



Merging science and arts to communicate nature conservation



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ABSTRACT

As a response to overall negative attitudes on nature conservation, Latvian scientists and artists launched a new initiative to communicate biodiversity. Unlike previous efforts, this initiative also included arts (poetry, music, dance and photo/video) as part of the information campaign. This project, named Nature Concert Hall, has been very successful between 2006 and 2012 in terms of receiving national and international recognition; this paper aimed to evaluate its efficiency in increasing the public's knowledge and awareness of nature conservation issues and pro-environmental behaviour. We used an electronic web-form survey to investigate the views of the Nature Concert Hall's audience. The collaboration between artists and scientists clearly led to larger audiences: 53% of enquiry respondents would not have attended if there was only the 'scientific component' and another 34% were uncertain about their choice. Overall, 80.8% of respondents noted an increase in knowledge on biodiversity issues after attending Nature Concert Hall and 43.4% of respondents reported an increase in their pro-environmental activities. Significant predictors of increased knowledge were gender, profession and the main living location (men, people with creative professions such as artists and scientists, as well as people residing in the countryside, were less likely to learn something new). Significant predictors of increased pro-environmental behaviour were age, the number of events participants attended and the increase of knowledge (older people and those who attended more Nature Concert Hall events were more likely to improve their pro-environmental behaviour, as well as those people who also reported increase of knowledge).

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1. Introduction

Scientific knowledge is important to raise environmental concern and subsequent pro-environmental behaviour (Arcury, 2008; Fransson & Garling, 1999; Sia, Hungerford, & Tomera, 1986; Schahn & Holzer, 1990), however, traditional methods of increasing the general public's knowledge about the environment are poorly equipped to reach a further goal—public participation leading to pro-environmental action (Lindenfeld, Hall, McGreavy, Silka, & Hart, 2012). Scientists still struggle to communicate their research to the general public, and often find that their academic arenas of practice do not encourage direct public engagement (Curtis, Reid, & Ballard, 2012). Presenting facts alone is less likely to result in long-term changes in feelings and behaviours (Jacobson, McDuff, & Monroe, 2007; Sylwester, 1994).

Alternatively, collaboration between scientists and other partners and stakeholders using different platforms about biodiversity information ensures mutual learning and fact-finding (Lindenfeld

et al., 2012). One possible option for environmental communication is the linkage with the arts that have many qualities which enhance information transfer and learning. The celebratory aspects of the arts bring a necessary balance to environmentalism by lightening its often confrontational, complicated and therefore difficult messages by emotional creativity (e.g. Branagan, 2005; Latour, 2004). Artists are able to communicate with larger audiences and the arts, together with science, can make the 'invisible visible' (Curtis, 2009). Although the role of the arts in communicating issues has a long tradition in the humanities, it has been often overlooked by scientists (Belfiore & Bennett, 2007), especially when dealing with the facts and findings that are neither attractive nor positive, but still important for society.

About ten years ago in Latvia, Northern Europe, increasing public knowledge of biodiversity and nature conservation was particularly necessary following Latvia joining the European Union in 2004. This meant that Latvia had to increase its network of protected areas from 8% of its national territory to 11.9% (Opermanis, Racinskis & Aunins, 2008). This means that many of Latvia's inhabitants found themselves restricted in their use of natural resources and this raised tension and a wave of negative attitudes towards the need to protect biodiversity. It is known that in many countries of the

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European Union the levels of acceptance of new nature protection programmes, e.g. the Natura 2000 network of protected areas, is low, particularly in the new Member States, a group to which Latvia belongs (Grodzinska-Jurczak & Cent, 2011; Pavasars, 2013). Therefore in 2006, scientists and artists together launched a new initiative to communicate biodiversity. Unlike previous biodiversity communication efforts, this initiative included an arts element as part of the information campaign. The initiative was named Nature Concert Hall (“Dabas Koncertzāle” in Latvian). The aim was to improve the general public’s knowledge about nature and the need to protect it and to promote pro-environmental behaviour. Pro-environmental behaviour so far has been defined quite broadly, for example, as behaviour that minimizes negative impacts on the environment (e.g. Kollmuss & Agyeman, 2002; Steg & Vlek, 2009). We use the term widely also in this paper, however, since Nature Concert Hall mainly speaks about nature conservation issues, the expected change in behaviours will mostly fall under much narrower range of possible actions, more or less, directly related to nature conservation.

Given that environmental information, knowledge and awareness alone do not always predict pro-environmental behaviour (e.g. Kollmuss & Agyeman, 2002), a central concept of Nature Concert Hall was to develop the environmental self-identity of participants through new and direct nature experiences, raising connectedness with nature and site-attachment—factors which were known to link information and knowledge with behavioural change (Schultz, 2002). Thus, Nature Concert Hall’s events were always held in natural settings, such as forest, seacoast or riverside, in a place carefully selected for a specific topic but also able to withstand the short-term impact of the presence of thousands of participants. For musicians and other artists, this meant breaking out of traditional concert venues and for scientists to think how to present their knowledge to the public.

