# Food composition data for nutrition

- **Aquatic foods contributes to food and nutrition security**

- **Reduces the risk of micronutrient deficiencies and non-communicable diseases**

- **Excellent source of protein, omega 3 and omega 6 fatty acids, vitamin D, B-vitamins, iodine, selenium, calcium, zinc and iron**

- **A need exists for more knowledge on the nutritional composition of locally available food from the aquatic environment, including aquatic plants and by-products**

- **Food composition data is essential for nearly all activities in nutrition, e.g.:**
  - ✓ **Accurate nutrient intake data of the population/individuals**
  - ✓ **Increased agricultural production policies for nutrient-rich varieties**
  - ✓ **Investigating the role of traditional food systems for better nutrition**
  - ✓ **Development of food-based dietary guidelines**
  - ✓ **Consumer education**

Biological
+
Diversity
=
Biodiversity
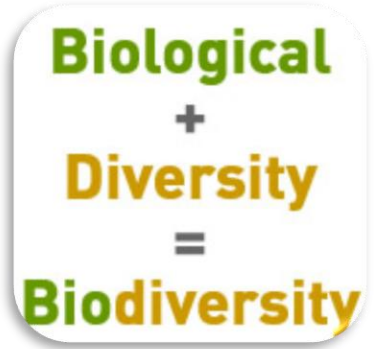
Data variability

- **Foods are biological materials - natural variability in composition, even processed foods**
- **For critical components variability may impact on the sufficiency, deficiency, or excess of the intake of a given component**
- **Species and/ or intra-species variation of nutrient values due to: season, geographic origin, production type, cut, preservation state, packing medium, preparation methods**

