeling the accumulation of floating litter in the NW Iberian region

Pereiro D., Gago J., Torres C.

P9- Towards 4D shelf/slope circulation and transport estimations in the SE Bay of Biscay, within the framework of JERICO-NEXT Joint Research Activity Projects

Rubio A., Caballero A., Charria G., Lazure P., De Mey P., Marié L., Ferrer L., Mader J., Puillat I.

P10- Field studies of residual suspended sediment fluxes in the upper Gironde estuary under different hydrological conditions

Jalón-Rojas I., Schmidt S., Sottolichio A.

Topic: *Fisheries and Aquaculture*

P11- Innovative on-line technologies towards an effective monitoring of fishing activity

Antelo L.T., Alonso A.A., Bellido J.M., Landeira F.

P12- Effect of environment on the dynamics of anchovy stock of Bay of Biscay : a bioenergetic individual-based modelling approach

Dortel E., Huret M., Petitgas P.

P13 -A modelling approach to understanding anchovy larval growth patterns in an anticyclonic area in the Bay of Biscay

Urtizbera A., Aldanondo N., Caballero A., Ferrer L., Rubio A., Cotano U.

P14- Short-term effect of MPA management measure on the fisheries: the case of El Cachucho" MPA (Cantabrian Sea)"

Punzón A., García-Rebollo J.M., Rodríguez A., Ceballos E., Bolado I., Rodríguez-Cabello C., Sánchez F.

P15- How impacts the implementation of a sequential fleet behavior in the management strategy evaluation? The case of the Basque inshore fleet with FLBEIA

Andrés M., Urtizbera A.

P16- Evidence for size-selective mortality of European anchovy larvae in the Bay of Biscay based on otolith microstructure analysis

Aldanondo N., Cotano U.

P17- Ecosystem Approach to making Space for Aquaculture: the Basque Country case study

Galparsoro I., Garmendia J.M., Arantzamendi L., Murillas A., Franco J.

P18- Inter annual and inter seasonal differences in the gravimetric relationships between life weight and content in biochemical compounds of muscle and genitalia of the anchovy *Engraulis encrasicolus* of the Bay of Biscay

Txurruka E., Cotano U., Villate F., Txurruka J.M.

P19- Prevalence of the microsporidian parasite *Sprangea lophii* in white anglerfish (*Lophius piscatorius*) in the Bay of Biscay and in other Atlantic areas

Landa J., Antolínez A., Castro B., Autón U.

P20- Influence of ocean climate variability on fisheries: the sardine (*Sardina pilchardus*) case in the Iberian Atlantic shelf waters

Cabrero A., Gago J., González-Nuevo G., Cabanas J.M.

P21- Weight-length relationships, weight conversion factors and condition factor trends for two stocks of black anglerfish (*Lophius budegassa*) in southern Bay of Biscay, Galician waters and northern Atlantic areas from a decade

Landa J., Antolínez A., Castro B., Autón U., Hernández C., Dueñas-Liaño C., Navarro M.R., Villamor B.

P22- Morphological characterization and hydrodynamic behaviour of Biscay Bay's mako shark (*Isurus oxyrinchus*) dorsal fin denticles

Fernandez-Waid P., Díez G., Izagirre U., Blanco J.M., Souto I.; Soto M.

Topic: *Biodiversity; ecosystem structure and functioning*

P23- Shelf and canyon suprabenthic assemblages from the SE Bay of Biscay

Frutos I., Sorbe J.C.

P24- Real-time PCR approach to estimate predation on anchovy and sardine eggs in the Bay of Biscay

Cuende E., Mendibil I., Bachiller E., Álvarez P., Cotano U., Rodríguez-Ezpeleta N.

P25- Structural impoverishment of the subtidal vegetation of southeastern Bay of Biscay: inferring its relationship with climatic and local factors

Muguerza N., Díez I., Quintano E., Rodríguez A., Gorostiaga J.M.

P26- Temporal and spatial variability in the distribution of non-indigenous faunal zoobenthic species in the intertidal hard substrates in the "Abra of Bilbao"

Tajadura F.J., Bustamante M., Saiz Salinas J.I.

P27- Using a seafloor observatory to assess patterns of behavior, abundance and biodiversity of bathyal communities in relation to water dynamics

Rodríguez A., Sánchez F., González-Pola C., Rodríguez-Cabello C.

P28- First approach to study the size and morphology of gorgonian corals and sponges using photogrammetric analysis from video transects in the Marine Protected Area "El Cachucho" (Cantabrian Sea)

Prado E., Sanchez F., Rodriguez A.

P29- Environmental factors influencing growth of *Zostera noltei* meadows in the Arcachon Bay: How to explain their drastic decline?

Cognat M., Auby I., Rigouin L., Michalet R., Sottolichio A., Ganthy F.