Over the years, Nature Concert Hall has received a number of awards: Latvian Environmental Science Award for an innovative way of presenting environmental science in Latvia (2007); Latvian Music Award for the best instrumental album in 2009 and 2011; Latvian Music Award for best concert film (2010); Best Environmental Campaign in the European Union (2012, Green Spider Network competition); and, was honoured to represent Latvia at the World Expo in Shanghai in 2010. Therefore, Nature Concert Hall has been recognized and well received at various levels, yet, its impact on increasing pro-environmental behaviour was still to be demonstrated, which is the subject of this paper.

As environmental and nature conservation literature is largely silent on the role of arts in mass communicating science (Curtis et al., 2012; Jacobson et al., 2007), this study aimed to analyse (1) how the ‘artistic component’ of the event helped to attract potential audiences, (2) if Nature Concert Hall had an impact on increased knowledge about nature, (3) if Nature Concert Hall had inspired people to move toward pro-environmental behaviour, and (4) what were the factors that predicted increased knowledge and pro-environmental behaviour. Additionally we wished to share experience arising from seven years of Nature Concert Hall on various theoretical and practical aspects of implementing biodiversity communication which may be of value to conservationists elsewhere in the world.

2. Methods

2.1. Format of the Nature Concert Hall events

DK combined several disciplines to raise the public’s awareness about biodiversity issues and mankind’s responsibility to maintain biodiversity for future generations. Nature Concert Hall brought

together science, music, poetry and visual images (still images at first but later developed towards hi-tech video installations and scenography). Nature Concert Hall did not focus on a specific target audience but aimed to attract audiences of all ages, nationalities and interests. Each year Nature Concert Hall focused on a wider biodiversity story and selected ‘a hero’ – usually a species – that introduces the problem to the audience. Each year the events took place at a different location in a different municipality and within different regions of the country to attract more and different audiences. The logic and rationale of the ‘hero approach’ is summarized in Table 1.

Ecopscologists assert that a disconnect from nature is an important cause of pro-environmental inaction, and that regaining a sense of connectedness should realign our values towards pro-environmental stewardship (Reser, 1995). Place attachment to humans has been recognized as a possible predictor of pro-environmental behaviour, but the results have been unclear. Scannell and Gifford (2010) distinguished civic and natural attachment, and analyses proved that only the second predicts pro-environmental behaviour. In the context of Nature Concert Hall, the heroes were selected to create such ‘natural attachment’. Contrary to most other biodiversity campaigns where heroes are often endangered and rare species which live somewhere far away and which probably most of the audience will never see in their lifetime, Nature Concert Hall used common species that virtually everyone can see and meet, to introduce general problems, including the issues about endangered and rare species. It was expected that such natural attachment through personal experience should create a necessary bond between the participants and nature, thus eventually leading to increased pro-environmental behaviours.

Each time, after ‘a hero’ was selected the scientists and artists had a number of exchanges of views on how and where best to channel the targeted messages to the public. A critical decision each year was the choice of locations where the events were to take place. An important factor was a trade-off between the willingness to be as much as possible in nature and accessibility. An additional factor, however, was the readiness of the local community to provide support, both voluntary (in-kind contributions of staff time, materials) and financial (no direct cash contributions, but through covering costs of security staff, facilities and others), to the event. The twelve events held between 2006 and 2012 have a reasonable distribution across Latvia, although some gaps remain (Table 2 and Fig. 1).

The events, given Latvia’s climate, were scheduled in the summer (June–August period) when the observation of wild species is easiest and the use of electric equipment in open-air are safest. Events were advertised locally and nationally via various mass media but its extent, particularly in early years, was rather limited due to insufficient funding. The potential audience closest to the performance locations was informed through posters that were displayed in local post offices and on information bulletin boards. In later years, Nature Concert Hall prepared special audio information (informational ‘commercials’) which was aired on local radio stations prior to the event. All Nature Concert Hall’s events were free of charge and thus fully depended on a variety of financial contributors and government support.

All events followed an established pattern: the audience was invited to arrive in the afternoon/early evening. At first people were involved in ‘scientific’ discussions through workshops in tents and in the field, led by professionals from scientific institutions and nature non-governmental organizations (NGO, Fig. 2). The ‘scientific component’ mainly focused on presenting interesting information through direct experience and revealing possible conservation problems. Closer to sunset, the ‘artistic component’ began dedicated to the same theme (a hero, a problem) as the scientific workshops, starting with poetry and ending with a musical

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