Example - King Prawn
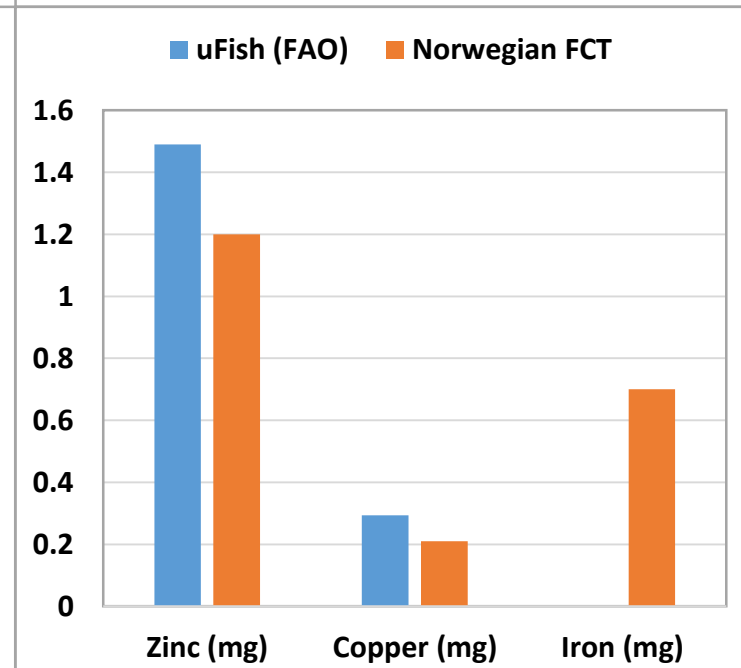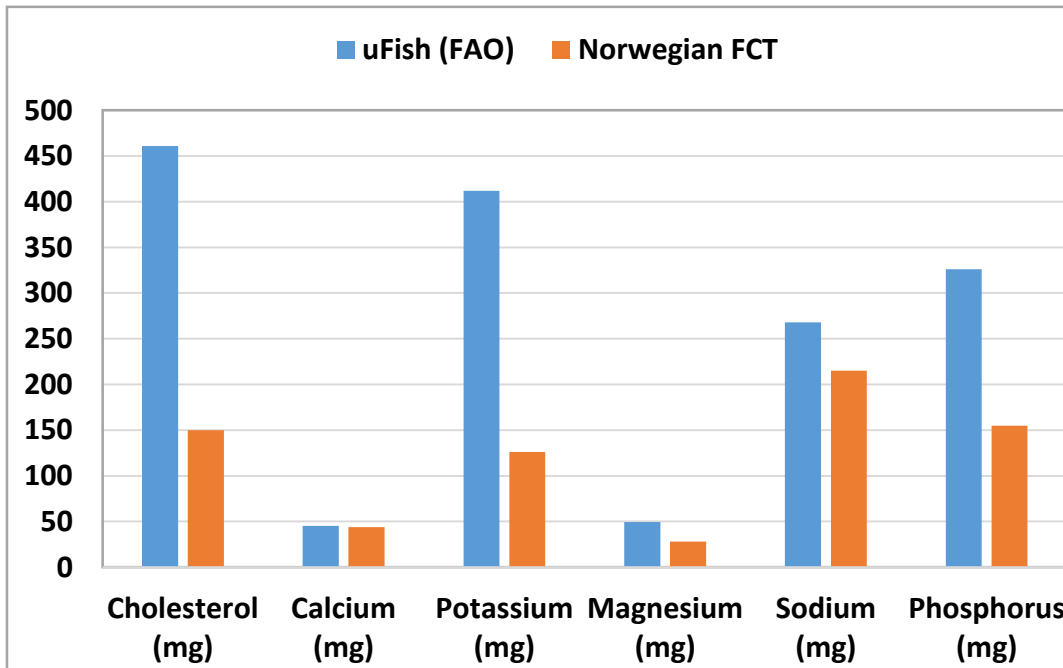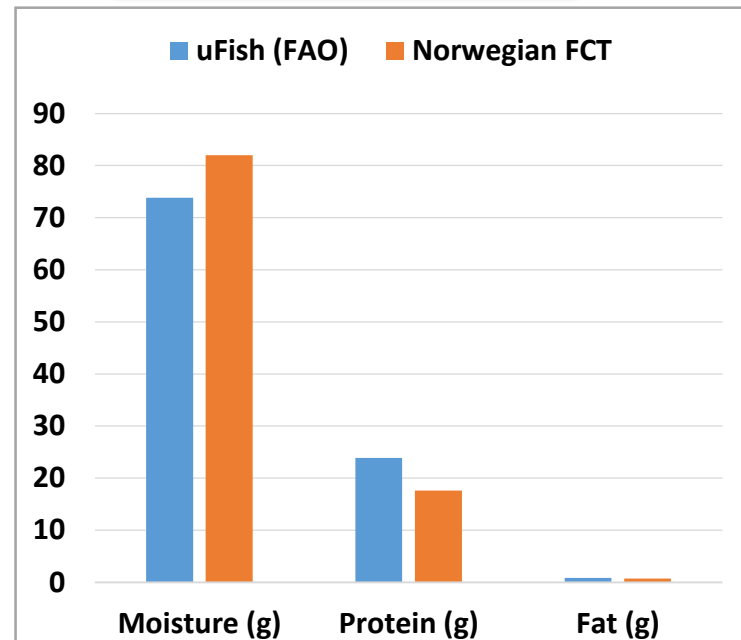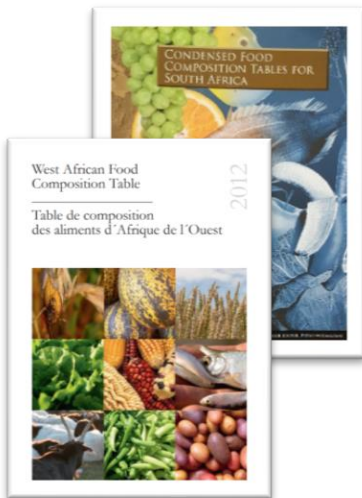
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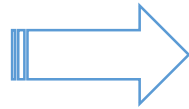
From printed   →   **Websites and e-books**

Electronic datasets

EuroFIR AISBL e-book collection on food composition datasets

- FAO/INFOODS FCDB for fish and shellfish (uFish database): http://www.fao.org/3/i6655e/i6655e.pdf or http://www.fao.org/fileadmin/templates/food_composition/documents/uFiSh1.0.xlsx
- SEAFOOD^{TOMORROW} FishChoice database: www.fishchoice.eu
- FAO/INFOODS Food Composition Table for Western Africa (2019): http://www.fao.org/3/ca7779b/CA7779B.PDF
- USDA FoodData Central: https://fdc.nal.usda.gov/data-documentation.html
- McCance and Widdowson's The Composition of Foods Integrated Dataset 2021: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971018/McCance_Widdowsons_Composition_of_Foods_Integrated_Dataset_2021..xlsx

Way forward

- **Nutrient composition data that includes biodiversity** is important and can have a significant impact on data interpretation and on nutritional adequacy of diets

- Capturing biodiversity data of **local foods** in dietary surveys will also be an important step towards understanding the impact of biodiversity on **food and nutrition security**

- **Computerised food composition databases** are the need of the day

  - ✓ Data Base Management Systems that **supports complex data analyses**, compilation and reporting and data mining, e.g. recipe calculations, aggregation, compilation steps plus quality assurance steps

  - ✓ Should accommodate **updates** efficiently

  - ✓ Data should be updated regularly as **analytical data** becomes available