

THE FISH INSPECTOR

A Newsletter on Seafood Inspection, Quality Control and Technology



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GENERAL

Global: Water, Sanitation and Hygiene in Fisheries and Aquaculture (WASH)

The World Bank (WB) have launched a PROBLUE economy programme, which is supported by a guidance note and selected tools for use in the Fish and Aquaculture (F&A) sector. "Proper WASH infrastructure and practices are essential to ensure fish health, provide safe fish and fish products, and reduce the spread of antimicrobial resistance. Implementation of WASH services is key to the health of men and women F&A workers and the members of surrounding communities. The guidance note describes actions to improve WASH conditions in the F&A sector to improve the health and nutritional status of F&A workers and communities and the safety of food products. These efforts will help to maximize and sustain the development impact." The guidance note is accompanied by a rapid needs assessment tools - a checklist and a user guide, which outlines the process of a rapid needs assessment. The checklist covers four main supply chain areas: Fisheries, Aquaculture, Post-harvest and Community and three WASH components: Water supply and quality, waste and wastewater management, and sanitation and hygiene. The key objective is to "assist World Bank Group task team leaders (TTLs) to identify needs and gaps in the design and implementation of WASH measures in the F&A sectors for their project area.

Guidance Note: <https://documents1.worldbank.org/curated/en/099300206172282906/pdf/P16529802834cb0180801c0c4a540ffbd9.pdf>

Rapid Needs Assessment Tool CHECKLIST: <https://documents1.worldbank.org/curated/en/099300106172232710/pdf/P165298052e5f-c02b0be8d0fb81c0e71207.pdf>

Rapid Needs Assessment Tool USERGUIDE: <https://documents1.worldbank.org/curated/en/099300006172238577/pdf/P1652980d60e-4906f0a69c0c037edb85419.pdf>

FAO sees need for common language to discuss cell-cultured foods

A recent meeting hosted by the Food and Agriculture Organization of the United Nations (FAO) and the Ministry of Health of Israel has provided insight into the state of cell-cultured food safety. A group of researchers and developers gathered in Tel Aviv to discuss developments in cell-based food products, how the safety of cell-cultured foods can be assured, and the potential food security benefits of cell-based products. FAO Senior Food Safety Officer Dr. Markus Lipp, spoke at the event about the challenge of navigating how the global food sector discusses the emerging concept of cell-cultured foods. According to Dr. Lipp, there is a need to define a common language to talk about novel, cell-based food products and technology. FAO Food Safety Officer Dr. Masami Takeuchi, provided an overview of ongoing work related to cell-based foods, noting three publications that are underway and that focus on the novel food type's terminologies, production process, and current regulatory frameworks. According to FAO, cell-based food products are also commonly referred to as "cultured" or "cultivated" versions of the commodity, such as meat, chicken, or fish. The process of developing cell-cultured foods can also be referred to as "cellular agriculture." Given the various terminology in use for cell-based foods and technology, internationally harmonized terms for the food products and production processes would facilitate easier global communication and understanding. Cell-based food production involves the culturing of cells that are isolated from animals, followed by processing that results in food products that are comparable to traditionally harvested meat, poultry, seafood, dairy, and eggs. At the event, industry stakeholders also shared their experiences in producing cell-cultured meats, seafood and seafood products such as sushi, and milk.

Source: <https://www.food-safety.com/articles/7989>



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ASIA PACIFIC NEWS

Australia: Where is your seafood really from?

Identifying the source of seafood is critical for combatting seafood fraud, but current tools are predominantly developed and applied on a species-specific basis. This study investigates how multiple marine taxa could be geolocated at global scales by exploiting stable oxygen isotope compositions in carbonate biominerals.

Link to the publication: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/faf.12703>

Australia: Sydney Fish Market launches digital trading platform

Australia's 70-year-old start up Sydney Fish Market (SFM) launches its new digital trading platform SFMblue, which will work in conjunction with the traditional Dutch auction clock and provide 24/7 on-demand data including pricings, volumes, product quality, tracking and traceability, and flexible payment options. It connects information from suppliers, fishers, wholesalers and buyers in a fast and user-friendly way, with a focus on additional seafood quality parameters included within the system.

