

Lumbreras Auditorium

Date: September 19

10:00 – 10:50 Inauguration

10:50 – 11: 50 Plenary Talk Francisco Chavez: “The Future of Eastern Boundary Upwelling Systems: from observations to management”

Hour		Session #	Author	Title
11:50	12:15	IS-3	Nicholas Gruber	From air-sea CO ₂ fluxes to ocean acidification extremes: Carbon cycle variability in the California and Humboldt Current Systems.
12:15	12:30	3	Bednarsek et al.	Marine calcifiers drive biogeochemical changes in the California Current Large Marine Ecosystem.
12:30	12:45	3	Mogollon & Calil	Modelling the mechanisms and drivers of the spatiotemporal variability of pCO ₂ and air–sea CO ₂ fluxes in the Northern Humboldt Current System.
12:45	13:00	3	Hurtado et al.	Natural Ocean Acidification: Roca Redonda Case Study, Galapagos Islands.
Lunch Time				
14:45	15:00	3	Feely et al.	Interannual Variability and Long-term Trends of Surface Seawater fCO ₂ in the Equatorial Pacific Based on a 40-yr Record of Ocean Observations.
15:00	15:15	3	Tsanwani et al.	The Seasonal to Interannual Variability and Trends of the Surface Ocean Carbonate System in the Southern Benguela Upwelling System.
15:15	15:30	3	Siddiqui et al.	On the Link Between CO ₂ Sequestration in the Benguela Upwelling System and in the Southern Ocean.
15:30	15:45	3	Lefèvre et al.	Variability of the air-sea CO ₂ flux in the Eastern Boundary Upwelling system off North West Africa.
15:45	16:10	Coffee break (terraces)		
16:10	16:35	IS-5	Michelle Graco	Spatial and temporal variability of the dissolved oxygen and the oxygen minimum zone at the coastal upwelling system off Peru.
16:35	16:50	5	Dewitte et al.,	ENSO-induced OMZ variability in the South Eastern Pacific.
16:50	17:05	5	Merma et al.	Hypoxic Conditions in the Paracas Bay (Pisco, Peru) Associated with the Variability of winds and Water Stratification at Seasonal and Synoptic Time Scales.
17:05	17:20	5	Linford et al.	Recent Deoxygenation of Patagonian Fjords Subsurface Waters Connected to the PCUC-ESSW Variability.
17:20	17:35	5	de la Maza et al.	Deoxygenation Trends in a Coastal Upwelling System Off Central Chile: From Seasonal to Long-Term Hypoxia Variability

18:00 – 19:00 Plenary Talk John Largier: “Land-Sea Interactions in Eastern Boundary Upwelling Systems”

Auxiliary Auditorium 1 (101, 102, 301)

Date: September 19

10:00 – 10:50 Inauguration

10:50 – 11: 50 Plenary Talk Francisco Chavez: “The Future of Eastern Boundary Upwelling Systems: from observations to management”

Hour		Session #	Author	Title
11:50	12:05	4	Mogollón et al.	Marine Heatwaves in the Northern Humboldt Current System During Recent Decades: A Modelling Study
12:05	12:20	4	Petzer et al.	Marine Heatwaves in the Cape Peninsula Upwelling Cell, Southern Benguela
12:20	12:35	4	Amaya	Bottom Temperature Extremes in the California Current System
12:35	12:50	4	Anculle et al.	Variability of ENSO in Peru during the last millennium in paleoclimatic reconstructions and CMIP5 – CMIP6 simulations
Lunch Time				
14:45	15:00	4	Pietri et al.	Future evolution of marine heatwaves in the eastern boundary upwelling system of Peru-Chile
15:00	15:15	4	Gutiérrez et al.	The 2017 Coastal El Niño: Dynamics and Ecosystem Impacts of a Non-ENSO Driven Marine Heat Wave
15:15	15:30	4	Sweijd & Gaines	The Winds of Change or Change of Winds? System-Wide Impacts of Extreme Wind on the Port of Cape Town.
15:30	15:45	4	Valdés & Narvaéz	Characterization and Evolution of Marine Heat Waves in the Chilean Upwelling/Downwelling System.
Coffee break (terraces)				
16:10	16:25	8	Romero et al.	High frequency temporal changes in Phytoplankton Fatty Acids in the Peruvian upwelling system: A Two-Year Study.
16:25	16:40	8	Breyer et al.	Biomass of pelagic fungi across an EBUS transition zone: from productive to oligotrophic waters.
16:40	16:55	8	Puccinelli et al.	Omega-3 in the Benguela upwelling system: sources and transfers, and the link to the N supply.
16:55	17:10	8	Bernales et al.	Spatio-temporal patterns of phytoplanktonic functional groups in Northern Humboldt Current Ecosystem
17:10	17:25	8	Beye et al.	Phytoplankton dynamics and distribution during the transition period between the monsoon season and the upwelling season in the shelf waters of the southern Canary Upwelling System.
17:25	17:40	8	Artigas et al.	Automated optical approaches for phytoplankton in vivo observations: applications to sub mesoscale studies in upwelling systems.

17:40	17:55	8	Hernández	Response of phytoplankton and zooplankton to environmental gradients along coasts of the central Mexican Pacific, an area within an Oxygen Minimum Zone (OZM) and under influence of spring coastal upwelling, for a ten-year period (2009-2019).
18:00 – 19:00 Plenary Talk John Largier: “Land-Sea Interactions in Eastern Boundary Upwelling Systems”				

Auxiliary Auditorium 2 (201, 302, EP)

Date: September 19

10:00 – 10:50 Inauguration

10:50 – 11: 50 Plenary Talk Francisco Chavez: “The Future of Eastern Boundary Upwelling Systems: from observations to management”

Hour		Session #	Author	Title
11:50	12:05	9	Robinson & Gómez	An hydroacoustic observation of density changes of biological scatters during an anomalous warm and low productivity period in the Gulf of California.
12:05	12:20	9	Baker et al.,	Using environmental dna (edna) to assess community composition across California marine protected areas.
12:20	12:35	9	Sanchez-Cabeza et al.	Signature of the OMZ upper limit in a coastal station at the entrance of the Gulf of California.
12:35	12:50	9	Díaz et al	Characterization of hydrogen sulfide off the coast of Peru using passive in situ DGT sensors.

