



# HÁSKÓLI ÍSLANDS

## **Seals and society in Húnaflói, past and present**

*Interdisciplinary seminar at the University of Iceland Research Centre in Northwestern Iceland, Skagaströnd.*

13 April 2019.

The University of Iceland Research Centre in Northwestern Iceland will host an interdisciplinary seminar on the interrelationship of seals and men in the Húnaflói region both past and present. Its purpose is to gather scholars and academics who do research in the Húnaflói area to share their findings and explore the possibility of further co-operation. The seminar is open to the public and lectures will be both in English and Icelandic. There are no conference fees but those who wish to participate in the conference dinner will have to pay a set fee.

### **Description**

There are two species of seals breeding in Iceland, the harbour seal (landselur, *Phoca vitulina*) and the grey seal (útselur, *Halichoerus grypus*), which populate the coastline around the island. Icelanders have made use of this resource throughout history, hunting seals for both meat and fur, although its importance varied in different localities. Seals also figure prominently in Icelandic culture through both place names (i.e. Kópavogur) and folk tales, where seals often take on human characteristics in an anthropomorphic manner. Today, seals are mainly hunted due to the effect they are believed to have on salmonids in angling rivers and estuaries and Icelanders are perhaps less aware of their marine mammal neighbours today than in previous times. However, seal-watching is a growing tourist attraction, not least in the Húnaflói region where the Icelandic Seal Center is located, and folk tales, where seals walk on land and transform into humans, live on in Icelandic culture. There is thus a variety of fields where the study of the relationship between humans and seals overlap, including marine biology, ethnology, history, economics and tourism studies.

This interdisciplinary seminar aims to gather scholars from these diverse fields in order to share their studies and research on human-seal interactions in a broad perspective. The seminar will focus on the relationship between humans and seals in the Húnaflói region throughout history and up to the present day. Topics for discussion could include: How are

seals represented in folk tales in the region and how do such tales represent the view locals have of their natural environment? How important was seal-hunting to the local economy and/or human sustenance in the region in earlier times? What impact did seal-hunting have on the seal population? Did the rise of the industrial fishing industry in the early 20th century affect local seal populations and/or the relationship between local society/economy and seals? How has the growth of tourism in recent years impacted the local seal population, and conversely how has that growth influenced the views of locals towards seals? Are seals important to local self-identity? If not, why?

## **Program**

*Saturday 13 April 2019*

13:00-13:05 – Opening remarks by dr. Vilhelm Vilhelmsson, director of the University of Iceland Research Centre in Northwestern Iceland.

13:05-13:30 – *Unnur Birna Karlsdóttir*, „Umhverfissagnfræði sem aðferð í rannsóknum á sambúð manns og villtra dýra á Íslandi.“

13:30-13:55 - *Sandra M. Granquist*, „The triangle drama; an ecological perspective of anthropogenic interactions with seal populations in Iceland“.

13:55-14:20 – *Vilhelm Vilhelmsson*, „Selveiðar við Húnaflóa: Sögulegt yfirlit“.

14:20-14:45 – *Helen Rößler, Jakob Tougaard, Marianne H. Rasmussen, Sandra M. Granquist og Magnus Wahlberg*, „Under water vocalisations of harbour seals in Húnaflói“.

14:45-15:15 – Coffee break

15:15-15:40 – *Dagrún Ósk Jónsdóttir, Eiríkur Valdimarsson og Jón Jónsson*, „Yfirnáttúrulegar sagnir um seli“.

15:40-16:05 – *Jessica Faustini Aquino, Sandra Magdalena Granquist and Georgette Leah Burns*, „An Ethical Framework for Seal Watching Management Development“.

16:05-16:30 - *Jessica Faustini Aquino*, „Neolocalism and Seal Watching Tourism Development“.

16:30-17:00 – Discussion

17:00-18:00 – Closed meeting/discussion for participants

18:00 – Conference dinner

### **Participants**

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## Abstracts

***Unnur Birna Karlsdóttir*, „Umhverfissagnfræði sem aðferð í rannsóknum á sambúð manns og villtra dýra á Íslandi.“**

Í fyrirlestrinum verðum fjallað um hvernig rannsóknasjónarhorn og aðferðir umhverfissögu (Environmental history) getur nýst fræðimönnum í rannsóknum á viðhorfum mannsins til villtra dýra, nýtingar þeirra og friðunar og hvaða sess þeim er skipaður í ríkjandi náttúrusýn viðkomandi samfélags. Einnig verður sjónum beint að stöðu slíkra rannsókna á Íslandi á sviði rannsókna innan hugvísinda eins og þær snúa að sel og jafnvel fleiri villtum dýrategundum sem koma við sögu í íslenskri náttúru.

