



# VeriFish

The sustainability indicator framework to  
communicate responsible aquafood production  
and consumption patterns



Funded by  
the European Union

VeriFish is a project funded by the European Commission that is transforming this landscape by providing the tools and infrastructure necessary for transparent, verifiable sustainability communication

#### Project Information

**VeriFish**

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**DOI** 

[10.3030/101156426](https://doi.org/10.3030/101156426) 

**EC signature date**

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**Start date**

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**End date**

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**Funded under**

Climate, Energy and Mobility

**Total cost** 

€ 1 816 561,25

**EU contribution** 

€ 1 816 561,25

**Investment in EU policy priorities** 

Digital agenda



Clean air



Artificial Intelligence



Climate action



Biodiversity

**Coordinated by**

TRUST-IT SERVICES SRL



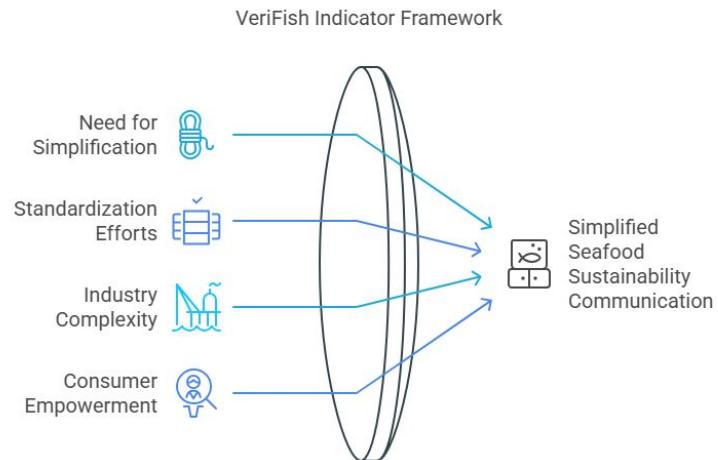
## Background and Rationale

**Rationale:** Need to **simplify** and **standardise communication** to consumer by those in the food chain about sustainability and help increase **consumption of sustainable seafood**.

There are **no unified indicators** to inform consumers about **sustainability, nutrients and health, or climate impacts** of seafood.

**Complexity** of the food chains make it challenging for actors to present accurate and understandable information, limiting consumer choice.

- Consumers can trust nutritional quality of seafood products
- Impacts on biodiversity and the environment are minimised
- Use of natural resources does not exceed what is sustainable

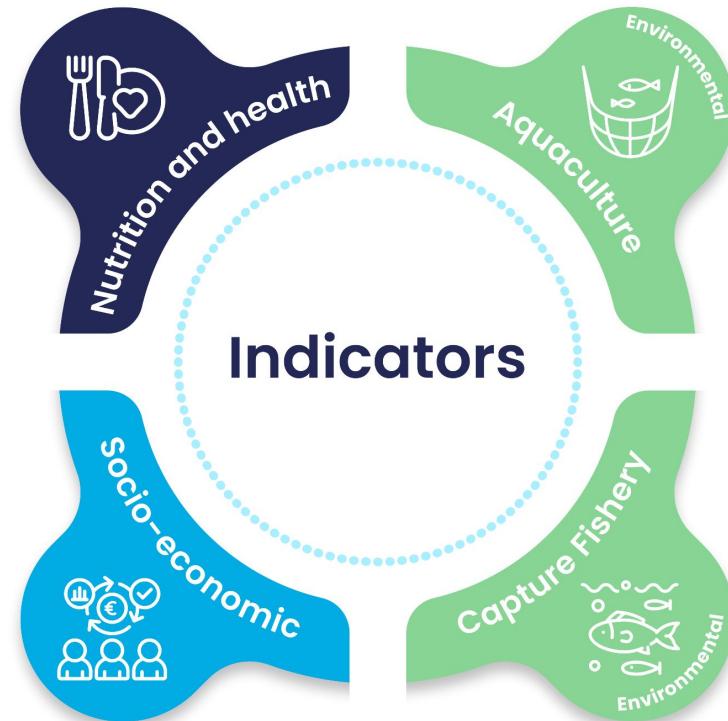


## 36 attributes covering:

Macronutrient and micronutrients and links to human health (not contaminants or allergens – safety issues)

## 4 social x 4 economic attributes covering:

Governance; Labour practices & rights; Health & safety of workers; Non-discrimination & Indigenous Peoples' rights



## 21 attributes covering:

Habitat impact, biosecurity, welfare, resource use and waste management

## 21 attributes covering:

Stock status, climate impact, ecosystem effects, management, welfare

# A tiered data system

**Tier 1 data** comprises **publicly available data from global, regional or even country-level repositories**. These datasets are **highly accessible, free and scientifically validated**.

**Tier 2 data** sources can be **attributed to specific value chains, detailing production methods, practices, and proprietary information**, with relatively high degree of granularity.

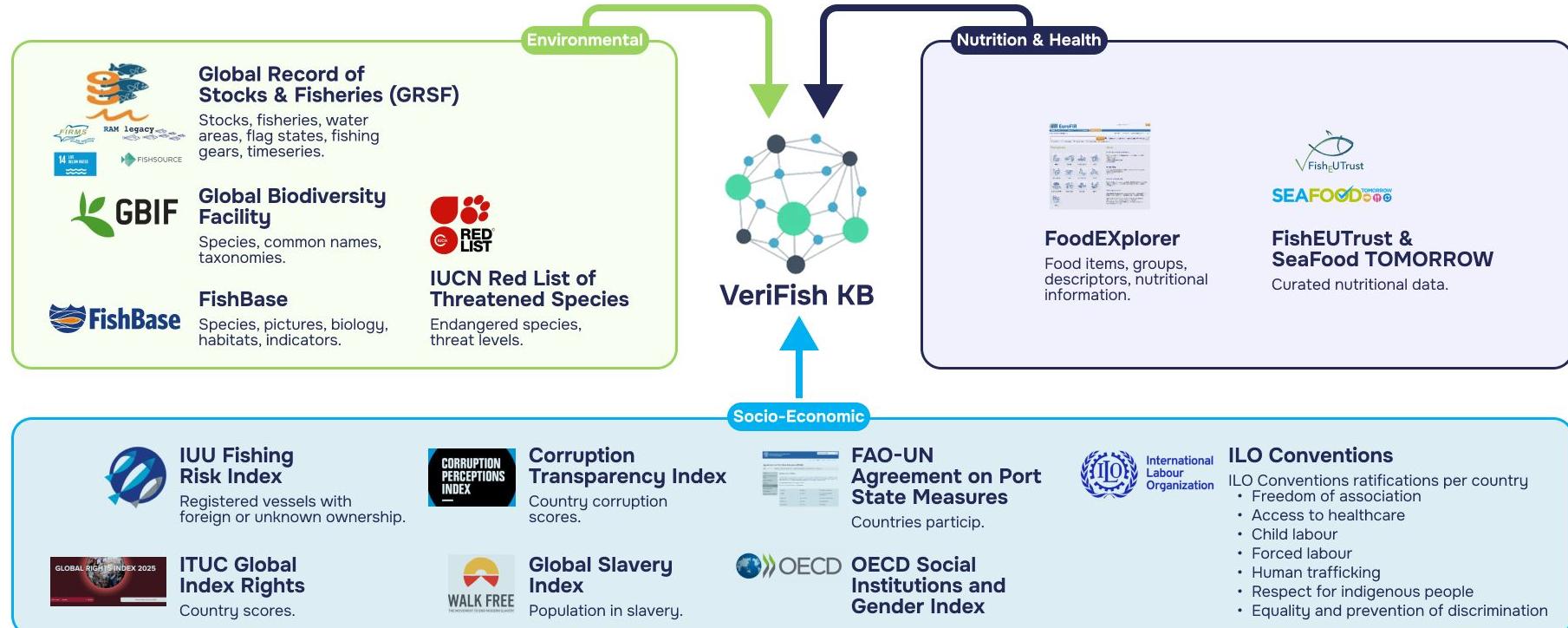
Data are consolidated in the **VeriFish Knowledge Base**, where this information is aggregated for unified access and analysis.

