

Governing Moth and Man

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- 1 WE ARE CONSTANTLY HEARING OF a wounded planet in need of urgent human action. Through our patterns of production and consumption, we are facing problems such as resource depletion, climate change, deforestation, and desertification. The challenge is to create ecologically sustainable development for all regions of the world and for future generations, and this should be a type of development that does not threaten the survival of non-human species.
- 2 Parallel to this discursive understanding of the human-nature relationship, there is an understanding that nature sometimes gets out of balance and that people must correct it. If it were possible, geophysical disasters (e.g., volcanic eruptions, tsunamis, and hurricanes) would be prevented and pandemics and other diseases eliminated. However, the discourse of a nature that threatens people does not necessarily concern issues of life and death. Often enough, this discourse concerns a threat to industrial development, people's wellbeing, or a valuable landscape, making nature (or part of it) into an enemy to be managed. Thus, there may be a need to control, regulate, and protect nature, sometimes in the name of a landscape or habitat, at other times in the name of a locality or commercial activity.
- 3 This paper analyses a case of insect outbreak in a limited geographical area, an outbreak causing human allergic reactions. Through an interview study of key actors in the political process, the considerations and handling of the issue are analysed, including the actors' conceptualizations of the problem and proposed remedies. Particular attention is paid to the strategies the responsible agencies developed for managing the local residents' calls for spraying.
- 4 The paper consists of six sections, including this introduction. The next section presents the theoretical approach in detail, emphasizing the performative aspects of regulation (i.e., that regulation invents not only rules but also objects); it also presents information about the method used. The third section presents the empirical case while the fourth presents the two main definitions of the problem, one advocated by authorities and another by local residents. The fifth section analyzes the

conceptualizations, strategies, and actions of key actors in the political process. In particular, it focuses on how the authorities managed the residents' requests for spraying. The concluding section states that the responsible agencies tried to render not only the moths, but the people, governable. By inventing complexity and enacting uncertainty, these agencies succeeded in constructing a regulatory object poorly designed for human intervention. However, this regulatory object is not immutable, so local residents – supported by new allies – may reconfigure it in the future.

Regulation: Inventing Rules and Objects

- 5 Politics concerns the power to influence society, to direct it by restricting certain activities and enabling others. This is largely done by developing regulation. However, regulation not only governs specific objects, but is also deeply involved in constructing them. Explicitly or implicitly, regulation creates demarcations and draws boundaries that make objects appear hazardous or harmless, risky or safe, natural or unnatural, important or unimportant. Regulatory processes concern the construction of who and what deserve protection, and why and how. Regulation is thus performative, encompassing the invention of both rules and regulatory objects.
- 6 In this sense, regulation should be understood as discursively constituted [Rose 1999; Fischer 2003; Hajer and Wagenaar 2003], implying that the analysis of regulatory processes should focus on how actors struggle to promote their preferred definitions of reality. Issues are made governable by actors influencing the construction of reality and ascribing meaning to specific issues. Hence, regulation is directed not only towards regulatory objects, but also towards organizations and people [Power 2007].
- 7 This paper examines how actors tried to render a complex and ambiguous issue governable. The empirical material of the study comprises 21 interviews with key actors in the political process. Respondents were selected from three settings: the people most often interviewed in two local daily newspapers between August 2004 and September 2006; participants in a group of decision-makers and local stakeholders organized by the County Administrative Board (CAB) from 2004 onwards; and local politicians responsible for the issue from 2004 onwards. This selection means that the respondents consist of local politicians, local and regional civil servants, and local stakeholders and residents. Three interview studies were carried out: before and after the 2006 outbreak and before the 2008 outbreak. Besides this empirical material, public records at the municipal and county levels as well as the content of the two local dailies were also analysed. These public records and newspaper articles, however, served only as background material.
- 8 Individual semi-structured interviews were performed. A funnelling technique was used. First, fairly open-ended questions were posed in order to ascertain the respondents' own definitions of the situation; thereafter, narrower, more specific questions were asked about the interviewees' viewpoints (including risks associated with various proposals for handling the situation), their evaluation of the process, the various actors involved and their strategies, and the possible future development of the issue [Smith and Osborn 2003]. The interviews, which were 30-60 minutes long, were tape-recorded and transcribed verbatim. A qualitative analysis of the interview transcriptions was conducted to reconstruct the respondents' views of the problem,

their proposed solutions to it, how they evaluated other viewpoints, and how they acted to advance their own proposal.