***Sandra M. Granquist, „The triangle drama; an ecological perspective of anthropogenic interactions with seal populations in Iceland“.***

In cases where people and wildlife are co-using the same geographical areas and resources, management issues are complex and stakeholder conflicts are common. The Icelandic harbour seal (*Phoca vitulina*) population is rapidly decreasing, and is currently considered critically endangered according to the Icelandic red-list for threatened populations. Despite this, direct culling of harbour seals still occurs in Iceland and the main reason is to reduce potential harbour seal predation on salmonids. However, knowledge on the effect of seal predation on salmonid populations and salmon angling is scarce. Concurrently, seals are becoming an important resource to the society due to increased interest in wildlife watching. Possible negative effects of tourism on seal ecology has frequently been reported and hence, must also be considered in management plans. Despite the complex management situation, the Icelandic harbour seal population is one of the least studied pinniped populations in the world. In this presentation an overview of research made by the Icelandic Seal Center and the Marine and Freshwater Research Institute on seal and society interactions during a 10 year period will be summarized and the current management situation for harbour seals will be discussed. To elucidate possible effects of harbour seal predation on salmonids, the diet of harbour seals that haul out in the estuary area of Bjargós and Ósar in NW-Iceland was investigated using hard-part and DNA metabarcoding analysis. In addition, information about seal injuries on caught salmonids was collected from anglers in five salmon fishing rivers. The results indicate that salmonids are not an important prey of harbour seals in the area. No evidence of salmonid predation was found in the dietary studies and the proportion of documented injuries on caught salmonids was very low. The main prey species were sandeels, flatfishes, gadoids, herring and capelin. Based on these results, culling of harbour seals in the area is not likely to have a positive effect on salmonid angling. The effects of land- and boat based seal watching on seal behaviour was investigated and the spatial distribution and behaviour of seals was affected by tourists, indicating disturbance. However, we found that calm tourists behaviour had less effect, meaning that disturbance could possibly be reduced if tourist behaviour is modified. The findings all have crucial implications in several areas of harbour seal management, especially in light of the sensitive conservation status of the Icelandic harbour seal population. Further, the findings have an important international value within academic research in environmental-, life- and social sciences.

***Vilhelm Vilhelmsson, „Selveiðar við Húnaflóa: Sögulegt yfirlit“.***

Selir hafa verið veiddir á Íslandi allt frá landnámstíð. Eða svo er talið. Sagnfræðingar hafa raunar lítið gefið gaum að selveiðum eða annarri hlunnindanýtingu í gegnum tíðina. Þó er almennt viðurkennt í þeim sagnfræðiritum sem á annað borð vísa til selveiða eða nýtingar á sel að veiðin hafi „tíðum verið þjóðinni mikilsverð“ (Jón Þ. Þór 2002) og ljóst er af umfangsmikilli samantekt um veiðihætti, veiðarfæri og afurðanýtingu selsins í riti Lúðvíks Kristjánssonar um Íslenzka sjávarhætti (1980) að selveiðar hafa verið mikið stundaðar þar sem því hefur verið komið við. Rannsóknir á þessum hluta í atvinnu- og menningarsögu Íslendinga eru þó sárafáar og margt er á huldu um umfang selveiða og mikilvægi þeirra fyrir lífsafkomu á ólíkum tímum. Strandlengjan við Húnaflóa er í dag eitt helsta búsvæði landsela við Íslandsstrendur og hefur í gegnum tíðina þótt vera mikið selveiðahérað. Í þessu erindi verður fjallað um selveiðar á svæðinu í sögulegu samhengi. Í fyrri hluta erindisins verður stiklað á stóru yfir sögu selveiða, með áherslu á dæmi af Húnaflóasvæðinu. Í síðari hluta þess verður hins vegar kafað dýpra í selveiðihlunnindi jarða við Húnaflóa, í Strandasýslu og Húnavatnssýslu, frá byrjun 18. aldar og fram á fjórða áratug 20. aldar. Frá þessu tímabili eru varðveittar jarða- og fasteignamatssgerðir með um hundrað ára millibili sem allar tilgreina hlunnindi, þ.m.t. selveiðihlunnindi, og í tveimur þeirra er jafnframt áætlað mat á umfangi veiðanna og afrakstri. Út frá þessum heimildum verður rætt um selveiðar og (meint) mikilvægi þeirra á svæðinu.