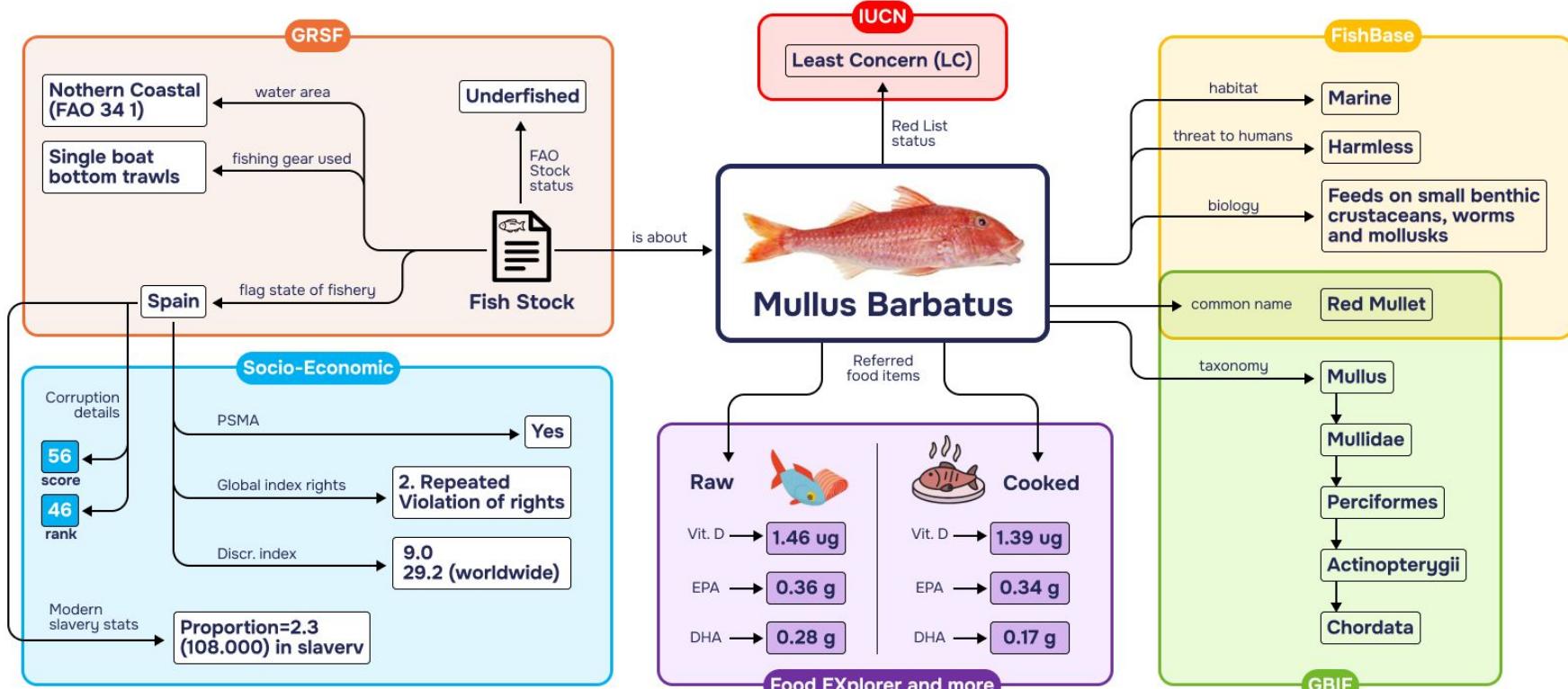
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|-----------------------------------|----------------------------------|---|
| stocks                            | stocks                           | 00097247-8548-373b-bc82-acae98302925                    |
| + Start collection                | + Add document                   | + Start collection                                      |
| assessments                       | 00097247-8548-373b-bc82-acae...  | + Add field   |
| countries                         | 00117009-8f80-3e6c-9e20-3f...    | area_code: "4121"                                       |
| flags                             | 001129d5-e1a2-3cfb-8d39-79cd...  | area_name: "Atlantic; Southwest / 41.21"                |
| fish_nutrients                    | 002c101a-5594-30fb-9fb0-659...   | area_type: "fao"  |
| fisheries                         | 0038d654-9798-3a37-9313-597...   | doc_id: "00097247-8548-373b-bc82-acae98302925"          |
| fishes                            | 0011e181-1cfb-3a62-9519-2a62...  | fish_reef: "grtf_fishes/Balistes_capricrus"             |
| fishing_gears                     | 0073735c-7284-37f7-87fe-517...   | fishery_refs  |
| flag_states                       | 00083388-6571-3a77-877a-68a...   | /fshereisad/702bc0-5c37-4262-9e91-d4b3e6a7b0d4          |
| genuses                           | 0095cd58-88d6-3430-87e3-946...   | specie_code: "TRG"                                      |
| grtf_fishes                       | 00119149-1343-3f32-9235-101...   | specie_name: "Balistes capricrus"                       |
| states                            | 0030a059-9776-303c-b05c-8662...  | specie_type: "afs"                                      |
| stocks                            | 000424ba-1cda-32fa-b505-33f...   | stock_name: "Grey triggerfish - Southeast-South Brazil" |
| users                             | 0008d17e-1940-3a6c-984d-1400...  | time_series   |
| water_areas                       | 00084038-980e-3a4c-990c-006...   | updated_at: 17 November 2025 at 12:01:14 UTC-1          |
|                                   | 001c0f74-dac3-3541-a808-1c17c... | uuid: "00097247-8548-373b-bc82-acae98302925"            |