- 9 The empirical material is used in two ways. In the fourth section, the actors' various problem definitions are presented, definitions based on what the actors explicitly said in interview, and quotations are used to illustrate their ways of reasoning. In the fifth section, attention is turned to the mechanisms – discursive strategies – brought into play by the responsible agencies to manage the local residents' call for spraying. These mechanisms are not necessarily consciously developed and used by the respondents, but are constructed by analysing the respondents' way of reasoning.
- 10 Studying a conflict or controversy means the researcher faces a situation with at least two camps, each including actors representing a heterogeneous interest [Melucci 1989]. Local opposition – as well as governmental agencies and political organizations – comprises a coalition of interests with very different purposes. This study, however, does not focus on the variations between individuals in a category, but instead on the shared problem definition. Notably, the respondents consisted of elites, in the sense of spokespeople for wider groups of people or representatives of organizations. This implies that the respondents were used to being interviewed and to formulating statements and standpoints in public. Accordingly, the interviewer always had to keep in mind that the interview might be used strategically by the respondents to frame the issue in a way they believed would favour their struggle [Berry 2002; Odendahl and Shaw 2002; Desmond 2004]. As an interviewer, I handled this by preparing the interviews carefully [Richards 1996], not least by trying to grasp the issue thoroughly by reading public records, the two local dailies, and scientific investigations of the northern pine processionary moth.

The Problem: An Insect Outbreak

- 11 The northern pine processionary moth (NPPM), *Thaumetopoea pinivora*, occurs in pine forests on poor soils where the larvae feed on pine needles. Larvae of the moth release urticating hairs that can cause severe allergic reactions in people [Fagrell *et al.* 2008]. The moth has a two-year development cycle on Gotland, with high larval densities in even years. The outbreak is concentrated in a small, 4,000 ha area of southern Gotland, an island located in the Baltic Sea off the southeast coast of Sweden. The moth has been present on Gotland for at least several decades, but has never occurred in such high numbers as in recent years. It is unknown why the population has recently reached such a high density and why the distribution is limited to the area in question. Accurate predictions concerning the moth populations are impossible, though entomologists feel the insect density in the area will likely remain very high, at least in the near future, implying great nuisance for those living in or visiting the area [Aimi *et al.* 2008].
- 12 Local medical institutions on Gotland have reported patients suffering serious allergic reactions. In highly infested areas, owners of summerhouses were reported to have left their properties and residents with outdoor jobs were unable to perform their daily tasks. In 2004, demands were made that the political system should deal with the problem by substantially suppressing or eradicating the insect population.
- 13 At the same time, there are concerns that using insecticide against the NPPM population may have side effects on other organisms, as southern Gotland has unusually high biodiversity with several rare butterflies and moths, including red-

listed ones. Gotland is a very attractive place to be in summer, so the exposed group comprises not only farmers and other year-round residents, but also summer cottagers and tourists. The summer cottagers possess considerable resources and have been very active in pressing the public agencies to act. Many summer cottages are located near the pine forest, implying high exposure to NPPM. Besides this spatial aspect, there is also a temporal one: whereas other residents of the affected areas (except for farmers) may go elsewhere on holiday, the summer cottagers live here precisely when the urticating hair is shed by NPPM.

