

# MSFD

## Assessment of fish

**David Connor**  
European Commission, DG Environment  
Brussels



*HELCOM fish indicator workshop*  
*10 May 2016, Gothenburg, SE*

# Relevant Descriptors:

## **Descriptor 3: Commercial fish and shellfish**

*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.*

## **Descriptor 1: Biodiversity**

*Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.*

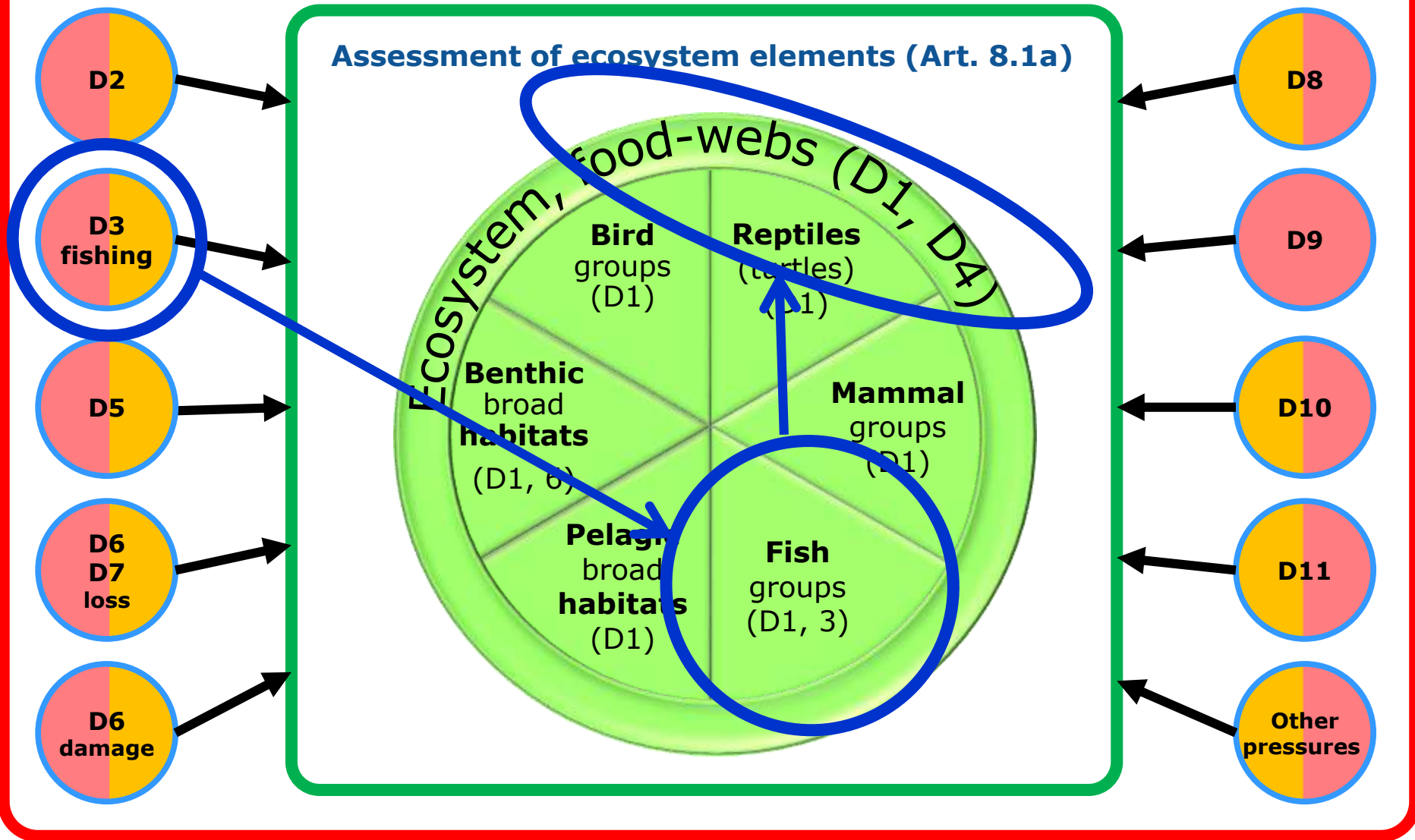
## **Descriptor 4: Food-webs**

*All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.*



# Assessment framework

# Assessment of specific pressures and their impacts on ecosystem elements (Art. 8.1b)

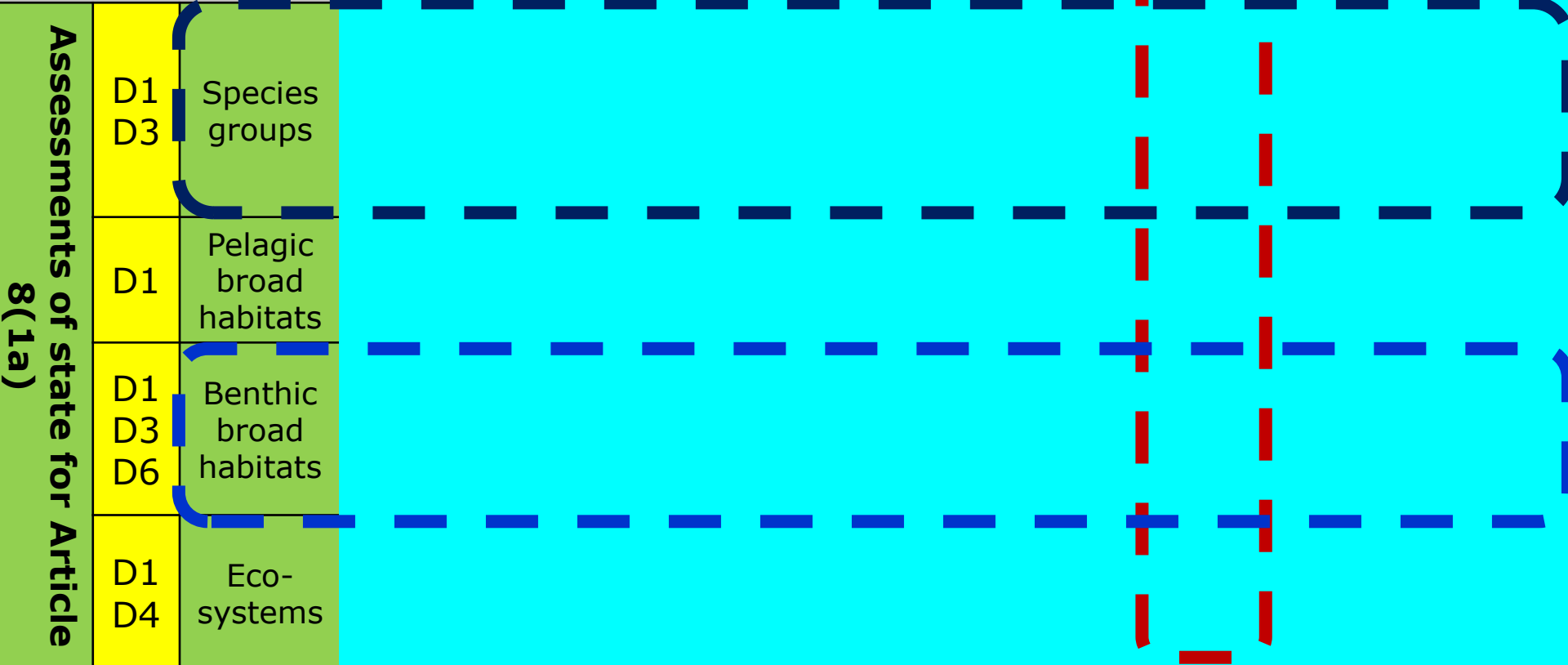


# Assessments of pressures for Article 8(1b)

-	Other
D6, D7	Physical loss
D6	Physical damage
D3	Extraction of species
D2	Non-Indigenous Species
D11	Sound and other energy
D10	Litter
D8, D9	Contaminants
D5	Nutrients

## Decision outline

Primary criterion  
Secondary criterion



# **Revised Decision on GES criteria (2010/477/EU)**

# **Descriptor 3: commercial fish and shellfish in Decision proposal v3 (4/5/2016)**

Commercially-exploited fish and shellfish, including all stocks that are managed under Regulation (EU) No 1380/2013.