Lunch Time

14:45	15:00	9	Çiecho & Carvalho	Monitoring the northern Canary Current Upwelling System to support the management of marine ecosystems.
15:00	15:15	9	Courson et al.	Monitoring the coastal environment with open source and low-cost multiparameter data logger.
15:15	15:30	9	Díaz Ramírez et al.	Characterization of (sub)mesoscale physical structures in the eastern south pacific from high-resolution data and numerical simulations.
15:30	15:45	9	Castro et al.	Bobelto, a remote operated vehicle for exploration and research of ocean-seafloor processes made in Peru.
15:45	16:10	Coffe break (terraces)		
16:10	16:25	7	Groom et al.	Primary-productivity in Upwelling Systems (PRIMUS).
16:25	16:40	7	de Oliveira et al.	The effect of Ekman pumping and Ekman transport along the south coast of Portugal.
16:40	16:55	7	Torres et al	Seasonality in net primary productivity, nitrogen uptake and regeneration in the southern Benguela Upwelling System.
16:55	17:10	7	Guerreiro et al.	Drivers of coccolithophore CaCO ₃ export production between NW Africa and the Caribbean: implications for the biological carbon pump.
17:10	17:25	7	Yapi et al.	Seasonality in net primary productivity, nitrogen uptake and regeneration in the southern Benguela Upwelling System.
17:25	17:40	7	Ledesma et al.	The 2017 Coastal El Niño Effects on oxygenation fertility and productivity of the Peruvian coastal upwelling.
17:40	17:55	7	Rodríguez et al.	Annual behavior of Sea Surface Temperature and chlorophyll-a in upwelling zones of the Colombian Pacific Basin during the phases of El Niño Southern Oscillation 2011, 2013 and 2015.

18:00 – 19:00 Plenary Talk John Largier: “Land-Sea Interactions in Eastern Boundary Upwelling Systems”

Lumbreras Auditorium

Date: September 20

08:20 – 09:20 Plenary Talk Lisa Levin: “Influence of oxygen dynamics and deoxygenation on EBUS benthos”

Hour		Session #	Author	Title
09:20	09:35	5	Gutiérrez et al.,	Regional Deoxygenation Events in the Northern Humboldt Current System During the Late Nineteenth Century: Evidences and Potential Drivers.
09:35	09:50	5	Mashifane	Nitrous Oxide Dynamics in the Southern Benguela Upwelling System.
09:50	10:05	5	Herrera et al.	Statistical Identification of Coastal Hypoxia Events Controlled by Wind-Induced Coastal Upwelling in a Coastal Zone of the Northeastern Tropical Pacific.
10:05	10:20	5	Bianchi et al.	Characteristics, Drivers and Consequences of Hypoxia in the California Current Eastern Boundary Upwelling System: from Climatic Trends to Local-Scale Variability.
10:30	10:50	Coffee break		
10:50	11:15	IS-1	Cristina Lopes	Primary Production at Coastal Upwelling Systems reveals hemispheric difference at contrasting climate conditions.
11:15	11:30	1	Tanner et al.,	Plio-Pleistocene Palaeoceanography of the Western Continental Shelf of Southern Africa under the Influence of the Benguela Upwelling System.
11:30	11:45	1	Bergh	Late Quaternary Palaeoceanographic Fluctuations Associated with Glacial-Interglacial Cycles Along the Western Margin of South Africa.
11:45	12:00	1	Velázquez & Pérez	Oceanic dynamics and water masses changes in the central Gulf of California during late Pleistocene and early Holocene.
12:00	12:15	1	Field et al.	Records of fish scales from California and Peru reveal new paradigms of variability in climate and small pelagic fish.
12:15	12:30	1	Cardich et al.	Interglacial - glacial shift in ENSO dynamics recorded by high resolution XRF records of laminated marine sediments from Peru.
12:30	12:45	1	Yseki et al.	Millennial variability of terrigenous transport to the central-southern Peruvian margin during the last deglaciation (18–13 kyr BP)
12:45	13:00	1	Solís et al.	Distribution of fish populations off coast Peru during 18 to 13 Kyr BP.
Lunch Time				
14:30	14:45	1	Turcq et al.	ROLE OF EL NINO IN PERUVIAN EBUS VARIABILITY SINCE THE MIDDLE HOLOCENE.

14:45	15:00	1	Alcalde et al.	Marine invertebrates as a proxy for the use of kelp in Middle and Late Holocene archaeological sites of the Atacama Desert Coast.
15:00	15:15	1	Broitman et al.	$\delta^{18}O$ sea surface temperature from coastal shell middens of the Atacama desert across the Holocene.
15:15	15:30	1	Flores et al.	Nearshore paleoceanographic conditions and human adaptation through the Holocene. Archaeological marine shells as socio-ecological proxies from Central Chile (31°S).
15:30	15:45	1	Romero et al.	Benthic foraminiferal shell weight reflects changes in subsurface acidification in the Central Peru Coast over the past 150 years.
15:45	16:00	1	Briceño et al. (TBC)	Surface wind strength and sea surface temperature connections in south peruvian coast: association with large-scale climatic variability during historical period.
16:00	16:30	Coffee break (terraces)		
16:30	16:45	14	Sardenne et al.	Contrasting diet and nutritional health of small pelagic fish in South Africa.
16:45	17:00	14	Simon et al.	Lipid dynamic in a small pelagic fish species <i>Sardinops sagax</i> from the California Current of Baja California (Mexico).
17:00	17:15	14	Mendez et al.	STUDY OF THE DISTRIBUTION OF MACROZOOPLANKTON AND ITS RELATIONSHIP WITH OCEANOGRAPHY VARIABLES.
17:15	17:30	14	Mondragón et al.	Use of REM Cameras to monitor fishing operations in an offshore artisanal fishery in northern Peru.
17:30	17:45	14	Truelove	Autonomous Underwater Collection and Analysis of Environmental DNA.
17:45	18:00	14	Thompson	New Technologies Can Help Us Solve an Old Question.