Source: <https://www.sydneyfishmarket.com.au/Home/News-Media/News/Article/australias-70-year-old-start-up-sydney-fish-market-launches-digital-trading-platform-1>

PNG: Opens seafood facility in Singapore

Papua New Guinea (PNG) has opened its first-ever seafood holding facility in Singapore. The Fisheries and Marine Resources Minister, Jelta Wong, officially opened the facility on 15 September and stated "The future looks promising already and I must congratulate NFA for the foresight in putting together and supporting this innovative marketing arrangement." As PNG looks on to benefit from the growing Asian Market, the Minister outlined that the Government is focused on strengthening trade and investment by working closely with foreign missions and development partners in the region. "What we have done here in Singapore is to look at tapping the massive Chinese seafood market that PNG already has a fisheries market access agreement with," the Minister added. The facility will receive and store live mud crabs, lobsters, prawns and other inshore coastal fisheries products before they can be sold or distributed to buyers and retailers in Singapore and the neighbouring South-East Asian markets.

Source: <https://www.pacifictenders.com/pg/png-opens-seafood-facility-in-singapore/>

The Philippines: BFAR warns eating shellfish from 2 Mindanao bays

The Bureau of Fisheries and Aquatic Resources (BFAR) has warned the public against eating shellfish coming from two provinces in Mindanao. In an advisory, the BFAR said that shellfishes collected and tested from Dumanquillas Bay in Zamboanga del Sur and Lianga Bay in Surigao del Sur "are still positive for Paralytic Shellfish Poison (PSP) or toxic red tide that is beyond the regulatory limit." Dumanquillas and Lianga Bays are among the areas in the country that are positive for toxic red tide, as outlined in the advisory. Dumanquillas Bay is a body of saltwater and major source of food in Zamboanga Peninsula. Lianga Bay is also a major food source in Surigao del Sur. The other areas positive of toxic red tide, are the coastal waters of Dauis town and Tagbilaran City in Bohol; and Matarinao Bay in Eastern Samar. The BFAR added that the coastal waters of Roxas City and Pilar town in Capiz are now positive for PSP. "All types of shellfish and *Acetes spp.* or alamang gathered from the areas shown are not safe for human consumption," the BFAR said in its shellfish bulletin. "Fish, squids, shrimps, and crabs are safe for human consumption provided that they are fresh and washed thoroughly, and internal organs such as gills and intestines are removed before cooking," it added.

Source: <https://www.pna.gov.ph/articles/1184961>

EUROPEAN NEWS

31 rapid alert notifications for fishery products

During August 2022 there were 31 rapid alert notifications for fishery products with 2 notifications for bivalve mollusc products, 1 for cephalopod products, 8 for crustacean products, 20 for other fishery products and none for gastropod products. These included 6 consignments of crayfish and 3 consignments of salmon from China, 2 consignments of shrimp from Ecuador and 3 consignments of anchovies from Morocco.

Source: Megapesca Lda Fishfiles Service www.megapesca.com

EU: Monitoring of mercury in fish, crustaceans and molluscs

The European Commission (EU) published a recommendation on the monitoring of mercury in fish, crustaceans and molluscs, to provide guidance on the benefits of fish/seafood consumption compared to the risks of methylmercury in fish/seafood. The maximum levels for mercury in many fish species were lowered in 2022, but for other fish species such as shark and swordfish it was maintained pending further scientific review. The European Food Safety Authority of the Commission needs additional data to complete the risk assessment and to provide tailored consumption

advice to consumers in different parts of the EU (with widely different species consumption profiles). Member States are therefore requested to perform during the years 2022, 2023, 2024 and 2025, monitoring on the presence of methylmercury and total mercury in fish, crustaceans and molluscs. They are also requested to develop specific national consumption advice related to the consumption of fish, crustaceans and molluscs to fully achieve the beneficial effects of fish and seafood consumption, whilst limiting the risks of mercury toxicity.

Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H1342>

Portugal: Scientists to discuss nanoparticle threat in farmed seafood

Engineered nanoparticles are increasingly used in a variety of contexts, but one unintended consequence is that they can end up in the marine environment and, therefore, in the human food chain. Scientists at the International Iberian Nanotechnology Laboratory (INL) in Portugal have been investigating the health implications of two specific substances: silver and titanium dioxide in seafood. Their study has focused particularly on marine mussels, turbot and two species of seaweed: dulse and sea lettuce. The Project coordinator stated studies assessing the risk and mitigation of nanoparticles within this context are lagging far behind and represents a critical environmental and safety issue for the Atlantic area. "The NANOCULTURE project aims to dig deeper than ever before, to better understand the toxicity of nanoparticles within seafood products, and the potential knock-on effect to the human system. Given the importance of the aquaculture sector for the Atlantic Area, the scientists are keen to fully understand any possible adverse effects in order to improve the safety of future food production and ameliorate any environmental-related impacts of the activity."

Source: <https://www.fishfarmermagazine.com/news/scientists-to-discuss-nanoparticle-threat-in-farmed-seafood/>

UK: The 11 sins of seafood - Assessing a decade of food fraud reports in the global supply chain

Due to complex, valuable and often extremely opaque supply chains, seafood is a commodity that has experienced a high prevalence of food fraud throughout the entirety of its logistics network. Fraud detection and prevention require an in-depth understanding of food supply chains and their vulnerabilities and risks so that food business operators, regulators, and other stakeholders can implement practical countermeasures. This study examines reported seafood fraud incidents from the European Union's Rapid Alert System for Food and Feed, Decernis's Food Fraud Database, HorizonScan, and LexisNexis databases between January 01, 2010 and December 31, 2020.

Source: <https://ift.onlinelibrary.wiley.com/doi/epdf/10.1111/1541-4337.12998>

NORTH AMERICAN NEWS

The FDA moves into third phase of Artificial Intelligence Imported Seafood Pilot Program

The U.S. Food and Drug Administration (FDA) moves into the third phase of the Artificial Intelligence Imported Seafood Pilot Program and has kicked off this third phase of the Artificial Intelligence (AI) Imported Seafood Pilot program, which uses AI and machine learning (ML) to strengthen import screening to ensure that foods entering the U.S. are safe. The pilot focuses on imported seafood as more than 90 percent of the U.S. seafood supply comes from other countries. In the past, FDA has seen food safety concerns for various imported seafood products along the supply chains. This pilot builds upon the two previous phases of the pilot under the New Era of Smarter Food Safety Blueprint, a program that seeks to reduce the number of foodborne illnesses by leveraging technology to create a safer, more digital, traceable food system. The third phase will help to determine the feasibility of deploying in-house AI/ML models using the intelligence that FDA extracts from the data for reviewing millions of import entries per year. For example, enhancements have been made to determine how machine learning algorithms can best complement field operations and improve the agency's ability to identify products posing a threat quickly and efficiently. Through this project FDA is looking to expand the use of machine learning to better protect consumers. In a related shrimp pilot, FDA has begun to focus on areas of increased risk, such as shrimp contaminated by aquaculture drugs, for foreign inspections. This includes increased importer inspections, higher rates of sampling and examination, and use of non-traditional tools, such as third-party audits, specific to this commodity. FDA incorporated the data from this project into the third phase of the AI Imported Seafood Pilot Program, allowing for a more robust and larger targeted sampling.

