



# Deep-sea fisheries and vulnerable ecosystems in the northeast Atlantic

## How the EU can reform its deep-sea management regime

**A new European Commission proposal to overhaul the regulation of deep-sea fisheries in the northeast Atlantic Ocean is a promising step toward transforming the area into a sustainable fishery. The proposal would repeal Council Regulation (EC) 2347/2002 (the ‘deep-sea access regime’) and establish new conditions for EU vessels fishing for deep-sea species in the northeast Atlantic.**

The proposal builds upon key scientific findings showing that many deep-sea stocks are highly vulnerable to overfishing and that deep-sea fishing threatens biodiversity by damaging vulnerable marine ecosystems. The proposal contains positive elements, including a phase out of destructive bottom trawls and bottom gillnets to target deep-sea species. But it must be strengthened to ensure the long-term sustainability of deep-sea fisheries and preserve many of the last unexplored habitats in the world.

**The Pew Environment Group calls for the following elements in a new deep-sea access regime:**

- End destructive fishing practices through a phase out of bottom trawling and bottom gillnet fishing in the deep sea.



- Require impact assessments for all deep-sea fisheries.
- Ensure that fishing is permitted only if the catch, including any bycatch, is scientifically proven to be sustainable and if fishing practices include science-based protections for vulnerable, threatened, and endangered species.
- Ensure that deep-sea fisheries are managed to prevent adverse impacts on deep-sea ecosystems, including deep-sea corals, sponges, and seamounts.

# Ten reasons the EU must reform the management of deep-sea fisheries

## 1 The deep sea is habitat to ancient species

The largest and least explored environment on the planet is the deep sea, which begins at a depth of around 200 metres and ends at the abyssal plane, an average depth of 4,000 metres.<sup>1</sup> This zone is home to a rich variety of species and habitats such as coral reefs up to 8,500 years old,<sup>2</sup> species of sharks and fish largely unchanged since the age of dinosaurs, and organisms that one day might be used to treat cancer and other diseases.<sup>3</sup> Scientists estimate that most of the roughly 750,000 undiscovered marine species worldwide are in the deep sea.<sup>4</sup>

## 2 Fishing the deep can be highly destructive, especially deep-sea bottom trawling

Most of the EU's deep-sea catch is taken by bottom trawl fisheries that use destructive gear in a highly vulnerable environment to extract resources at a heavy environmental price.<sup>5</sup> Deep-sea bottom trawlers scour the seafloor with steel plates, heavy cables, and giant nets, indiscriminately catching everything in their paths while grinding away important habitats such as sponge grounds and ancient deep-water coral reefs. Scientific reports conclude that bottom trawling in waters as deep as 1,500 metres or more poses the greatest threat to deep-sea corals and sponges.<sup>6</sup> The International Council for the Exploration of the Seas has indicated that all forms of bottom contact fishing gear can damage vulnerable deep-sea species but that "the greatest instantaneous physical impact on sensitive habitats is likely to be caused by towed otter trawls" – i.e. bottom trawling.<sup>7</sup> A 2010 study concluded that bottom trawling in deep-sea areas (defined as below 200 metres depth) in the Northeast Atlantic has impacted an area of the ocean floor far more extensively than all other deep-sea activities (such as submarine cable laying and oil and gas exploration) combined.<sup>8</sup>

## 3 Deep-sea fish are more vulnerable than others

Most deep-sea fish grow slowly and reproduce late in their long lives. Some species live 150 years or more and thus are particularly vulnerable to overfishing. Many species gather around the peaks of seamounts and are thus easy targets for fishing and prone to rapid depletion and overfishing.<sup>9</sup> A 2009 study found that deep-sea trawling off the coast of Ireland was likely to have caused an average 70-percent decline in dozens of species, including in areas much deeper and well beyond the areas where the fishing occurred. Most of the species had no commercial value and

presumably were thrown overboard—dead or dying—as unwanted bycatch.<sup>10</sup>

## 4 Experts: All deep-sea stocks likely are overfished

Scientists assert that deep-sea vessels often misreport—or don't report—catch numbers.<sup>11</sup> Even using extremely conservative catch numbers, the International Council for the Exploration of the Sea (ICES) estimates that 100 percent of deep-sea catch is fished "outside safe biological limits."<sup>12</sup>

## 5 Catch limits are too high and ignore bycatch

Since 2003,<sup>13</sup> fishing for certain deep-water species has been regulated by catch limits and by restricting the capacity of vessels targeting deep-sea species. These measures have been ineffective. Catch limits have been set for only 25 of the 46 deep-water species the EU monitors. Limits for major target species such as grenadiers and black scabbardfish are often set too high, ignoring scientific information. Many deep-water fisheries catch a broad mix of species, including non-target fish such as endangered deep-sea sharks. Fishermen often discard unwanted fish and over-quota target species. Experts say up to 50 percent of the catch is wasted.<sup>14</sup>

## 6 EU vessels deplete deep-sea resources for marginal economic gain

In 2010, the European Union reported a catch of approximately 45,000 tonnes of deep-sea fish in the northeast Atlantic – an underestimation because the EU keeps statistics on only 46 of the 70 deep-sea species known to be caught in the northeast Atlantic.<sup>15</sup> The value of the EU's catch of these species was approximately €101 million,<sup>16</sup> only about 1.3 percent of the value of the EU's total catch for all fisheries.

