



OceanLaw On-Line Paper No. 28

**World Conference on Deep Sea Fishing
Vigo, 18-19 September, 2003**

**Summary report compiled by the
Chairman of the Conference**

David J. Agnew*

1. Introduction

The World Conference on Deep Sea Fisheries was held in Vigo, Spain, 18th - 19th September 2003, to discuss the development and long-term management of deep-sea fisheries resources. The conference was conceived and organised by the Fundación Caixa Galicia on behalf of the Executive Committee of the World Fishing Exhibition – Vigo 2003 and organised by Highbury-Nexus Ltd. The Conference was convened and chaired by Dr David Agnew, Imperial College, UK.

The conference was organised with the specific intention of taking additional advantage of the large number of industry representatives at the Exhibition to involve them in a dialogue on deep sea fisheries. It was organised around 5 theme sessions. The contributors to the various sessions were:

The Current Situation

Chair: Juan Vieites, ANFACO, Spain
Speakers: Ross Shotton, FAO, Italy
Marc Ghiglia, UAPF, France
Pablo Durán Muñoz, Instituto Español de Oceanografía, Spain

Industry

Chair: Grimur Valdimarsson, FAO, Italy
Speakers: George Clement, Seabed Mapping, New Zealand
Halli Stefansson, New Zealand
Cesar Del Real, Pescanova, Spain

Science

Chair: John Beddington, Imperial College, UK
Speakers: Malcolm Clark, NIWA, New Zealand
Alexei Orlov, VNIRO, Russia
John Gordon, SAMS, UK
Pascal Lorange, IFREMER/DRV/RH, France

Management

Chair: David Agnew, Imperial College, UK
Speakers: Ken Patterson, European Commission, Belgium
Brad Norman, Marine Stewardship Council, UK
Doug Butterworth, University of Cape Town, South Africa
George Clement, Seabed Mapping, New Zealand

Legal and Extra-Jurisdictional

Chair: Zen Makuch, Imperial College, UK
Speakers: Christopher Hedley, OceanLaw, UK

Herminio Lima Alberto Tembe, Republic of Mozambique.

2. Acknowledgements

This brief report is a summary of the conclusions of the conference. Whilst the report was edited by David Agnew it benefited particularly from contributions by the session chairmen Juan Vieites, Grimur Valdimarsson, John Beddington and Zen Makuch, the presenters listed above and the conference delegates. The views presented below do not necessarily represent the views of the contributors or the organisers of the meeting. The text of the Declaration of Vigo was drafted and agreed by the Conference. It was not the work of a single author, and is attached here for completeness only. The support of Fundación Caixa Galicia on behalf of the Executive Committee of the World Fishing Exhibition Vigo 2003, and Highbury-Nexus Ltd., is gratefully acknowledged.

3. Introduction

The conference **opened** with a session setting out the current state of play with regard to deep sea fisheries. Deep sea fisheries are generally accepted to be those occurring deeper than 500m depth, although species may undertake significant vertical migrations into and out of this zone. About 4% of world catches are currently taken from deep sea species (including blue whiting, scabbardfish, grenadiers, redfish, orange roughy, Greenland halibut and argentinines).

Data collection is a significant challenge from these fisheries, and one good approach is to have scientific observers on deep sea vessels. However, data confidentiality requires aggregated information for reporting purposes, and even in some particular cases could be a problem, since many deep sea fisheries are discovered and exploited by very few vessels (often fewer than 3).

One of the large challenges of deep sea fisheries is ensuring compliance, as many of these fisheries either straddle national EEZs or exist completely in high seas waters. There are challenges in ensuring these fisheries take place responsibly, that IUU fishing is eliminated, and that the deep-sea habitat and ecosystem is considered by management.

The **second** session was aimed at exploring industry perspectives on deep sea fishing. Technological advances have made “surgical” fishing technologies possible – i.e. a precision targeted trawling. This technology not only allows more and better fishing to be conducted but allows the possibility of avoiding unwanted catch and incidental impact on benthic environments. However, at the same time advances in fishing technologies are likely to mean that there are no natural refuges left for fish. On the other hand, fishing on steep seamounts is not possible with current technology as 20-30 degree slopes are the maximum that currently used gears can handle.

Marketwise, deep water species are not an alternative for conventional groundfish species. Environmental awareness on the part of marketing companies has become an essential feature of marketing. Consumers do care about the environment but there is a major danger in generalising to single messages that are easy for consumers to understand but hide the complexity of the real situation.

Deep water fisheries should be developed cautiously, but it is important to realise that, like shelf fisheries, there are many different types of fisheries, fish and habitats. Generalised measures such as banning a particular gear type for deep sea fisheries would be a mistake.

The **third** session explored the scientific basis for sustainable exploitation of deep sea resources – sustainable for both the fishery and the affected populations. The deep sea is often thought of as a single habitat type, and deep sea species as being all the same (long-lived, low fecundity, highly vulnerable to fishing). There is, however, a great deal of complexity and variation amongst deep sea fisheries and habitats. Some species may be able to sustain reasonable levels of exploitation, others will not be able to. Some habitats are delicate and highly vulnerable to disturbance (soft sediments and coral outcrops, seamounts) whereas others are less vulnerable (mobile sandy sediments).

Since most deep-sea ecosystems depend for energetic input upon the pelagic ecosystems overlying (or adjacent to) them, it follows that the most productive deep sea fisheries will occur in areas of the world where surface productivity is high – i.e. in areas where there is significant upwelling or adjacent to shallow shelves/seas where there is high productivity. Thus we would not expect productive deep sea fisheries to be present in abyssal regions overlain by relatively unproductive pelagic ocean ecosystems.

