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OSPAR ICG MSFD (2) Meeting, 11/12th September 2014, London.

Agenda Paper submitted by Marinet.

Agenda Item 7 : Statement on the definition of MSFD Descriptor 3.

Descriptor 3: "*Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.*"

Statement:

1. a. We believe that the definition currently being used to define "*safe biological limit*" is inadequate.

b. The definition proposed by the EU and others is referenced to the spawning stock biomass which exists at the present time, and we observe that this reference is often to a seriously depleted stock level due to over-fishing and other factors. It is not referenced to the actual potential for the size of that stock.

c. In order for the seas to be in a ***"healthy condition"*** – as required by the central core principle of the Directive – then we observe that the safe biological limit and the spawning stock must be referenced to **the maximum level of abundance of the stock which current ecological conditions will permit.** This is the true reference point for a stock in a "healthy condition". Therefore the safe biological limit and the respective spawning stock biomass must be referenced to the actual potential for the stock's size.

d. To do otherwise is to persist in maintaining fish and shellfish stocks in a depleted condition, and to frustrate and deny the restoration of these stocks, and the wider marine ecology, to a "healthy condition".

2. a. We believe that the current approach to the definition of a population ". . . *exhibiting a population age and size distribution that is indicative of a healthy stock.*" is unacceptable.

b. It is unacceptable for two reasons. Firstly, it is so because a working definition of this section of Descriptor 3 is being ignored by all parties. This is contrary to the requirements of the Directive, and is therefore illegal. Secondly, it is unacceptable because it is scientifically possible to employ a practical working definition, and therefore to comply with the legal obligations of the Directive.

c. The scientific reason (and thus the basis of the legal requirement) why a stock needs to exhibit "a population age and size distribution that is indicative of a healthy stock" is because it is the oldest fish, and thus the largest fish, which are the most fecund in the population. A sexually mature adult will produce roughly double the amount of sperm/eggs every time it doubles in length, and the individual's increase in length is a function of its age. Old, large fish are hence the most important individuals in a stock from a reproductive point of view. Therefore a stock which contains adults reflecting the full age span of the species is clearly a requisite of a stock in a healthy condition. The

presence of adults reflecting the full age span of the species is also an essential requirement if stock size is to be rebuilt to its true maximum level of abundance which current ecological conditions will permit. If stocks (species) are rebuilt to achieve this objective, then not only is the ecology of the sea returned to a more healthy condition overall, but also the fishing industry is revitalised because larger fish (which have more economic value) are once again available to be harvested.

d. Currently, EU member countries are electing not to engage and implement the requirement "*. . . . exhibiting a population age and size distribution that is indicative of a healthy stock.*" Instead, a natural stock profile is being artificially denied, with adults being allowed to survive for only one year of sexual maturity before being fished out from the stock. As a result, wild stocks contain very few, if any, adults beyond this artificial age limit of one year of sexual maturity and, biologically speaking, wild stocks are underperforming from the perspective of sexual reproductivity. Indeed, this management approach to fisheries is akin to asking the human population to survive solely on the reproductive capability of its teenagers, with all adults beyond this age being eliminated. This is clearly an absurd situation.

e. The management approach which should be employed and which allows a species to exhibit "*a population age and size distribution that is indicative of a healthy stock*" is based on the following principles:

(i). The net size is changed so that all adults in a stock are able to survive 25%, preferably 50%, of their adult life. In the case of cod, this would to be to the age of 10 years (25%) or 15 Years (50%).

(ii). There is a complete ban of fishing in spawning areas during the spawning season (currently a principal focus of fishing activity because adult fish congregate in order to breed), thus enabling the stock to breed properly; and, there is also additional restrictions on fishing in nursery areas (e.g. a defined season for fishing, catch limits, net sizes) to enable the young population to survive.

Recommendation: We are **recommending** the full implementation of Descriptor 3 to all parties (OSPAR, EU, ICES, Fishing Organisations, et al). This recommendation is scientifically justifiable. Also, it is scientifically and practically deliverable, as demonstrated above. There is no impediment to the full implementation of Descriptor 3. As observed: full delivery of Descriptor 3 benefits the fishing industry because the sexual reproductivity of the breeding stock is greatly enhanced, with individual fecundity doubling every time an adult doubles in length leading to the value of the fish landed being far greater because the individuals are considerably larger. Moreover, the integrity of the marine ecosystem is rebuilt as stocks of all species increase and predator-prey relationships are re-established and restored. Most importantly, the core principles of the MSFD – healthy seas – is delivered by the full implementation of Descriptor 3.

Marinet,
18th August 2014.