EU northeast Atlantic deep-sea fisheries data	
EU deep-sea catch, 2010	45,000 tonnes
EU northeast Atlantic catch, all species, 2010	3,698,896 tonnes
Deep-sea fisheries as % of EU northeast Atlantic	1.2%
Deep-sea catch as % of reported catch of all EU northeast Atlantic species	€100,881,957
Landings of fishery products in EU, 2007	€7,505,043,304
Value of deep-sea catch as % of 2008 EU fishery product landings	1.3%

Source: Pew Environment Group (2012)<sup>16</sup>

## 7 Few EU nations have an economic interest in deep-sea fisheries

In 2010, Spain, France, and Portugal together accounted for 89 percent of the total EU catch in the northeast Atlantic.

The French and Spanish deep-sea fleets are predominantly bottom trawlers; Portuguese vessels primarily use handlines and bottom longlines, which are less destructive than bottom trawling but still need to be managed to ensure sustainability and prevent ecosystem damage.

EU deep-sea catch, 2010		
Spain	20,133 tonnes	44%
France	13,757 tonnes	30%
Portugal	6,840 tonnes	15%
Others	4,824 tonnes	11%
<b>Total</b>	<b>45,554 tonnes</b>	<b>100%</b>

Value of EU deep-sea catch, 2010		
Spain	€47,005,813	46.6%
Portugal	€23,741,261	23.5%
France	€20,747,917	20.6%
Others	€9,386,967	9.3%
<b>Total</b>	<b>€100,881,158</b>	<b>100%</b>

Source: Pew Environment Group (2012)<sup>16</sup>

## 8 Current deep-sea fishing techniques are not economically viable

From 2002 to 2008, about 30 to 40 percent of the different types of EU fishing fleets (so-called “fleet segments”) reported financial losses each year.<sup>17</sup> Many fleets rely on government subsidies to turn a profit. A 2010 study concluded that most bottom trawl fishing on the high seas would not be economical without subsidies.<sup>18</sup> The European Commission, in a 2007 review of the EU’s deep-sea fisheries in the northeast Atlantic, concluded that many deep-sea stocks have such low productivity that “sustainable levels of exploitation are probably too low to support an economically viable fishery.”<sup>19</sup> Given the economic climate in Europe, the EU can ill afford to prop up destructive fishing practices.

## 9 The EU must honour its commitments and effectively manage deep-sea fisheries in the Northeast Atlantic

The United Nations General Assembly adopted resolutions in 2004, 2006, 2009, and 2011<sup>20</sup> committing all States engaged in deep-sea fishing to: take “urgent action” to prevent significant adverse impacts on vulnerable deep-sea species and ecosystems; conduct prior environmental impact assessments of deep-sea fisheries; close areas to

bottom fishing where vulnerable deep-sea ecosystems are known or likely occur; and ensure the sustainability of the catch or else prohibit deep-sea bottom fisheries.

## 10 A solution is at hand

The EU can fish the deep sea responsibly and sustainably if it takes these steps, all of which are consistent with the U.N. General Assembly’s resolutions on deep-sea fishing:

- Phase out destructive fishing practices in the deep sea.
- Prevent significant adverse impacts on vulnerable marine ecosystems from deep-sea fishing.
- Require prior impact assessments of deep-sea fisheries to determine the potential for environmental harm to vulnerable ecosystems and low-productivity fish stocks.
- Ensure the long-term conservation of deep-sea fish species, including non-target species, and the recovery of depleted populations.
- Close areas known or likely to be vulnerable to harm from bottom fishing unless fisheries in these areas can be managed to prevent significant adverse impacts.<sup>21</sup>

The EU must honour its commitment to safeguard the deep sea. This is achievable. The EU has already taken a significant step in this direction through the adoption of Regulation 734/2008<sup>22</sup> in 2008, which applies to the management of bottom fishing in several high seas areas. The EU now needs to do the same for deep-sea fisheries in the northeast Atlantic through a sweeping reform of the EU deep-sea access regime.<sup>23</sup>

## RECOMMENDATIONS

### Pew Environment Group urges the Council of the European Union and Members of the European Parliament to support these elements in the proposal:

- 1 Phase out within two years bottom trawl and gillnet fishing that targets deep-sea species in the northeast Atlantic (Article 9).
- 2 Fishing opportunities, including catch limits, for deep-sea stocks cannot be set above scientific advice (Article 10.2).

### We urge the Council of Fisheries Ministers and Members of the European Parliament to propose improvements to these elements of the proposal:

- 1 Expand the scope of Article 7, to require impact assessments for all deep-sea fisheries using bottom gears, including in existing fishing areas, as well as new fishing areas.
- 2 Amend the proposal to ensure that required impact assessments meet the internationally agreed standard (FAO Guidelines) and are reviewed by independent scientists (Article 7).

- 3 Regulate the catch of all deep-sea species—including bycatch—for sustainability (Articles 4 and 10).
- 4 Strengthen the definition of ‘most vulnerable species’ and add measures to minimise or prevent the catch of vulnerable, threatened, or endangered species in deep-sea fisheries.
- 5 Require that catches of all deep-sea species are reported, not only those of target species (Articles 19 and Annex II).
- 6 Require that areas where vulnerable marine ecosystems are known or likely to occur be identified and closed to bottom fishing unless measures are enacted to prevent significant harm to them.
- 7 Clearly mandate that no fishing opportunities shall be allocated if scientific advice on sustainable exploitation levels of deep-sea stocks is inconclusive (Article 10.2b).

## FURTHER INFORMATION

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