Auxiliary Auditorium 1 (101, 102, 301)**Date: September 20****08:20 – 09:20 Plenary Talk Lisa Levin: “Influence of oxygen dynamics and deoxygenation on EBUS benthos”**

Hour		Session #	Author	Title
09:20	09:35	2	Gutiérrez Guerra et al.	A New Index to Determine the Changes in the Four Principals Eastern Boundary Upwelling Systems under Climate Change
09:35	09:50	2	Cabrera et al.	Regionalisation of the Canary Current upwelling based on spatio-temporal trends.
09:50	10:05	2	Mosquera et al.	LONG TERM CHANGES IN THE WATERS SURROUNDING THE CANARY ISLANDS.
10:05	10:30	IS-2	Maricarmen Igarza	Organic Matter in the Peruvian Upwelling System: What do we know so far and what is missing?
Coffee break				
10:50	11:05	2	Bograd et al.	Physical and Biogeochemical Phenology of Coastal Upwelling in the California Current System.
11:05	11:20	2	Pozo et al.	Future changes in the California Current Ecosystem.
11:20	11:35	2	Jacox et al.	Disentangling bottom-up drivers of future change in the California Current System.
11:35	11:50	2	Flügel et al.	Impact of climate change on the Atlantic EBUS from CMIP6 high resolution projections.
11:50	12:05	2	Aguirre et al.	South Pacific Subtropical High variability and changes in upwelling favorable winds along the Humboldt Current System.
12:05	12:20	2	Serge et al.	Is Benguela warming or cooling?
12:20	12:35	2	Brandt et al.	Physical drivers of Southwest African coastal upwelling and its response to climate variability and change.
12:35	12:50	2	Yari & Mohrholz	The Peruvian upwelling system under the changing climate.
Lunch Time				
14:30	14:45	2	Strub et al.	Observed and Modeled Lagrangian Transports in EBUS.
14:45	15:00	2	Meiritz et al.	Seasonal changes in the vertical and biologically mediated particle transport derived from floating sediment traps in the northern and southern Benguela Upwelling System.
15:00	15:15	2	Petatán & Lluch	Regionalization of thermal anomalies in the Mexican Pacific.
15:15	15:30	2	Hurtado & Escalante	Influence of the Humboldt Current on stations 10 miles offshore of Puerto Lopez and Salinas of Ecuador.
15:30	15:45	2	Kittu et al.	High Fe and P Availability do not Constrain the Magnitude and Distribution of N ₂ Fixation Rates along the Peruvian Coast.

15:45	16:00	2	Mendoza et al.	Influence of Faecal Pellets Material on the Particulate Organic Carbon Flux and Benthic-Pelagic Coupling Implications off Callao, Peruvian Upwelling System.
Coffee break (terraces)				
16:20	16:45	IS-12	Raphael Kudela	Shifting Patterns and Emerging Harmful Algal Bloom Issues in the California Current Eastern Boundary Upwelling System.
16:45	17:00	12	Cuéllar et al.	Blooms of potentially toxic phytoplankton species in aquaculture sites along the Peruvian coast.
17:00	17:15	12	Franco et al.	Harmful Algal Blooms in Miraflores Bay (Callao, Peru) from 1980 to 2019.
17:15	17:30	12	Huamani et al.	Algal blooms caused by the dinoflagellate <i>Blixaea quinquecornis</i> (Abe) Gottschling 2017 within Paracas Bay.
17:30	17:45	12	Torres & Borbor	Occurrences of algal blooms-red tides in coastal areas of Ecuador.
17:45	18:00	12	Espinoza-González et al.	The biogeochemical and ecological role of zooplankton in eastern boundary upwelling systems.

Auxiliary Auditorium 2 (201, 302, EP)

Date: September 20

08:20 – 09:20 Plenary Talk Lisa Levin: “Influence of oxygen dynamics and deoxygenation on EBUS benthos”

Hour		Session #	Author	Tilte
09:20	09:45	IS-7	Javier Aristegui	Mismatch between primary production, chlorophyll and nutrients' availability in a Peruvian coastal upwelling: constraints for modelling primary production.
09:45	10:00	7	Thielecke et al.	The influence of light and upwelled nutrients on primary productivity and phytoplankton biomass during a mesocosm experiment off-shore Callao in February-March 2020.
10:00	10:15	7	Colas et al.	Enhanced nearshore primary production off Peru during 2015: the complex impact of El Niño events on the fine-scale shelf dynamics.
10:15	10:30	7	Xue et al.	Mixed layer depth drives marine productivity on a seasonal scale in the Peruvian Upwelling System.
Coffee break				
10:50	11:15	IS-13	Rubén Escribano	The biogeochemical and ecological role of zooplankton in eastern boundary upwelling systems.
11:15	11:30	13	Frederick et al.	Metabolic rate and critical partial pressure of oxygen (P_{crit}) in three planktonic copepods inhabiting the coastal upwelling zone off Chile.
11:30	11:45	13	Natividad & Ayón	High-frequency variability of zooplankton against environmental factors in a fixed station in Callao, Peru.
11:45	12:00	13	Yañez-Tenorio et al.	Decomposition of marine copepod carcasses: Effects on bacterial community and its importance for N cycling in oxygen depleted waters.
12:00	12:15	13	Orosco	Annual variability in summers (2013-2022) of the distribution and abundance of cephalopod parlarvae in the NHCS.
12:15	12:30	13	Maldonado et al.	Characterization of the Planktonic Foraminifera Community and its association with water masses in the northern Peruvian sea.
12:30	12:45	13	Piecho & Moreno	Cephalopods paralarvae strategies related to oceanography in the northern Canary Current Upwelling System.
12:45	13:00	13	Lilly et al.	Oceanographic drivers of the spring transition in the copepod community of the Northern California Current System.
Lunch Time				
14:30	14:55	IS-6	Grant Pitcher	St Helena Bay – a wide-open bay of an Eastern Boundary Upwelling System.
14:55	15:10	6	Capet et al.	Lessons learned from 10 years of research on an original upwelling sector off southern Senegal.
15:10	15:25	6	Wong et al.	Surface thermal structure and variability of upwelling shadows in the Gulf of Arauco, Chile.
15:25	15:40	6	Largier	Oceanography and Ecology of the Greater Gulf of Farallones.

