# ABSTRACTS

## Patrick CHAUMETTE

*Professor, University of Nantes, Principal Investigator of Human Sea Programme, Former Director of the Maritime and Oceanic Law Centre (CDMO)*

## Samuel CHAFFRON

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**An Overview of the Tara Oceans Programme**

The Tara Oceans expeditions (2009-2013) systematically sampled marine plankton at 210 sites of the world's ocean, covering the entire ecosystem diversity from viruses and prokaryotes to eukaryotes, including animals (zooplankton). For the first time, a holistic, standardized eco-morpho-genetic dataset was built across a planetary biome. To date the project has generated the largest meta-omics dataset available (>40 Terabases), including >1,000 virus-, prokaryote-, and eukaryote-enriched metagenomes and metatranscriptomes, as well as >4 billion eukaryotic and prokaryotic metabarcodes from >3,000 size-fractionated plankton communities worldwide. This dataset covering global geographic and taxonomic scales represents a unique opportunity to explore the boundaries of a planetary ecosystem at the interface between oceanography, biodiversity, ecology, and evolution. As a demonstration of the enormous potential behind these resources, the first wave of Tara Oceans analyses has been published in 8 publications in Science and Nature in 2015 and 2016.

## Odile DELFOUR-SAMAMA

*Senior Lecturer, Maritime and Oceanic Law Centre (CDMO), University of Nantes*

**The High Seas between the will to conserve and the Research of Exploitation**

According to the negative definition in the Montego Bay Convention, the High Seas have – due to the extension of the territorial seas and the claim of new maritime zones – moved away from the coasts. This geographical distance tends to be reduced because of the development of activities in the seas and the discovery of new resources. The High Seas, and more exactly the biodiversity sheltered therein, are the centre of a new thinking questioning the appropriateness of the legal framework with regard to the new environmental challenges. Actually, the primate of exploitation is henceforth answered by the worries concerning the conservation. Yet, the legal framework in force composed by the law of the sea as well as by environmental law can hardly guarantee the balance. It remains to identify whether these difficulties are the consequences of legal lacunas or of a lack of effectivity of a legal framework which is dense but very fragmented.

## Eleftheria ASIMAKOPOULOU

*Attorney-at-law, Cabinet Zepos & Yannopoulos, Athènes*

**The exploitation of biodiversity in the High Seas and climate change: Blue Economy approaches**

Marine biodiversity in the high seas and the deep ocean suffers from marine scientific research, bioprospecting, shipping, cable deployment, acidification, warming, waste dumping and pollution in general. The waters beyond national jurisdiction cover half of the planet's surface and the current system of "free-for-all" has led to over-exploitation of the marine resources (i.e. overfishing) and severe pollution. The famous coral reef "bleaching" is considered to be a stress

response to warm ocean temperatures due to global warming. Climate change makes oceans more acidic as they absorb more carbon dioxide, with severe impacts on marine life.

Scientists agree that it is vital to protect the marine biodiversity in the high seas, as we rely on our oceans for our food, for modulating the global climate, absorbing carbon and producing a high percentage of our oxygen. Oceans provide very important ecosystem services to humankind. High seas are among the so-called "global commons" but a new UN oceans treaty (Agreement on Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction) is being negotiated in order to protect the marine environment of the oceans.

The Sustainable Development Goals include SDG 14: "to conserve and sustainably use the oceans, seas and marine resources for sustainable development." Towards this goal the international effort to regulate high seas, which has been launched by the UN, is more necessary than ever. In the same time other important initiatives try to address the sustainable exploitation of marine resources while protecting marine biodiversity: the Roadmap to Oceans and Climate Action (ROCA) Initiative (involving Parties, NGOs, academic institutions, and UN agencies) was launched at the Oceans Action Day at UNFCCC COP 22 in Marrakech, Morocco in November 2016 and it recognizes the central role of the Blue Economy in the global effort to save the oceans and tackle climate change. Blue Economy may be considered as a sustainable low-carbon economic growth concept. It aims to move beyond "business as usual" practices accepting that economic development and ocean health are not incompatible. Blue economy approaches, which are largely guided by environmental principles, could support sustainable exploitation of marine biodiversity, especially of marine genetic resources, independently from the intent of use (research or commercial) contributing also to the equitable sharing of benefits.

**Dimitra Manou, Efpraxia Maria, Eleftheria Asimakopoulou**

## Marie BONNIN

*Research director, marine environmental and coastal law, Research Institute for Development (IRD), LEMAR (Marine Environmental Science Laboratory), IUEM (European University Institute of the Sea), Technopôle Brest - Iroise*

### The law and the vulnerable international zones: spatial approaches

As the political and economic interest in the high seas is developing, areas of ecological interest are being created and delimited on the international scale. The law applicable to these areas goes beyond the law of the sea. They can fall under the scope of nature conservation law as well as sectoral law like fisheries law or transport law. According to the cases, these areas are recognised as vulnerable and of major ecological interest within the scope of conventions and international organisations. Henceforth, these vulnerable international zones are a particularly

important parameter/element to consider in the context of international reflections regarding the management of the high seas and marine spatial planning. The legal analysis of the designation process proves that the creation, and more exactly the spatializing, of this new type of zones in the high seas deserves a collective reflection and a closer connection to the law in force concerning these areas.


