

# EXHIBIT I

FOR OFFICE ACTION RESPONSE RE:  
SHELLFISH, EVOLVED, S.N. 88/428324

<https://www.seafoodwatch.org/seafood-recommendations/groups/seaweed/overview>

The screenshot shows a web browser window with the URL `seafoodwatch.org/seafood-recommendations/groups/seaweed/overview`. The page features a dark navigation bar with the Seafood Watch logo and menu items: Ocean Issues, Seafood Recommendations, Consumers, Businesses & Organizations, About Us, Resources, and Donate. The main content area is titled "Seaweed Overview" and includes a sub-header: "Our recommendations help you choose seafood that's fished or farmed in ways that have less impact on the environment." A central search box contains the text "Enter seafood or sushi name" and a magnifying glass icon. Below the search box is a large image of seaweed with the word "Seaweed" written above it. A blue button with a right-pointing arrow and the text "View Seaweed Recommendations" is positioned below the image. Underneath, the section "About Seaweed" is visible, with the text: "You're a sustainable seafood superstar! Farmed seaweed ("nori" in sushi) is a "Best Choice"."

<https://www.seafoodnutrition.org/seafood-101/healthy-living/seafood-for-vegans-a-dive-into-seaweed-and-algae/>

The screenshot shows the top portion of a web browser displaying the article 'SEAFOOD FOR VEGANS? A DIVE INTO SEAWED AND ALGAE' on the Seafood Nutrition Partnership website. The browser's address bar shows the URL: [seafoodnutrition.org/seafood-101/healthy-living/seafood-for-vegans-a-dive-into-seaweed-and-algae/](https://www.seafoodnutrition.org/seafood-101/healthy-living/seafood-for-vegans-a-dive-into-seaweed-and-algae/). The website's navigation menu includes 'RECIPES', 'SEAFOOD 101', 'THE SCIENCE', 'RESOURCES', 'IMPACT OF DONORS', 'DONATE', and 'LITTLE SEAFOODIES'. The article title is prominently displayed in a large, bold, blue font. Below the title, the date 'March 27, 2019' is shown on the left, and social media sharing icons for Facebook, Twitter, and LinkedIn are on the right. The main content area features a large image of a bowl of seaweed salad on the left. To its right, there is a 'MORE POSTS' section with three featured articles: 'CITRUS PAIRINGS WITH FISH', 'NEW SCIENTIFIC PAPER SHOWS \$12.7 BILLION LOST ANNUALLY DUE TO LOW SEAFOOD OMEGA-3 CONSUMPTION', and 'THE ULTIMATE SEAFOODIE GIFT GUIDE 2019'. Below these posts is a 'LEAVE A REPLY' section with a text input field and a 'Name\*' label. The Windows taskbar at the bottom shows the date as 1/24/2020 and the time as 9:53 AM.

The screenshot shows the bottom portion of the same web browser, displaying the article 'SEAFOOD FOR VEGANS'. The article text continues from the previous page, discussing the benefits of seaweed for planetary health and its use in various dishes. The text includes: 'Plus, not only is it good for human health, it's great for [planetary health](#). Seaweed is abundant and grows quickly, plus it is fairly easy to harvest. Seaweed requires no feed other than sunlight and marine nutrients, which in the long run helps to reduce the effects of ocean acidification.' The article title 'Seafood for Vegans' is displayed in a large, bold, blue font. Below the title, there are several paragraphs of text discussing the benefits of seaweed for vegetarians and vegans, including its high content of omega-3 fatty acids and its versatility in cooking. The text includes: 'Unlike land plants such as kale and spinach, seaweed contains preformed omega-3 fatty acids DHA and EPA, so seaweed can be a reliable source of omega-3 for vegetarians and vegans. There are several types of seaweed, and it generally comes dried or in a powder form. Since seaweed is so versatile, there are many delicious ways to include it into your diet. You can mix it in soups, stews and [salads](#) for a salty, umami flavor, stir it into salad dressings, or eat them [dried as a snack](#). Cooked seaweed dishes or seaweed salad can often be found at sushi restaurants or Asian markets - and don't forget the sushi rolls! Most retailers now carry dried seaweed snacks and nori (a type of seaweed) sheets to make your own sushi at home.' The text also mentions that seaweed can be added to a vegetarian or vegan diet to provide DHA and EPA, and that it is important to read food labels for fortified products. The article concludes with a note: '\*Before starting to use any nutritional supplement, it is important to check with your doctor.' On the right side of the page, there is a 'LEAVE A REPLY' section with a text input field and a 'Name\*' label. Below the input field is an 'ADD COMMENT' button. The Windows taskbar at the bottom shows the date as 1/24/2020 and the time as 9:54 AM.