15:40	15:55	6	Saldías et al.	Circulation and upwelling induced by coastal trapped waves over a submarine canyon in an idealized eastern boundary margin.
Coffee break (terraces)				
16:20	16:45	6	Gil-Coto et al.	Tide and wind coupling in an upwelling bay.
16:45	17:00	6	Arellano et al.	Modelling the stratification and circulation in a coastal shallow embayment: the case of Paracas bay (Pisco, Peru).
17:00	17:15	6	Igarza et al.	SPATIAL AND TEMPORAL SMALL SCALE DYNAMICS OF BOTTOM HYPOXIA IN PARACAS BAY, PISCO, PERU.
17:15	17:30	6	Flores et al.	The role of benthic-pelagic coupling for the development of coastal hydrogen sulfide plumes in a shallow bay of the central Peruvian upwelling system.
17:30	17:45	6	Bonicelli et al.	Diel variability in the vertical distribution of coastal barnacle larvae across the seasonal thermocline in the Bay of Cartagena, Chile.
17:45	18:00	6	Messié et al.	Upwelling-driven spatiotemporal physical and biological patterns in Monterey Bay, California.

Lumbreras Auditorium

Date: September 21

08:20 – 09:20 Plenary Talk Jennifer Veitch: “The Benguela System: a short review of what we think we know and what we need to fill the gaps”

Hour		Session #	Author	Title
09:20	09:45	IS-10	Vera Oerder	Impact of the mesoscale air-sea interaction on the EBUS biogeochemical activity.
09:45	10:00	10	Tall et al.	Modelling the dissolved oxygen cycle on the Senegalese shelf: physical and biogeochemical processes, and Lagrangian analyses.
10:00	10:15	10	Fearon et al.	The influence of the land-sea breeze on coastal upwelling systems: locally forced vs internal wave vertical mixing and implications for thermal fronts.
10:15	10:30	10	Faundez et al.	High-resolution modeling of nearshore circulation in an upwelling ecosystem: resolving submesoscale variability.
10:30	10:50	Coffee break (20 min.)		
10:50	11:05	10	Fisher et al.	Eddies in the Canary eastern boundary upwelling system.
11:05	11:20	10	Sebastia et al.	Interaction of Internal Waves with Mesoscale Eddies from Observations and Model in the Canary Current System.
11:20	11:35	10	Wang et al.	Mesoscale and Submesoscale Transport in the Eastern Tropical South Pacific Determined from a Tracer Release Experiment and Models.
11:35	11:50	10	Hadi et al.	The Relation of Wind-Driven Coastal and Offshore Upwelling in the Benguela Upwelling System.
11:50	12:05	10	Vergara et al.	Impacts of the interannual freshwater discharge on hydrodynamical patterns in central- southern Chile (35°-38°S) using a high-resolution circulation model.
12:05	12:20	10	Espinoza-Morriberón et al.	Biogeochemical trends in the Peruvian Upwelling System: what are the involved mechanisms?
12:20	12:35	10	Chabert et al.	Impact of synoptic wind variability on the dynamics and biogeochemistry of the South Senegalese Upwelling Sector.
12:35	12:50	10	Chamorro et al.	High resolution characterization of atmospheric coastal jets in the Peruvian Upwelling System.
Lunch time				
14:20	14:35	10	Luján & Oliveros	Understanding the impact of plankton in the ROMS-PISCES-OSMOSE model for the Peru Current Upwelling Ecosystem: insights from a sensitivity analysis of model forcings.
14:35	14:50	10	Rosa et al	Seasonal and annual variability of NW Iberia shelf hydrodynamics.
14:55	15:20	IS-26	Kristin Kleisner	Identifying policy pathways to build resilience in marine fisheries with differing capacities and contexts.
15:20	15:35	26	Ortega et al.	Exploring potential impacts of climate change in the Southern Benguela using a model ensemble.

15:35	15:50	26	Valdiviezo et al.	A methodological framework to characterize socio-ecological systems using Geographic Information Systems landscape metrics in coastal cities.
15:50	16:05	26	Soto et al.,	OPTIMISTIC (RCP2.6) AND PESSIMISTIC (RCP8.5) OCEANOGRAPHIC SCENARIOS OFF HUACHO AND MÁNCORA (PERÚ) AT THE END OF THE XXI CENTURY.
16:10	16:30	Coffee break (terraces)		
16:30	16:45	26	Tam et al.	CLIMATE CHANGE IMPACTS ON THE FOOD-WEB OF THE NORTHERN HUMBOLDT CURRENT ECOSYSTEM.
16:45	17:00	26	Ramos-Castillejo et al.	Climate vulnerability assessment of key fishery resources in the Northern Humboldt Current System.
17:00	17:15	26	Astudillo et al.	Downscaling approach to address the impacts of ocean warming on marine ecosystems off north-central Chile.
17:15	17:30	26	Yáñez & Lagos	Identification, characterization, and vulnerability to climate change regarding essential habitats of hydrobiological resources of economic importance in Chile.
17:30	17:45	26	Ndoye et al.	Impact of future climate change on the dynamics of the Southern Canary Upwelling System.
17:45	18:00	26	Belmar et al.	Present and future geographic distribution of the Humboldt squid <i>Dosidicus gigas</i> .
19:15	20:30	Ocean Literacy open event		

Auxiliary Auditorium 1 (101, 102, 301)

Date: September 21

08:20 – 09:20 Plenary Talk Jennifer Veitch: “The Benguela System: a short review of what we think we know and what we need to fill the gaps”