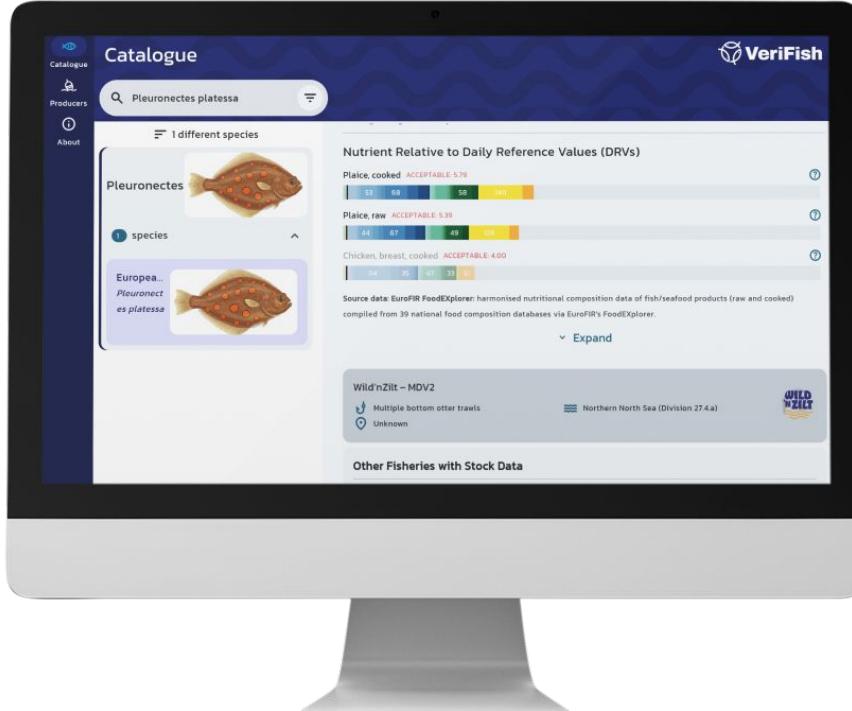
| fishing_gears > 011_1scfg |                | More in Google Cloud                           |
|---------------------------|----------------|--|
| stocks                    | 011_1scfg      |  |
| + Start collection        | + Add document | + Start collection                             |
| assessments               | 01_1_1scfg     | + Add field                                    |
| countries                 | 01_2_1scfg     | doc_id: "011_1scfg"                            |
| flags                     | 01_9_1scfg     | fishing_gear_code: "01T"                       |
| fish_nutrients            | 02_1_1scfg     | fishing_gear_code_type: "1scfg"                |
| fisheries                 | 02_2_1scfg     | fishing_gear_name: "Purse series"              |
| fishes                    | 02_9_1scfg     | occurrences: 1329                              |
| fishing_gears             | 02_1scfg       | updated_at: 18 November 2025 at 07:00:05 UTC-1 |
| flag_states               | 03_11_1scfg    |  |
| genuses                   | 03_12          | 00097247-8548-373b-bc82-acae98302925           |
| grtf_fishes               | 03_13          |  |
| states                    | 03_14          |  |
| stocks                    | 03_15          | + Start collection                             |
| users                     | 03_19          | + Add field                                    |
| water_areas               | 03_21          | /fshereisad/702bc0-5c37-4262-9e91-d4b3e6a7b0d4 |
|                           | 03_22          | species_code: "TRG"                            |

| water_areas > 41.2.1_fao |                                 | More in Google Cloud  |
|--------------------------|---------------------------------|---|
| stocks                   | 41.2.1_fao                      |   |
| + Start collection       | + Add document                  | + Start collection  |
| assessments              | 00097247-8548-373b-bc82-acae... | + Add field   |
| countries                | 00097247-8548-373b-bc82-acae... | area_code: "41.2.1"   |
| flags                    | 00097247-8548-373b-bc82-acae... | area_name: "Atlantic; Southwest / 41.2.1"   |
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| fisheries                | 00097247-8548-373b-bc82-acae... | doc_id: "00097247-8548-373b-bc82-acae98302925"  |
| fishes                   | 00097247-8548-373b-bc82-acae... | fish_reef: "grtf_fishes/Balistes_capricrus"   |
| fishing_gears            | 00097247-8548-373b-bc82-acae... | fishery_refs  |
| flag_states              | 00097247-8548-373b-bc82-acae... | /fshereisad/702bc0-5c37-4262-9e91-d4b3e6a7b0d4  |
| genuses                  | 00097247-8548-373b-bc82-acae... | specie_code: "TRG"  |
| grtf_fishes              | 00097247-8548-373b-bc82-acae... | specie_name: "Balistes capricrus"   |
| states                   | 00097247-8548-373b-bc82-acae... | specie_type: "afs"  |
| stocks                   | 00097247-8548-373b-bc82-acae... | stock_name: "Grey triggerfish - Southeast-South Brazil"   |
| users                    | 00097247-8548-373b-bc82-acae... | time_series   |
| water_areas              | 00097247-8548-373b-bc82-acae... | updated_at: 17 November 2025 at 12:01:14 UTC-1  |
|                          | 00097247-8548-373b-bc82-acae... | uuid: "00097247-8548-373b-bc82-acae98302925" (string)   |

# The VeriFish Knowledge Base – The Data Sources







By reproducing the VeriFish indicator framework in an easy-to-navigate format, the app provides information describing the status of stocks, activities, food composition information, biological characteristics of species as well as environmental information, to guide users towards informed choices.

Continuous  
assessment



# Nutritional indicators

The screenshot shows the VeriFish Catalogue interface. The left sidebar includes links for Catalogue, Producers, Sea Economics, and About. The main content area is titled 'Catalogue' and shows a search bar, filters for Sea/Ocean, Fishing Method, and Country, and a list of 87 different species under the genus *Oncorhynchus*. The species list includes Pink salmon, Humpback salmon, Chum salmon, Dog salmon, Coho salmon, Silver salmon, Masu salmon, Cherry salmon, Rainbow trout, Steelhead, Sockeye salmon, Red salmon, Chinook salmon, King salmon, Albacore, Longfin tuna, Yellowfin tuna, and Southern bluefin tuna, each with a small image. The right side is focused on 'Pink salmon, Humpback salmon' (*Oncorhynchus gorbuscha*), showing its habitat (anadromous, inhabits ocean and coastal streams), conservation status (Unknown), and nutritional facts. It includes a chart titled 'Nutrient Relative to Daily Reference Values (DRVs)' comparing the nutrient density of various cooked and raw fish products. The chart uses a color-coded legend for macronutrients (yellow), minerals (green), and vitamins (blue).

**Pink salmon, Humpback salmon**  
*Oncorhynchus gorbuscha*

An anadromous species which inhabits ocean and coastal streams (Ref. 5723, 86798). Epipelagic. Pelagic at the sea. In freshwater, lives in Montane and Piedmont rivers with moderate to fast current and gravel bottom. Spawns in riffles or at head of riffles in shallow water with current up to 15 m/s, and clean coarse gravel. Spends 18 months at sea after which spawning migration to the natal river or stream occurs; but because the species is less certain of its homing and there is a certain degree of wandering, streams as much as 640 km from natal streams may be used (Ref. 1998, 27547). Upon emerging from

**Habitat**  
brackish, freshwater, saltwater

**Conservation Status**  
Unknown

**Nutritional facts:**

The Nutrient Density Score evaluates nutritional value based on beneficial and limiting nutrients per 100g serving (using EFSA Daily Reference Values):

**Nutrient Relative to Daily Reference Values (DRVs)**

Legend: Macronutrients (Yellow), Minerals (Green), Vitamins (Blue)

| Food                    | DRV   | Macronutrients (%) | Minerals (%) | Vitamins (%) |
|-------------------------|-------|--------------------|--------------|--------------|
| Salmon average, cooked  | 12.83 | 109                | 103          | 103          |
| Salmon average, raw     | 10.48 | 121                | 101          | 101          |
| Beef, steak, cooked     | 4.38  | 80                 | 61           | 42           |
| Chicken, breast, cooked | 4.00  | 118                | 35           | 47           |
| Oyster, cooked          | 16.04 | 474                | 335          | 179          |
| Pork fillet, cooked     | 4.76  | 97                 | 94           | 45           |

**Catalogue**

Search in catalogue

Filter Sea/Ocean...