P30- Predator-prey relationships between *Molva macrophthalma* and *Gadiculus argenteus*: the role of prey size, ontogenetic and bathymetric variations

Aja A., Quelle P., Frande E., Robledo R., Preciado I., Punzón A.

P31- Indicator species of intertidal boulder fields on the French Basque coast

Lalanne Y., Huguenin I., Lissardy M., Bru N., D'Amico F., Castege I., Milon E., de Casamajor M.N.

P32- The RESOMAR Macrofaune Benthic Database: A useful database to investigate soft bottom communities along French coasts

Gallon R., Lavesque N., A. Caillo, Labrune C., Gauthier O., Grall J., Grémare A.

P33- New asellote isopods from bathyal soft-bottoms of the Bay of Biscay (NE Atlantic)

Frutos I., Kavanagh F., Brandt A., Sorbe J.C.

P34- Molecular and morphological analyses of *Minidiscus comicus* reveals two distinctive morphologies within the species.

Hevia-Orube J., Laza-Martínez A., Orive E., Seoane S.

P35- Seasonal replacement of attached and free-living bacteria in coastal waters of the Southern Bay of Biscay

Uranga A., Abad N., Baña Z., Ayo B., Artolozaga I., Unanue M., Azúa I., Arrieta J.M., Iriberry J.

P36- Seasonal and ontogenetic changes in the horizontal and vertical distribution of seven eggs fish species in Galician waters.

Alvarez P., Guevara-Fletcher C., Rubio A., Cotano U.

P37- Describing the Bay of Biscay's continental shelf food-web using an OSPAR common indicator: the Mean Trophic Level indicator.

Safi G., Vouriot P., Arroyo N.L., Féral J.P., Hattab T., Lamare S., Mialet B., Niquil N., Petit L., Preciado I., Serre S., Le Loc'h F.

P38- Variation in frond depigmentation, breakage, density and biomass of the red alga *Gelidium corneum* under different irradiance levels

Quintano E., Díez I., Muguerza N., Gorostiaga J.M.

P39- Three decades of changes in the structure of the subtidal vegetation at the western end of the Basque coast

Muguerza N., Díez I., Quintano E., Gorostiaga J.M.

P40- Spatial distribution patterns and population structure of the bluemouth *Helicolenus dactylopterus* (Delaroche, 1809) in the southern Bay of Biscay.

Frande E., Robledo R., Aja A., Blanco M., Quelle P., Preciado I., Punzón A.

P41- Impacts of oceano-climatic changes on top predators: long term study in the south of the Bay of Biscay (North-East Atlantic, France)

Castege I., Milon E., D'Elbee J., Milpied J.M., D'Amico F., Bru N.

P42- The role of biogenic substrata provided by canopy algae on the structural and functional diversity of rocky subtidal invertebrates

Bustamante M., Tajadura J., Saiz-Salinas J.I.

P43- Preliminary evidence for a rapid phenological shift at the southern range limit of a sentinel marine species of the Bay of Biscay

Saunier A., Pante E., Guesdon S., Becquet V., Garcia P.

P44- Scales of variability and seasonal and interannual coherence in the zooplankton of two contrasting estuaries of the Bay of Biscay along the salinity gradient.

Uriarte I., Villate F., Iriarte A., Sanchez I., Arranz S.

P45- Morphometric discrimination of two larval populations of anchovy larvae (*Engraulis encrasicolus*) from the Cantabrian Sea (Inner Bay of Biscay) and the Catalan Sea (NW Mediterranean)

Intxausti L., Villate F., Motos L., Uriarte I., Iriarte A.

P46- Differences in mesozooplankton communities along northeast Atlantic shelves, from the Bay of Biscay to the North Sea

Fanjul A., Villate F., Uriarte I., Iriarte A., Atkinson A., Cook K.

P47- Bacterial growth efficiency reveals the adaptation of the marine bacterioplankton to environmental changes

Baña Z., Abad N., Uranga A., Azúa I., Artolozaga I., Unanue M., Ayo B., Arrieta J.M., Iriberry J.

P48- Is spatial distribution of fauna dependent of algal belts on the intertidal boulders of the Basque coast (Bay of Biscay)?

Marticorena J., Huguenin L., Lalanne Y., Bru N., Lissardy M., de Casamajor M-N.

P49- The importance of the estuarine typologies defining the phytoplankton community composition

Pérez L., Guinda X., Seoane S., Puente A., Juanes J.A.

Topic: *Geology; erosion; transport and sedimentation*

P50- Present-day sedimentation rates in the Bay of Brest (NW France) and its evolution since the last millenaries

Ehrhold A., Grégoire G., Schmidt S., Jouet G., Le Roy P.

