Conceitos da Coexistência Humano-Fauna

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LEMaC-ESALQ-USP
Chester Zoo
IUCN
HUMAN-WILDLIFE CONFLICT
Google Scholar

Number of Results

"Human-Wildlife Conflict"  "Human-Wildlife Coexistence"
Human-Wildlife Conflict
a complex phenomenon

I. DAMAGE
II. KILLING
III. CLASH OF OPINIONS
Human-Wildlife Conflict
a complex phenomenon

I. PREDATION/COMPETITION/HERBIVORY
Ecology and economics > Technical solutions

II. KILLING

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Human-Wildlife Conflict
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I. PREDATION/COMPETITION/HERBIVORY
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II. HUMAN BEHAVIOUR
Behavioural sciences > Behaviour change

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Human-Wildlife Conflict
a complex phenomenon

I. PREDATION/COMPETITION/HERBIVORY
Ecology and economics > Technical solutions

II. HUMAN BEHAVIOUR
Behavioural sciences > Behaviour change

III. SOCIAL CONFLICT
Social/political sciences > Negotiation
Definition of HWC

“Struggles involving conservation and other human interests that emerge when the behaviour and needs of wildlife are at odds with human goals or ideals, leading to negative impacts on people and/or wildlife”.

IUCN Task Force on HWC, 2019
Conflict-to-coexistence continuum
Human-Wildlife Relationships

Wildlife

Stakeholders

ex. Caça, comércio ilegal, sobreexploração

ex. Praga, animal-problema

‘Conflito Humano-Fauna’

Convivência

COEXISTÊNCIA

Co-ocorrência
Human-wildlife relationship

Wildlife

Humans

(-)  (+)

Illegal trade
Overharvest
Poaching
Convivência

(+)

Human-wildlife conflict
The proper goal

CONSERVATION

Human  ↔  Wildlife
The proper goal

CONSERVATION
Human ↔ Wildlife

CO-EXISTENCE
Human ↔ Wildlife
The proper goal

CONSERVATION
Human ↔ Wildlife

CO-EXISTENCE
Human ↔ Wildlife
The proper goal

CONSERVATION
Human ↔ Wildlife

CO-EXISTENCE
Human ⇐⇒ Wildlife
The proper goal

CONSERVATION

Human ↔ Wildlife

CO-EXISTENCE

Human ↔ Wildlife
 Situation assessment

Planning cycle

Monitoring & evaluation

Decision-making

Implementation
Situation Assessment: Human Dimension
Levels of assessment

Individual

Intrapersonal factors
- Knowledge
- Attitude
- Feeling
- Tolerance
- Values

Group/community

Interpersonal/intergroup factors
- Social norms
- Trust
- Engagement
- Communication

Wildlife
Levels of assessment

Wildlife

Individual
- Intrapersonal factors
  - Knowledge
  - Attitude
  - Feeling
  - Tolerance
  - Values
- Interpersonal/intergroup factors
  - Social norms
  - Trust
  - Engagement
  - Communication

Group/community
- Societal factors
  - Governance
  - Policies
  - Market
  - Culture

Systemic/macro
MINI REVIEW

Determining where the wild things will be: using psychological theory to find tolerance for large carnivores

Jeremy T. Bruskotter & Robyn S. Wilson
Predicting Acceptability of Jaguars and Pumas in the Atlantic Forest, Brazil

Figure 3. Model relationship results. Only statistically significant ($p < .05$) paths are shown.

# HOW TO CHANGE BEHAVIOUR

**IF PEOPLE…**

<table>
<thead>
<tr>
<th>Do not know enough to understand the problem</th>
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</table>

**THEN**

<table>
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<tr>
<th>Provide information</th>
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## HOW TO CHANGE BEHAVIOUR

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<th>THEN</th>
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<tr>
<td>Do not know enough to understand the problem</td>
<td>Provide information</td>
</tr>
<tr>
<td>Know about the problem, BUT do not care about it</td>
<td>Change incentive, feelings, social norms (eg persuasive communication, social marketing)</td>
</tr>
</tbody>
</table>
Social norms approach to behaviour change

http://connect.xcelenergy.com/minnesota/conservation-by-peer-pressure/
Can school children influence adults’ behavior toward jaguars? Evidence of intergenerational learning in education for conservation

Silvio Marchini, David W. Macdonald
• the pleasure we take in doing the right thing (or avoiding the shame of doing the wrong thing) is often a more effective incentive than money.