Filter Fishing Method...

Filter Country...

87 different species

| Nutrient                                  | Value   | %DRV    |
|---|---------|---------|
| Protein (g)                               | 23.87   | 41.2%   |
| Omega-3 (mg)                              | 1760.00 | >100.0% |
| Saturated Fat (g) (negative contribution) | 2.56    | 12.8%   |
| <b>Minerals</b>                           |         |         |
| Iodine (µg)                               | 25.30   | 16.9%   |
| Selenium (µg)                             | 27.31   | 39.0%   |
| Copper (mg)                               | 0.09    | 6.2%    |
| Zinc (mg)                                 | 0.59    | 5.2%    |
| Iron (mg)                                 | 0.52    | 3.9%    |
| Manganese (mg)                            | 0.03    | 1.0%    |
| Magnesium (mg)                            | 31.65   | 9.7%    |
| Phosphorus (mg)                           | 282.16  | 51.3%   |
| Calcium (mg)                              | 22.69   | 2.3%    |
| Potassium (mg)                            | 422.20  | 12.1%   |
| Chloride (mg)                             | 84.34   | 2.7%    |
| Sodium (g) (negative contribution)        | 0.05    | 2.7%    |
| <b>Vitamins</b>                           |         |         |
| Vitamin E (mg)                            | 2.54    | 21.2%   |
| Vitamin D (µg)                            | 12.00   | 80.0%   |
| Vitamin C (mg)                            | 0.00    | 0.0%    |
| Vitamin B12 (µg)                          | 4.37    | >100.0% |
| Folate (µg)                               | 13.83   | 4.2%    |

**Oncorhynchus**

- Pink salmon, Humpback... 
- chum salmon, dog salmon... 
- Coho salmon, Silver sal... 
- Masu salmon, Cherry sa... 
- Rainbow trout, Steelhea... 
- Sockeye salmon, Red sa... 
- Chinook salmon, King s... 

**Thunnus**

- Albacore, Longfin tuna, ... 
- Yellowfin tuna 
- Southern bluefin tuna 

**NDS Breakdown: Tuna, canned in oil**

**Total NDS Score: 6.01**  
Category: GOOD

**How NDS is Calculated**

**Final NDS Calculation**  
 $NDS = (Beneficial Points) - (Limiting Points)$

**Score Interpretation**

- Acceptable: Basic nutritional value < 6 points
- Good: Above average nutritional density 6-13 points
- Very Good: Excellent nutritional profile > 13 points

**Beneficial Nutrients (Positive Score)**  
Total Positive Score: +6.31 points

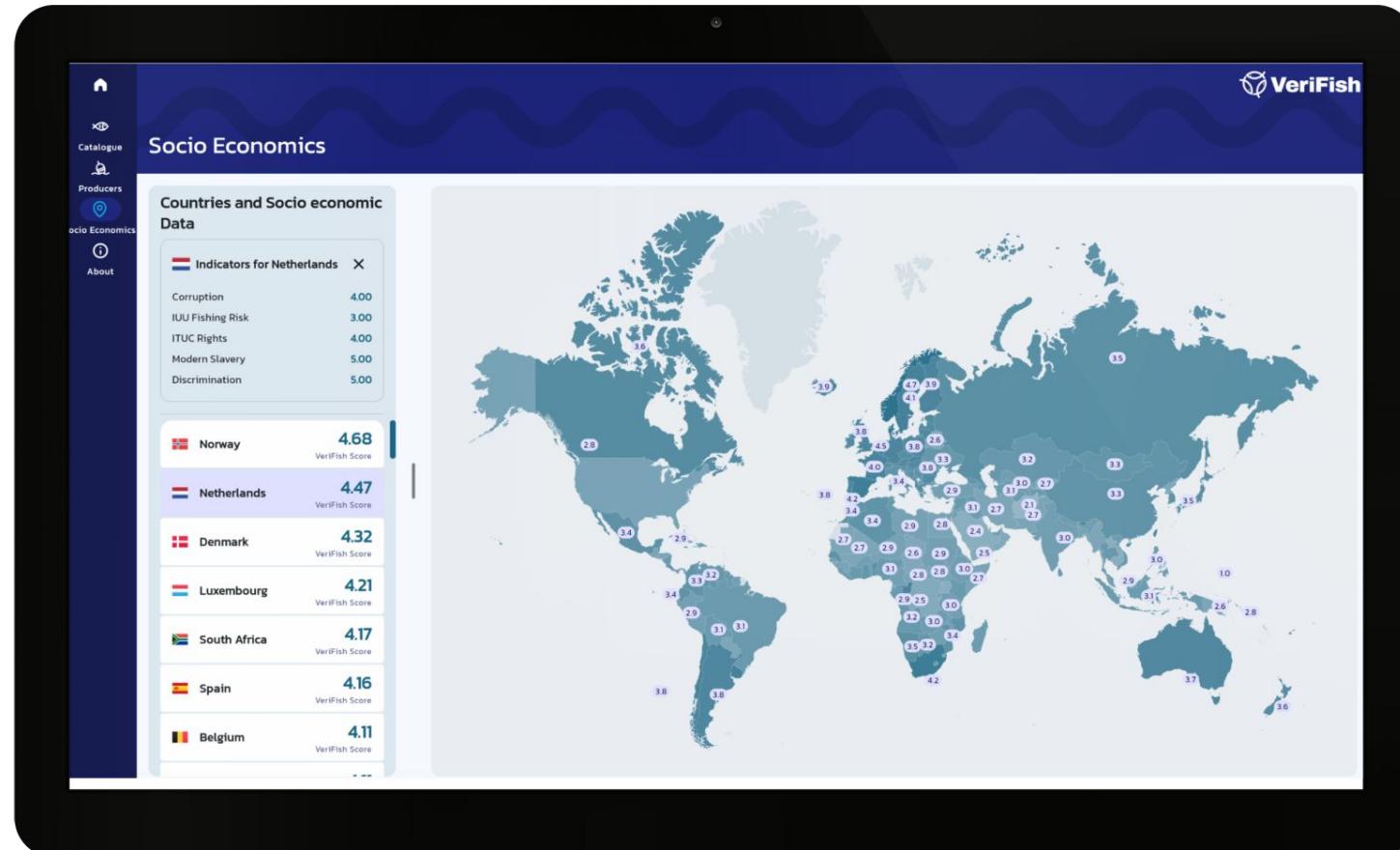
|             |                                    |              |
|-------------|------------------------------------|--------------|
| Niacin      | Amount: 14.66 mg   DRV: 13.20 mg   | 71.6% of DRV |
| Selenium    | Amount: 68.34 µg   DRV: 70.00 µg   | 97.6% of DRV |
| Omega-3     | Amount: 230.00 mg   DRV: 250.00 mg | 92.0% of DRV |
| Vitamin B12 | Amount: 3.04 µg   DRV: 4.00 µg     | 76.0% of DRV |
| Protein     | Amount: 24.04 g   DRV: 58.00 g     | 41.4% of DRV |
| Phosphorus  | Amount: 227.00 mg   DRV: 550.00 mg | 41.3% of DRV |

