Towards a suitable open access database and metadata standard for international qualitative and interdisciplinary wildlife data: An example from human perceptions on bear management across the Pacific Rim

Kim Jochum<sup>1,2</sup>, Lilian Alessa<sup>1</sup>, Andrew Kliskey<sup>1</sup>, Falk Huettmann<sup>2</sup>, Susan Todd<sup>3</sup>

People's perceptions of, and understanding about, environmental decision making are widely recognized as key for effectively implementing wildlife management. This study examines local people's perceptions with respect to identifying short-comings with the communication between managers and local people, and which also seeks to improve management approaches while identifying local people's knowledge gaps. In addition this study presents a unique approach across the Pacific Rim, comparing the Russian Far East with Alaska, while focusing on the urban-wildland interface regions: South Sakhalin Island and Southern Alaska. Such comparison is relevant due to varying prerequisites in each region, and similar increases in human-bear encounters over the last years across regions. In Alaska, considerable funding for brown bear management and educational purposes exists, which is not the case for Sakhalin Island. Data was collected via semi-structured interviews based on nonprobability sampling. Interview participants were chosen based on their work related to wildlife. Analyses focused on the classification of interview content and examination of complex relationships (grounded theory). How local people describe problems and their positive associations with brown bear management are important factors that contribute to resilient bear conservation while managing for an increasing human footprint in Northern regions.

Due to a strong believe in the importance of data sharing and open access to data for such work, we intend to make all data available. However, authors need to recognize it as worthwhile to put effort and time into sharing and metadata writing. Thus open access to data needs to happen in an understandable, for the public logical fashion, in overseeable (online) data bases, and cannot just be stored anymore in small databases where search engines only discover it by chance.

Data management of this project is an important part, but not truly implemented yet, majorly due to structural reasons, which are critically discussed. A suitable metadata format as well as storage database for the qualitative data was not identified yet due to existing standards. Of additional difficulty is the multidisciplinarity of the large international project in which this qualitative wildlife study is embedded. Components include additionally quantitative social science data (survey data), as well as quantitative remote sensing layers and predictive modelling data (geospatial data as raster and shape files in GIS). Due to the geospatial components, the metadata format suggested as overall standard is FGDC ISO up to now. However we hope for more input on these issues. We further make suggestion for and discuss how to deal with complexities in social science projects, how to address them, and what structure is needed to make open data sharing in interdisciplinary sciences a reality. The Polar Information Commons (PIC, www.polarcommons.org) is recognized as a good example, but does not fit our data either really due to the missing linkage to truly polar research.

<sup>&</sup>lt;sup>1</sup> RAM Group, Biological Sciences, University of Alaska Anchorage <sup>2</sup> EWHALE lab, Institute of Arctic Biology, Biology and Wildlife Department, University of Alaska Fairbanks <sup>3</sup> School of Natural Resources and Agricultural Sciences, University of Alaska Fairbanks