***Helen Røbler, Jakob Tougaard, Marianne H. Rasmussen, Sandra M. Granquist og Magnus Wahlberg, „Under water vocalisations of harbour seals in Húnaflói“.***

Harbour seals (*Phoca vitulina*) of studied North-Atlantic populations communicate under water during periods associated with mating season. However, Icelandic harbour seals' acoustic behaviour has never been investigated so far. To examine how harbour seals in the Húnaflói region sound and if there are variations in seasonal, geographical or site-specific factors, recordings from remote and handheld acoustic underwater recorders at two different sites were made from the 3rd of July until the 14th of September 2017. Seal vocalisation was only detected at one of the two locations. The vocalisation occurred in the beginning of July and not afterwards. Of a 24-hour period of continuous calls, 76 roar calls were analysed as well as compared to Danish and Swedish roar calls of previous years. The Icelandic calls

showed a mean total duration of  $20.3 \text{ s} \pm 1.1 \text{ s}$ . In 96% of the calls, the call structure included a long first pulse train with a pause afterwards followed by the so-called roar burst and an end groan. Sound level was low with  $98.3 \pm 8.9 \text{ dB re } 1\mu\text{Pa rms}$ . Roar burst characteristics, such as peak frequency (154.9 Hz), RMS Bandwidth (69.5 Hz) and roar burst duration (3.0 s), were similar, to Danish calls. Minimized low energy vocalization during mating season with unique overall call structure might indicate an adaptation of Icelandic harbour seals to local environmental conditions. Similarities in roar bursts between separate genetic populations indicate that genetic variation might not provide a complete explanation for geographic variation in male harbour seal vocalizations during mating but demonstrates a possibility of vocal dialects. Identification of local harbour seal under water mating areas are therefore important for further management of populations and interactions with humans.

***Dagrún Ósk Jónsdóttir, Eiríkur Valdimarsson og Jón Jónsson, „Yfirnáttúrulegar sagnir um seli“.***

Til er óhemja af skrítnum og skemmtilegum sögum í íslenskum sagnasöfnum um furðulega atburði og yfirnáttúruleg kvikindi, skepnur og skrímsli, en einnig eru til margvíslegar yfirnáttúrulegar sagnir um dýr sem eru til í raun og veru. Selir eru gott dæmi um raunverulegt dýr sem mikil þjóðsagnamyndun er um. Sögur um að selir séu í raun og veru menn í álögum eru vel þekktar hér á landi og líklega þekkja flestir þjóðsöguna af selkonunni sem átti sjö börn á landi og sjö í sjó. Þessi mikla þjóðtrú í kringum selinn er alls ekki eingöngu bundin við Ísland, svipaðar sögur þekkjast til dæmis í Orkneyjum og samanburður við sagnaarf annarra landa eru áhugaverður. Aðrar sagnir um selinn eru miklu grófari og hryllilegri og segja frá selum sem ráðast að mönnum og sérstaklega ófrískum konum. Kynjaskepnan selamóðir var talin ógnvænleg skepna, draugurinn Selkolla hafði selshöfuð og ef selir elta báta á hafi úti var það talinn feigðarboði. Rýnt verður í þessar sagnir, kynjahlutverk, boðskap og merkingu og velt upp spurningum um hvað sögur um samband manna og sela geta sagt okkur um það samfélag sem þær tilheyrðu.

***Jessica Faustini Aquino, Sandra Magdalena Granquist and Georgette Leah Burns, „An Ethical Framework for Seal Watching Management Development“.***

In Iceland, nature is the main attraction for tourists, however, management plans for wildlife watching activities are lacking and the need to develop evidence-based management is pressing. Visitors to Iceland believe that nature conservation should be improved and the majority of Icelanders (79%) feel that the negative effects tourists have on nature are too high. The demand for wildlife watching tourism has increased in Iceland more generally and in particular, visitor interest in seal watching tourism has recently grown. Seal watching activities revolve around the two breeding seal species in Iceland; harbour seals (*Phoca vitulin*) and grey seals (*Halichoerus grypus*). Seals are easily accessible to visitors in several areas, through land and boat based seal watching activities. Negative impacts due to anthropogenic disturbance, for example, due to tourism activities, have frequently been reported for various seal species and it has been suggested that effects of tourism may have a serious impact on threatened species. These impacts may result in alteration of natural behaviours and changes in the distribution of the seals. According to the red-list for threatened mammal populations in Iceland which is based on criteria used by IUCN, the current conservation status of the harbour seal is critical endangered and the grey seal population is endangered (see <https://bit.ly/2OrRwz5>). This further underlines the urgent need to developed effective management approaches to facilitate responsible seal watching in Iceland.