# Criteria for commercial fish and shellfish Decision proposal v3 (4 May 2016)

**D3C1: The fishing mortality rate (F) of populations of commercially-exploited species is at or below levels which can produce the maximum sustainable yield, or an appropriate proxy, as established by appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013.**

**D3C2: The spawning stock biomass (SSB) of populations of commercially exploited species is above biomass levels capable of producing maximum sustainable yield, as established by appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013.**

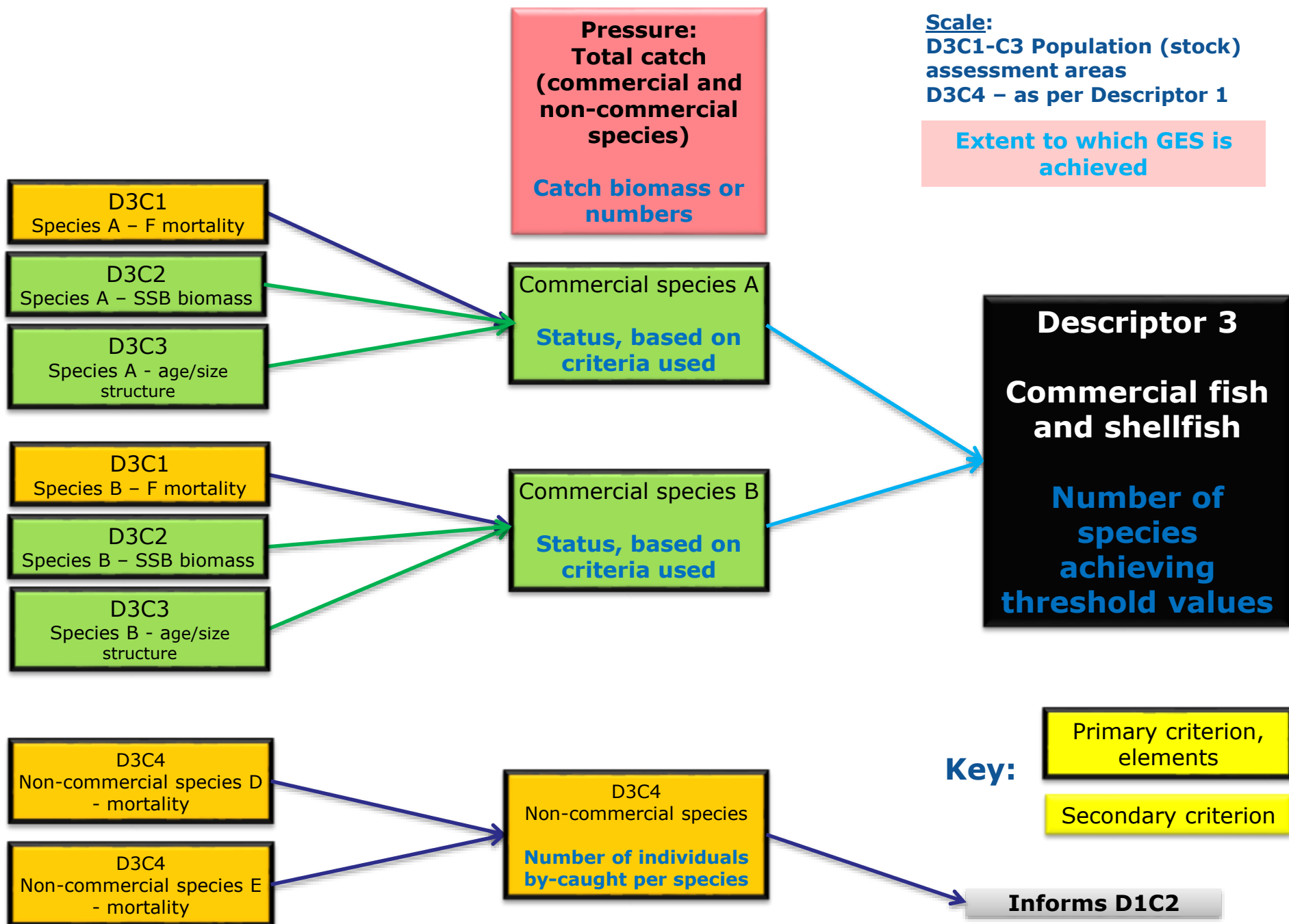
**D3C3: Age and size distribution of individuals in the populations of commercially-exploited species matches at least the best available historical data that is indicative of a healthy population (stock). This should include a high proportion of old/large individuals and reduced adverse effects of exploitation on genetic diversity.**

