OPEN ACCESS Freely available online

ISSN: 2161-1009
Biochemistry & Analytical Biochemistry

Commentary

Balancing Nutrition and Emissions: A Seafood Study

Xian Kim*

Department of Resource and Environmental Studies, Dalhousie University, Halifax, Canada

DESCRIPTION

Seafood strikes a rare balance between great nutritional content and low greenhouse gas emissions, making it an excellent choice for sustainable diets. Wild-caught small pelagic fish, salmon, and farmed bivalves such as mussels and oysters provide adequate nourishment while minimizing environmental damage. The protein and omega-3 fatty acid content of these species is substantial, as are the minerals selenium, iodine, vitamin D, and B12. As worldwide seafood consumption grows, altering dietary habits to these low-emission, nutrient-dense options can help meet nutritional demands while decreasing environmental impact. This method serves public health and climate goals, supporting a sustainable future.

While having the least negative impact on the environment, seafood can help meet nutritional needs. Regarding production mode, they balance the greenhouse gas emissions and nutrient density of globally relevant species. The highest nutritional value and lowest emissions are obtained from eating wild-caught small pelagic and salmonid species as well as farmed bivalves like mussels and oysters. Many, but not all, seafood species supply greater nourishment while generating less greenhouse gases than land animal proteins, notably red meat; however, there are considerable variances, even within species groupings and species, depending on production methods.

Seafood varies in terms of the nutrients it contains and in terms of the nutritional needs of different demographic groups both within and between nations or regions. They advise refocusing and customizing production and consumption patterns toward species and production methods with improved nutrition and climate performance, while keeping specific nutritional needs and emission reduction goals in mind, based on the metabolic attribute and climate impact patterns found. More seafood is produced and consumed internationally than ever before, and demand is predicted to climb alongside rising wealth and population.

In 2017, 17% of animal protein consumed worldwide came from seafood. There is substantial evidence that the health benefits of eating seafood exceed any potential risks to health from pollution or other safety problems. Aquatic habitats are essential to meeting human nutrition goals since seafood is rich in protein, omega-3 fatty acids, and micronutrients such as vitamin D, vitamin B12, selenium, iodine, iron, zinc, and phosphorus. Increased consumption of seafood is encouraged by many countries since it reduces the risk of many non-communicable diseases and addresses the widespread nutritional deficiencies. Moreover, it has been shown that substituting seafood for other animal diets has significant environmental benefits.

The so-called "green shift," which calls for a shift in consumption away from animal-based foods found on land and toward plant-based foods, is currently receiving a lot of attention in the public debate about future diets. A potential "blue shift," in which foods sourced from aquatic sources become more significant, is receiving far less attention. Instead, seafood is usually treated as a single entity or completely excluded from research examining the effects of diets on general health and the environment. In order to increase the consumption of sustainable seafood, a deeper comprehension of this varied food category's performance is required.

While the issue of food sustainability is intricate and numerous, one of the most urgent concerns facing humanity is climate change. As long as production systems' methodologies are matched, Greenhouse Gas (GHG) emissions may be readily measured, enabling comparisons between various sources. Although not always, other environmental issues are often associated with the impact of climate change, therefore reducing emissions will have wider advantages. Research examining and contrasting greenhouse gas emissions from seafood and other food items usually present emissions per kilogram of the product, ignoring variations in dietary function and nutritional value. Certain studies compared products according to their protein or portion sizes, but they neglected to take into consideration the wide range of nutrients.

In an effort to provide a more thorough representation of the nutritional profile of meals while evaluating their environmental impact, nutritional density indices have been created recently.

Correspondence to: Xian Kim, Department of Resource and Environmental Studies, Dalhousie University, Halifax, Canada, Email: xiankim@hotmail.com

Received: 03-Jun-2024, Manuscript No. BABCR-24-26550; **Editor assigned:** 05-Jun-2024, Pre QC No. BABCR -24-26550 (PQ); **Reviewed:** 20-Jun-2024, QC No. BABCR -24-26550; **Revised:** 27-Jun-2024, Manuscript No. BABCR -24-26550 (R); **Published:** 05-Jul-2024, DOI: 10.35248/2161-1009.24.13.544

Citation: Kim X (2024) Balancing Nutrition and Emissions: A Seafood Study. Biochem Anal Biochem. 13:544.

Meals' ability to satisfy the average nutritional requirements is shown by nutrient indices, which provide an overview of the macro and micronutrient densities. In that study, the content of each nutrient was compared to either the Maximum Recommended Intake (MRI) for undesired nutrients or the Dietary Reference Intake (DRI) for desirable nutrients. The nutritional density score was computed using data from 24 nutrients. Products related to fish consumed in Sweden were carefully selected and weighed in order to guarantee representative manufacturing methods and scientific consistency.