Three comments on the previous presentation (Wednesday, last session)

❑ CALLISTO does not wish to promote cognitive polyphasia

❑ The previous presentation addressed results of social research, not how CALLISTO intervenes

❑ Cognitive polyphasia as synthesis of scientific and lay knowledge was a finding and not what we want to promote of how we wish to come to compromises

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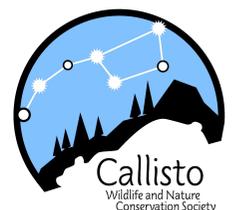
Stakeholder analysis and stakeholder attitudes towards the coexistence of humans with bears in the Greek case

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Overview of the presentation

❑ Selected results of three actions within the frame of the LIFE EX-TRA project in Greece (three Natura 2000 areas in Central Greece)

o Stakeholder analysis (LIFE EX-TRA, Action A5)

o Stakeholder attitudes (LIFE EX-TRA, Action A6)

o Follow-up surveys of stakeholder attitudes (LIFE EX-TRA, Action E3)

❑ Main focus on methodological issues (e.g., toolbox = collection of tools to address human dimensions in wildlife conservation)

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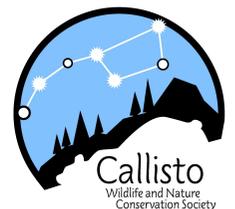
Stakeholder analysis

❑ **Project areas**: Three Natura 2000 sites in Central Greece (Brown Bear)

❑ **Data collection**: Focus groups discussion with stock-breeders (five interviewees); focus group discussion with hunters (three interviewees); two semi-structured interviews with chief foresters; four semi-structured interviews with members of Callisto

❑ **Focus on group processes**: perception of ingroup capacities, examination of intergroup convergence and conflict

Stakeholder analysis – mixed motive perspective

❑ **Win-lose approaches**: economic development vs. wildlife conservation; exclusionary, top-down paradigm in protected areas – almost no protection outside borders

❑ **Win-win approaches**: Benefits for both economic development and wildlife conservation

❑ **However, many win-win approaches seem to desire a harmonious outcome when conflict disappears and when history seems to come to an end**

❑ **Sustainability as an ongoing process** and not as content
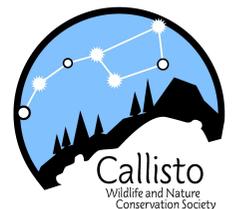
Stakeholder analysis – mixed motive perspective

❑ **Mixed-motive approach:**

o Acknowledgment of conflict ('win-lose' models)

o Distributive aspects of 'win-win' approaches for benefits and costs; <u>determine the costs each stakeholder is willing to bare</u>

❑ Dialogue between **Habermas** (deliberation) and **Foucault** (power issues): <u>How can deliberation be thought of under ongoing conflict (coexistence)</u>

❑ Stakeholder analysis in Greece aimed at mapping how both benefits and costs can be distributed (**mixed-motive perspective**)

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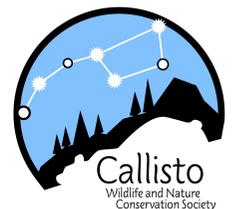
Stakeholder analysis – mixed motive perspective

	Economic development	Wildlife conservation
Stakeholders expect to be **benefited by**	Ecotourism opportunities	Fair compensation systems
Cost stakeholders are willing to bare	A minimum of damage to livestock has to be accepted	'Problematic' animals have to be translocated

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Stakeholder analysis – SWOT analysis

	Stock breeders	Hunters	Foresters	eNGOs
Strengths (ingroup elements, positive influence)	Stock-breeders acknowledge that electric fences have been effective for apiarists	Hunters respect a number of environmentalist values	Foresters have invaluable experience at the local level	Long-term presence of eNGOs in local communities
Weaknesses (ingroup elements, negative influence)	There is no valid way of certifying guarding dogs	The cost of hunting dogs is extremely high and, therefore, damages to hunting dogs comprise a significant financial loss for hunters	There is a strong feeling of inability among foresters concerning the fulfillment of their mission due to lack of resources	Demands that are not sensitive to local circumstances might escalate conflicts
Opportunities (intergroup convergence)	Stock-breeders can accept a minimum of damage to their livestock caused by bears	Hunting clubs would fund a guarding-dog-network because guarding dogs would decrease conflicts between hunters and stock-breeders	Responsible for wildlife conservation	eNGOs acknowledge that the involvement of local communities is a prerequisite for wildlife conservation
Threats (intergroup conflict)	Some stock-breeders do not record damages they suffer because they believe they will not get any compensation	Conflict between stock breeders and hunters leads to the use of poisoned baits	There are indications of indifference since foresters cannot support wildlife conservation	The wolf and bear re-introduction narrative persists