• “to encourage civic action by appealing to both material interests and moral sentiments, framed so that the two work synergistically rather than at cross-purposes.”
A review of financial instruments to pay for predator conservation and encourage human–carnivore coexistence

Amy J. Dickman, Ewan A. Macdonald, and David W. Macdonald

PNAS August 23, 2011 108 (34) 13937-13944; https://doi.org/10.1073/pnas.1012972108
Theory of Change (ToC) x Logical Framework

Theory of Change
Shows the big picture with all possible pathways – messy and complex

Logical Framework
Shows just the pathway that your program deals with – neat and tidy

Results chain

Assumptions and Risks
- Priorities
- Problem analysis
- Stakeholder analysis
- Objective setting
- Risk analysis
- Monitoring framework

Resources/Inputs
- Staff
- Time
- Money
- Materials
- Equipment
- Technology
- Partners
- Stakeholders
- Among others

Activities
- Workshops
- Meetings
- Deliver Services
- Develop products
- Train
- Facilitate
- Partner
- Etc.

Outputs
- Number trained
- Purchased
- Equipment
- Built
- Structures
- Facilities
- Developed
- Policies
- Products
- Curricula
- Services delivered

Outcomes
- Short-Term – Learning
  - Awareness
  - Knowledge
  - Attitudes
  - Skills
  - Opinions
  - Aspirations
  - Motivation
- Medium-term – Action
  - Behaviour
  - Practice
  - Decision making
  - Policies
  - Social Action

Impact
- Reduce damage
- Save the species
Monitoring & Evaluation

Planned Work

Resources/Inputs
- Staff
- Time
- Money
- Materials
- Equipment
- Technology
- Partners
- Stakeholders
- Among others

Activities
- Workshops
- Meetings
- Deliver Services
- Develop products,
  Curriculum
- Resources
- Train
- Facilitate
- Partner
- Etc.

Intended Results

Outputs
- Number trained,
  Sensitised
- Treated
- Purchased
- Equipment
- Built
  Structures,
  Facilities
- Developed
  Policies
- Products
- Curricula
- Services delivered

Outcomes
- Short term: 1-3 yrs
- Medium term: 4-6 yrs

Impact
- 7-10 yrs

Efficiency
Efficacy
Effectiveness

Conditions
- Social
- Economic
- Civil
- Environmental
**CASO: Pumas y Cabras**

1. Sentimiento frente a la SP
2. Control sobre la SP
3. Confron hacen las instituciones
4. Percepción del riesgo

**ENCUESTA:**
1. ¿Cuál es su sentimiento frente a la especie?
2. ¿Cómo se siente con la presencia de esta especie dentro de su proyecto?
3.
Padrões de diversidade biológica e coexistência humano-fauna: componentes que sustentam os serviços ecossistêmicos

1. Caracterizar as assembléias de mamíferos

2. Analisar padrões de diversidade das assembléias de mamíferos

3. Verificar a ocorrência de estruturação populacional e fluxo gênico e inferir sobre a conectividade funcional

4. Descrever a dieta de mamíferos carnívoros, o uso dos recursos e habitat

5. Desenvolver e implementar um modelo para avaliação da percepção social dos serviços ecossistêmicos;

6. Desenvolver e implementar modelos para minimizar o conflito entre produtores rurais e mamíferos predadores

7. Fazer recomendações para políticas públicas que minizem os conflitos e ameaças e maximizem a conservação da biodiversidade e a coexistência humano-fauna
Armadilhamento fotográfico

Protocolo TEAM
Estações amostrais
Grid de 60 km²
1 Km de espaçamento
Estações de seca e chuva
Corredor sudeste MA

Bacia Hidrográfica do Paraíba do Sul

APA São Francisco Xavier

Sub-bacia Rios Pomba e Muriaé

Mb Rio das Flores (Valença e Barra do Piraí)

Mb Coléginho; Olho d’água e Valão Grande (Cambuci e Italva)

Mb Ouro e Varre-Sai (Porciúncula e Varre-Sai)

PESM – Núcleo Santa Virgínia

PESM – Núcleo Itariru

Estação Ecológica de Bananal
DIMENSÕES HUMANAS

SAO PAULO

PESM-NITA (23)