Hour		Session #	Author	Title
09:20	09:35	15	Faundez et al.	Metapopulation dispersal and connectivity in hydrodynamic nearshore ocean: sensitivity to the grid resolution, biological traits, and perturbations for coastal management and protection.
09:35	09:50	15	Quiñones et al.	Why Mollymawks albatrosses (<i>Thalassarche</i>) are mainly distributed in offshore waters of southern Peru?
09:50	10:05	15	Meza et al.	Distribution at sea of Waved Albatross (<i>Phoebastria irroratra</i>) in the Humboldt Current System from visual surveys in 2019.
10:05	10:30	IS-15	Francois Gerlotto	Adapting the concept of metapopulations to large scale pelagic habitats.
Coffee break (20 min.)				
10:50	11:05	15	Paredes et al.	Non-breeding areas and diving behavior of peruvian humboldt penguins.
11:05	11:20	15	Cárdenas et al.	Segregation during foraging in sympatric otariids of the Peruvian upwelling Humboldt Current System
11:20	11:35	15	Aguilar et al.	Dolphin distribution patterns and artisanal fishing areas in the Humboldt Current Ecosystem.
11:35	11:50	15	Vinatea et al.	Marine predators as potential indicators of seasonal environmental changes in the Northern Humboldt Current System using industrial fishermen records.
11:50	12:05	15	Ortiz et al.	Population genetic structure and connectivity of <i>Octopus mimus</i> between Peruvian coastal and island areas: a complementary approach to improve benthic resources management.
12:05	12:20	15	Jimenez et al.	Exotic Marine Invertebrates of Peru.
12:20	12:35	15	Pacheco	Cetaceans as habitat connectors throughout the Eastern South Pacific.
12:35	12:50	15	Barahona et al.	Genetic connectivity of four species from the Humboldt Current System.
Lunch time				
14:20	14:45	IS-25	Renato Salvattecí	A paleoceanographic perspective on regime shifts and tipping points in the Humboldt Current System.
14:45	15:00	25	Dominguez et al.	Trends and inflexion points of seawater temperature and salinity variability off Peru (1961 - 2020): spatial and vertical patterns.
15:00	15:15	25	Passuni et al.	Interannual demographic changes on the guano producer sea birds colonies across the Northern Humboldt Current System.
15:15	15:30	25	Hill	Contrasting responses of anchovy and hake to fishing scenarios.
15:30	15:45	25	Gonzales	Illegality traps in artisanal anchovy fishing in a southern bay of Peru.

15:45	16:00	25	Romagnoni et al.	Tipping points in the Northern Humboldt Current Ecosystem: modelling tools for theoretical questions.
Coffee break (terraces)				
16:30	16:55	IS-21	Joseph Bizarro	Trophic Relationships and Preyscape of Groundfishes in the California Current, USA.
16:55	17:10	21	Saldarriaga et al.	Effect of environmental variability on the population structure of Peruvian hake.
17:10	17:25	21	Buitron et al.	Spatio-temporal variation of reproductive indices of hake (<i>Merluccius gayi peruanus</i> Ginsburg, 1879) during austral autumn between 2003 and 2020
17:25	17:40	21	Argumedo et al.	Long-term changes in the reproductive indicators of the Peruvian hake <i>Merluccius gayi peruanus</i> during the period 1971-2021.
17:40	17:55	21	Tacuri et al.	Characterization of incidental catch in the industrial Peruvian hake fishery (2005-2020).
17:55	18:10	21	Cubillos et al.	Spatiotemporal dynamics of two demersal crustaceans on the continental shelf and shelf-break off central-southern Chile.

Auxiliary Auditorium 2 (201, 302, EP)

Date: September 21

08:20 – 09:20 Plenary Talk Jennifer Veitch: “The Benguela System: a short review of what we think we know and what we need to fill the gaps”

Hour		Session #	Author	Title
09:20	09:35	16	Bon et al.	Assessing benthic ecological status with biotic indices: an upwelling ecosystem quality paradox?
09:35	09:50	16	Currie et al.	Oxygen calls the shots in the Northern Benguela Upwelling System off Namibia.
09:50	10:05	16	Del Solar et al.	Resilience of two Peruvian bay ecosystems under projected environmental trends and resource use scenarios: the case of Independencia and Sechura.
10:05	10:20	16	Grados et al.	Interannual variability of the habitat suitability of jack mackerel in the Northern Peru Current System, 2000-2021.
Coffee break (20 min.)				
10:50	11:15	IS-16	Arnaud Bertrand	Coastal Peruvian ecosystems under pressure.
11:15	11:30	16	Montero et al.	Tolerance of juvenile Peruvian Rock Seabass (<i>Paralabrax humeralis</i> Serranidae) and Peruvian grunt (<i>Anisotremus scapularis</i> Haemulidae) to low oxygen conditions.
11:30	11:45	16	Koenigstein et al.	Mechanistic population projections of Pacific sardine in the California Current driven by ocean warming and changing food availability.
11:45	12:00	16	Babacar et al.	Growth and reproduction patterns of the bloody cockle (<i>Senilia senilis</i>) in an estuary south of the senegalo-mauritanian upwelling system.
12:00	12:15	16	Lluch-Cota & Sicard	Temperature and temperature variability influencing the long-term distribution of a marine ectotherm.
12:15	12:30	16	Villacieros et al.	Impact of wave climate on massive mortality events of <i>Polititapes rhomboides</i> clams in an upwelling-driven bay.
12:30	12:45	16	Ferrer et al.	Understanding the health and resistance of subtropical Lion's Paw scallops (<i>Nodipecten subnodosus</i>) under “press” versus “pulse” climate stress.
12:45	13:00	16	Cruz et al.	Tolerance of the Peruvian scallop (<i>Argopecten purpuratus</i>) to multiple stressors, related to the environmental variability of the Peruvian coastal upwelling system.
Lunch time				
14:30	14:45	16	Sicard et al.	Metabolic responses of the lion paw scallop to increasing temperature: comparison between populations under contrasting thermal variability regimes.
14:45	15:00	16	Cueto et al.	Impact of environmental stressors linked to coastal upwelling (hypoxia and acidification) on the physiology of the Peruvian scallop <i>Argopecten purpuratus</i> .
15:00	15:15	16	Córdova et al.	Effect of low pH on growth of Peruvian scallop <i>Argopecten purpuratus</i> (Lamarck, 1819).
15:15	15:30	16	Salgado et al.	Stress responses of juvenile scallops <i>Nodipecten subnodosus</i> to acute hyperthermia and hypoxia.
15:30	15:45	16	Marzari et al.	Season-dependent cellular responses of <i>Nodipecten subnodosus</i> scallops facing acute hyperthermia.