Political Response to the Problem

- 14 In fall 2004, a preliminary meeting was held between stakeholders and authorities, including CAB representatives, the CAB chair, and the municipal environmental health committee. Local stakeholders (representatives of local industry, farmers, and residents) also attended the meeting, constituting a group that has met repeatedly since 2004. At the meeting, the possibility of pesticide spraying was discussed but no concrete measures were decided on. It was agreed that the CAB would coordinate upcoming efforts to improve its knowledge of the severity, scope, and trajectory of the NPPM problem. The CAB and municipality engaged ecological researchers from a university to gain knowledge of the NPPM population. In the report they produced, four action scenarios were discussed: i) wait and see, and let natural predators handle the NPPM; ii) clearing pine trees adjacent to roads and houses; iii) clearing and limited control with the microbial insecticide *Bacillus thuringiensis* (*Btk*); and iv) full-scale spraying with *Btk*, leading to reduction but not extermination of the NPPM.
- 15 Demands for concrete control efforts on the part of authorities were repeated and reinforced by local stakeholders. The CAB reply was that no NPPM control efforts would be made in 2005, and that the NPPM population might be regulated by natural predators. The CAB granted € 14,000 to study NPPM ecology, building the knowledge base for formulating future action decisions.
- 16 The municipal central administrative office responded to repeated demands for control efforts by stating that the problem was not perceived as a general municipal matter, so the municipality would not take part in any spraying with biocides. Furthermore, it was stated that no control with biocides should take place at all, a standpoint justified by the precautionary principle set forth in the Swedish Environmental Code.
- 17 Local stakeholders were dissatisfied with these responses and made further demands for full-scale intervention, and they framed the NPPM problem as a truly political problem. Instead of communicating via civil servants, the demands were directed to the politicians on the municipal board. In April, the municipal board accommodated the local stakeholders by deciding to grant € 14,000 for limited spraying. In the decision, the municipal board stipulated that the local stakeholders must organize the control intervention themselves and assume responsibility for executing the work. The Swedish Chemicals Agency gave permission for a test spraying [Uggla 2010], and in May, the stakeholders conducted the spraying using a tractor-pulled unit. The evaluation report concluded that the spraying produced surprisingly low mortality rates among the NPPM larvae [Larsson 2006].
- 18 In summer 2006, local media reported that the problems caused by the NPPM larvae were considerable and that the concentration was even higher than in 2004. In an

opinion piece in a local daily, the CAB chair and the chair of the municipal board stated that more knowledge of the NPPM problem was needed before any action could be taken.

- 19 In spring 2008, local residents made new demands concerning spraying to limit a possible outbreak in summer 2008. The municipality decided not to spray, and the outbreak turned out to be less severe than in 2004 and 2006. However, there were no scientific grounds to believe this represented the start of an ongoing population decline; instead, it was believed to have been caused by specific climate conditions in spring 2008 that limited population growth. In summer 2009, there were more larvae than forecast and the current prognosis is that 2010 will have an outbreak.

Different Understandings of the Problem

- 20 Analysis of the interview material indicates two main definitions of the problem, one advocated by “local residents” and one by “local politicians and civil servants”. In the following, these competing understandings with their associated claims are presented.
- 21 The “local residents” had a very clear problem definition: NPPM was a severe nuisance and had to be controlled. There is a microbial insecticide (i.e., *Btk*) appropriate for the task, which is much more specific than synthetic insecticides and has been used elsewhere in similar cases. The government bodies should be responsible for controlling NPPM. This problem definition is conveyed by two residents of the affected area:

We think it's a problem for everyone – for tourists and others – everyone visiting the area. It's not just those of us who live here and our guests, but there are masses of people – school trips throughout the spring, and the like (a farmer representing The Local Farmers Association, 14 May 2008).

There are two aspects to what I remember. First, there was of course the agony itself. And we had no real, had no real idea of when it would stop, or to what extent it would continue [...] That was one aspect. The other aspect was the trouble it could create for business. There were, after all, two groups. Then, of course, for tourism and the tourism companies. But if you can't be here on vacation, then you won't use our resources or the services we offer tourists. And then it was the farmers who turned out to have, to have great trouble (a local resident representing Local Business and Trade, 28 April 2008).