Developing sustainable management for deep sea fisheries is therefore going to be at least as complex scientifically as it is for shelf fisheries. Unfortunately, the science knowledge is even more difficult to acquire in deep sea areas. Therefore different scientific approaches are required, which acknowledge the uncertainty in the science. Such new approaches would not demand detailed accuracy in that science, but would instead develop precautionary management through, for instance, networks of reserves or protected areas and highly directed fishing.

The **fourth** session explored issues surrounding the management of deep sea resources. It is acknowledged that gaining adequate scientific knowledge about deep sea stocks is very difficult. Not only do these stocks have life history characteristics that are difficult to determine (such as very old ages), but they occur in places which are difficult for science to access by traditional means (bottom trawl surveys and acoustics are often difficult or impossible in deep water for fish with alternative buoyancy methods than gas-filled swim bladders). Science funding for deep-sea research needs particular consideration to overcome these problems.

Scientific difficulties lead to higher levels of scientific uncertainty than is usual in shelf-based fisheries. These higher levels of uncertainty lead to several consequences. Management needs to take this uncertainty into account by become more precautionary. It should operate systems that run low levels of risk of overexploitation of target species and damage to fragile deep sea environments. This is especially important during the development phases of deep sea fisheries. Management might need to consider the increased use of refuge/specially managed areas.

In order for such management to work, the management process needs to become more inclusive to ensure significant involvement of industry. Such involvement should lead to better management of the resource, increased responsibility and self-regulation by industry, options for alternative/additional funding of science and improved opportunities for data collection, for instance through observer programmes.

It was acknowledged that even in the case where the science and management for deep-sea fisheries was accurate, appropriate, and sufficiently precautionary, sustainability will always be undermined by unregulated and illegal fishing. Compliance with management plans is therefore an essential part of the consideration of sustainability of fisheries.

The **final** session explored legal and jurisdictional issues associated with deep sea fisheries, especially those in high seas waters. Noting the legal and jurisdictional challenges of deep-sea fisheries, in our efforts to create a sustainable fisheries management framework, there is a need to involve industry in

the further development of compliance and enforcement regimes because experience demonstrates that actual implementation and compliance will be more effective. This presupposes the existence of a secure and well-defined interest (if not rights) for industry within this framework.

Recognising the scientific challenges of deep-sea fisheries management and compliance, the precautionary approach has rapidly evolved into a binding principle of international law and should be applied to all jurisdictions including the high seas. Perhaps the precautionary approach could be further evolved by reference to a binding definition referring to best practice.

With respect to the recognised problem of free rider states and flags of convenience matters, legal disciplines that exist and are evolving under the Straddling Stocks Agreement and the FAO Code of Conduct and Compliance Agreement, when favourably interpreted, should be extended to high seas fisheries. The same approach should apply to IUU fishing (including, but not limited to the problems of free riding, flags of convenience and opt out clause strategies), which should be addressed more directly through a new Code of Conduct on Compliance and Enforcement.

4. Conclusion

The conference concluded by drafting the following Declaration:

DECLARATION OF VIGO

Government officials, scientists, lawyers, NGOs and representatives of the fishing industry met at the World Conference on Deep Sea Fisheries in Vigo, Spain, 18th - 19th September 2003, to discuss the development and long-term management of deep-sea fisheries resources.

Central to these discussions was recognition that responsible commercial fishing companies have the highest possible interest in ensuring that deep-sea fisheries are sustainable in the long term. This “enlightened” self-interest is driven by considerable investment in boats and infrastructure that can only be supported by rational exploitation of wild fisheries resources.

With sustainability as their top priority the Vigo conference considered:

1. The evidence relating to the existence of fishing stocks in the deep-sea and their sustainability.
2. The technical issues involved in developing deep sea fisheries.
3. The effective management of deep sea stocks.
4. The legal framework required to ensure responsible deep sea fishing on a sustainable basis.

Details of the discussion under each heading is available in a summary document compiled during the conference.

Key conclusions were:

1. Deep sea fishing is already taking place in many parts of the world. There is recognition that deep-sea fisheries are not a substitute for conventional fisheries, nor will they offer high sustainable yields. However, they are important fisheries.
2. It is fundamental that the sustainability of fisheries for deep sea species will depend on scientific understanding of the species and their ecosystems. Investment in scientific research is therefore an essential pre-requisite of sustainable management.

3. The greatest danger to fish stocks in the deep sea will come from illegal and irresponsible fishing. Sustainability is only likely to be achieved through the joint cooperation of legitimate, responsible fishing companies and management authorities at national and international levels, especially to combat unregulated fishing and collect data required for the management of deep sea resources.
4. The organising committee, after the presentations and discussions at the conference, agreed, therefore, to urge all international and national agencies involved in the management of deep sea fisheries resources to work in a positive and cooperative way with commercial fishing companies, NGOs and others throughout the world to ensure the development of viable and enforceable deep sea fisheries policies.
5. They call upon those international and national agencies to involve representatives of responsible fishing companies and other stakeholders in all discussions concerning the development, management and control of deep-sea fisheries.
6. And they call for the establishment of a multilateral cooperative body, the International Council for the Deep Sea, at which would be represented all interested parties, including the commercial fishing industry, to provide a framework for this on-going dialogue including the development of approaches for research, sustainable management and control of fishing on deep-sea resources.
7. Only by working together as equal partners will we find ways to preserve our deep sea heritage.

Vigo, 19 September, 2003

***David J. Agnew**

Renewable Resources Assessment Group, Imperial College London, UK