# Socio-economic indicators

## Three case studies:

1. **Fisheries:**  
Spanish-caught skipjack tuna from the Indian Ocean
2. **Aquaculture:**  
Salmon pen farming in Norway
3. **Aquaculture:**  
Pond raised shrimp in Vietnam

| Indicator      |   | Spanish Ocean skipjack | Indian Farmed Salmon | Vietnam Farmed Shrimp |
|----------------|---|------------------------|----------------------|-----------------------|
| 1              | Vessel engaged in IUU fishing                                       | 5                      | n/a                  | n/a                   |
| 2              | Vessel flagged to a country with high levels of foreign ownership   | 3                      | n/a                  | n/a                   |
| 3              | Perception of levels of corruption                                  | 3                      | 5                    | 3                     |
| 4              | Vessel from a country that is a party to the PSMA                   | 5                      | n/a                  | n/a                   |
| 5              | Decent wages and working conditions                                 | 4                      | 5                    | 2                     |
| 6              | Freedom of association and collective bargaining                    | 5                      | 5                    | 3                     |
| 7              | Prevention of child labour (1)                                      | 5                      | 5                    | 5                     |
| 8              | Prevention of child labour (2)                                      | n/a                    | n/a                  | 2                     |
| 9              | Prevention of child labour (3)                                      | 5                      | 5                    | 1                     |
| 10             | Prevention of forced labour, modern slavery & human trafficking (1) | 5                      | 5                    | 5                     |
| 11             | Prevention of forced labour, modern slavery & human trafficking (1) | 4                      | 5                    | 3                     |
| 12             | Access to healthcare and medical facilities                         | 3                      | 5                    | 1                     |
| 13             | Occupational H&S at work  | 5                      | 4                    | 4                     |
| 14             | Equality & prevention of discrimination (1)                         | 5                      | 5                    | 5                     |
| 15             | Equality & prevention of discrimination (2)                         | 5                      | 5                    | 4                     |
| 16             | Respect for indigenous peoples                                      | 5                      | 5                    | 1                     |
| <b>Total</b>   |   | <b>67</b>              | <b>59</b>            | <b>39</b>             |
| <b>Average</b> |   | <b>4.47</b>            | <b>4.92</b>          | <b>3.00</b>           |



The screenshot displays the VeriFish platform interface. On the left, a sidebar includes links for Catalogue, Producers, Socio Economics, and About. The main content area features a search bar with 'carp' and filters for Sea/Ocean, Fishing Method, and Country. A list of species is shown, with 'carp' having 5 different species. Below is a table of countries with their VeriFish scores. A map of Europe shows the distribution of these scores across the continent.

**Catalogue**

carp

Filter Sea/Ocean...

Filter Fishing Method...

Filter Country...

Sweden 2.00 VeriFish Score

United Kingdom 2.00 VeriFish Score

China 1.00 VeriFish Score

India 1.00 VeriFish Score

Vietnam 1.00 VeriFish Score

**Countries and Socio economic Data**

|             |      |                |
|-------------|------|----------------|
| Norway      | 4.68 | VeriFish Score |
| Netherlands | 4.47 | VeriFish Score |
| Denmark     | 4.32 | VeriFish Score |
| Luxembourg  | 4.21 | VeriFish Score |
| Spain       | 4.16 | VeriFish Score |
| Belgium     | 4.11 | VeriFish Score |

Map of Europe showing VeriFish scores by country:

- Norway: 4.68
- Netherlands: 4.47
- Denmark: 4.32
- Luxembourg: 4.21
- Spain: 4.16
- Belgium: 4.11
- Other countries: 3.8, 3.7, 3.6, 3.5, 3.4, 3.3, 3.2, 3.1, 3.0, 2.9, 2.8, 2.7, 2.6, 2.5, 2.4, 2.3, 2.2, 2.1, 2.0, 1.9, 1.8, 1.7, 1.6, 1.5, 1.4, 1.3, 1.2, 1.1, 1.0, 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.3, 0.2, 0.1

# Environmental indicators

| #  | Indicator  | Sub-pillar                 | Longline<br>Mediterranean<br>mussel in<br>Atlantic Spain | Open pen<br>Atlantic salmon<br>in Norway | Extensive pond-<br>raised carp in<br>Hungary | Intensive pond-<br>raised shrimp in<br>Vietnam |
|----|--|----------------------------|--|--|--|--|
| 1  | Humane and ethical slaughter                       | Animal welfare             | 4  | 3  | 2  | 1  |
| 2  | Stocking density during grow-out                   | Animal welfare             | 4  | 4  | 4  | 4  |
| 3  | Greenhuouse gas (GHG) potential                    | Climate impact             | 4  | 1  | 3  | 1  |
| 4  | Habitat alteration for site                        | Habitat impact             | 4  | 4  | 4  | 2  |
| 5  | Escape potential & impact                          | Impact on marine food webs | 4  | 1  | 2  | 2  |
| 6  | Freshwater consumption                             | Resource use               | 5  | 3  | 4  | 3  |
| 7  | Effluents released externally                      | Waste & pollution          | 4  | 1  | 4  | 2  |
| 8  | Antimicrobial therapeutic treatments used          | Biosecurity                |  |  |  |  |
| 9  | Use of GMO feed materials                          | Biosecurity                |  |  |  |  |
| 10 | Circularity: proportion plastics reused / recycled | Waste & pollution          |  |  |  |  |

Average



**Catalogue**

Search: Cyprinus carpio

Filter Sea/Ocean...

Filter Fishing Method...

Filter Country...

1 different species

**Cyprinus**

Common carp, Europea...

**Stock escape potential & impact**

The purpose of this indicator is to provide an objective verifiable indicator of both the likelihood escapes might happen and the consequential impacts. The scope of this indicator is all species produced through aquaculture on a global level, including seaweeds, invertebrates and vertebrates, although will focus on the latter two groups.

| System                            | VeriFish Score |
|-----------------------------------|----------------|
| Recirculating Aquaculture Systems | 5.00           |
| Ponds (intensive)                 | 4.00           |
| Tanks & raceways                  | 4.00           |
| On-bottom                         | 3.00           |
| Ponds (extensive)                 | 3.00           |
| Off-bottom structures             | 3.00           |
| Off-bottom longlines / rafts      | 2.00           |

**Greenhouse gas potential**

The purpose of this indicator is to provide an objective verifiable indicator of the climate change potential of a specific aquaculture production system. The scope of this indicator is all species produced through aquaculture on a global level, including seaweeds, invertebrates and vertebrates. As mentioned above, the functional unit is only up to the farm gate. However it does include the GHG potential of all inputs (e.g. feed, juvenile production, containment facility construction), processes and waste outputs, including mortalities.

| System            | VeriFish Score |
|-------------------|----------------|
| Ponds (extensive) | 4.00           |

**Freshwater consumption potential**

The purpose of this indicator is to provide an objective verifiable indicator of the potential use of freshwater and its net consumption. The scope of this indicator is all species produced through aquaculture on a global level, including seaweeds, invertebrates and vertebrates. As mentioned above, the functional unit is only up to the farm gate. However it does include the GHG potential of all inputs (e.g. feed, juvenile production, containment facility construction), processes and waste outputs, including mortalities.

The screenshot displays the VeriFish Catalogue interface, specifically the environmental score section for the species *Cyprinus carpio*.

