Your side event
Thursday, July 14
12:30-14:00 hrs.
Room: Mexico
Seafood lunch will be served!

PROMOTING SEAFOOD CONSUMPTION:
A TOOL FOR IMPROVING NUTRITION, HEALTH
AND REGIONAL DEVELOPMENT,
PUBLIC POLICY AND PRODUCERS EFFORT

Mario Gilberto Aguilar Sánchez
National Commissioner
of Aquaculture and Fisheries
of Mexico (CONAPESCA)

Roy D. Palmer
Executive Director of Aquaculture
with the Frontier and Previous Director
of the World Aquaculture Society (WAS)

José David Castro Villavicencio
President of the Mexican Council
for the Promotion of Aquaculture
and Fishery Products (COMAPESCA)
Promoting Seafood Consumption

By ROY PALMER
ANZMEX - 2013
http://anzmex.org/News/_GILLS_Roundtable__Photo_Gallery_and_presentation
‘The Road to Success....’
Guadalajara, Jalisco
Workshop
‘The Road to Success….’ Mazatlan, Sinaloa Workshop …. Come rico, come sano….
UTMarT-AwF Tampico/La Pesca
My Journey on Seafood & Health


• Seafood Services Australia - https://www.youtube.com/user/seafoodservices

• Nov 2010 – International Seafood & Health Conference – Melbourne, Australia – GILLS....

• July 2011 – Meeting of the minds in Santander

• Nov 2011 – Launching of GILLS at World Seafood Congress, Washington DC

• Ongoing engagement with experts and knowledge flow

• Now on LinkedIn and Facebook – soon to be part of www.seafoodprofessionals.org website (launch 1 August)
HUNGER — associated fatality compared to 10 leading causes of death (In Millions)

<table>
<thead>
<tr>
<th>Cause</th>
<th>Associated Death (In Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUNGER ASSOCIATED DEATH</td>
<td>36 million</td>
</tr>
<tr>
<td>CORONARY HEART DISEASE</td>
<td>7.2</td>
</tr>
<tr>
<td>CEREBROVASCULAR DISEASE</td>
<td>5.71</td>
</tr>
<tr>
<td>LOWER RESPIRATORY INFECTION</td>
<td>4.18</td>
</tr>
<tr>
<td>CHRONIC OBSTRUCTIVE PULMONARY DISEASE</td>
<td>3.02</td>
</tr>
<tr>
<td>DIARRHEAL DISEASE</td>
<td>2.16</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>2.04</td>
</tr>
<tr>
<td>TUBERCULOSIS</td>
<td>1.46</td>
</tr>
<tr>
<td>Others</td>
<td>3.77</td>
</tr>
</tbody>
</table>

SOURCE: MODIFIED FROM WORLD HEALTH ORGANIZATION

Global Initiative for Life Leadership through Seafood
Global Nutrition Report
June 2016 (http://globalnutritionreport.org/)

- Malnutrition is a condition that directly affects one in three people globally.
- Malnutrition and diet are by far the biggest risk factors for the global burden of disease: Every country is facing a serious public health challenge from malnutrition.
- 1.9 billion adults are overweight or obese
- 2 billion suffer from micronutrient deficiency
- 161 million children under 5 y.o are too short for their age
- 795 million do not get the food they need to live a healthy life
- Serious economic consequences

  Losses of 11 percent of gross domestic product (GDP) every year in Africa and Asia,

  whereas preventing malnutrition delivers $16 in returns on investment for every $1 spent.

Global Nutrition Report
June 2016

MALNUTRITION TAKES A TOLL ON FAMILY BUDGETS.

- 8% More money spent on healthcare when one person is obese
- 16.3% of income lost with a diagnosis of diabetes
- 30% More money spent on healthcare with a cardiovascular disease diagnosis

UNITED STATES

CHINA

INDIA
One Thousand Days -

Fat in the Critical Thousand Days Ensuring Adequacy of Essential Dietary Fats for Mothers and Children in Low and Middle Income Countries

http://www.thousanddays.org/

Shakuntala Haraksingh Thilsted, The WorldFish Center
1000 days?

The 1,000 days between a woman’s pregnancy and her child’s 2nd birthday are critical for a child’s early development. Certain nutritional targets have to be reached during the critical early development phase to guarantee healthy development of the child.

During pregnancy, malnutrition can have a devastating impact on the healthy growth and development of a child. Babies who are malnourished in the womb have a higher risk of dying in infancy and are more likely to face lifelong cognitive and physical deficits and chronic health problems.

For children under the age of two, malnutrition can be life-threatening and weaken a child’s immune system and make him or her more susceptible to dying from common illnesses such as pneumonia, diarrhoea and malaria.

The right nutrition during the 1,000 day window will:

- save more than one million lives each year
- reduce the human and economic burden of diseases such as tuberculosis, malaria and HIV/AIDS
- reduce the risk for developing late life diseases like diabetes, ...
- improve an individual’s educational achievement and earning potential
- increase a country’s GDP by at least 2-3% annually

What can we do? -> Fish in the first 1000 days of life

Fish is the third staple food after rice and vegetables in the everyday diet in developing countries, such as Bangladesh, especially of the rural poor. Being the only animal-source food it improves dietary diversity and supplies multiple nutrients such as animal protein, essential fats, vitamins and minerals.