## Danilo GARCIA-CACERES

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### Analysis of the project of an international agreement on the conservation and sustainable use of marine biodiversity – ABNJ

UNCLOS itself does not constitute a sufficient legal instrument to ensure coordinated management of the High Seas. Therefore, different organizations are responsible for managing the activities taking place in this area. In addition, only three countries in the world hold 70% of patents filed on marine organisms, the United States, Germany and Japan. This is why it is imperative to count with binding international instruments in the topic.

The High Seas, where the principle of freedom sometimes translates into law of the strongest, or at best, the first-come-first-served rule, presents several challenges. So for this reason, in order to provide better guidance on the governance of the high seas and the protection of biodiversity in ABNJ, the UN is working on the development of an unprecedented agreement.

The stakes of this agreement are enormous. First, the space to be governed by law is immense because of its magnitude. Second, because the threat of pollution and harm, as well as the exploration and exploitation of coveted resources will condemn humanity to its own destruction.

Negotiated under UNCLOS, the draft agreement on the conservation and sustainable use of marine biodiversity – ABNJ aims, inter alia, at exploiting marine genetic resources, establishing Marine Protected Areas, as well as to introduce mechanisms for conducting impact assessments regarding human activities at sea.

Approved by 140 states in 2017, one of the latest UN resolutions opens negotiations towards a binding international treaty protecting the biodiversity of the high seas. However, what is its legal and geopolitical record?

## Marta ABEGÓN NOVELLA

*PhD in Law, Assistant Lecturer in International Law, Department of International Law, and International relations, University of Pompeu Fabra, Barcelona*

**The advisory opinions of the ITLOS Seabed Disputes Chamber as an instrument for the protection of the general interest of the international community, and of the environment of the International Seabed Area in particular**

The International Seabed Area has been recognized as common heritage of mankind, which implies the attribution of a legal status that prohibits, among others, appropriation and individual exploitation of its natural resources. The exploration and exploitation of these resources, as well as their conservation, is a matter of interest not only to States but to the international community as a whole. In the protection of this general interest, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea may be essential. Its first Advisory opinion of 1 February 2011 *on the Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* suggested the important role it can play in establishing the limits that the preservation of the general interest impose regarding the activity of States and private companies in this maritime space. This is particularly important since the 1994 Agreement modified the management model of the Area by encouraging the participation of States parties or particular entities to the detriment of the role of the Authority.

## Eirini PANTELODIMOU

*Doctor of Environmental Law of the University Paris 1 Panthéon-Sorbonne, attorney-at-law*

**Environmental Liability in the Practice of the Court of Justice of the European Union – CJEU**

The Directive 2004/35/CE establishes a framework of environmental liability based on the Polluter-Pays Principle with the aim of preventing and restoring environmental damage.

At several occasions, the Court of Justice of the European Union was asked to interpret the fundamental concepts of the Directive 2004/35, such as the terms environmental damage and

exploiter and to define exactly the conditions under which the national regulations can implement restoration measures.

The presentation aims at highlighting the range of the recent court practice concerning environmental liability and to examine the limits of application of the Directive 2004/35.

## Raphael VIANNA-GONÇALVES

*PhD in Law, University Paris 1 Panthéon-Sorbonne, postdoctoral researcher on the Human Sea programme, University of Nantes*

**Civil Liability for Transboundary Marine Oil Pollution: The Montara Case**

The absence of international regime in force for civil liability for oil spills caused by offshore oil installations creates legal uncertainty for oil companies and for victims of oil spills in case of transboundary pollution. National legislations can be variable and cause unequal treatment depending where the claim is introduced, and one must also consider the oil companies' insolvency risk. This lack of international regime can also create a risk of political dispute between concerned States.

The Montara case is an example. In August 2009, an oil spill caused by the Montara Platform, an offshore drilling facility situated on the north coast of Australia at the Timor Sea, provoked major marine environmental damage in Australia and in Indonesia.

## Béatrice SCHÜTTE

*PhD in Law, Aarhus University, Denmark, visiting researcher on the Human Sea programme*

**Towards a harmonised European regime on Civil Liability for damages arising from Marine Pollution**

EU marine waters are not only ecosystems with a manifold flora and fauna, but also a wide range of human activities takes place on and under the water. From shipping – be it cargo or cruise shipping - over fisheries to the exploitation of natural resources.

These activities bear the risk of causing damage both to the environment and to individuals and legal entities. This can be bodily harm, illness or property damage due to contamination, or economic loss when the injured party loses their earnings because the respective business cannot be undertaken.

The restoration of damage caused to the environment per se is governed by the EU Environmental Liability Directive since its scope was extended to marine waters in the course of the implementation of the Offshore Safety Directive. Yet, the ELD explicitly excludes a claim of individuals and legal entities as regards the damage suffered as a consequence of pollution of the marine environment. Those claims have to be solved by the law applicable according to the rules of private international law. Furthermore, the ELD has been criticised for not being an actual civil liability regime but more of an administrative law framework.

The challenge in this context is to ensure for all the people being affected by the consequences of marine pollution the same level of legal protection, i.e. the same prerequisites as well as recoverable damages with regard to a claim. Therefore, one must examine the possibility of establishing a harmonised regime on civil liability for damage arising from marine pollution. Attempts to harmonise civil liability law have been made on academic level, by means of the model frameworks Principles of European Tort Law and the Book VI of the Draft Common Frame of Reference. A good starting point can be the Polluter-Pays Principle which is widely applied on international level, yet not a genuine liability rule.