Source: <https://www.fda.gov/food/cfsan-constituent-updates/fda-moves-third-phase-artificial-intelligence-imported-seafood-pilot-program>

LATIN AMERICAN NEWS

Peru: Ending IUU in small-scale fisheries through traceability technology

Peru's fisheries sector is a key component of the country's economy and is the second highest generator of foreign currency after mining. However, the country's fisheries system is faced with regulatory problems; most fishing vessels are "informal" and fall under the Illegal, Unreported and Unregulated (IUU) fishing category due to the lack of documentation and registration. Fortunately, the application of electronic catch documentation and traceability (eCDT) system can contribute to formalization and create economic

efficiencies throughout the supply chain. With the Ocean Innovation Challenge support from UNDP, WWF-Peru will scale up the use of "TrazApp", a traceability system that allows users to follow the route of the fish in the different stages of the production chain. TrazApp collects, stores, shares, and visualizes pertinent data in real-time, providing a range of benefits including: improved illegal fishing detection; modernized data management supporting informed decision-making; and transparent fisheries management. Fishers using TrazApp will gain a better understanding and control over their catch and its commercialization.

Source: <https://oceaninnovationchallenge.org/ocean-innovations/ending-peru-iuu>

Watch the video here: <https://youtu.be/iW8G4WeiwrA>

AFRICAN NEWS

Morocco and Angola join PSMA

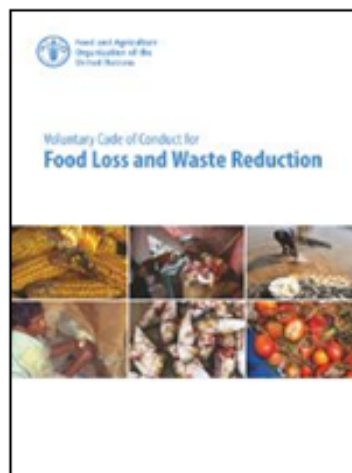
Morocco and Angola have become Parties to the Agreement on Port State Measures (PSMA) to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing, thirty days after depositing their instruments of accession with the Food and Agriculture Organization of the United Nations (FAO). The PSMA, which is the first binding international agreement that specifically targets IUU fishing by preventing foreign vessels engaged in IUU fishing from using ports and landing their catches, entered into force in June 2016, thirty days after the date of deposit of the twenty-fifth instrument of accession. Six years later, the number of Parties has more than doubled to 72 Parties, including the European Union which is a Party on behalf of its 27 member States. IUU fishing undermines national and regional efforts to manage fisheries sustainably, consequently also threatening the livelihoods and food security of millions of vulnerable people dependent on fishing for their subsistence. The rapid growth in the number of Parties to the PSMA is a very promising indicator of the commitment of States to safeguard the long-term sustainability of global fisheries. With the inclusion of Morocco and Angola, as of today, a third of the Parties to the PSMA are countries within the African continent. FAO encourages the remaining port States around the world to deposit their instruments of adherence to become Party to the PSMA as soon as

possible. FAO also stands ready to provide technical assistance to developing States to effectively implement the Agreement through its Global Programme.

Source: <https://www.fao.org/iuu-fishing/news-events/detail/en/c/1607317>

PUBLICATION

Voluntary code of conduct for Food Loss and Waste Reduction



At its 26th Session in October 2018, the FAO Committee on Agriculture (COAG) requested FAO to take the lead to develop voluntary codes of conduct for the reduction of food loss and food waste. In response to the COAG request, FAO developed the Voluntary Code of Conduct for Food Loss and Waste Reduction, which was endorsed by the 42nd Session of the FAO Conference in June 2021. The Voluntary Code of Conduct for Food Loss and Waste Reduction sets out a generic framework of actions and guiding principles that should be followed to reduce food loss and waste (FLW) and support the transformation of agrifood systems to be more efficient, more inclusive, more resilient and more sustainable. Governments can use the framework as a basis for the development of strategies, policies and legislations, which are critical elements of intervention packages aimed at effectively and sustainably reducing FLW. The framework can also serve for the formulation of programmes on FLW reduction and for the preparation of technical guidelines for use by practitioners.

Download the publication for free at:
<https://doi.org/10.4060/cb9433en>

The next issue of THE FISH INSPECTOR will be distributed in January 2023. Any information you may wish to have disseminated through this newsletter may be submitted through <http://e-newsletter.infofish.org/>

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