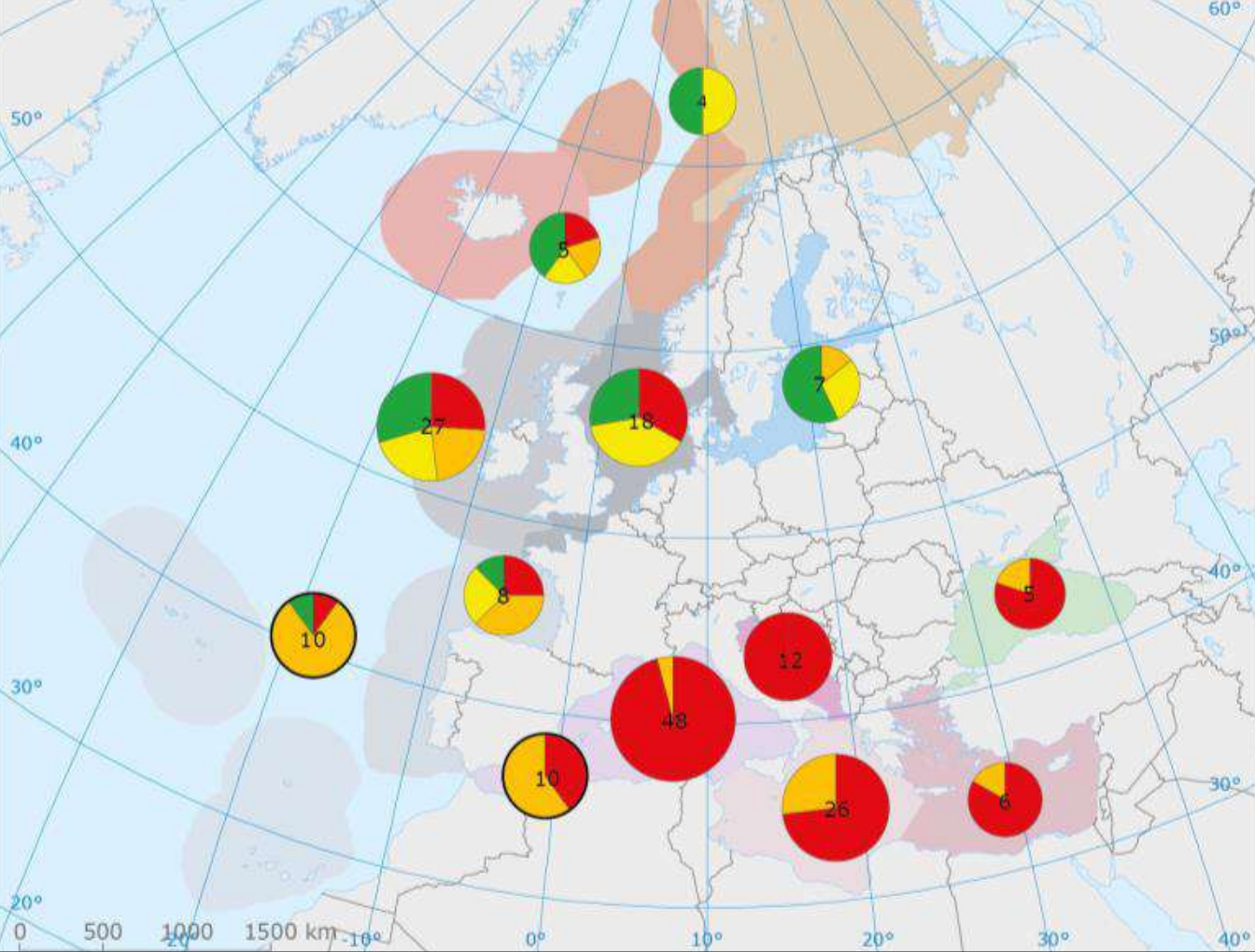
**Threshold values shall be set for each species or population (stock) within each region or subregion by appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013.**