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Stakeholder attitudes

❑ **Questionnaire** development and administration in the project areas (161 usable questionnaires from 11 municipalities), analysis of questionnaire data

❑ **Stakeholders**: Stock breeders/farmers (conflict with large carnivores); foresters/agriculturalists (responsible for wildlife conservation); general public (hunters and members of eNGOs included in questionnaire rubrics)

❑ **Focus on**: Social networks; perceived reliability of stakeholders; consensus estimates

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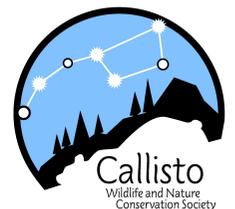
Stakeholder attitudes – social networks

Table 1. Interest groups involved in social networks concerning the bear issue

Have you ever discussed the bear issue with the following people?	General public (%)	Farmers/stock-breeders (%)	Foresters/ agriculturalists (%)	Total sample (%)	χ^2
Farmers/ stock breeders	75.2	★100.0	95.2	80.1	12.50**
Hunters	66.4	★ 93.3	95.2	72.7	13.88**
Foresters	50.4	☆ 60.0	☆85.7	55.9	10.25**
Members of eNGOs	46.4	☆ 73.3	76.2	52.8	9.60**

Note: ns = non significant; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

❑**Social networks among ingroup members:** more pronounced among farmers/stock breeders than among foresters/agriculturalists

❑**Social networks among groups:** farmers/stock breeders discuss more with hunters, then with members of NGOs, and last with foresters/agriculturalists

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Stakeholder attitudes – perceived reliability
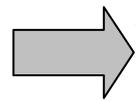
Table 2. Perceived reliability of interest groups

Do you trust the following people when they discuss the bear issue?	General public (%)	Farmers/stock-breeders (%)	Foresters/ agriculturalists (%)	Total sample (%)	χ^2
Farmers/stock breeders	65.6	★100.0	71.4	69.6	11.83**
Hunters	45.6	☆ 93.3	42.9	49.7	14.84**
Foresters	68.8	46.7	☆90.5	69.6	8.76*
Members of eNGOs	72.0	53.3	66.7	69.6	2.17^{ns}

Note: ns = non significant; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

❑ **Perceived ingroup reliability:** increased for farmers/stock breeders as compared to foresters/agriculturalists

❑ **Perceived reliability of hunters:** relatively high among farmers/stockbreeders as compared to other groups (DESPITE CONFLICT)

❑ **General public and farmers/stockbreeders:** trust members of NGOs more than foresters (REPLACEMENT)

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Stakeholder attitudes – consensus estimates

Please state if you agree or disagree with the following:

★ *I would take part in a bear conservation project*

Yes [   ]   No [   ]

★ Please record the percentage of members of **your stakeholder group** who would reply yes to this statement

Percentage (0-100%)

_____

★ Please record the percentage of members of **all people living in the area** who would reply yes to this statement

Percentage (0-100%)

_____

❑ **Actual concensus**

❑ **Consensus estimates for ingroup members**

❑ **Consensus estimates for the local community**

❑ **Four behavior intention items:**

I **would…**

(1)… take part in a bear conservation project

(2)… support financially a bear project conservation

(3)… contribute money toward a compensation program for farmers for losses due to bears.

(4)… accept that part of my taxes will be used toward paying compensation for losses due to bears.

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Stakeholder attitudes – consensus estimates

Table 3 Behaviour intentions concerning the bear issue

I would…	General public	Farmers/stock -breeders	Foresters/ agriculturalists	Total sample	χ^2
… take part in a bear conservation project	★61.5	☆26.7	76.2	60.1	9.41**
… support financially a bear conservation project	43.8	☆6.7	52.4	41.4	10.69**
… contribute money toward a compensation program for farmers for losses due to bears.	23.3	★60.0	57.1	31.4	14.91**
… accept that part of my taxes will be used toward paying compensation for losses due to bears.	52.5	★80.0	71.4	57.7	6.36*

Note: ns = non significant; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

❑Farmers/stock breeders are not willing to take part or support financially in bear conservation but they endorse compensation for losses due to bears **(reversed NIMBY when it comes to money: bring your money in my backyard)**
❑Increased potential to **recruit volunteers for bear conservation among the public**

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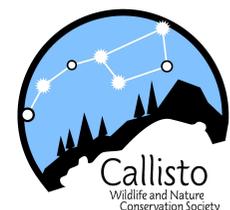
Stakeholder attitudes – consensus estimates

Table 4. Mean errors in behaviour intention estimates for non-contributors and contributors

I would…	Non-contributors	Contributors	*Mann-Whitney Z*
… take part in a bear conservation project	-65.20	-43.91	-3.15**
… support financially a bear project conservation	-60.55	-46.52	-1.94[ns]
… contribute money toward a compensation program for farmers for losses due to bears.	-39.85	-22.35	-2.79**
… accept that part of my taxes will be used toward paying compensation for losses due to bears.	-68.58	-31.07	-5.21***