Coffee break (terraces)

16:30	16:55	IS-18	Luis Cubillos	Bayesian state-space surplus production stock assessment status of demersal crustaceans in Chile.
16:55	17:10	18	Brochier et al.	Population traits in Small pelagic fish model: emergence from interactions between a turbulent environment and individual behaviors in Upwelling Systems.
17:10	17:25	18	Rodriguez et al.	Reference points estimation in the Colombian Pacific deep sea shrimp fishery from catch and resilience.
17:25	17:40	18	Plaza et al.	Deep learning and surplus production models for multivariate autoregressive modelling and simulation of the jack mackerel fishery in Chile associated with environmental conditions.
17:40	17:55	18	Canales et al.,	Length-Based Pseudocohort Analysis (LBPA). A stock assessment model for data-poor fishery.
17:55	18:10	18	Aguilar & Ernst	Detecting warning signs of depletion through multiple data limited methods in small-scale fishery: The case of finfish Juan Fernández fisheries, Chile.

Lumbreras Auditorium

Date: September 22

08:20 – 09:20 Plenary Talk Ricardo Oliveros: “Improving fisheries modelling in the face of climate change: some examples from the Benguela and Peru Upwelling Ecosystems”

Hour		Session #	Author	Title
09:20	09:45	IS-20	Erich Díaz	Variability at different time scales in the biomass of the north-central stock of the Peruvian anchoveta, period 1953-2022.
09:45	10:00	20	Bouchon et al.,	The anchovy fishery in Peru.
10:00	10:15	20	M. Gutierrez et al.	Variations in fish length, distribution, biomass, and omega 3 content of anchovy (<i>Engraulis ringens</i>) off the Peruvian coast between 1998 and 2022 with repercussions to fishery management.
10:15	10:30	20	Valdez et al.	Spatio-temporal distribution of anchovy (<i>Engraulis ringens</i>) applying hydroacoustics in the southern region of Peru, period 2000-2021.
10:30	10:50	Coffee break (terraces)		
10:50	11:05	20	Galarza et al.	Analysis of the Spatial Distribution of Juveniles and Adults of the Peruvian anchovy of the North-Central Stock during the period 2000-2021.
11:05	11:20	20	La Cruz et al.	Optimizing identification size anchovy shoals in The northern Humboldt Current System off Peru using a wideband echosounder.
11:20	11:35	20	Castillo et al.	Evidence of Peruvian anchovy (<i>Engraulis ringens</i>) plasticity in stress zone of the Northern Humboldt Current System.
11:35	11:50	20	Grados et al.	Spatial and Interannual changes in juveniles and adults of anchovy biomass in the northern Humboldt Current System.
11:50	12:05	20	Pozada et al.	Peruvian anchovy school typology based on acoustic data using machine learning.
12:05	12:20	20	Rioual et al.	Captive rearing of Peruvian anchovy (<i>Engraulis ringens</i>): Early development and growth modelling.
12:20	12:35	20	Díaz Ramos et al.	Maturity of anchoveta <i>Engraulis ringens</i> from the North of Chile: estimates for the period 2007-2020.
12:35	12:50	20	Mori et al.	Reproductive behavior and size at maturity of the Peruvian anchovy <i>Engraulis ringens</i> from the southern Peru stock, 1986-2021.
12:50	14:30	Lunch time		
14:30	14:45	20	Cuba et al.	Reproductive behavior of north-center Peruvian anchovy <i>Engraulis ringens</i> stock from Perú during El Niño and La Niña events categorized by reproductive index anomalies. 1992-2020.
14:45	15:00	20	Espinoza & Fernández	Updating of anchoveta feeding habits and implications of inclusion of prey from shallow habitats and smaller sizes.
15:00	15:15	20	Cornejo et al.	Variability of anchovy distribution related to the concentration of phytoplankton in the peruvian marine ecosystem, period 2016-2021.
15:15	15:30	20	Ayón et al.	Variability and trends in distribution and abundance of anchovy larvae in Peruvian waters (1964-2021).

15:30	15:45	20	Peña et al.	Intra-seasonal variability of the distribution of anchovy in the water column associated with the propagation of the Kelvin wave off the north coast of Peru during the period 2015-2019.
15:45	16:00	20	Oliveros	A new model for population estimates of Peruvian anchoveta (<i>Engraulis ringens</i>) using length frequency dynamics.
16:10	16:30	Coffee break (terraces)		
16:30	16:45	20	Sánchez Espinoza et al.	Time series analysis of reproductive index of the north-center Peruvian anchovy <i>Engraulis ringens</i> stock from Peru, 1992-2020.
16:45	17:00	20	Flores-Valiente et al.	A spatially explicit model to investigate early life stages recruitment of Peruvian anchovy (<i>Engraulis ringens</i>) as a response to temperature and food variability in the Northern Humboldt Current System.
17:00	17:15	20	Goya et al.	Reproductive effort and diet of guano-producing seabirds to a new pattern in environmental variability in the Humboldt Current System.
17:15	17:30	20	Marín et al.	Changes in the spatial and temporal distribution of the anchovy <i>Engraulis ringens</i> and its relationship with the availability of bonito <i>Sarda chiliensis chiliensis</i> in the Northern Humboldt Current ecosystem, during the period 1997 – 2020.
17:30	17:45	20	Lujan & Oliveros	Ontogenic variability of the ecological niche of Peruvian anchoveta (<i>Engraulis ringens</i>): impacts on its present and future distribution.
17:45	18:00	20	Durand et al.	Potential distribution of the peruvian anchovy (<i>Engraulis ringens</i>) off Peru under climate change scenarios.

