

Silence – an article of short supply in outdoor recreation?

Handling noise conflicts in Swedish planning

Rosemarie Ankre, Lena Petersson Forsberg, and Lars Emmelin

Abstract — Outdoor recreation areas are exposed to several causes of conflict. Many interests, along with different types of recreation activities, are competing in the same area. In these areas, conflicts are handled by spatial planning and by the separation in space of different functions. One source of conflict is noise. The lack of noise-free areas in the Swedish coastal areas has become an amenity problem. Does this make noise an important problem to consider in planning?

An assumption is that the sound environment is relevant for the visitors' experience; spending time in nature is associated with peace and quiet, where one should not be disturbed. In this study, it will be investigated how silence and noise actually are considered in the Swedish municipal planning. "Silence" is one of the amenity categories reported in the Swedish tourism data base. Is there a discrepancy between the existing municipal planning and the visitors' opinions, attitudes and experiences?

Furthermore, there will be an analysis of how silence and noise could be handled in spatial planning. One possible method is zoning. By excluding certain outdoor recreation activities from some areas, zoning may handle, or at least reduce, the problem of conflicts. The biosphere reserve concept (where zoning is an important part) will for that reason be discussed as a potential tool. A case study of the Blekinge archipelago, Sweden is the foundation of the study, which data consist of planning documents and questionnaire surveys considering outdoor recreation and nature tourism.

Index Terms — Conflicts, noise, planning, outdoor recreation, zoning.

1 INTRODUCTION

The "soundscape" is receiving increased attention as an important factor in visitor experiences in outdoor recreation and nature tourism. Peace and quiet are not only sought-after, but difficult to experience in society of today [1]; [2]; [3]; [4]. The problem with noise has to be viewed comprehensively since the concept is subjective. Management of soundscapes needs to take both the positive and negative aspects of sound into account.

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Noise is an individual experience depending on, for example, one's expectations, the location, and the activities performed [5]. The lack of noise-free areas in the Swedish coastal areas has become an environmental problem. The level of unwanted sounds is increasing while areas with sound environments of quality are diminishing [6].

Depending on the type of area standards for noise level and exposure vary. Noise classification exists for both urban and natural areas in Sweden [7]. In the summer of 2008, two "quiet areas" have been established in nature reserves in the Stockholm's archipelago because of the increasing noise and number of boats in the nature reserves. In these places, one should be able to experience peace and quiet. There is, however, no legislation. Instead people should show each other consideration built on respect and willingness [8].

2. SILENCE AND NOISE

Silence and natural quiet (sounds of nature undisturbed by noise caused by human activity) are being recognized as an important and endangered resource [9]. Some sounds

may be unwanted (for example, traffic, loud music, shouting), which is referred to as noise. In an area where individuals do not expect noise, even low sound-levels may be perceived as annoying in comparison to an area where noise is expected [10].

Nature experiences are normally associated with peace and quiet. Negative attitudes to motorized activities can be expected, especially if they are regarded as unnecessary [11]. If silence is viewed as important in a visitor's experience, it might cause recreational conflicts if the wishes for a certain experience are not fulfilled [12].

Noise in recreation areas is a concern to both managers and users [13]; [14]; [15]; [16]. An extensive usage of different motor-driven vehicles in areas where silence is considered as vital can cause conflicts between different stakeholders. Noise disturbs birds, animals and fauna, which cause conflicts with the interests of nature conservation [17].

3 ZONING

Zoning is a classic instrument in spatial planning and conservation for prioritization and resolving land use conflicts. One model for zoning which is now applied in the study areas is the "biosphere reserve"¹.

The *Recreation Opportunity Spectrum* (ROS) is a planning framework, with an approach of providing a range of recreational opportunities where zoning is applied on the landscape. The ROS has typically been applied at a regional level and supports a development of recreation experiences where areas are classified and divided after the environmental conditions and the recreational activities. The ROS is an organising or conceptual framework where management judgment is needed in the application [18]. The planning framework has been outlined in several publications [19]; [20]; [21]; [22].

However, implementing zoning of a biosphere reserve and applying the ROS-model may not be a simple matter. The Swedish coastal areas consist of inhomogeneous landscapes because of a variation of geography and nature, differences of accessibility, possibilities of different activities, blurred boundaries of rural and urban living, and mental perceptions of what an archipelago is. This together creates complicated arenas to plan and manage [23].

¹ The biosphere reserves are appointed by the UNESCO. The main functions are to promote social and economic development, to protect biodiversity and to be the scene for research and education.

4 METHOD

This paper consists of the results of three independent surveys. A questionnaire was mailed to 1259 visitors and second home owners in the Blekinge archipelago, Sweden in 2007 and the response rate was 52%.

Another questionnaire was sent to a random sample of 800 local residents in Blekinge archipelago in 2007 and the response rate was 41%. The current Swedish municipal spatial comprehensive planning regarding outdoor recreation and nature tourism was examined by a web based survey sent to municipal planning officials in all 290 Swedish municipalities in 2007. The response rate was 64%.

