



Original Research Article

Private landowners and protected species: What sort of noncompliance should we be worried about?

Maarit Jokinen ^{a, *}, Teppo Hujala ^{b, c}, Riikka Paloniemi ^d, Annukka Vainio ^c^a Department of Biosciences, University of Helsinki, P.O. Box 65 (Viikinkaari 1), Helsinki, 00014, Finland^b University of Eastern Finland (UEF), School of Forest Sciences, P.O. Box 111, 80101, Joensuu, Finland^c Bioeconomy and Environment Unit, Natural Resources Institute Finland (Luke), Latokartanonkaari 9, 00790, Helsinki, Finland^d Environmental Policy Centre, Finnish Environment Institute (SYKE), Mechelininkatu 34a, P.O.Box 140, 00251, Helsinki, Finland

ARTICLE INFO

Article history:

Received 21 March 2018

Received in revised form 27 June 2018

Accepted 27 June 2018

ABSTRACT

Species protection legislation has been used as one of the main approaches in conservation – yet in many cases we know only little about the effectiveness and side-effects of such regulation. Noncompliance can limit effectiveness of legislative protection, and deliberate harmful actions by landowners have sometimes been reported as a response to restrictions. We studied attitudes of 186 Finnish forest owners toward the protection of Siberian flying squirrel *Pteromys volans* – a species which is protected according to the European Union Habitats Directive and is a well-known example for species protection in Finland. We explored the attitudes and claims of harming protected species by comparing the responses of persons with and without direct experience of legal protection by structural equation modelling. We found that experience did not explain forest owners' attitudes toward having the species in their forest. Claims of harming protected species were connected to policy attitudes and should be interpreted as a political phenomenon: they reflect political discourse on conservation policy and are a part of debate between stakeholders. Accidental and reckless noncompliance seem more important phenomena than intentional harming, especially as the chance in Finnish Nature conservation likely Act likely affects information of nest sites on logging areas. Other instruments than legislative protection of known nest sites might be more effective in protecting the flying squirrel population.

© 2018 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

When a species becomes endangered, the expected course of collective policy response is to protect it by international treaties and national legislation (Epstein, 2006). During the recent decades, some steps to go even further have been taken: e.g. member states of the European Union have agreed to protect a wide range of species and habitats by the so-called Nature Directives: the Birds Directive (2009/147/EC) and the Habitats Directive (92/43/EEC).

Despite the Nature Directives are implemented for the most part, a recent evaluation showed that the conservation status of a very high proportion of protected species and habitats is still unfavourable (European Commission, 2011, 2015; European

* Corresponding author.

E-mail addresses: maarit.jokinen@helsinki.fi (M. Jokinen), teppo.hujala@uef.fi (T. Hujala), riikka.paloniemi@ymparisto.fi (R. Paloniemi), annukka.vainio@luke.fi (A. Vainio).

Parliament, 2016). One of the major challenges for effective implementation of the Directives has been stakeholder engagement (European Parliament, 2016). Conflicts with local people have frequently occurred when the Directives have been put into practice through national legislation; for example, establishment of the *Natura 2000* protected area network resulted some severe local conflicts (Hiedanpää, 2002, 2011; 2013; Grodzinska-Jurczak and Cent, 2011; European Parliament, 2016). Also, some of the protected species, like wolves, are still under a threat due to local resistance and persecution (e.g. Borgström, 2012; Liberg et al., 2012; Gangaas et al., 2013; Fairbrass et al., 2016; Pohja-Mykrä, 2016).

Case-specific analyses can be used not only in solving existing implementation problems, but also in choosing the most effective policy options in the future. The Siberian flying squirrel *Pteromys volans* (henceforth the flying squirrel), currently found in the EU only in Finland (Santangeli et al., 2013) and in Estonia (Timm and Kiristaja, 2002), is one of those species of which protection by the EU legislation has generated negative public discourses and faced resistance (see Nygren and Jokinen, 2013; see also Section 2.1). The flying squirrel is included in Annex IV a of the Habitats directive (92/43/EEC). Article 12 (1) of the Directive obliges member states to establish a system of strict protection for these species and to ban the 'deterioration' or 'destruction' of all 'breeding sites' and 'resting places' of them. This ban has had certain implications for forest management in Finland (see section 2.1.). As from 60 to 90% of forest is privately owned in the species distribution area in southern Finland (Finnish Forest Research Institute, 2012, 2014; see also Appendix 2), private forest owners can play a major role in determining the future for the species.

