Pond aquaculture - a cultural heritage or a part of the aquaculture boost

Catalin PLATON – ROMFISH
FIGURE 1
WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION

NOTE: Excludes aquatic mammals, crocodiles, alligators and caimans, seaweeds and other aquatic plants
Global aquaculture production

<table>
<thead>
<tr>
<th>Year</th>
<th>Inland</th>
<th>Marine</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>2012</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>2013</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>2014</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>2015</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>2016</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
</tbody>
</table>
Bureaucracy and multiple layer regulation

Long term development strategies

Access to waters
New concepts in aquaculture

- IMTA
- Nutrient recycling
- Ecosystem approach
- Organic
- Sustainable
- Polyculture
“Whenever the demands of seafood-eating peoples exceed the abilities of their indigenous aquatic ecosystems to provide for them, these cultures, throughout the world, develop AQUACULTURE”

(Barry Costa-Pierce)
Community polyculture → Industrial monoculture → Ecosystem approach
**Fan Lai** “The Classic of Fish Culture”  
473 BC

**Bolivia** - irrigation combined with fish culture  
200 BC

**Etruscans** - “vallicoltura” on Adriatic and Tyrrhenian coasts  
200 BC

**Marcus Terentius Varro** – “Rerum rusticarum libri III” (About Agriculture)  
36 BC
• Lucius Junius Moderatus Columella (50 AD) “De re Rustica” (About Agriculture) Chapter VIII DE VILLATICIS PASTIONIBUS. AVIARIUS ET PISCATOR (Growing farm animals: Birds and Fish)
Medieval illustration of the ancient Roman Sergius Orata (95 AD) demonstrating oyster cultivation
Charlemagne’s Empire

Charlemagne’s kingdom in 771
Increased by his conquests

812 A.D

Charlemagne Codex
“Capitulare de villis vel curtis imperii Caroli Magni”
- England (1086) – William the Conqueror in Domesday Book orders the registration of the properties of his kingdom and the Abbey of St. Edmonds registers “il vivariae piscinae” for the use of rectorium
- Bohemia (1115) – Kladruby Monastery
Georg Reicherstorffer - Moldaviae quae olim Daciae pars (Describing Moldova which was a part of Dacia), Chorographia, Vienna, first edition 1541 – “Moldova is so rich in ponds and lakes in a manner that one could not ask more from nature for the daily needs.”
Jan Dubravius, Bishop of Olomuc (Moravia) 1559 - *De piscinis et piscium qui in eis aluntur naturis* (About ponds and fish growing in them)
Olbrzycht Strumienski. **1573. O sprawie, sypaniu, wymierzaniu i rybieniu stawów** - **On the repair, grading, measuring and stocking of ponds**
Johannes Coler published in 1592 – 1606 Oeconomia Ruralis et Domestica – Rural and Household Economics
John Taverner - *Certaine experiments concerning fish and fruite*: practised by John Tavernier Gentleman, and by him published for the benefit of others, London: Printed [by Richard Field] for William Ponsonby

1600
Roger North, an English lawyer publishes in 1714 *A Treatise on Fish and Fish-Ponds*, by the Hon. ROGER NORTH illustrated with eighteen beautifully-coloured specimens, by ELEAZAR ALBIN which will be republished in 1794 as *The history of esculent fish*.
Mordechai Ardon—Fish and Moon (1946)
1841 – Gottlieb Boccius publishes A Treatise On the Management Of Fresh-Water Fish, With a View To Making Them a Source Of Profit To Landed Proprietors

1841 Anton Gehin and Joseph Remy were made famous by their skills in trout artificial fecundation

1741 - Stephen Ludwig Jacobi started artificial propagation in Germany

1768 – Lazare Spallanzani describes the artificial fertilization of fish eggs
Textbook of Pond Culture

Rearing and Keeping of Carp, Trout and Allied Fishes

by Wilhelm Schaeperlaus

Forgotten Books

1933
Pond fish farming area in EU

- Romania
- Czech Republic
- Poland
- France
- Hungary
- Bulgaria
- Germany
- Latvia
- Croatia
- Others
Conclusions

- World production of farmed fish relies on inland freshwater production.
- Pond fish farming remain the most common used production facility.
- Pond fish farming is one of those few animal husbandry methods which have minimal deterioration effect on the environment.
- Pond fish farming is part of our cultural heritage.
- Pond fish farming is an ecosystem services net provider.
- While at global level pond fish farming is the central part of aquaculture growth, in Europe is just only a part of the cultural heritage.
THANK YOU FOR YOUR PATIENCE!