

## EDITORIAL

## New European Union fisheries regulations could benefit conservation of marine animals

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On the 29th of September 2008, the European Commission (EC) established a system [Council Regulation (EC) No. 1005/2008] to prevent, deter and eliminate *illegal, unreported and unregulated* fishing (hereinafter, IUU fishing). *Illegal* fishing mainly occurs where vessels operate in violation of fishery laws, independently of whether the fisheries are under the jurisdiction of a coastal state or are high seas fisheries regulated by regional organizations. Examples of illegal fishing are the taking of fish without (or without the correct) licence, the use of illegal gear, or taking fish in excess of the allocated quota or in closed areas or seasons. *Unreported* fishing contravenes fishery laws and regulations through failure to report, or misreporting, catches to the relevant authority or organisation. *Unregulated* fishing involves vessels without nationality or flying the flag of a country not party to the regional organisation managing the fishing area or species concerned. The IUU regulation is the outcome of a long process initiated with the EC's 2002 IUU Action Plan, which was directly inspired by the United Nations FAO International Plan of Action, (<http://www.fao.org/DOCREP/003/y1224e/y1224e00.htm>). The IUU fishing regulation came into force on the 1st of January 2010, and so 2010 potentially marks the beginning of the end of one of the most dangerous threats to global marine biodiversity.

IUU fishing can cause devastating effects on fish species and serious damage to the marine environment through overfishing and the use of irresponsible fishing practices and

techniques (Field *et al.*, 2009; Kemp *et al.*, 2009). It is one of the most significant threats to the sustainable exploitation of living aquatic resources and marine biodiversity (Grafton *et al.*, 2008; Agnew *et al.*, 2009). Fish populations are not the only marine biological resource that can be affected by IUU fishing or its accidental bycatch, as declines in abundance of diverse vertebrate and invertebrate taxa have been linked to IUU harvest practices (see e.g. Jennings, Kaiser & Reynolds, 2001; Watkins, Petersen & Ryan, 2008).

Global harvest of marine resources is valued at US\$10–23.5 billion annually, which represents 11–26 million tonnes of fish (Agnew *et al.*, 2009). The EC is a particularly attractive target for IUU fishing operators as it is the largest importer, and one of the world's main producers and exporters, of fish products (Directorate General for Maritime Affairs and Fisheries, 2009). On the other hand, developing countries pay a particularly high price for IUU fishing, because the incomes of their coastal communities generally depend on fisheries but they lack the resources to prevent the pillage of their waters by illegal fishing (MRAG, 2005).

What will this new regulation do? A crucial element of the IUU fishing regulation is the catch certification scheme, which ensures the traceability of all marine fisheries products entering EC markets and supplied by the EC. Under this scheme the flag country of the vessel taking the fish must certify that the catch complies with applicable laws, regulations and international conservation and management

measures. In addition, the regulation calls for improved monitoring and supervision of fishing vessels and their catches entering EC state ports. The IUU regulation provides an improved framework for port control, allowing EU Member State authorities to better monitor and supervise incoming fishing vessels and their catches. One of the aims of this new regulation is to establish that all marine fishery products are accompanied by a catch certificate regardless of the mode of transport (e.g. marine, air or surface). It also establishes specific sanctions to act as a deterrent to infringements of the law. Those countries that fail to implement adequate measures to deal with IUU fishing may incur punitive actions including prohibitions on the import of fish products from vessels flying their flag, freezing of negotiations over new fisheries partnership agreements with the EC and immediate termination of existing agreements (<http://ec.europa.eu/fisheries/iuu>).

How will this new regulation help conservation of marine animals? Obviously, such regulation is expected to help management of marine ecosystems through improved control of fishing efforts and offtakes. But application of the catch certification scheme and increased regulation of fishing gear, catchment effort, and fishing areas could have positive and cascading community-wide effects on marine ecosystems as a whole (Daskalov *et al.*, 2007; Casini *et al.*, 2009). These community-wide benefits are anticipated because IUU fishing commonly targets species whose removal can destabilize food webs (Bascompte, Melián & Sala, 2005). Thus, IUU regulation could facilitate recovery of threatened animal populations and mitigate the community and ecosystem declines that derive from poor fishery management.

Application of the IUU regulation is clearly urgent, particularly as pressure on already depleted fish stocks is predicted to increase over the next 50 years owing to escalating demand (Agnew *et al.*, 2009). Future management of fisheries by the EC will not be easy. However, if the IUU regulation is strictly applied in accordance with scientific advice, 2010 could mark an important practical step towards reducing the massive deterioration of marine resources.

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