

THE NEXT GENERATION OF SUSTAINABLE OMEGA-3

次世代型の持続可能なオメガ-3の供給



TSSS, Tokyo
08 November 2019
東京、TSSS
2019年11月8日



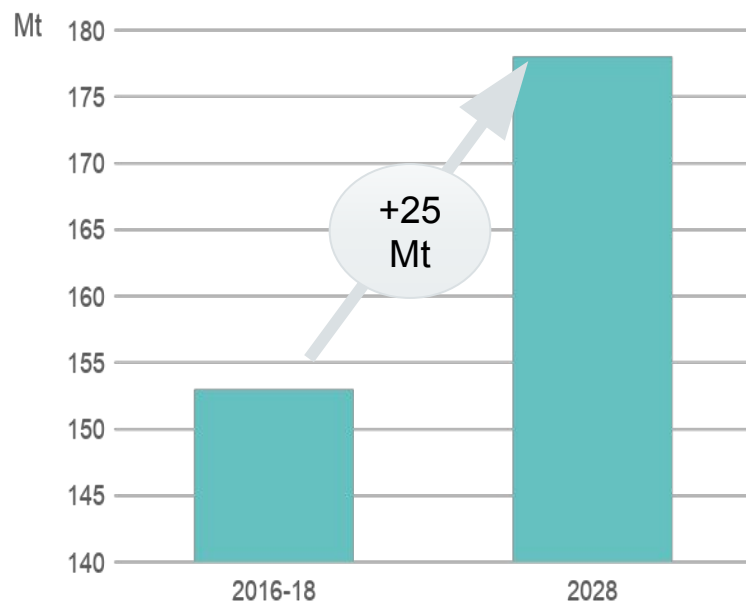
Omega-3 EPA & DHA Essential for Good Health Throughout Life

オメガ-3EPAとDHA
どの年代層にとっても
健康維持に極めて重要

So, people want to eat more fish!

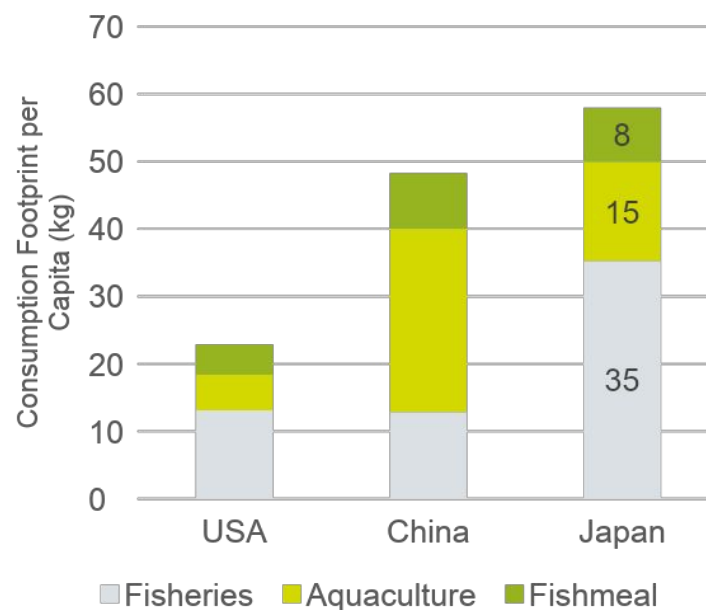
つまり、人々はもっと多くの魚を摂取したいと思っているのです！

Seafood Consumption Demand
水産物消費の需要



Source:
OECD/FAO (2019)

Seafood Consumption Footprint
水産物の消費量



Source:
Guillen et al (2019) *Global Seafood Consumption Footprint*

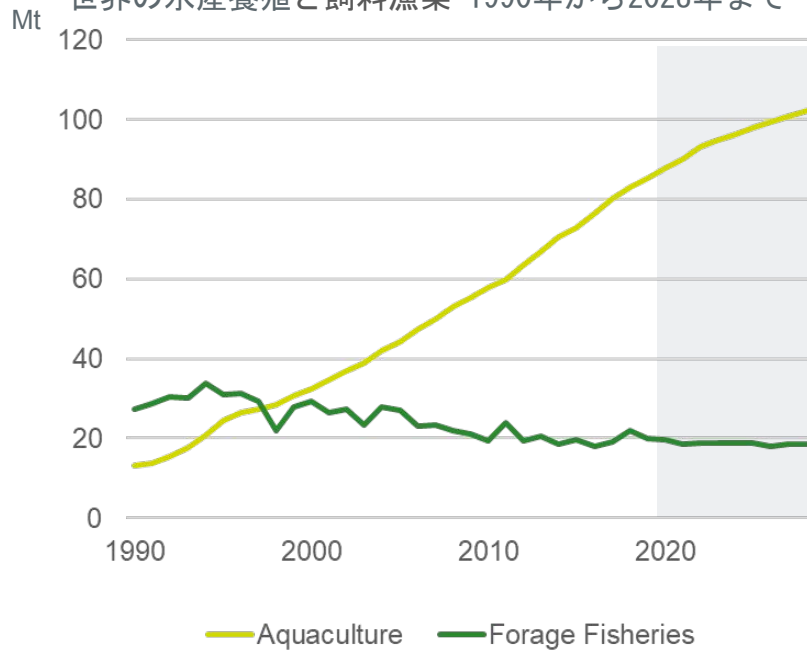
But, how to raise healthy seafood in future?