Readily available and cheap, small fish are particularly rich in vitamin A, iron and zinc, with high bioavailability. As many small fish species are eaten whole, with bones, they are a source of bioavailable calcium, important for lactation and growth.

Through basic nutritional education and improvement of availability of this irreplaceable food source through the development of aquaculture in such countries, children can have a chance for a better and healthier future from the very start of their lives.

By boosting aquaculture & fisheries techniques, helping government and the people to help themselves, we can make a difference.

Any money raised will be donated to Aquaculture without Frontiers to be distributed and used in support of the 1000 day initiative.
THE GLOBAL CRISIS IN POPULATION, FOOD AND MENTAL HEALTH
29 & 30 NOV 2016
Council of the Royal Society of Medicine, London

• 2011 Think Tank on the Future of Food & Agric - not enough arable land to feed the 8 billion never mind the 10 billion in 2050.

• Failure of the food system to meet the nutrition of the brain and the heart.

• Human milk has the least amount of protein of any large mammal BUT it is rich in the essential fats needed to finalise brain growth and development.

• Rise in mental ill health (now costing more than heart disease and cancer combined - UK 2007 £77 billion, 2010 £105 billion 2013 £113 billion

SOLUTION – Agriculturise the Oceans - Recast food production policy to serve brain specific nutrition
FISH - rich in high quality protein, essential fatty acids and micronutrients compared to other commodities

http://www.fao.org/3/a-i3844e.pdf
FAO Code & Public Policy – Create Level Playing Field
What is Most important to Seafood Customers in a Restaurant. Retail Was Similar

- Seafood Safety: 34%
- Price: 30%
- Health/Nutritious: 21%
- Fresh Today: 7%
- Country of Origin: 3%
- Environment: 4%
- Waiter Recommendation: 1%

Source: Seafood Business 2014
Tilapia as example

- **Low calorie Protein**
- Excellent source of Phosphorus, Niacin, Selenium and Vit. B12
- Good source of Potassium
- Low in Fat
- Toxin-free

**MICRONUTRIENTS**

When steamed, grilled or poached tilapia is a healthy source of **PROTEIN, NUTRIENTS AND ESSENTIAL FATTY ACIDS**.

- **Vitamin D**
  - Important for bone health, and for immunity.
- **Vitamin B12**
  - Vital for normal brain and nervous system function.
- **Vitamin B6**
  - Plays an important role in converting food into energy and helping the body to metabolize fats and proteins.

Website: http://seafoodprofessionals.org
HEALTH WELLBEING NUTRITION VITAMINS OMEGA-3’S MICRO-NUTRIENTS PREVENTATIVE HEALTH Inc MENTAL HEALTH & VIOLENCE

RENEWABLE SUSTAINABLE RESILIENT JOBS TRADE LOW CARBON FOOD SECURITY NUTRITION
Factors Affecting Seafood Consumption

ECONOMIC FACTORS

Income
Prices

INDIVIDUAL FACTORS

Dietary requirements
Taste preferences
Availability of product and time
Awareness about safety and sustainability
Allergies

CULTURAL FACTORS

Culture & tradition

SOCIAL FACTORS

Corporate social responsibility & public image
Regulations
Improvements and Solutions?

- IUU
- Antibiotics
- Malachite Green
- Food Dyes
- Sodium tri-polyphosphates
- Poor communications
- Glazing
- OH&S
- Labour Issues
- Plastic

- Fish Substitution/FRAUD
- Weights/Counts
- Potable Water
- Food Safety
- Carbon Monoxide
- Animal Welfare
- Education & Training
- Allowing myths to linger
- Poor planning
- Wastage

Failing to act GLOBALLY
Seafood is the single most important food one can consume for good health. Regular consumption may help to increase intelligence, reduce the risk of various diseases and disorders. (Harvard School of Public Health, 2006).

Fish is rich in omega-3 fatty acids which are known to contribute for the healthy development of brain tissue and retina (Natural News Network, 2006).
Eating fish during pregnancy may help reduce the risk of delivering premature baby, increase breast milk and strengthen the bones of mothers who delivered baby (Natural News Network, 2006).