The screenshot shows a web browser window displaying the 'Maine Seafood Guide - Seaweed' page. The browser's address bar shows the URL 'seagrant.umaine.edu/maine-seafood-guide/seaweed/'. The website header includes the University of Maine logo and navigation links for Admissions, Campus Life, Academics, Research, and About Us. A search bar and a 'Quicklinks' menu are also present. The main content area is divided into two columns. The left column, titled 'Maine Seafood Guide', contains a vertical list of menu items: Maine Seafood Guide, Definitions & Sources, Vessel & Gear Guide, Algae, Black Sea Bass, Haddock, Cod, Crab, Cusk, Eel, Flounder, Haddock, Hake, Halibut, Hard Clam, Herring, Lobster, Mackerel, Monkfish, Mussels, Oysters, Penaeid Shrimp & White Shrimp, Pollock, Redfish, Salmon, Scallops, Sea Urchin, Seaweed, and Shark. The right column, titled 'Maine Seafood Guide - Seaweed', features a list of links: Species Description, Season, Status, Distribution, Harvest Method, Regulatory Authority, and Harvest Method. Below these links is a photograph of seaweed with the caption 'Redweed (Acetabularia redoutii)'. The 'Species Description' section defines seaweed as a sea vegetable (macroalgae) and lists several species: redish-purple eelgrass (Ulva lactuca), long golden-brown kelp (Desmarestia munda, Desmarestia munda, and Desmarestia munda), thin green sea lettuce (Ulva lactuca), and laver or meal (Porphyra umbilicalis). It notes that Redweed (Acetabularia redoutii) is the dominant species in commercial harvest but is used as an ingredient in supplements and other products. A link is provided to view a gallery of important seaweed species in Maine. The 'Season' section states that seaweed depends on individual species, with cultured sugar kelps grown in winter months and harvested in spring, while other kelps peak in spring to early summer. The 'Status' section indicates that seaweed depends on individual species and varies locally, with Redweed beds managed for optimal growth and planted every 3-4 years with proper harvesting methods. The 'Regulatory Authority' section identifies the Maine Department of Marine Resources. The 'Harvest Method' section notes that seaweed companies harvest mostly wild plants by hand, at low tide, between April and October. The browser's taskbar at the bottom shows various application icons and the system clock displaying 2:48 PM on 1/24/2020.

Maine Seafood Guide - Seaweed x W Seafood - Wikipedia x +

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# Seafood

From Wikipedia, the free encyclopedia

*This article is about the food. For the UK band, see [Seafood \(band\)](#). For the Chinese film, see [Seafood \(film\)](#). For just fish, see [Fish as food](#).*


**Seafood** is any form of [sea life](#) regarded as food by humans, prominently including [fish](#) and [shellfish](#). Shellfish include various species of [molluscs](#) (e.g. bivalve molluscs such as [clams](#), [oysters](#), and [mussels](#) and [cephalopods](#) such as [octopus](#) and [squid](#)), [crustaceans](#) (e.g. [shrimp](#), [crabs](#), and [lobster](#)), and [echinoderms](#) (e.g. [sea cucumbers](#) and [sea urchins](#)). Historically, [marine mammals](#) such as [cetaceans](#) ([whales](#) and [dolphins](#)) as well as [seals](#) have been eaten as food, though that happens to a lesser extent in modern times. Edible sea plants such as some [seaweeds](#) and [microalgae](#) are widely eaten as sea vegetables around the world, especially in [Asia](#). In the United States, although not generally in the United Kingdom, the term "seafood" is extended to fresh water organisms eaten by humans, so all edible aquatic life may be referred to as "seafood".<sup>[*citation needed*]</sup> For the sake of completeness, this article is inclusive of all edible aquatic life.

The harvesting of wild seafood is usually known as [fishing](#) or [hunting](#), while the cultivation and farming of seafood is known as [aquaculture](#) or [fish farming](#) (in the case of fish). Seafood is often colloquially distinguished from [meat](#), although it is still animal in nature and is excluded from a [vegetarian diet](#), as decided by groups like the [Vegetarian Society](#) after confusion surrounding [pescetarianism](#). Seafood is an important source of (animal) [protein](#) in many diets around the world, especially in coastal areas.