どうすれば健康的な水産物を生産し続けることができるのでしょうか。

World Aquaculture and Forage Fisheries

1990- 2028

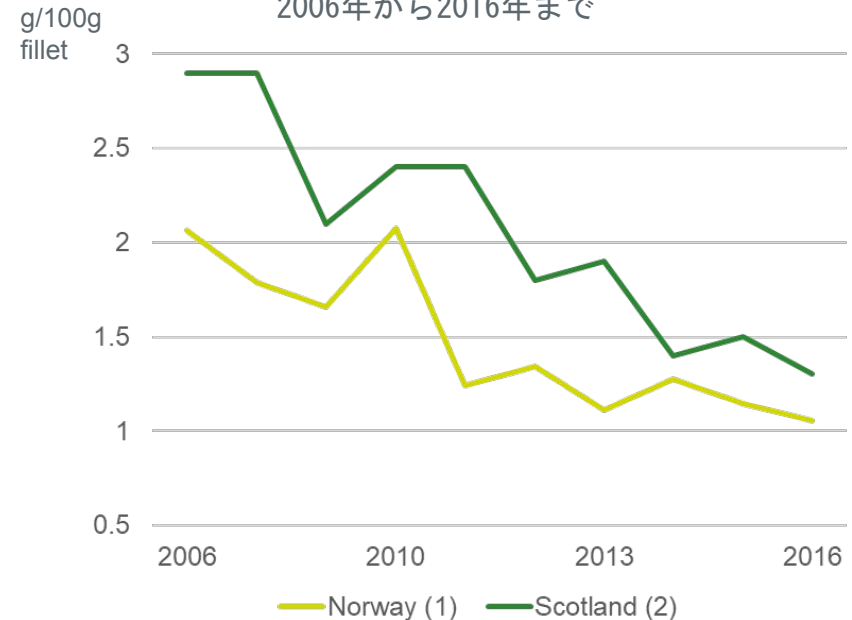
世界の水産養殖と飼料漁業 1990年から2028年まで



Source:
OECD/FAO (2019)

Levels of EPA + DHA in farmed Atlantic Salmon 2006 to 2016

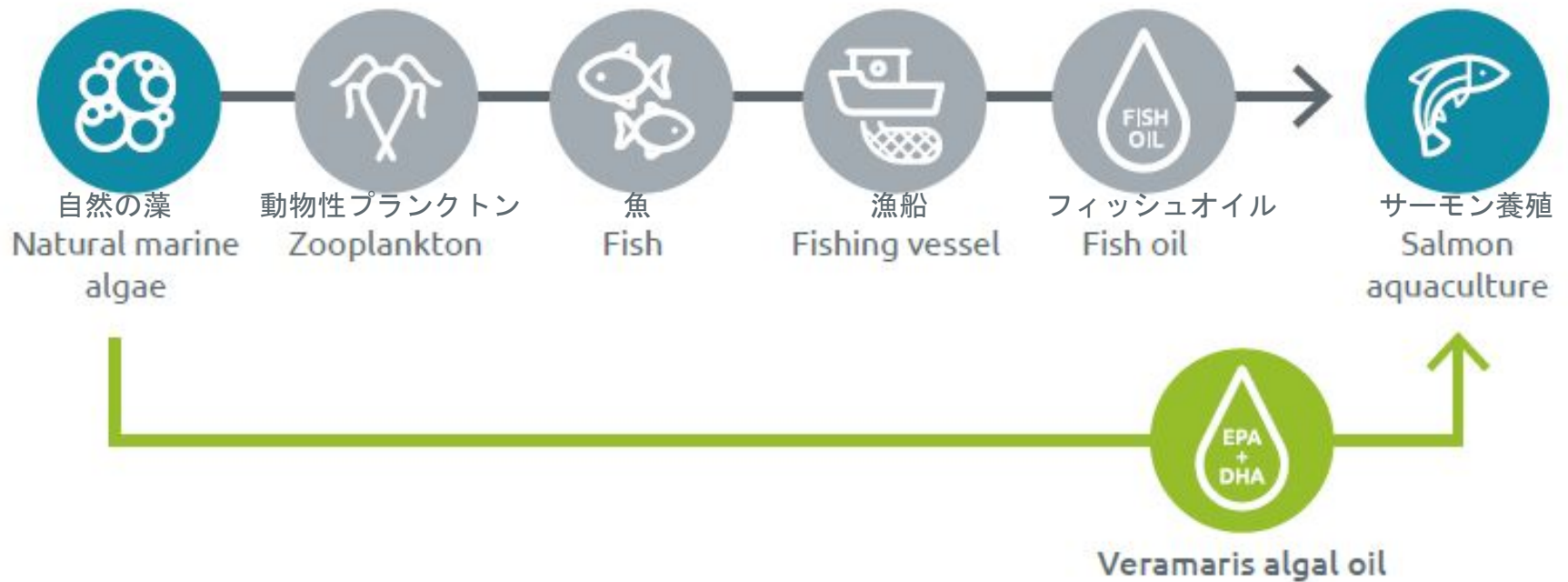
養殖アトランディックサーモンのEPA及びDHA含有量
2006年から2016年まで



Sources:
1) Seafood Data, NIFES
2) Sprague, M. et al. (2016).