**Catalogue**

Search bar: Cyprinus carpio

Filters: Filter Sea/Ocean..., Filter Fishing Method..., Filter Country...

VeriFish logo

**1 different species**

**Cyprinus**

Common carp, Europea... *Cyprinus carpio*

**Freshwater consumption potential**

The purpose of this indicator is to provide an objective verifiable indicator of the potential use of freshwater and its net consumption.

The scope of this indicator is all species produced through aquaculture on a global level, including seaweeds, invertebrates and vertebrates. As mentioned above, the functional unit is only up to the farm gate. However it does include the GHG potential of all inputs (e.g. feed, juvenile production, containment facility construction), processes and waste outputs, including mortalities.

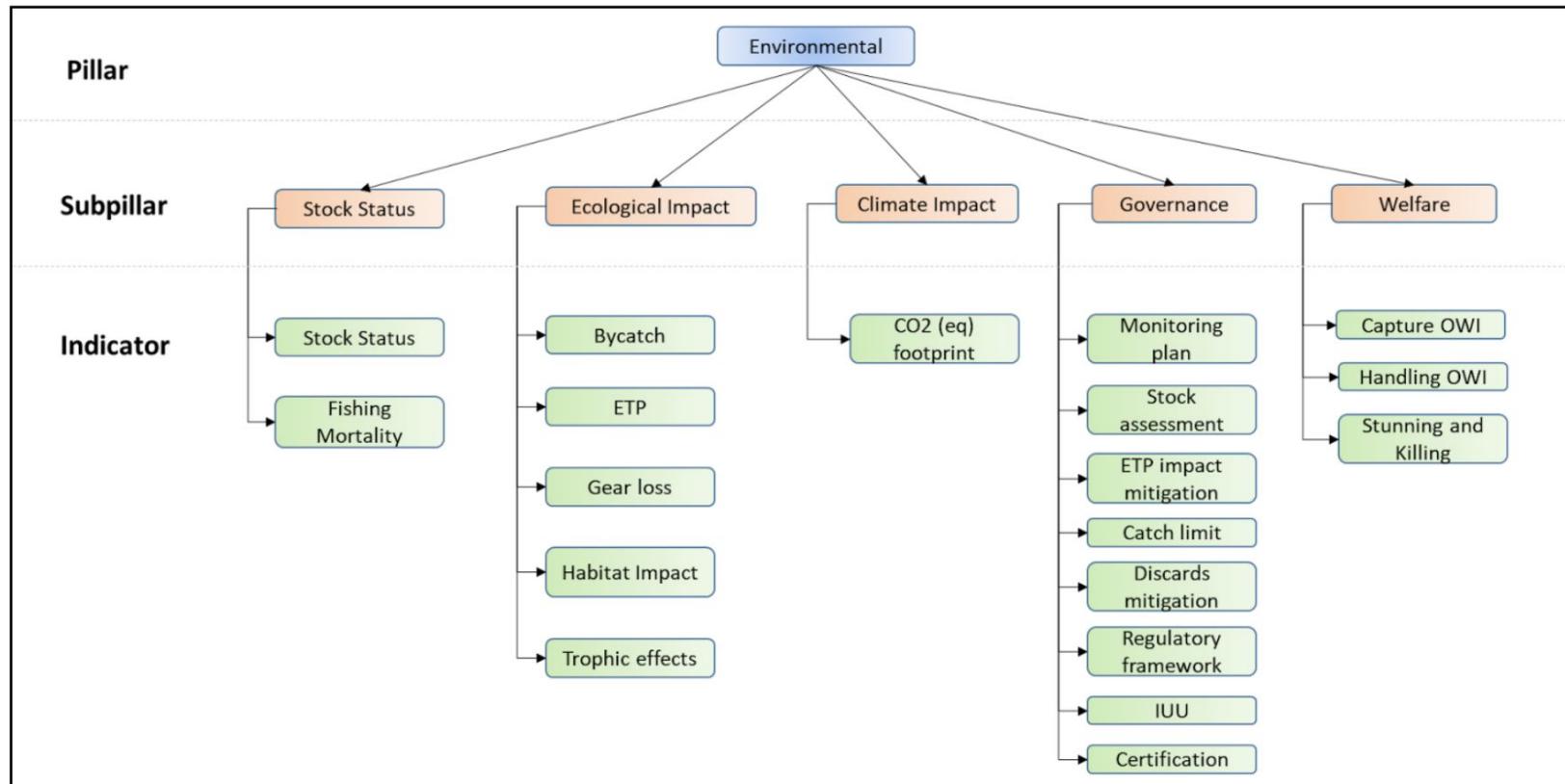
| System                            | VeriFish Score |
|-----------------------------------|----------------|
| Off-bottom structures             | 4.00           |
| On-bottom                         | 4.00           |
| Off-bottom longlines / rafts      | 3.00           |
| Recirculating Aquaculture Systems | 3.00           |
| Ponds (extensive)                 | 2.00           |
| Tanks & raceways                  | 1.00           |
| Ponds (intensive)                 | 1.00           |

**Effluents released to the external environment**

The purpose of this indicator is to provide an objective verifiable indicator of the potential for a farming system to release farm effluent into the external environment.

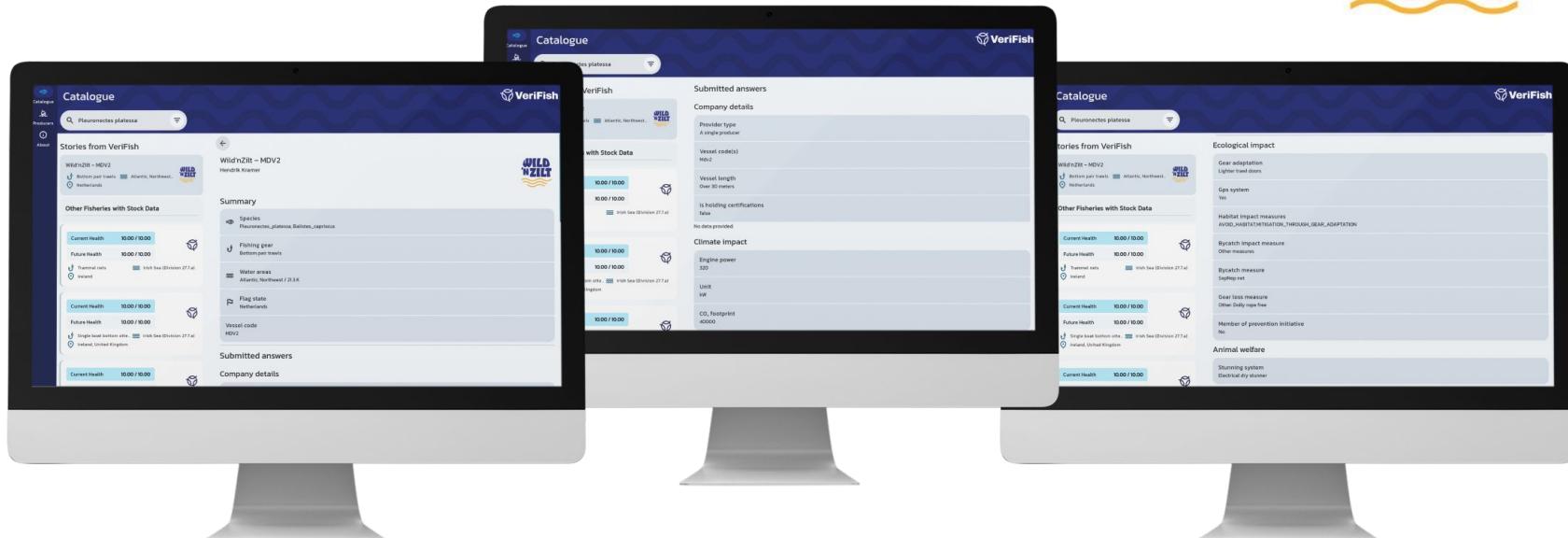
The scope of this indicator is all species produced through aquaculture on a global level, including seaweeds, invertebrates and vertebrates, although will focus on the latter two groups.