5 RESULTS

Most municipalities in Sweden do not explicitly have quiet areas in their municipal spatial comprehensive planning documents. In only 38% of the documents, quiet areas were mentioned in text or indicated on the map (or both). 21% of these quiet areas were already protected as nature reserves, by detailed development plans or by guiding principles that are not legally binding in the comprehensive plans. Another small portion of quiet areas were said to be protected in the future. 5% of the planning officials thought that the issue of quiet areas was of no immediate importance in their municipality.

Many Swedish municipalities (67%) do not describe conflicts between different kinds of outdoor recreation in their municipal comprehensive planning documents. However, the most commonly described conflicts are the ones causing noise, as motorboats, jet skies and snowmobiles, versus those seeking peace and quiet.

In the survey with visitors and second home owners, the respondents stated what activities they had carried out during their stay. Rest and relaxation (77%) got the highest percentage. Answering what had influenced them to visit the area; a factor of *great importance* was the possibility of experiencing peace and quiet (49%).

Furthermore, noise as a conflict had been experienced *rather much* and *very much* by only 6% of the respondents. Reckless driving of motorboats and jet-skies were noted causes of noise. Speed limits for motorboats in the Blekinge archipelago (which also would mean less noise) was viewed as *very negative* by 3% and *negative* by 7%, while 34% were *positive* and 21% *very positive*.

A comparison was made between the

respondents' attitudes towards noise-free zones through restrictions for all motor traffic (on land and water) in Sweden and their attitudes to noise-free zones in the Blekinge archipelago. 10% were *negative* or *very negative* towards this zoning in Sweden in general, while 16% had the same attitude towards noise-free zoning in the archipelago. There was also a difference between the respondents' attitudes when being *positive* or *very positive*; in Sweden in general a total of 49% and in Blekinge archipelago 33%.

Among the visitors and second home owners, 47% were *positive* or *very positive* towards noise-free zoning through restrictions on motorboats in Sweden, while 35% had the same positive attitude if applied to the Blekinge archipelago. 12% were *negative* or *very negative* to this type of zoning in Sweden, while 16% had this attitude if applied in the archipelago.

A majority of the local residents in Blekinge that answered the survey, 91%, had a positive attitude towards noise-free areas in general.

92% of residents in Blekinge considered noise originating from vehicles, industries etc as *negative* or *very negative* for their outdoor experience. Noise from outdoor activities such as motorboats, snowmobiles and music were considered *negative* or *very negative* by 65% of the Blekinge residents.

6 Discussion

The experience of noise is subjective, which makes it important to gather information of who is disturbed and where, by what noise and in what situations in planning of coastal areas and for methods of handling conflicts of noise.

The number of fast and large motorboats continues to increase which leads to a clash with other users who wants peace and quiet. It is important to see that noise is an aspect of power; who has the right to decide how, where and when there should be silence? People want peace and quiet which makes silence an asset in outdoor recreation and nature tourism. Knowledge of the visitors' activities, number, needs and motivations is therefore essential. With better knowledge in planning of noise from the visitors' perspective, silence could be better preserved.

Studies of coastal management practice tend to regard voluntary agreements for zoning and exclusion to be more likely to succeed than legal mechanisms [24].

The ROS-model could be further developed for use in planning and in handling conflicts in Swedish coastal areas, by including the

opinions, attitudes and experiences of visitors (and non-visitors). So far, in the application of the ROS in Sweden, the focus has been on resolving the conflict between nature conservation and different forms of recreation development. The right of public access² creates a context for regulations of activities and admittance, which requires an adjustment of the ROS to Swedish, conditions [25].

7 CONCLUSION

A biosphere reserve is promoted as a model for public learning on sustainable development. Zoning is a practical means to apply ecological principles. However, the biosphere reserve zoning is not entirely functional today. If and how special "quiet areas" with restrictions on motorboats could be implemented in a potential biosphere reserve in the Blekinge archipelago is a discussion to carry further.

A majority of the Swedish municipalities do not express knowledge of quiet areas in their comprehensive planning documents. Even if the comprehensive plan is not legally binding it should act as a guide to more detailed development plans and building permits. Therefore it is important that the comprehensive plans provide policy guidelines on the issue how to handle quiet areas. It is likely that Swedish municipal planning officials and decision making politicians need more knowledge of the quiet areas as an amenity and important asset.

In planning and management of conflict and noise, various issues could be addressed. What sounds do the visitors find appropriate, what are their demands regarding silence, and what are the area's preconditions? Also, what is the cause of the sound (for example, mischief or necessity) and what is the area's mechanical development? The survey results of the municipalities might indicate that many of them do not know if and where quiet areas are located within their boundaries. Further research is also needed to determine whether the knowledge of quiet areas is used in the planning process even though it is not visible in the planning documents.

There may be differences between motorized and non-motorized recreation activities and differences in the motivations, goals, environmental values and behaviors of different recreation participants in the archipelagos. In Swedish municipal spatial planning several and often competing

² The right of public access allows everyone to move freely across private land in the countryside within certain limits and without damaging nature.

interests must be handled. Preserving quiet areas for recreation is only one of these interests.

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