Auxiliary Auditorium 1 (101, 102, 301)

Date: September 22

08:20 – 09:20 Plenary Talk Ricardo Oliveros: “Improving fisheries modelling in the face of climate change: some examples from the Benguela and Peru Upwelling Ecosystems”

Hour		Session #	Author	Title
09:20	09:35	IS-23	Tam et al.	Oceanic information system for characterization and forecasting of extreme events associated to climate change in the northern Humboldt current ecosystem.
09:35	09:50	23	De la Cuadra & Prado	Development of the warning, prediction and observation system (SAPO) in the Humboldt ecosystem off the coast of Ecuador.
09:50	10:05	23	Letelier et al.	Chilean Contribution to the Observation, Prediction and Early Warning System of Climate Impacts on Fisheries of the Humboldt Current System (S.A.P.O.).
10:05	10:30	23	Brad Parks	An Early Warning, Prediction and Observation System (SAPO) for Fisheries Resilient to Climate Change in the Humboldt Current Large Marine Ecosystem.
10:30	10:50	Coffee break (terraces)		
10:50	11:05	23	Salazar et al.	Biological and technological fishery studies and their impact on peruvian fishing management.
11:05	11:20	23	Englander	Do temporary spatial closures reduce juvenile anchoveta catch?
11:20	11:35	23	Romagnoni et al.	An updated Ecopath with Ecosim model for the Northern Humboldt Current Ecosystem: 24 years of change.
11:35	11:50	23	Atoche et al.	Eco-social evaluation of the Chondracanthus chamissoi macroalgae fishery in northern Peru using an adaptive management approach DPSIR.
11:50	12:15	23	Sanchez Fernandez et al.	Habitat assessment for use in coastal marine management of Sechura bay.
12:15	12:30	23	Paz et al.	Management proposal for the coastal marine zone from Pacocha, Ilo to Morro Sama, Sama.
12:30	12:45	23	Techeira & Cortes	BENTHIC MANAGEMENT PLANS IN CHILE. STUDY CASES.
13:00	14:30	Lunch time		
14:30	14:55	IS-17	Federico Baltar	Mesoscale features at the Surface Ocean Can Shape Distinct Regions of Microbial Activity and Community Assemblages Down to the Bathypelagic Zone.
14:55	15:10	17	Schneider & Vargas	Physical and biogeochemical characterization of the Humboldt Current system along the Atacama Trench (20-34 °S) from surface to 5000 m depth.
15:10	15:25	17	Matos et al.	Food vs. Oxygen: the limiting factors for cold-water corals thriving under EBUS.
15:25	15:40	17	Soto et al.	Deep-Sea Macroinfauna and Meiofauna communities associated with seamounts and abyssal plains in the Southeast Pacific Ocean.
15:40	15:55	17	Fernández	Carbon export from the surface ocean may sustain the metabolic demands in the hadal environment of the Atacama Trench.
15:55	16:10			
16:10	16:30	Coffee break (terraces)		

16:30	16:45	17	Flores et al.	Bacterial and eukaryotic intact polar lipids point to in situ production as a key source of labile organic matter in hadal surface sediment of the Atacama Trench
16:45	17:00	17	Cardich et al.	Benthic foraminifera from the Atacama Trench: insight on distribution features and effect of bottom oxygenation and sedimentary organic matter.
17:05	17:20	24	Salazar et al.	Evaluation of the ecosystem performance of small-scale fishing gears and methods as an input to the management of the Peruvian artisanal fleet.
17:20	17:30	24	Kriegl et al.	The evolution of fisheries connectivity in two contrasting Peruvian bays.
17:35	17:45	24	Estrella et al.	Catch and Effort Information Collection System: Role and Importance in Peruvian Artisanal Fisheries.
17:50	18:05	24	Gálvez et al.	El Niño Events and its Impact on the Peruvian Artisanal Fishery.

Auxiliary Auditorium 2 (201, 302, EP)

Date: September 22

08:20 – 09:20 Plenary Talk Ricardo Oliveros: “Improving fisheries modelling in the face of climate change: some examples from the Benguela and Peru Upwelling Ecosystems”

Hour		Session #	Author	Title
09:20	09:35	28	Moreno et al.	Exploring Carbon capture by <i>Lessonia trabeculata</i> kelp forests as a mitigation strategy to Climate Change: examples from integrative research in southern Peru.
09:35	09:50	28	Ravelo et al.	Participatory monitoring with artisanal fishers of the association “Unión por la Pesca Norteña” in Northern Peru.
09:50	10:05	28	Thorne et al.	Local initiatives to strengthen participatory monitoring and management: “Unión por la Pesca Norteña”; a cooperative fishing network in Northern Peru.
10:05	10:20	28	Amorós et al.	Learning Network for Artisanal Fishing in Piura, a multi-stakeholder strategy to ensure sustainable fishing,
10:30	10:50	Coffee break (terraces)		
10:50	11:15	IS-28	Jörn Schmidt	Working together – transdisciplinary approaches to support marine and coastal management.
11:15	11:30	28	Rovegno	Fishers' traditional ecological knowledge in Northern Peru.
11:30	11:45	28	Soldi & Pardo	The Importance of Traditional Knowledge in Public Policies.
11:45	12:00	28	Castagnino et al.	Local Ecological Knowledge reveals sequential depletion in Peruvian coastal fisheries through structured expert elicitation.
12:00	12:15	28	Tacuri et al.	Ecosystem participatory modelling facilitates stakeholders engagement for management: hake artisanal fisheries in Peru as a case study.
12:15	12:30	28	Vega et al.	Involvement of the community of artisanal fishermen of Ancón in the correct management of residual oil from their vessels.
12:30	12:45	28	Anastacio	Improvements in public and private management strategies for the small pelagic fisheries of Ecuador through the development of the coalition Small Pelagic Sustainability.
12:45	13:00	28	Peraltilla et al.	Top predators' data as collected by industry fishermen in Peru.
13:00	14:30	Lunch time		
14:30	14:55	IS-28	Diana Di Nitto	Communication beyond the Ivory Tower: bridging the ocean divide between science and decision-making.
14:55	15:10	28	Rodriguez & Mendoza	Women with tradition and sustainable art in their hands
15:10	15:25	28	Guidino et al.	Participatory Risk Assessment of Humpback Whale (<i>Megaptera novaeangliae</i>) and Leatherback Turtle (<i>Dermochelys coriacea</i>) Bycatch in Northern Peru.
15:25	15:40	28	Laronde & Muck	Experiences in local integrated management of coastal marine areas of the Peruvian coastline.