Low maternal seafood intake was also associated with increased risk of suboptimum outcomes for prosocial behaviour, fine motor, communication, and social development scores. For each outcome measure, the lower the intake of seafood during pregnancy, the higher the risk of suboptimum developmental outcome. (ALSPAC study: an observational cohort study)

Children who eat fish may be less likely to develop Asthmas (Dept of Nutrition, Australia, 2004)
LATER IN LIFE

Regular fish consumption may relieve the symptom of rheumatoid arthritis, psoriasis and auto immune diseases (Cardiff University, 1998)

Elderly people who eat fish have a lower incidence of depression due to the presence of omega 3 fatty acids in brain (Deccan Health Care Network, 2010)

Eating Fish reduces the risk of heart disease and stroke by reducing blood clots and inflammation, improving blood vessel elasticity, lowering blood pressure, lowering blood fats and boosting ‘good’ cholesterol (American Heart Association, 2010)
PROMOTE HEALTHY EATING

Retailing – Window of our industry
These two questions were posed:

• 1. Advise on how best to prioritize fish consumption in nutrition strategies to maximally reap the nutrition and health-promoting benefits; and

• 2. Advise on approaches to improve data collection on the nutrient composition of fish and fishery products.
AISP – what are we doing?

- Engaging our members to respond to the questions and will report back on all relevant suggestions
- Building *The Seafood Knowledge Highway*
- Sowing the seeds on many agendas through nutrition and food security platforms
- Will absorb GILLS into our programs – see further below for Vision and Plans

Website: http://seafoodprofessionals.org
Aquaculture without Frontiers

• An independent non-profit organisation engaged in responsible and sustainable aquaculture to assist the poor and hungry
• Registered charity in USA, UK & Australia
• Email: comms.awf@gmail.com
• Website: http://www.aquaculturewithoutfrontiers.org/

• Aquaculture without Frontiers (AwF)
• @AwFComms @AwFVols
BIGGER PICTURE

MEXICO

USA

UK

KOREA

AUSTRALIA

WOMEN

SCHOOLS

INDIGENOUS

VOLUNTEERS
AwF Global

- Strategic Plan
- Volunteers (Secretariat)
- Aquaculture Learning Centres
- Women’s Network (Secretariat)
- Aquaponics Club
- Ornamental Club
- Global Schools/Students Network (Secretariat)
- Indigenous Network (Secretariat)
- Technical Committee (Secretariat)
- **Milling for Life (AwF UK COI)**
- Funding – Volunteers for Economic Growth Alliance (VEGA); Grants; Sponsorships: Donations
- Communications - Newsletter
- Establish satellite AwF’s – Australia, UK, etc
- Affiliations – VEGA; WAS: Florida Atlantic Uni; Deakin Uni, CERES Global, GBTF (UN) – NEPAD, Organic Life, Tamil Nadu
Woman of the Monthly Awards

http://www.aquaculturewithoutfrontiers.org/womens-network/woman-of-the-month-award/

- Dr Jennifer Cobcroft – December 2014
- Dr T.V. Anna Mercy – February 2015
- May Myat Noe Lwin – March 2015
- Dr Flower Ezekiel Msuya – April 2015
- Professor Arlyn Mandas – May 2015
- Veronica Esquivel Medina – July 2015
- Ruth Uribe Quintero – September 2015
- Dr Ann Fleming – October 2015
- Belinda Miranda-Garrido – November 2015
- Dr Meryl Williams – January 2016
- Dr Veikila Vuki – February 2016
- Professor Indah Susilowati – March 2016
- Professor Stella Williams – April 2016
- Dr. Shakuntala Thilsted – May 2016
- Dr. Doris Soto – June 2016
- Betty More – July 2016
What is AwF doing?

• AwF are also actively supporting the first question Dr. Albert Tacon (AwF) with co-author Dr. Marc Metain (IAEA) is currently completing a paper entitled "Food matters: fish, income and food supply - a comparative analysis".

• Dr. Janine Pierce (AwF) with Dr Wayne O’Connor ‘Impact of Oyster Farming on Rural Community Sustainability in North Vietnam’ - http://link.springer.com/chapter/10.1007/978-94-017-9008-6_13#page-1
GILLS VISION

• Increased understanding of importance of seafood through knowledge sharing
• Better global communication from research through industry to consumers
• Less hunger and better health outcomes
• Increased seafood consumption
GILLS PLAN

• Increase number of Universities engaged
• Omega-3 wellness program
• Continuous improvement with website and other electronic social platforms and media
• Link with major societies/associations, etc through strategic partnerships
• Think Tank on gaps in research and sharing ideas
• Support Global Day/Month/Year concept
Recommendations

• Collaboration is essential
• Share what you are doing and let us create a powerful VISION and empower people through continual improvement and learning
• Beating the fear of Truth, Transparency & Transformation by telling and promoting our story
• Make Nutrition & Food Security our centre-piece from which we build fisheries & aquaculture activities and regulations
• Can we work together and solve this issue?

Website: http://seafoodprofessionals.org
Take Home Messages

• Life evolved in the ocean - Oceans cover 72% worlds surface – 99% volume of the world
• Seafood is the richest source of many nutrients that optimize the development of baby’s brains and nervous systems
• Peer reviewed science repeatedly demonstrates health benefits far outweigh theoretical risks
• Scientific evidence is compelling that seafood deficient diets are a real and present danger
• Prevention through nutrition creates incredible savings for Public Health

Website: http://seafoodprofessionals.org

YOU KNOW IT MAKES SENSE
QUESTIONS & ANSWERS
Muchas Gracias

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