| System                            | VeriFish Score |
|-----------------------------------|----------------|
| Recirculating Aquaculture Systems | 4.00           |
| Tanks & raceways                  | 3.00           |



# Producer's data

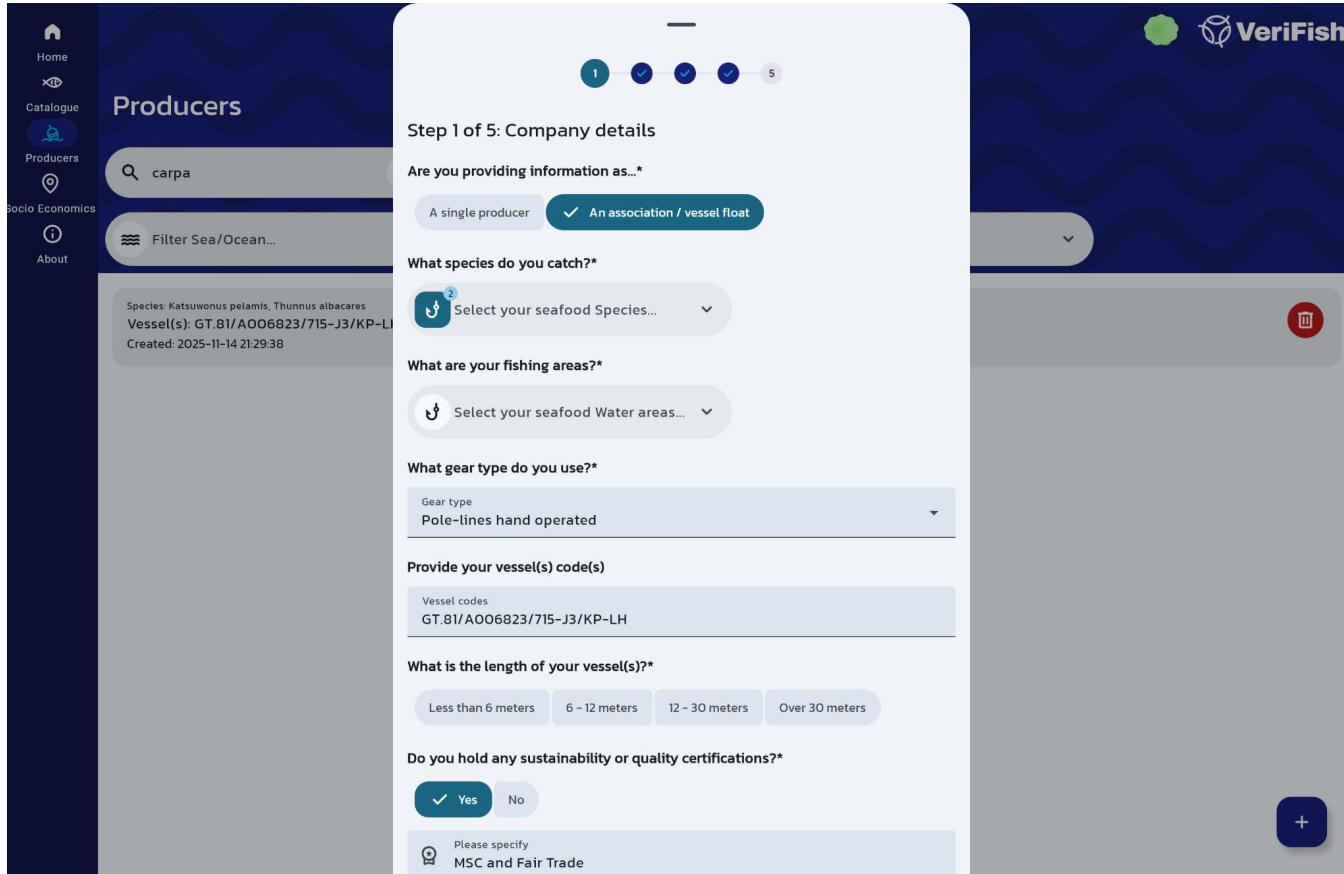
# Producer's data



The image shows three computer monitors displaying the VeriFish web application interface. The application is designed for producers to manage and verify their fishing data. The interface includes a header with the VeriFish logo and a search bar for species names like *Pleuronectes platessa*. The main sections shown are:

- Catalogue:** Displays a list of other fisheries with stock data, including current and future health metrics for species like *Pleuronectes platessa* and *Balistes capriscus*. It also shows fishing gear (bottom pair trawl), water areas (Atlantic, Northwest), and flag states (Holland).
- Submitted answers:** A detailed form for a producer named Wild'nZilt - MDV2. It includes sections for Company details (provider type: A single producer, vessel code: MDV2, vessel length: Over 30 meters), Gear data (gear adaptation: Lighter travel doors), and Climate impact (engine power: 320, unit: kW, CO<sub>2</sub> footprint: 40000). It also lists habitat impact measures (AVOID\_HABITAT\_DESTRUCTION\_THROUGH\_GEAR\_ADAPTATION) and bycatch impact measures (bycatch system: Stepup net).
- Ecological impact:** A summary of ecological impact measures, including habitat impact measures (AVOID\_HABITAT\_DESTRUCTION\_THROUGH\_GEAR\_ADAPTATION) and bycatch impact measures (bycatch system: Stepup net). It also includes data on gear loss measures (gear loss reduction rate: 0%, gear loss free: Yes) and animal welfare (stunning system: Electrical anesthetizer).





Producers

carpa

Filter Sea/Ocean...

Species: Katsuwonus pelamis, Thunnus albacares  
Vessel(s): GT.81/A006823/715-J3/KP-LH  
Created: 2025-11-14 21:29:38

Step 1 of 5: Company details

Are you providing information as...\*

A single producer  An association / vessel float

What species do you catch?\*

 Select your seafood Species...

What are your fishing areas?\*

 Select your seafood Water areas...