15:40	15:55	28	Currie	Should phosphate mining be allowed in the northern Benguela Upwelling System? - the Namibian saga
15:55	16:10	28	Marquez et al.	Perception, attitudes and uses of the Humboldt penguin (<i>Spheniscus humboldti</i>) by people involved in fishing activities in the central and northern coast of Peru.
16:10	16:30	Coffee break (terraces)		
16:30	16:45	<p style="text-align: center;">Corrientes-XXI workshop</p> <p style="text-align: center;">21st century aquatic issues on transboundary ecology, management and policy between Peru and Ecuador. Academic capacity building through CORRIENTE XXI.</p>		
16:45	17:00			
17:00	17:15			
17:15	17:30			
17:30	17:45			
17:45	18:00			

Lumbreras Auditorium

Date: September 23

08:20 – 09:20 Plenary Talk Matthias Wolff: “Alexander von Humboldt in the current scientific discourse”

Hour		Session #	Author	Title
09:20	09:45	IS-19	Bernardo Broitman	Population trends in non-exploited coastal species across a latitudinal gradient and productivity patterns in a cultivated scallop: recent changes and surprises along central-northern Chile,
09:45	10:00	19	Gallosio	An overview of the pelagic biodiversity in the northern Humboldt Current System
10:00	10:15	19	Roque et al.	Determination of fatty acids and their relationship with the reproductive condition of peruvian anchovy engraulis ringens from the Callao area during the period april 2018 to march 2019
10:15	10:30	19	Oliva et al.	Changes in the abundance and distribution of the southern fur seal, Arctocephalus australis in the southeastern Pacific.
10:30	10:50	Coffee break (terraces)		
10:50	11:05	19	Thompson	Ecological Surprises in the California Current Ecosystem in the Past Decade.
11:05	11:20	19	Pitz & Chavez	Interannual variability in environmental DNA reflects broader climatological drivers in the California Current Ecosystem.
11:20	11:35	19	Fennie et al.	Momma’s Larva: maternal investment and oceanographic conditions influence early survival of rockfish.
11:35	11:50	19	Henderson et al.	Investigating diet phenology of Northern anchovy (Engraulis mordax) in Monterey Bay, California using DNA metabarcoding.
12:00	13:00	Poster session (terraces)		
Lunch Time				
14:30	15:45	Meeting wrap-up.		
15:45	16:15	Awards for the best posters / Closure		
16:15	16:45	Coffee Break		
16:50	18:30	Side Event: Side event: Going from Science to Policy in Humboldt Current Fisheries		
18:30	20:00	Evening for Videos		

Auxiliary Auditorium 1 (101, 102, 301)

Date: September 23

08:20 – 09:20 Plenary Talk Matthias Wolff: “Alexander von Humboldt in the current scientific discourse”

Hour		Session #	Author	Title
09:20	09:35	24	Mendoza et al.	Estimation of the capture per unit of effort of jumbo flying squid on board artisanal vessels in Peruvian Waters.
09:35	09:50	24	Revelo et al.	“Assessment of experimental fishing gear for the sustainable capture of large pelagic fish in the Galapagos marine reserve”, may 2017 – april 2018.
09:50	10:05	24	Campos et al.	The artisanal fishery for silverside <i>Odontesthes regia</i> (Humboldt, 1821) in the Peruvian coast: challenges and perspectives for the purse seine and gillnet.
10:05	10:20	24	Pérez et al.	The present status of sharks artisanal fisheries on the Peruvian coast.
10:30	10:50	Coffee break (terraces)		
10:50	11:05	24	Ayala & Ortiz	Fisher’s perceptions of dolphinfish catch trends in Peru: Insights from a global fishing hotspot .
11:05	11:20	24	Ramírez et al.	Evaluation and behavior of <i>Patallus mollis</i> "sea cucumber" in the natural beds of the Lima region between 2011 and 2022.
11:20	11:45	IS-24	Alicia Gallardo	Gender Approach in Artisanal Fisheries.
11:45	12:00			
12:00	13:00	Poster session (terraces)		
		Lunch time		
14:30	15:45	Meeting wrap-up.		
15:45	16:15	Awards for the best posters / Closure		
16:15	16:45	Coffee Break		
16:50	18:30	Side Event: Side event: Going from Science to Policy in Humboldt Current Fisheries		
18:30	20:00	Evening for Videos		

Auxiliary Auditorium 2 (201, 302, EP)

Date: September 23

08:20 – 09:20 Plenary Talk Matthias Wolff: “Alexander von Humboldt in the current scientific discourse”

Hour		Session #	Author	Title
09:20	09:45	IS-27	Rodney Martínez	Improving Ocean Services to increase climate resilience in South Eastern Pacific.
09:45	10:00	27	Montes et al.	Towards the development of a dynamical high-resolution forecast system of the oceanic and atmospheric circulation in the coastal region of Peru.
10:00	10:15	27	Amaya	Subseasonal-to-seasonal forecast skill in the California Current System.
10:15	10:30	27	Mosquera et al.	Monitoring the ocean circulation off Peru: challenges, current state and way forward/perspective.
10:30	10:50	Coffee break (terraces)		
10:50	11:15	IS-27	Gilles Garric	The new Copernicus Marine Service global ocean monitoring and forecasting real-time high-resolution system
11:15	11:30	27	Gabriel	The ENFEN and the surveillance of "La Niña" and "La Niña Costera" 2022.
11:30	11:45	27	Nilo	The ERFEN protocol, a governance model to make decision-making viable.
12:00	13:00	Poster session (terraces)		
		Lunch time		
14:30	15:45	Meeting wrap-up.		
15:45	16:15	Awards for the best posters / Closure		
16:15	16:45	Coffee Break		
16:50	18:30	Side Event: Side event: Going from Science to Policy in Humboldt Current Fisheries		
18:30	20:00	Evening for Videos		