Natures Source of EPA & DHA: Marine algae

自然界のEPA及びDHA源：海産藻類



Feed Ingredient: Essential, Natural, Simple

飼料の原料：エッセンシャル、ナチュラル、シンプル



BENEFITS 利点

Benefits for feed mills:

- No feed-process modification
- Reliable supply
- Stable high quality
- Flexibility in feed formulation

飼料工場の利点

- プロセルのモディフィケーション
- 頼れるサプライ
- 安定した高いクオリティ
- 柔軟性のあるフォーミュラ

Benefits for fish and consumers:

- Naturally pure
- Contains both EPA and DHA
- Highest EPA and DHA concentration available on the market
- Non-GMO product

魚と消費者への利点

- 自然でピュア
- EPAとDHAを含む
- マーケットに流通する最も高い EPAとDHA含有量
- GMOフリー

15%

veramaris[®]
A JOINT VENTURE OF D

HEALTHY FISH.
HEALTHY FOOD.
HEALTHY OCEANS.



veram
A JOINT VENTURE OF D



Value Creation: Farmed salmon example

価値創出：養殖サーモンを例に

		TYPICAL*	FUTURE	CONTROL with VERAMARIS Algal Oil VERAMARISの藻類オイルで管理
1	Health 健康 (Omega 3 EPA+DHA)	1g/100g	>1.75 g /cooked portion	<ul style="list-style-type: none">✓ Veramaris algal oil gives control to sustain or restore levels and types of omega 3 in the salmon fillet✓ Veramarisの藻類オイルで管理すると、サケの切り身に含まれるオメガ3の量と種類を維持・復元できます
2	Food Safety 食品安全 (Undesirable Substances)	0.6pg/g	<0.2pg/g	<ul style="list-style-type: none">✓ Veramaris algal oil ensures that everyone in the family, also children, can eat as much salmon as they like✓ Veramarisの藻類オイルで育ったサケなら、子供を含めて家族全員が好きなだけ食べることができます
3	Sustainability 持続可能性 (FFDR oil)	1.7	Become a net fish producer <1	<ul style="list-style-type: none">✓ One ton of Algal oil preserves 60 tons of wild fish in the oceans✓ 藻類オイル1トンで、海洋の野生の魚60トン分を保護できます

*Typical levels are intended only to indicate current industry practice. Actuals vary considerably between producers.

典型的数値はあくまでも現在の業界の慣行を示すためのものであり、実際の数値は生産者間で大きく異なります。

Good News : Retailers are already acting

朗報：小売業者はすでに動き出しています

The screenshot shows the TESCO PLC website header with navigation links: About, Sustainability, Investors, Media, Careers, and Contacts. There are also buttons for 'Local to you' and 'Our world'. The main content area features a large image of salmon swimming in water. To the right of the image is the article title 'Encouraging sustainable feeding practices in the aquaculture industry' and the date '8 August 2019'. Below the title is a paragraph of text. At the bottom of the article, there is a small inset image of a product label for 'NACHHALTIGER' (Sustainable) salmon, which mentions 'Verwendung von nachhaltigem Algenöl in der Fütterung' (Use of sustainable algae oil in feeding) and a price of '4.44*'. The background of the website header is orange with the 'SUPERCAMARCHE MATCH' logo.

Encouraging sustainable feeding practices in the aquaculture industry

8 August 2019

The challenges of delivering healthy, sustainable diets to a growing global population within planetary boundaries are well-documented. To do so will require a number of strategies, including a reduction in greenhouse gas emissions from food production, ensuring there is no further expansion of land used to grow food, and increasing demand for proteins with a lower environmental impact.

One contribution to meeting this protein challenge is through sustainable aquaculture, for example farmed salmon, which provides a nutritious source of protein and omega-3 fats. Whilst aquaculture has great potential as a source of healthy protein, any expansion must be done sustainably to ensure environmental concerns are addressed.

Good News : Veramaris wins F3 competition

朗報 : VeramarisはF3コンテストで優勝しました



Healthy Fish | Healthy Food | Healthy Oceans

健康な魚 | 健康な食 | 健康な海

✓ **Omega-3:** Essential for good health, all through life

Omega-3 : どの年代層にとっても健康維持に極めて重要

✓ **Veramaris:** a new source of EPA and DHA that enables further sustainable growth of aquaculture

Veramaris : 水産養殖のさらなる持続可能な成長を可能にする新たなEPA及びDHA源

✓ **Value creation:** Exciting opportunities based on healthiness and sustainability of farm-raised seafood

価値創出 : 健康に良い水産物を持続可能な形で養殖することを中心とした注目のチャンス

**EPA
DHA**



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