- 22 The “political representatives and civil servants” had a broader and vaguer definition of the problem. They pondered what kind of problem it was, and how to respond to it. For them, NPPM was not only a nuisance (causing allergic reactions) that could easily be resolved through spraying or other abatements. To them, the issue invoked several other considerations: should it be seen as a private matter for which individuals were responsible, or a public concern calling for political intervention? How important was it compared with other issues and, if it was a severe problem calling for public action, what should be done? As they put it:

And then we realized quite soon that this was not a simple problem, that there were no simple measures to deal with this problem [...] and there was in fact little knowledge of it (former head of the agricultural division, CAB, 22 May 2008).

Yes, there is conflict between people who are crying out for help and the government functions that exist and do not really know what to do. Since there are no methods to eradicate or control this in a good way. So there is conflict between the population and the municipality (head of the local environmental health committee, 7 May 2008).

This is a new problem and it is not linked to the economy – that is to say, that with x amount of money we can solve the problem – but it is at a completely different level and it's not easy to grasp, not easy to solve (local politician, Social Democratic Party, former chairman of the health and medical board, 29 April 2008).

- 23 The local residents felt that the municipality and CAB were avoiding taking responsibility for the situation, that they did not understand the seriousness of the problem and instead put the responsibility for action on the local residents or local landowners:

The response we received from both the municipality and county was that this was not a social problem, but that it was our problem. They did not say so openly, but it could be read between the lines [...] In this situation, the county administrative board pushed it away, and in its response said that it was the landowners and possibly the municipality that were responsible. Then we wrote to the municipality and asked if now they could do the spraying, and we told them what areas should be tackled [...] Then we got back the answer that it was not the municipality's responsibility. We felt like we had contacted the municipality about having a hornet's nest in the toilet, that this was not a public problem, but a problem we should actually take care of ourselves. But it was not that kind of problem, and we did not like the situation (a local resident representing Local Business and Trade, 22 May 2006).

All he [a local politician] basically said was that they had nothing to do with this at all. To do anything on their part they needed notification that someone had problems with this, and in that case, they maybe should consider going and looking at the area. And if it then was deemed a problem, in principle they should be able to inform landowners that they would fix it in accordance with legislation. But it was an issue of opinion. But he, he didn't think it was an emergency that he should keep on top of. So he didn't consider doing anything (a farmer representing The Local Farmers Association, 14 May 2008).

- 24 Furthermore, the CAB and municipal representatives were not convinced that *Btk* was the proper remedy, and emphasized uncertainty concerning its consequences, in terms of both effects on NPPM and side effects on non-target species:

You cannot do whatever you want. There are a lot of other beneficial insects and other creatures that should be taken into account [...] Southern Gotland, if you look at it from an environmental and nature conservation point of view, is one of the most valuable in the country [...] And this means that such an abatement measure affects not only the pine processionary moth, but also other butterfly larvae that happen to be there at the time. So there are an awful lot of factors to consider before coming to such a drastic decision (former head of the agricultural division, CAB, 22 May 2008).

I have some competence in ecology. I have studied environment management, so I suspect that when we humans try to intervene and fix something, it is not certain that it has the intended effect or perhaps it is found that the effects it has on the species or the area are not desirable. That is, spraying can indeed destroy the population of other species and especially those who may be red-listed (local politician, 29 April 2008).

- 25 At the same time as governmental bodies were pondering how to define the issue, these bodies were receiving claims from the affected people. These claims exerted pressure on them, and were also seen by them as a part of the problem:

Down on south Gotland there are strong interest organizations. It is partly the local population who lives down there, but here there are a fair number of summer residents. Some of them have been very prominent in public life, are experienced, and can make their voices heard and express claims in a way that puts the authorities to a rather tough test. And they, the interest groups, have been very

clear. They are people with links to, among others, political life, both nationally and regionally [...] Yes, so this strong group wants us to “do something.” And, indeed, the trouble for us is that we do not have any instruments to do anything with. And so it becomes one-sided, in that they easily drive us, both the municipal and county administrations, in front of them and say: “Now you have to do something.” [But] we have no instruments to do anything with (head of the agricultural division, CAB, 8 May 2008).