# Criteria relationships

CFP	MSFD Decision D3	MSFD Decision D1
		D1C1 Distribution
Fishing mortality (F or equivalent)	D3C1 Fishing mortality (F or equivalent)	[D3C4 Incidental catch mortality]
Spawning stock biomass (SSB or equivalent)	D3C2 Spawning stock biomass (SSB or equivalent)	D1C2 Population size
	D3C3 Age and size structure	D1C3 Population demographics
		D1C4 Habitat for the species
Data collection via EU-MAP for commercial species and effects of fishing on ecosystem		

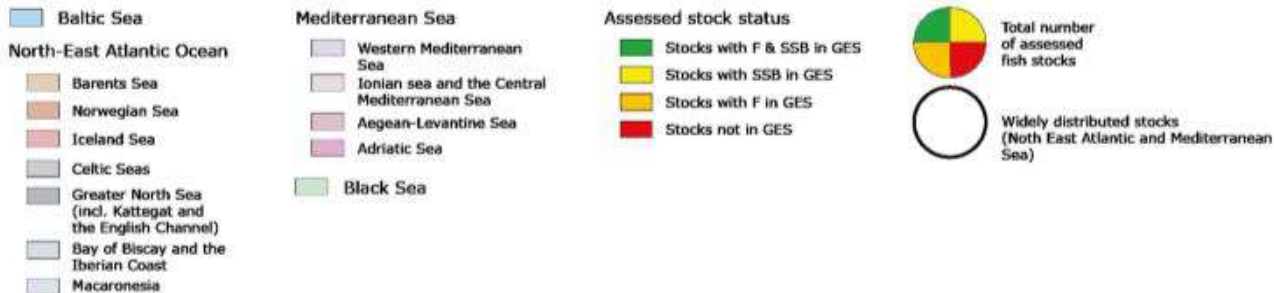




**Clear outcomes of assessments: status and trends**

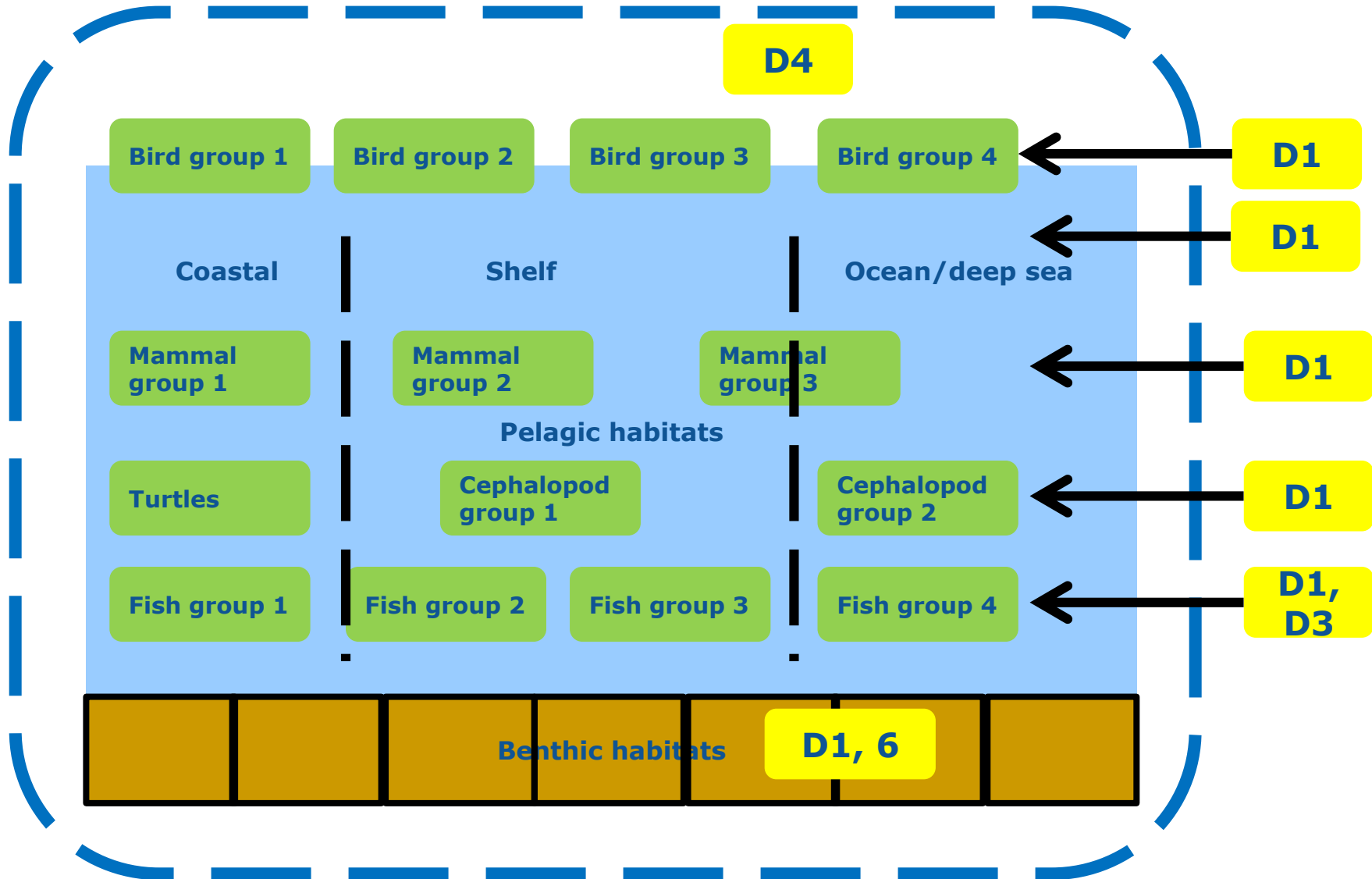
**Example: commercial fish (from CFP assessments, prepared by EEA)**

**Status of assessed fish stocks from regional seas around Europe, with respect to Good Environmental Status (GES). Status refers to fishing mortality (F) and reproductive capacity (SSB) criteria, as defined by the Marine Strategy Framework Directive**