P51- The Quaternary 'rasas' of the basque coast: current status and a new project for its study

Bilbao P., Álvarez I., Aranburu A., Yusta I., Iriarte E., Galparsoro I., Arriolabengoa M., del Val M.

P52- Lithogenic sources, composition and intra-annual variability of suspended organic matter and particulate metals supplied from pristine rivers to the Western Cantabrian Sea (Bay of Biscay, SW Europe)

Bernárdez P., Prego R., Alvarez-Vazquez M.A., Ospina-Álvarez N., Santos-Echeandía J., Filgueiras Ana V.

P53- Thousands of submarine microbial methane escapes at the Aquitaine Shelf (Bay of Biscay)

Dupré S., Loubrieu B., Scalabrin C., Ehrhold A., Gautier E., Ruffine L., Pierre C., Battani A., Michel G., Le Bouffant N., Berger L.

P54- Environmental changes and bioevents related to mid-Cretaceous Bay of Biscay opening: an example from the northern margin of the Basque-Cantabrian Basin

Agirrezabala L.M., López-Horgue M.

P55- MIS1-MIS5 palaeoceanographic signals in the Bay of Biscay: micropalaeontological approach

Rodriguez-Lazaro J., Pascual A., Varela Z.

Topic: *Biogeochemical cycles*

P56- A new approach for the determination of Total Alkalinity in estuarine waters

Eснаоla M., Kortazar L., Milea D., Fernández L.A.

P57- Interrelation among metals and organic pollutants in a freshwater environment. Case Study: The Deba river urban catchment (Gipuzkoa)

Lechuga-Crespo J.L., García-García J., Ruiz-Romera E., Unda-Calvo J.

P58- Antimony diagenetic implications for radionuclide accidental release scenarios in the Gironde Estuary (France)

Gil-Díaz T., Schäfer J., Pougnet F., Husson A., Bossy C., Dutruch L., Derriennic H., Coynel A., Blanc G.

P59- Spatio-temporal distribution of metal pollution in an urban catchment. Case urban: Deba river.

Lechuga-Crespo J.L., Ruiz-Romera E., García-García J., Martínez-Santos M., Unda-Calvo J.

P60- Chemical reference-profiles from 20 years of Santander Standard Section

Viloria A., Tel E., Lavín A., Rodríguez-Puente C.

Topic: *Anthropogenic effects; quality assessment and ecosystem management*

P61- Effect of Lowered pH on Microalgae of the Chlorophyta Division

Alegria J., Laza-Martínez A., Seoane S.

P62- Evaluation of long-term, high-frequency and multisite monitoring of dissolved oxygen to investigate hypoxia risk in the Gironde estuary (SW France)

Schmidt S., Diallo P.Y., Derriennic H., Etcheber H., Lamouroux M.

P63- The sense of hearing in the oyster *Crassostrea gigas*

Charifi M., Sow M., Ciret P., Benomar S., Massabuau J.C.

P64- Analysis of basque beachgoers: profile in respect of rip currents knowledge

Maruri M., Sotes I., Basterrechea-Iribar I.

P65- Determination of per- and polyfluoroalkyl substances in grey mullet liver, mussel and oyster samples from the north coast of Spain, France and Portugal

Zabaleta I., Bilbao D., Bizkarguenaga E., Mijangos L., Etxebarria N., Prieto A., Zuloaga O.

P66- Molecular methods for the early detection of marine Non-Indigenous Species in ballast water

Rey A., Borrell Y., García-Vazquez E., Rodríguez-Ezpeleta N., C. Basurko O

P67- Modelling *Escherichia coli* concentration in the Nerbioi-Ibaizabal estuary (Basque Country, SE Bay of Biscay) in the context of the European project MARS

Chifflet M., Del Campo A., Borja A.

P68- Gills and digestive gland 7,8-oxo-dG immunohistochemistry for detecting genotoxicity in mussels (*Mytilus galloprovincialis*): a field study in the Bay of Biscay

Zaldibar B., Blanco-Rayón E., Briaudeau T., Aguirre-Rubí J., Rementeria A., Garmendia L., Izagirre U., Marigómez. I.

P69- Gametogenesis and gonad histopathology in mussels (*Mytilus galloprovincialis*) from two estuaries of the Bay of Biscay with different pollution loads

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P70- Assessment of the effects exerted by Cu and Ag in oysters (*Crassostrea gigas*) through an integrative biomarker index

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P71- Chemical and physiological metal bioaccessibility assessment in surface bottom sediments from Deba River urban catchment: evaluation of urban and industrial inputs impact on sediments quality

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P72- To what extent fishing effort is affecting trophic level of the demersal communities at small scale? Preliminary results of a new food web indicator

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P77- Lead incorporation in *Platichthys flesus* otoliths along an anthropogenic pressure gradient: validating the use of otolith as natural tracer of contamination

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