- 26 However, this asymmetry – a strong pressure group of affected people, and a rather nonplussed group of politicians and civil servants – did not work in favour of the local claims. As one local resident put it:

We’ve argued then, and it’s my personal opinion, that it would be extremely easy if the municipality and county administrative board had their own small group. They do not need to meet every month, maybe once a year or so, to keep the issue warm. And together they should draw up a strategy that includes “the worst case.” But I can’t understand why they don’t do that. I don’t understand it – I think it would be so easy. I mean, of course you make strategies for everything else. And this is nothing – they’ve had plenty of time to do it (local resident and representative of Local Business and Trade, 28 April 2008).

- 27 Thus, there is reason to ask why the local residents have not succeeded in garnering support for their claims, which is the focus of the next section.

Mechanisms for Managing Opposing Claims

- 28 Based on an analysis of the interviews, four different mechanisms were identified that served to frame the issue in a way that enabled local and regional authorities to decide to not spray, despite strong local claims and social mobilization in favour of spraying. These mechanisms were constructed in the analysis of the respondents’ way of reasoning, and not necessarily consciously used by them.

Emphasizing Scientific Uncertainty

- 29 To make vague and multifarious phenomena manageable, their complexity must be reduced and the uncertainties associated with them dispelled or at least made manageable [Irwin and Michael 2003; Lidskog 2008; Renn 2008]. In many cases, science and expert knowledge are associated with the potential to reduce complexity, thereby making issues manageable. As a way to make this issue manageable, ecological experts were enrolled by the CAB to identify the options for reducing the insect population. As stated above, four action strategies were presented: wait and see, clearing pine trees, restricted spraying, and full-scale spraying. They were all presented as associated with uncertainties concerning their effectiveness and unforeseen consequences.
- 30 Spraying appeared to be the strategy that those affected – or at least those who were active in the public and political debate – advocated most strongly. However, this option was problematized by the responsible agencies. In particular, three objections to spraying were articulated.
- 31 First, the unintended side effects of spraying were cited. Even though the biological control agent *Btk* is much more specific than synthetic insecticides, it is not completely specific to one particular insect species. This means that *Btk* may kill a range of moth and butterfly larvae that are actively feeding at the time of application. on south

Gotland, several rare species of moths and butterflies might be threatened by large-scale aerial spraying of *Btk* against NPPM.

- 32 Second, the effectiveness of spraying with *Btk* was questioned. Even though it had been used successfully in other settings and for other insects, its effects on NPPM were unclear. The test spraying was unsuccessful, having very limited effect on the mortality of NPPM larvae [Larsson 2006]. The ecological expert stated that this could be due to climatic conditions specific to spring 2008, which prevented the NPPM larvae from feeding at the time *Btk* was sprayed. Most importantly, however, spraying with *Btk* was not seen as a straightforward way to reduce the NPPM population.
- 33 Third, the need for human intervention was questioned. NPPM is not a problem for nature, and in the long run, nature will probably regulate the NPPM population (e.g., by natural predators and disease). Thus, spraying is unnecessary from a long-term perspective, and maybe even from a short-term one. There were no ecological explanations for the dramatic growth in NPPM population, which could just as suddenly and inexplicably decrease.
- 34 In this case, the enrolled scientific expertise did not function to reduce the complexity and uncertainty of the issue. Instead, the expertise was actively used to fuel the uncertainty associated with spraying with regard to its side effects, effectiveness, and necessity.