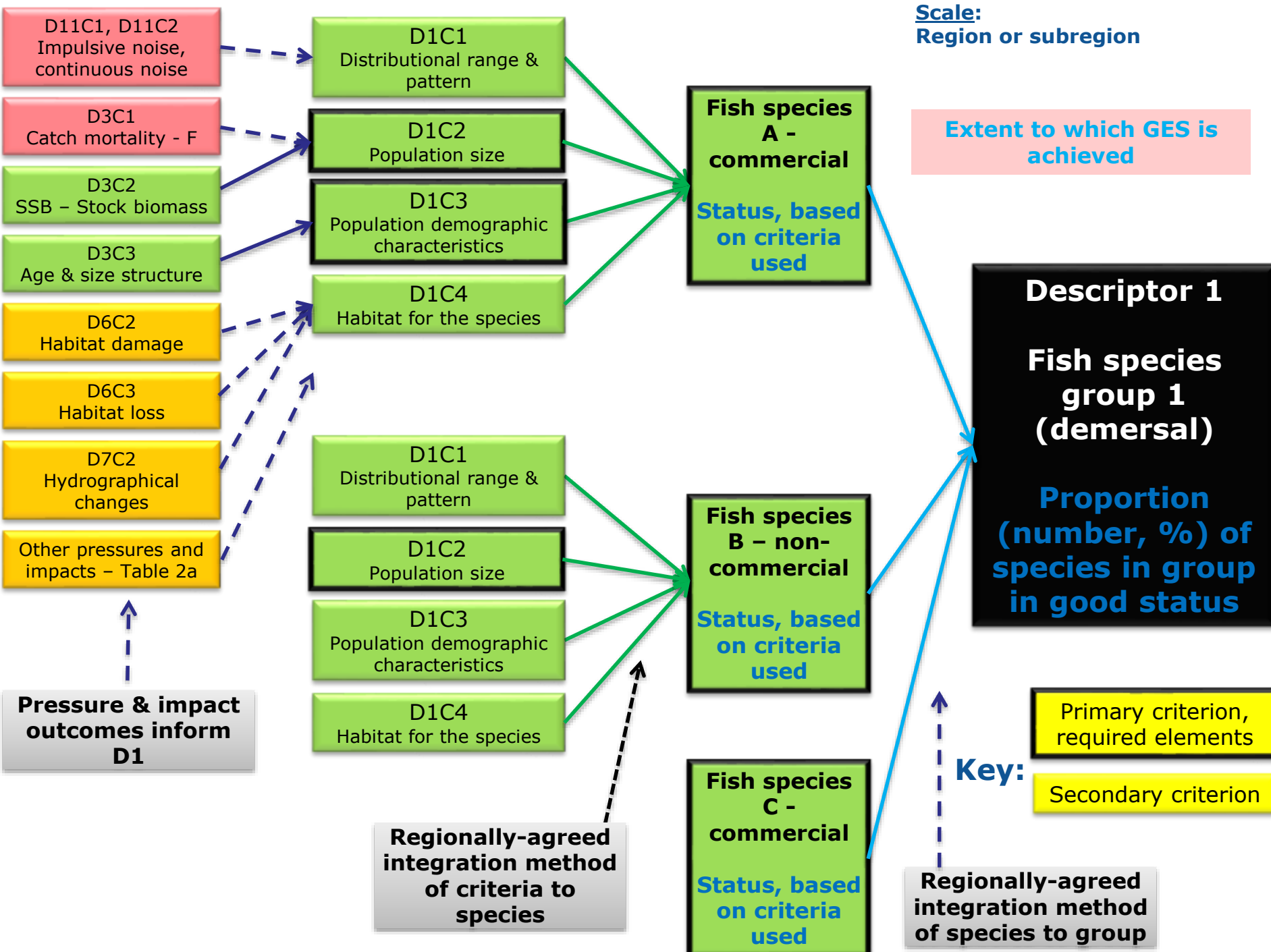


European  
Commission



# Species Groups

<b>Ecosystem component</b>	<b>Species groups</b>
<b>Birds</b>	Grazing birds
	Wading birds
	Surface-feeding birds
	Pelagic-feeding birds
	Benthic-feeding birds
<b>Mammals</b>	Small toothed cetaceans
	Deep-diving toothed cetaceans
	Baleen whales
	Seals
<b>Reptiles</b>	Turtles
<b>Fish</b>	Coastal fish
	Pelagic shelf fish
	Demersal shelf fish
	Deep-sea fish
<b>Cephalopods</b>	Coastal/shelf cephalopods
	Deep-sea cephalopods