What gear type do you use?\*

Gear type  
Pole-lines hand operated

Provide your vessel(s) code(s)

Vessel codes  
GT.81/A006823/715-J3/KP-LH

What is the length of your vessel(s)?\*

Less than 6 meters 6 - 12 meters 12 - 30 meters Over 30 meters

Do you hold any sustainability or quality certifications?\*

Yes  No

Please specify  
MSC and Fair Trade

Step 2 of 5: Climate impact

**What is the engine power of the vessel?**  
Please specify the engine power in kilowatts (kW) or horsepower (HP), indicating the unit used

Engine power **298** Unit **kW**

**Your current fuel consumption over a year**  
We collect the average CO<sub>2</sub> emissions, expressed in kilograms, associated with the fuel consumed to catch one kilogram of fish

Fuel consumption **60000** kg CO<sub>2</sub> / kg fish

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Step 3 of 5: Ecological impact

**Do you take any measures to reduce habitat impact of your fishery?**

Yes  No

Choose 1 or more options below:

Habitat Impact Measure

**Do you take any extra measures to reduce impact on/ bycatch of Endangered, Threatened, and Protected (ETP) species?**

Yes  No

Choose 1 or more options below:

Catch reduction adaptation

**Do you take any extra measures to reduce other unintended bycatch?**

Yes  No

Choose 1 or more options below:

ETP mitigation

**Do you take any extra measures to prevent gear loss?**

Yes  No

Are you a member of any gear recovery or prevention initiative?

Yes  No

Choose 1 or more options below:

Initiative

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Step 4 of 5: Animal welfare

**Do you use validated systems for human stunning and killing practices?**

Yes  No

Choose 1 or more options below:

Systems

Other

Unknown  
Yes. The pole and line vessels under PT Bintang Mandiri Bersaudara follow humane handling practices as promoted by AP2HI, including immediate killing of fish by the traditional pole and line method. The fish are caught one by one and immediately stunned and preserved in ice to minimize stress and ensure quality.

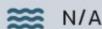
Other X

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## Producers

Vessel: GT.81/A006823/715-J3/KP-LH

-  Pole-lines hand operated
-  N/A



### Summary

 Species  
Skipjack tuna, Skipjack, Oceanic bonito, Arctic bonito, Striped tuna, Yellowfin tuna

 Fishing gear  
Pole-lines hand operated

 Water areas  
-

 Flag state  
-

Vessel code  
GT.81/A006823/715-J3/KP-LH

### Submitted answers

#### Company details

Provider type  
An association / vessel float

Vessel code(s)  
GT.81/a006823/715-j3/kp-lh

Vessel length

## Work in progress:

Humane and ethical slaughter

Stocking density during grow-out

Site habitat alteration

Stock escape potential and impact

Greenhouse gas (GHG) potential

Freshwater consumption potential

Use of antimicrobial therapeutic treatments

Effluents released to the external environment

Circularity: proportion plastics reused / recycled

# Live demo

## [app.verifish.info](http://app.verifish.info)

username: VeriFish

password: VeriFishWebApp

# Sustainability isn't static — it's a set of choices. VeriFish helps you navigate them.

The data and indicators presented in VeriFish are meant to be **used** to support decisions, challenge assumptions, and reshape how seafood is produced, valued, and consumed. Whether you're making purchasing decisions, building a policy, or communicating with customers, the value lies in how you act on the information.

## Think in trade-offs, not in absolutes

Every seafood item carries a footprint, a context, and a consequence. VeriFish doesn't simplify this — it **maps it**. It allows you to understand trade-offs transparently and choose based on **what matters most to you or your institution**.

## Use it for better communication

Whether you're speaking to customers, suppliers, colleagues, or students, indicators are powerful entry points to discuss:

- Where seafood comes from
- Why sustainability is complex
- How responsible practices can be verified — not just claimed

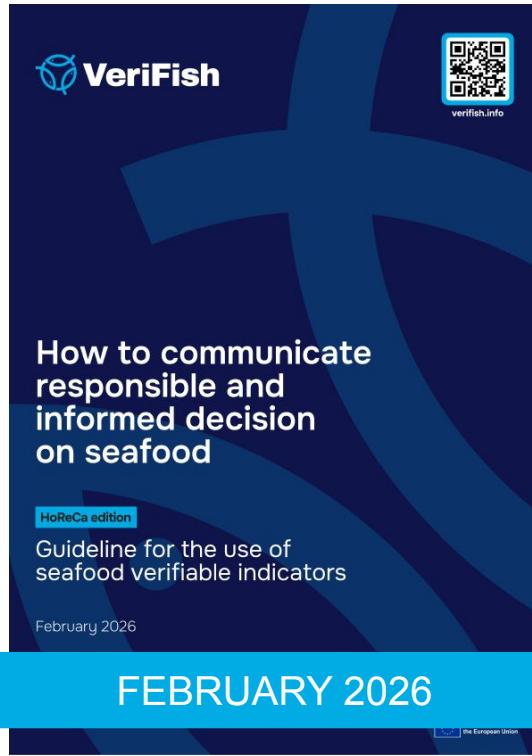
This framework gives you the vocabulary, structure toward **clear, confident communication**.

## Integrate it into your systems

VeriFish indicators can inform:

- Educational modules
- Internal sustainability assessments

Because the structure is modular and open, you can use only the indicators that fit your scope — or expand the framework to match your ambition.

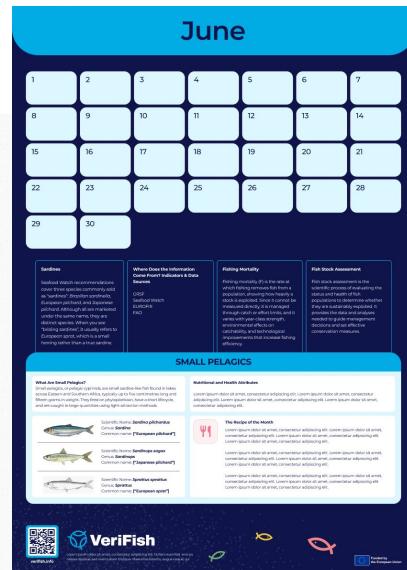
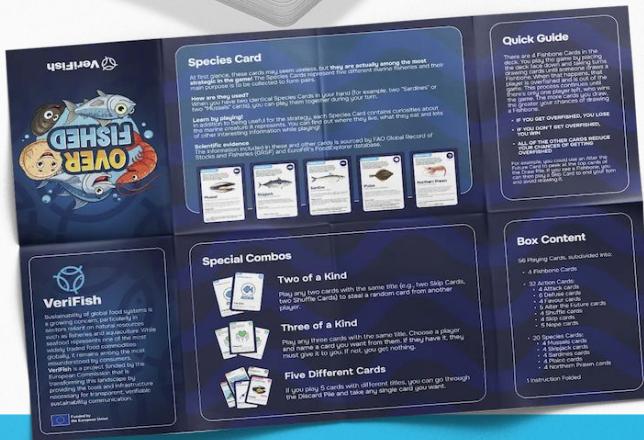


A series of **guidelines** will provide recommendations for different stakeholders - retailers, consumer associations, producer organisations, policy makers - on the use and visualisation of the verifiable indicator framework

The **VeriFish CEN Workshop Agreement (CWA)** is a **European Good Practice Recommendation** that sets out guidance on how to communicate verifiable sustainability indicators for seafood in a clear, harmonised, and trustworthy way. It is developed under the framework of the European Committee for Standardization (CEN)



[verifish.info/cen-workshop-agreement-cwa](http://verifish.info/cen-workshop-agreement-cwa)



## Assessment ongoing



**VeriFish**

# FINAL EVENT

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10-12 MARCH  
2026,  
BRUXELLES



Funded by  
the European Union



**Thank  
you  
and follow us**

[www.verifish.info](http://www.verifish.info)

