Tree beekeeping in Poland
some history

Dr. Przemysław Nawrocki, WWF Poland

Tree hive beekeeping course, Frankonia, 23-26 October 2014
Basic terminology

„Wild bee hive” - bees inhabiting a natural hole
Basic terminology

Tree hive – beute – *barć* - *bort*
Tree hive keeper – zeidler – *bartnik* - *bortnik*

Log hive – klotzbeute - *kłoda* - *koloda*
(*(barć* – *bort*, etc. - names from Polish and Russian language respectively)*

Tree (hive) beekeeping - *waldbienenzucht*
The oldest direct evidences of tree beekeeping

- Tree hive from Eastern part of Germany from 1\textsuperscript{st} – 2\textsuperscript{nd} century
- Tomb in Russia from 5\textsuperscript{th} century - complete tree hive keeper’s equipment
- Tree hive from Oder River from ca. 10\textsuperscript{th} century
Tree beekeeping in Poland
more than a thousand years-old skill

- Maximum of development – 16\textsuperscript{th} and 17\textsuperscript{th} century
- Important branch of Economy
  - Wax, honey for local market and for export
  - Profits from wax and honey could be 30 times higher than from wood (data from 1775y, forest in Człuchów area, South-West Pomerania)
- Tree hives belonged to kings, princes and cities
- Tree hive keepers had right for inheritable timeless lease of the tree hives
- Trees with hives marked with special signs
Examples of Polish tree hive signs indicating ownership
Tree hive keepers

- Diverse social origin (peasants, townsmen, nobles)
- Unique, coherent community (brać bartna)
  - own law (in written form since 16th century)
  - self-government
  - own court
- Highly respected profession
- Some political power, especially in 18th century
Tree hive keeper’s life

- Basic unit managed by 1 tree hive keeper – 60 tree hives („bór bartny”)  
- Wealthy tree hive keepers could possess/ lease 300 – 400 tree hives  
- Additionally “bee meadow” had to be created and managed  
- One honey harvest/ year  
  o 3.5 – 10 kg of honey/ year/ hive  
  o 21 – 53 kg of honey/ year/ hive Białowieża Forest  
- Tribute for the king: honey, wax, hay, pine marten pelts, later money  
- Right to use wood, to hunt for birds and small mammals, and to collect acorns  
- Threat of tree robbing a tree hive, severe punishment for robbery
Tree hive keeper’s life – preparing a tree for future generations
Quantitative data from beginning of 19th century

Polish Congress Kingdom 1827y
(constitutional monarchy with the Emperor of Russia serving as the Polish King)

128.5 thousands km²,

4 million inhabitants

- 70 000 tree hives
- 100 000 log hives in apiaries
- Ca. 1 tree hive/ 2 km²
- Ca. 1 tree hive / 1 km² of forested area
- Ca. 1 bee colony / 30 inhabitants

Selection of tree species for tree hives

Forest district Samsonów, Świętokrzyska Forest (central Poland) 1832y

<table>
<thead>
<tr>
<th>Tree species</th>
<th>No of trees with hives</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>pine</td>
<td>154</td>
<td>51.7</td>
</tr>
<tr>
<td>larch</td>
<td>91</td>
<td>30.5</td>
</tr>
<tr>
<td>oak</td>
<td>24</td>
<td>8.1</td>
</tr>
<tr>
<td>fir</td>
<td>22</td>
<td>7.4</td>
</tr>
<tr>
<td>spruce</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>298</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Why beech trees are missing on the list?

After Barański S. 1979. Dzieje bartnictwa w Puszczy Świętokrzyskiej w zarysie.
Transition to modern beekeeping

- Replacement by apiary beekeeping started since at least 13th century
- Extinction of tree beekeeping – half to the end of 19th century (legal ban by rulers of Austria, Prussia and Russia)
Transition to modern beekeeping

Based on illustration from Blank-Weissberg S., 1937. Barcie i kłody w Polsce
Extinction of wild bees in Poland

2nd half of 20th century, caused mostly by varroa

The genetic lines in apiaries closest to “Black Bee” Apis m. mellifera
- „Northern” (vicinity of Olecko)
- Augustowska (Augustowska Forest)
- Kampinoska (Kampinoska Forest)
- Asta (vicinity of Radomsko)
The last of tree hive beekeeping tradition in Poland

- Open air museum specimens
- Written records (archives)
- Scientific publications and a film from 1938 documenting equipment and skills of the last tree hive keepers
- Beekeepers vocabulary with some relict words
- Tradition of catching swarms with log traps

- Presence in “people’s minds and hearts”
The last of tree hive beekeeping tradition in Poland

- Presence in “people’s minds and hearts” – bees and hungry bears
Tree hive beekeeping tradition west of Poland

- Rich tradition in Germany
- Vanished by the end of 19th century
Tree hive beekeeping tradition west of Poland
Tree beekeeping east of Poland

- Belarus and Ukraine – log hives (called bort) are still in use
- The skills are vanishing
Tree beekeeping east of Poland

- Bashkortostan, southern Ural – tree hive beekeeping survived as an alive tradition
Unique opportunity to restore the tradition in Poland and the rest of Europe

Thank you for your attention