D11C1, D11C2  
Impulsive noise,  
continuous noise

D3C1  
Catch mortality - F

D3C2  
SSB - Stock biomass

D3C3  
Age & size structure

D6C2  
Habitat damage

D6C3  
Habitat loss

D7C2  
Hydrographical  
changes

Other pressures and  
impacts - Table 2a

**Pressure & impact  
outcomes inform  
D1**

**D1C1**  
Distributional range &  
pattern

**D1C2**  
Population size

**D1C3**  
Population demographic  
characteristics

**D1C4**  
Habitat for the species

**D1C1**  
Distributional range &  
pattern

**D1C2**  
Population size

**D1C3**  
Population demographic  
characteristics

**D1C4**  
Habitat for the species

**Regionally-agreed  
integration method  
of criteria to  
species**

**Fish species  
A -  
commercial**  
  
**Status, based  
on criteria  
used**

**Fish species  
B - non-  
commercial**  
  
**Status, based  
on criteria  
used**

**Fish species  
C -  
commercial**  
  
**Status, based  
on criteria  
used**

**Extent to which GES is  
achieved**

**Descriptor 1**  
  
**Fish species  
group 1  
(demersal)**  
  
**Proportion  
(number, %) of  
species in group  
in good status**

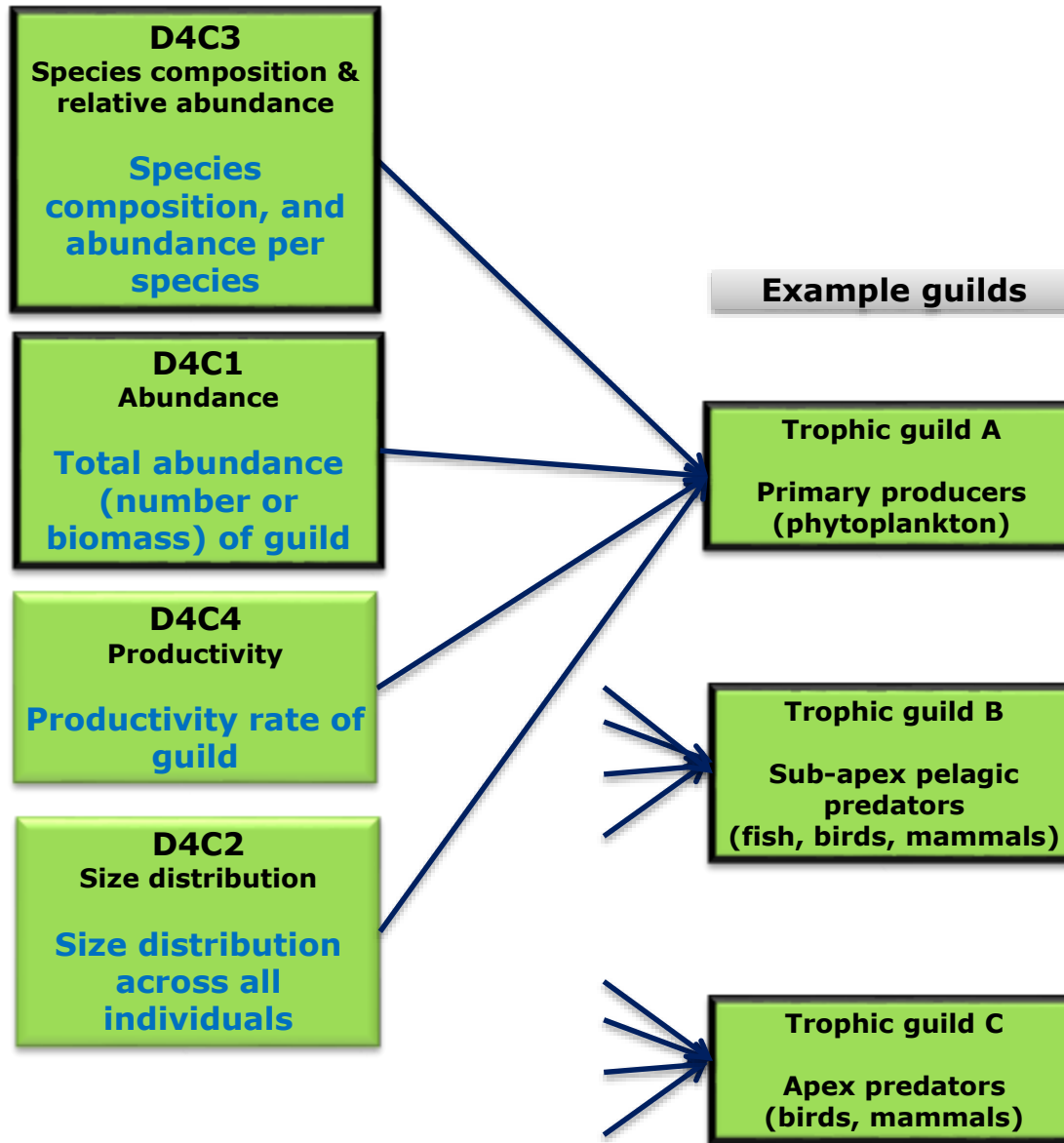
**Key:**

- Primary criterion,  
required elements
- Secondary criterion

**Regionally-agreed  
integration method  
of species to group**

**Scale:**  
(Sub)region: coastal, shelf,  
oceanic/beyond shelf

Extent to which GES is  
achieved



**Descriptors  
1 and 4**

**Ecosystems,  
including food-  
webs**

**Key:**

- Primary criterion
- Secondary criterion