Wildlife
- a Hindrance or Attraction for Outdoor Recreation among Non-western Citizens in Denmark?

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Pathways to Success 2010:
Integrating Human Dimensions into Fish and Wildlife Management
September 27 – October 1, 2010, Estes Park, Colorado, USA
Globalizing – a Multicultural Society

<table>
<thead>
<tr>
<th>Year</th>
<th>Immigrant-population</th>
<th>Non-western background</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5,511,000</td>
<td>6,6% → 12,1% (728,000)</td>
</tr>
<tr>
<td>2050</td>
<td>6,034,000</td>
<td>16,6%</td>
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Kilde: Danmarks Statistik 2009

FOREST & LANDSCAPE

FACULTY OF LIFE SCIENCES
UNIVERSITY OF COPENHAGEN
What do we know?

Differences (and Simmilarities) in Outdoor Recreation
Western/Non-western Background

Danmarks Statistik
Data Collection Questionnaire Survey

• Representative gross sample: 2,000
• Age: 15-78 years
• Contact form: Postal, up to 3 reminders
• Response rate: 64 (n=1217, non-western, n=50)
Outdoor Recreation
Groupsize

<table>
<thead>
<tr>
<th>Number of persons</th>
<th>Western</th>
<th>Non-western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</table>

Number of persons

(p=0.0001)
Duration of Visit

Average: 1.8 / 2.3 hours

(p=0.0001)
Visitation Rate

- Today
- Less than 1 week ago
- 1-2 weeks ago
- 2-4 weeks ago
- 1-2 months ago
- 2-4 months ago
- 4-12 months ago
- More than 1 year ago

Western vs. Non-western

(p=0.0001)
Wildlife and Outdoor Recreation
Fear

“Does your eventual fear of meeting certain wildlife-species in the Danish nature prevent you to take a trip out in the nature/landscape?”

Don’t know

Western
Non-western

(p=0.0003)
“Does your eventual disgust of meeting certain wildlife-species in the Danish nature prevent you to take a trip out in the nature/landscape?”

- **Yes**: A small proportion of respondents, mostly Western, indicated this.
- **No**: A majority of respondents, including both Western and Non-western, marked this option.
- **Don’t know**: A very small number of respondents marked this.

The difference in responses between Western and Non-western groups is statistically significant (p=0.002).
Fear

“To which degree would you say, that you are afraid of the following farm-/hobby-/pet-animals which you can meet in the nature/landscape?”

Dog on a leash 8/20% little-very afraid (0/4% don’t know)

Loose dog 63/78% little-very afraid (1/8% don’t know)

A cow 1/4% very afraid (0/4% don’t know)

(Red=Western, Green=Non-western, p = 0.0001 - 0.01)
Landscape/Outdoor Recreation Improvements

“Which changes in the nature/landscape around your town/residence would mean more frequently visits out there?”

“More wildlife, so the chance to see the animals are higher”

41/23 %

(Red=Western, Green=Non-western, p=0.01)
Wildlife Value Orientations

- Western
- Non-western

Utilitarian
Pluralist
Mutualist
Distanced

% 

( p=0.02)
Conclusions/Recommendations

• Values → Attitudes → Behaviour
• Knowing values => Able to be proactive (inclusion)

• Unacquaintance with (new) nature/wildlife prevent nature visits for citizens with a different frame of references

• Targeted information and education effort - e.g. through the established ranger and “outdoor school” system
Knowledge of Rules of Access
“What do you believe – as a basic rule – is allowed for the population today?”

- **To pick flowers, berry and mushrooms for your personal consumption in the State Forests** *(77/63% allowed)*

- **To walk on private dirt roads** *(40/18% allowed)*

- **To ride a bicycle outside the roads and tracks in the State Forests** *(20/36% allowed)*

- **Non-western background:** “Don’t know”!
  
  *(Red=Western, Green=Non-western)*
"Outdoor Schools"

"Udeskole" = education:

- Outside
- Regularly (every/every second week)
- Specific duration (min. ½ day/year)
- Integrated in teaching plan
- Part of the formal curricula

Wildlife Value Orientations
- Two main orientations -

**Mutualism-Utilitarian**

**Mutualism**
*Humans and wildlife co-exist*
*Depend on each other*
*Benefit of relationship*

**Utilitarian**
*Wildlife used and managed for human benefit*
Wildlife Value Orientations
- 19 Basic belief items -

**Scale:** From 1 = “strongly disagree” to 7 “strongly agree”

10 Utilitarian items, e.g.:
"Humans should manage fish and wildlife populations so that humans benefit"

"It is acceptable for people to kill wildlife if they think it poses a threat to their life"

... 

9 Mutualism items, e.g.:
"We should strive for a world where humans and fish and wildlife can live side by side without fear"

"Hunting does not respect the lives of animals"

...
Wildlife Value Orientations
- Four value orientation types -

1. **Utilitarian Wildlife Value Orientation Type**
   Scored > 4.50 ("high") on the utilitarian scale (1-7) and ≤ 4.50 ("low") on the mutualism scale.
   Possess beliefs about wildlife that society is purportedly moving away from.
   - *Wildlife should be used and managed for human benefit.*

2. **Mutualist Wildlife Value Orientation Type**
   Scored > than 4.50 ("high") on the mutualism scale and ≤ 4.50 ("low") on the utilitarian scale.
   Represent a less "traditional" view.
   - *Humans and wildlife are meant to co-exist or live in harmony.*
Wildlife Value Orientations
- Four value orientation types -

3. Pluralist Wildlife Value Orientation Type
Pluralists hold both a mutualism and a utilitarian value orientation toward wildlife (i.e., they score “high” (>4.5) on both scales). Orientations likely manifest themselves in day-to-day situations. - An indication of a society in transition.

4. Distanced Wildlife Value Orientation Type
The Distanced individuals appear to be just that – distanced from the issue of wildlife (i.e., they score “low” (<4.5) on both scales). - Less interested (less salient) - or values may not be oriented very strongly toward wildlife.
Wildlife Value Orientations USA & DK

- Utilitarian
- Pluralist
- Mutualist
- Distanced

Western U.S.
Denmark

%