PETAR (40)

PECB (60)

PARANA

PESM-NSV-VG (24)
Modelo Conceitual

- Control over Hazard
- Social trust (in mgt. agency)
- Affect for species

- DESSERVIÇOS ECOSS.
- SERVIÇOS ECOSS.
- Tolerance (Acceptance)

- Coexistência Human-Fauna
- Interações Humano-Fauna
- Fatores biofísicos

Com PSA x Sem PSA
Ecosystem Disservices
Unpacking Pandora’s Box: Understanding and Categorising Ecosystem Disservices for Environmental Management and Human Wellbeing


Table 2. Categories and Examples of Ecosystem Disservices According to Origin and Nature of Impacts

<table>
<thead>
<tr>
<th>Ecosystem origin</th>
<th>Primary dimension of human wellbeing affected</th>
<th>Aesthetic and cultural (‘Cultural’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological</td>
<td>Economy</td>
<td>Physical and mental health and safety (‘health’)</td>
</tr>
<tr>
<td></td>
<td>Invasive species</td>
<td>Human diseases from pathogens</td>
</tr>
<tr>
<td></td>
<td>Agricultural and fisheries</td>
<td>Allergens</td>
</tr>
<tr>
<td></td>
<td>pests and diseases</td>
<td>Dangerous or poisonous plants and animals</td>
</tr>
<tr>
<td></td>
<td>Red tide</td>
<td>Trees scratching on windowpanes</td>
</tr>
<tr>
<td>Abiotic¹</td>
<td>Droughts</td>
<td>Floods</td>
</tr>
<tr>
<td></td>
<td>Fires</td>
<td>Storms</td>
</tr>
<tr>
<td></td>
<td>Siltation</td>
<td>Bird droppings on stonework and outdoor sculptures</td>
</tr>
<tr>
<td></td>
<td>Leaching of nutrients</td>
<td>Tree roots cracking pavements</td>
</tr>
</tbody>
</table>

¹ Abiotic factors that do not arise from a disturbance or change in ecosystem processes are termed abiotic.
Feedback effect of crop raiding in payments for ecosystem services

Intention of enrolling cropland in new PES

Grain-to-Green Program

Forest cover

Wildlife crop raiding

Ecological Welfare Forest Program

Xiaodong Chen, Qi Zhang, M. Nils Peterson, Conghe Song
Envolvendo stakeholders na escolha das soluções

Participatory design of “good practices” protocol.
Envolvendo stakeholders na escolha das soluções
Envolvendo stakeholders na escolha das soluções adaptações

LUZ AMÉRICA
DICE SI A LA CONVIVENCIA CON EL TIGRE

RESILIÊNCIA

2016
CONSERVATION BIOLOGY 23

Human–Wildlife Interactions
Turning Conflict into Coexistence

Edited by Beatrice Frank, Jenny A. Glikman and Silvio Marchini

The interdisciplinaty field of research focusing on human–wildlife conflict (HWC) and ways to turn conflict into coexistence, although relatively new, is developing fast. In the last 30 years, the number of scientific publications addressing HWC has increased almost exponentially (Figure 19.1). Initially focused on the ecological and economic aspects of wildlife damage (Woodroffe et al. 2005), the emphasis of this literature has been gradually drifting to the human dimensions of HWC. Examples of themes that have been addressed recently include the roles of cognition and feelings such as attitudes (Hardy & Knight 2019), values (Maffi et al. 2013), and emotions (Jaudas 2012) about single species or groups of related species (e.g., large carnivores) and efforts to predict tolerance (Boonstra & Willms 2012; Family et al. 2013) and behaviors (Marchini & Macdonald 2013) toward the species involved; and approaches to understanding conflict between groups of people over wildlife management (Midden & McIntyre 2014). There has been, indeed, considerable progress in the understanding of the ecology and economics of wildlife damage and of the drivers of tolerance and hostility toward wildlife at small scales (i.e., individual to localized community levels). Nonetheless, this understanding has not translated significantly into management and policy at larger scales. In the meantime, HWC is escalating in the world in general, and in developing countries in particular (Nourse 2005; Marchini & Crawshaw 2005; Morard et al. 2004). Two important factors behind this research-implementation gap are complexity and limited resources. However, research has undeniably focused mostly on local, single-species issues and individual-