Note: ns = non significant; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

❑ **All respondents underestimate actual consensus (negative signs in mean errors)**

❑ **Non-contributors present a more pronounced underestimation of actual consensus as compared to contributors (absolute values of mean errors)**

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Stakeholder attitudes – consensus estimates

Table 5. Mean errors in behaviour intention estimates for local people

I would…	General public	Farmers/stock-breeders	Foresters/ agriculturalists	Total sample	Kruskal Wallis χ^2
… take part in a bear conservation project	-50.77	★-63.95	-49.13	-51.71	1.72^{ns}
… support financially a bear project conservation	-52.22	★-71.02	-55.83	-54.31	1.36^{ns}
… contribute money toward a compensation program for farmers for losses due to bears.	-33.04	☆-0.11	-56.42	-33.72	3.92^{ns}
… accept that part of my taxes will be used toward paying compensation for losses due to bears.	-45.60	☆-21.22	-60.18	-45.67	3.63^{ns}

Note: ns = non significant; * p < 0.05; ** p < 0.01; *** p < 0.001.

❑ **Farmers/stock-breeders commit higher errors for local people in the first two items (e.g., conservation, where they revealed significantly lower intention) and lower errors in the next two items (compensation)**

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Stakeholder attitudes – consensus estimates

Table 5. Mean errors in behaviour intention estimates for own stakeholder group

I would…	General public	Farmers/stock-breeders	Foresters/agriculturalists	Total sample	Kruskal Wallis χ^2
… take part in a bear conservation project	-51.40 ★	-45.52	-31.81	-48.09	3.44^{ns}
… support financially a bear project conservation	-49.39 ★	-58.54	-40.08	-48.58	4.44^{ns}
… contribute money toward a compensation program for farmers for losses due to bears.	-16.08 ☆	-14.81	-48.43	-20.84	0.78^{ns}
… accept that part of my taxes will be used toward paying compensation for losses due to bears.	-39.93 ☆	-1.25	-47.90	-38.02	3.55^{ns}

Note: ns = non significant; * p < 0.05; ** p < 0.01; *** p < 0.001.

❑ **Farmers/stock-breeders to commit higher errors for their own group in first two items (e.g., conservation, where they revealed significantly lower intention) and lower errors in the next two items (compensation)**

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Follow-up surveys of stakeholder attitudes

❑ **Focus group discussions** with stakeholders in the project areas

❑ **Intergroup synthesis** of focus groups (e.g., participation of stock breeders, hunters, foresters, members of eNGOs, representatives of local governments)

❑ **Scenario development** over a series of topics (e.g., business-as-usual scenario, small-effort scenario, best-case scenario): unforeseen events or developments, e.g., <u>economic crisis</u>

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Follow-up surveys of stakeholder attitudes

Topics	'Business-as-usual' scenario	'Small-effort' scenario	'Best-case' scenario
How can we promote the establishment of a **Certification Centre of guarding dogs**?	There is no possibility of any certification process	Phenotypic characteristics will be formulated, which will ensure the preservation of guarding dog characteristics	The establishment of a Certification Centre will be possible in a medium-term basis by a consortium of academia, NGOs, stock-breeder associations, and local authorities
How can we promote the operation of a **Breeding Centre for guarding dogs**?	There is no possibility that the Breeding Centre will start operating	The Breeding Centre will start operating in a medium-term basis by a consortium of academia, NGOs, stock-breeder associations, and local authorities	Breeding will be promoted by a stock-breeder network, which will continue functioning with or without support provided by the Breeding Centre
How can we **overcome barriers among stock breeders** to increase breeding of guarding dogs?	Stock breeders are not willing to let their dog breed with the dog of other stock breeders, with whom they are in conflict	A third party (e.g., academia, NGO, local authority) acknowledged by stock-breeders will be included in the network and will be responsible for the distribution of dogs	Stock breeders who will be included in the network will give their written commitment to provide new born cubs to a third party responsible for the distribution of dogs

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Summary and implications for HD

❑ **Stakeholder analysis**

o <u>Mixed motive</u> perspective – **distribute costs and benefits**

o Strengths and Weaknesses, Opportunities and Threats analysis (<u>SWOT analysis</u>) – **operationalization of the mixed-motive perspective**

❑ **Stakeholder attitudes**

o <u>Social networks</u> – **who is communicating with whom**

o <u>Perceived reliability</u> – **who trusts whom**

o <u>Consensus estimates</u> – **what are the expectations for ingroup-outgroup members**

❑ **Follow-up surveys of stakeholder attitudes**

o <u>Scenario development</u> ('Business-as-usual'; 'small-effort'; 'best case') – **monitor progress and deal with events that have not been unanticipated**

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