Wildlife watching as a tourism activity has the potential to stimulate the local economy within rural communities and facilitate a stronger awareness of wildlife conservation amongst tourists and stakeholders. It also has the potential to negatively impact the welfare and ecology of wildlife. Wildlife tourism managers are tasked with the demands of developing tourism management plans that meet the needs of the local community and tourists, while also minimizing negative impacts on wildlife. Although management plans often focus on minimizing negative impacts of tourism, responsible management strategies guided by ethical frameworks are often absent in the literature. Additionally, involving local communities in wildlife tourism development plans is important in order to understand local needs and to gain public support. However, less is known of what sustainability means for local communities.

The purpose of this conceptual paper is to address the need to manage human-wildlife interactions in tourism settings to ensure positive outcomes for all stakeholders: wildlife, local communities, and visitors. We investigate theoretical and practical understandings of wildlife watching management to build a methodological foundation for addressing ethically responsible strategies and develop an ethical model. Using this ethical model, we use seal

watching tourism in Iceland as a case study to identify the need for future management actions, which can ultimately devise a plan applicable for responsible seal watching in particular, as well as for wildlife watching activities for other areas in Iceland.

This paper discusses philosophical underpinnings of wildlife tourism how it has guided—either directly or indirectly—wildlife management actions and the importance of developing more ethical management actions. Building from an understanding that humans are not devoid of their environment we then discuss visitor behaviour with regards to its consequences to both community and natural livelihoods. Next, we describe the differences between the concepts of sustainable and responsible to draw linkages with local stakeholder involvement, tourism managers, and responsible tourism management practices. Social representations theory is then explored as a possible tool to better understand community perception of tourism impacts and management development. Building a methodological foundation for addressing ethically responsible strategies we take a systems thinking approach and discuss three models; the Community Capitals Framework, the Triple-Helix Model, and the Triple-A-Model to build a case for implementation. Next, we describe the case study—seal watching management in Iceland—and apply our theory into practice. Finally, the paper concludes with a discussion and suggestions for ‘next steps’ to facilitate responsible wildlife watching management in Iceland.

***Jessica Faustini Aquino, „Neolocalism and Seal Watching Tourism Development“.***

Neolocalism places an emphasis on local identity and distinctiveness. Research in the area of neolocalism has focused mainly on the areas of microbrewers and craft beer and its use in place-making (Argent, 2018; Fletchall, 2016; Holtkamp, Shelton, Daly, Hiner, & Hagelman, 2016). However, exploring neolocalism in rural tourism development as a form of revitalization has yet to be explored. For example, this presentation will explore how seal watching tourism development of a rural Icelandic community can be seen as a form of neolocalism movement. Neolocalism can be seen more broadly “as a strong form of social embeddedness, where notions of local commodity production, place marketing, authenticity and ‘wholesomeness’ are folded together in support of local craft production” (Argent, 2018, p. 87). In this case, ‘craft production’ is the place-based wildlife tourism product. Eberts (2014) describes neolocalism as a marketing and branding strategy that use geography and place to emphasize a connection to their locations. However, tourism more generally has used geography and place to emphasize a connection to their natural and cultural assets. This

presentation will describe how a community saw the potential to nurture a sense of place using their natural and cultural assets to enhance the local economy and community livelihoods by producing authentic and creative products for consumption within the tourism economy. This case study brings you to the Northwest of Iceland within the municipality of Húnaþing vestra and to “the Land of Seals.” It will explore how Selasetur Íslands (Icelandic Seal Center) continues to play an integral role in nurturing the local identity and distinctiveness of a community, and how it uses this as a strategy for crafting authentic tourism experience (Aquino & Burns, in prep). Local identity and distinctiveness are important in creating authentic tourism experiences while community engagement in tourism development is integral in authentically creating these experiences. Involving a variety of local stakeholders helps to not only establish what is unique about a community—it helps to empower a community in their own story making. For example, the stories we tell about our community and about the people who live there may have an important impact on establishing a sense of place and enhancing community pride. The goal of this project is to use a case study approach to describe how a community’s perception of their assets can better help establish local identity and distinctiveness. Because the study of rural tourism is contextual—i.e. in order to comprehend the way people perceive lived experiences of a phenomenon the contexts in which people live and how they understand meaning must be understood (Fendt, 2018; Moustakas, 1994; van Manen, 1990). This case study uses a phenomenological orientation to investigate lived experiences of community members in Húnaþing vestra and works to understand the community’s perspective towards development, promotion, and conservation of cultural and natural heritage assets. In addition, it will describe how the Icelandic Seal Center has helped to foster a sense of place founded on these perceived assets.