Most of the seafood harvest is consumed by humans, but a significant proportion is used as [fish food](#) to farm other fish or rear farm animals. Some seafoods (i.e. [kelp](#)) are used as food for other plants (a [fertilizer](#)). In these ways, seafoods are used to produce further food for human consumption. Also, products such as [fish oil](#) and [spirulina](#) tablets are extracted from seafoods. Some seafood is fed to [aquarium fish](#), or used to feed domestic pets such as [cats](#). A small proportion is used in medicine, or is used industrially for nonfood purposes (e.g. [leather](#)).<sup>[*citation needed*]</sup>

**Contents** [hide]

- History
- Types of seafood
- Processing
- Consumption
- Texture and taste
- Health benefits
- Health hazards



Seafood includes any form of food taken from the sea.

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# <https://www.msc.org/media-centre/news-opinion/2019/01/23/why-we-are-excited-about-seaweed>

Why we're excited about seaweed

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## News and opinion

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### Why we're excited about seaweed

January 23, 2019

Kelp being harvested in Saint Helena Bay near Cape Town in South Africa

Why we're excited about seaweed

MSC International

### Why we're excited about seaweed

January 23, 2019

With possible applications ranging from cheap superfood, to plastic-free packaging, to the reduction of methane emissions from gassy cows, seaweed is having a moment as the wonderkid of the sustainable ocean movement. This growing demand has led to a rapid global expansion of seaweed production that isn't without risks. Early intervention – including third party certification – can help ensure the long-term sustainability of this industry.

Seaweed is generally considered to be a sustainable seafood choice. It is abundant, grows quickly, doesn't need to be fed, and is often harvested with minimal environmental impacts. However, a 2016 United Nations University report pointed out that seaweed production is in a period of unabated exponential growth. Over 30 million tonnes of seaweed were produced in 2015. While aquaculture amounts for much of this production, over a million tonnes of wild seaweed is harvested annually. Any industry has the potential to go wrong when undergoing this kind of rapid, unchecked expansion.

According to a new report published by business analysis group Allied Market Research, the global seaweed market was valued at \$4.1 billion in 2017 and is projected to reach \$9.1 billion by 2024. While around 85% of all production is destined for human consumption, seaweeds are also widely used in cosmetics, fertilizers, thickening agents and animal feed.

### Huge variety and demand

Over 200 species of seaweed are of commercial value. You have probably come across many of these products, whether you know it or not. These include brown seaweeds, giants found in underwater kelp forests; red algae, often used for nori in sushi rolls; and microscopic blue-green algae, popular in marine-based beauty creams.

This increasingly varied demand could lead to overexploitation of wild seaweed, potentially leading to a slew of problems. As a primary producer, seaweed plays a key role in aquatic ecosystems. Removing it could lead to coastal erosion, negative impacts on marine food webs and habitats, loss of biodiversity and decreased water quality. Environmental impacts from irresponsible aquaculture could include water pollution, damage to local ecosystems and the decline of wild stocks.

Third-party certification can help to future proof this rapidly expanding industry by recognising and rewarding seaweed production that is both environmentally sustainable and socially responsible.

### The Seaweed Standard

The ASC-MSC Seaweed Standard sets a number of requirements under five key principles for seaweed harvesting and farming practices:

- Sustainable wild populations

Related Pages

- Environmental impacts
- Effective management
- Social responsibility
- Community relations and Interactions

The aim of the Standard is to contribute to the health of the natural environment as well as support workers and local communities.

Seaweed production – whether through wild harvest or cultivation – is a valuable resource for coastal communities. Increasing seaweed production also has the potential to take pressure off fish stocks and other sources of protein, contributing to food security globally.

### The first certified sustainable seaweed

This month, Euglena Co. became the first seaweed operation in the world to gain certification for its seaweed production. Euglena is a type of microscopic algae. It is grown in a high-tech laboratory in Okinawa, Japan, where scientists keep a constant watch on vats filled with the bright green biomaterial. The alga is currently used in nutritional supplements, but owner Mitsuru Izumo has big plans for the future. He wants to use *Euglena* to make sustainable jet fuel. While this project is still in its research and development stage, we may yet see certified seaweed in our skies.

Seaweed is at the beginning of its sustainability journey and will benefit from lessons learned in commercial fisheries and aquaculture. Certification is one tool to help ensure seaweed, and all the marine life that depends on it, is protected now and for future generations.