Landowners can see command-and-control approaches in nature protection as a risk for their economic or other interests. They may, therefore, try to remove the protected species or destroy protected habitats before the government places restrictions on how landowners may use their property (the so called 'Shoot, Shovel & Shut Up' -method; see e.g. Brook et al., 2003; Lueck and Michael, 2003; Zhang, 2004). In the case of the flying squirrel, violations of law are almost impossible to detect due to the lack of information on nest sites (see Jokinen et al., 2015) and the lack of supervision. It has been claimed that some Finnish forest owners fell on purpose those trees that are important for flying squirrels (see Section 2.1), but conclusions about support for conservation cannot be drawn solely from such stories (see Winslott-Hiselius et al., 2009). Neither can we completely rely on direct questioning as personal or social reasons, like social norms (see Gavin et al., 2010; Steinel, 2010), may motivate respondents to provide modified answers in certain situations. Authorities and restrictions can be resisted non-communicatively as well as communicatively. Poaching of wolves is an example of non-communicative resistance (Pohja-Mykrä, 2016), but stories of harmful actions against protected species could be used in 'stakeholder game' (see Hiedanpää and Bromley, 2013). If such stories are reproduced to impact policy, perhaps some of them are also fabricated for this reason.

In this study, our goal was to achieve a better understanding on forest owners' reactions when they have found out that their forest is occupied by the species or when they have faced some restriction for forest management because of it. Information on forest owners' reactions can be used for estimating the risk of negative actions and thus helps to find the right balance between informative, legal-administrative and economic steering.

1.1. Theoretical background and study hypotheses

A complex set of values, norms, attitudes, beliefs, goals, former life experiences and institutional and situational factors could explain behavioural intentions and actions of Finnish forest owners toward the species. In this study, we did not try to measure all those variables. Instead, we focused on the effect of *experience on the legal protection procedure* for the flying squirrel (henceforth ELPP) on forest owners' verbal responses to a set of statements. Measuring agreement or disagreement is used commonly in studies on attitudes. 'Attitude' can be understood as a latent, theoretical construct that explains the relationship between stimulus events and the individual's responses (DeFleur and Westie, 1963). A relevant stimulus event arouses a person's cognitive, affective, and/or behavioural processes. These processes produce an attitude toward the object involved in the stimulus situation, and the presence of the attitude give rise to observable verbal or nonverbal behavioural reactions to the attitude object (DeFleur and Westie, 1963; Ajzen, 2005). We thus measured the verbal behavioural reactions to the attitude object. In addition, we gave forest owners the choice to say if they are trying to favour or harm the protected species that occur on their lands (or if they are doing neither). We interpreted the responses as a measure of forest owner's willingness and motivation to present claims that forest owners are harming protected species.

It is suggested, that behaviour is guided mainly by strong attitudes, while weak attitudes may instead follow behaviour in accordance with self-perception principles (Holland et al., 2002). In this case, we expect that attitudes toward one's own forest should be relatively strong because of the direct connection to oneself. And, as the attitude object is one's own forest and forest management, these attitudes should also be connected to forest owner's actions. On the other hand, attitude items that represent more abstract and general level attitudes e.g. attitudes related to national conservation policy, could be weaker and have limited predictive power on actions. If experience affect these attitudes, strong attitudes and person's behaviour should impact on the direction of their change (Holland et al., 2002).

We were interested in differences between experienced and non-experienced forest owners for the following reasons. Direct experience in the legal protection procedure and information of species occurrence in one's own forest could be stimulus events that activate norms and attitudes related to either personal interest or to altruistic responsibility toward nature. Direct experience is also known to increase the association between the attitude and behaviour by means of increased accessibility of attitudes (see Glasman and Albarraçín, 2006). Likewise, experience increases the ability to either favour or harm the animals as forest owner gets information on the locations of nest sites. Last but not least, experience should affect

Download English Version:

<https://daneshyari.com/en/article/8846212>

Download Persian Version:

<https://daneshyari.com/article/8846212>

[Daneshyari.com](https://daneshyari.com)