Constructing Spatial Identity

- 35 In a world of territorially organized politics, issues must be territorially anchored to be manageable [Lidskog *et al.* 2009]. Actors vie to bind issues to specific spatial identities, creating incentives for certain types of political action or inaction and placing expectations regarding accountability on certain actors. In this case, the NPPM problem was primarily perceived by the CAB and municipality as a sub-local problem, only relevant to a spatially delimited group. In a written document, the municipal administrative office responded to repeated demands for control efforts by stating that the problem was not perceived as a general municipal matter, so the municipality would not decide on any spraying in the area.
- 36 Although local residents claimed that this was a municipal problem, they did not succeed in creating and spreading a broader spatial identity for the issue. This may be because both residents and authorities shared a problem definition in which the issue was associated with a limited area. NPPM are largely immobile, only being able to move some hundreds of metres during their two-year lifecycle. NPPM could, for example, have been framed as threatening tourism not only in the immediately affected area, but on Gotland in general. Such arguments, however, were absent in the interview material and in the local newspaper.
- 37 Thus, the NPPM problem was framed by the authorities as a truly sub-local one, and as such had to compete with issues of broader spatial identity and relevance, not least that of biodiversity.

Dissolving Political Responsibility

- 38 As emphasized above, the construction of spatial identity implies the ascription of political responsibility. However, to construct a spatial identity it is necessary but not

sufficient to attribute political responsibility. There is also a need to identify what actors are best suited to take action and be responsible for developing and implementing rules [Winter ed. 2006]. As seen above, reducing the complexity of and constructing a spatial identity for an issue involves drawing boundaries and making demarcations. These boundaries influence what tasks, mandates, responsibilities, and identities are ascribed to various actors, resulting in certain actors being seen as central to the regulatory work, while others are seen as peripheral.

- 39 Politicians raised questions of whether this issue was a public or private matter. Some of them perceived the issue as similar to that of annoying bees – something for citizens to cope with as private persons – whereas others saw it as a public matter concerning public health and general welfare. However, even those who framed the issue in public terms pondered who should be responsible – the landowners, municipality, or CAB.
- 40 Thus, a situation of “organized irresponsibility” was constructed [Beck 1995], in which no clear political responsibility for the issue was established, and politicians and civil servants could present themselves as powerless or at least as possessing circumscribed power because of the issue’s complexity.

Distributing Economic Responsibility

- 41 Both proposed abatement strategies – clearing pines or spraying with *Btk* – needed funding to be implemented. As in many other regulatory areas, it is often insufficient simply to construct and assign political responsibility for an issue (Who should decide?), if no attention is also paid to assigning economic responsibility (Who should pay?) for a regulation [Gunningham and Grabosky 1998; Braithwaite 2002].
- 42 The large number of landowners in the area made it hard to propose large-scale pine clearing as an option. Restricted clearing of the area was deemed likely to be ineffective, because it would only result in NPPM flying to other nearby pines. There would be a need to negotiate with all the landowners if pine clearing were chosen as an efficient way to eliminate NPPM from populated places. However, politicians and civil servants made no concerted effort to encourage landowners to fell their pines, possibly because it was seen as a fruitless enterprise: not all landowners were summer cottagers, and absentee landowners had few incentives to clear infested trees. Neither was there any discussion of economic compensation to landowners, meaning that no incentive structure was constructed to encourage clearing; instead, land ownership was framed as an obstacle to this abatement strategy.
- 43 Spraying might have made clearing unnecessary. However, in the political process, nobody would take responsibility for the economic cost of spraying. Whereas the cost of test spraying was partly covered by the municipality (a municipal grant of € 14,000) and partly by the landowners (organizing and conducting the spraying), the cost of full-scale spraying was not discussed at all. By not allocating public resources for spraying, or not even discussing how to finance it, the land ownership structures became part of the problem of how to arrange spraying.
- 44 Thus, by not making any preparations for how to cover abatement costs, an additional obstacle to spraying was constructed. Even if spraying had been permitted, it could well have been hard to persuade landowners to allocate resources for it.

Inventing Complexity, Enacting Uncertainty

- 45 This paper concerns how actors tried to render an issue governable. I have argued that regulatory objects are neither immutable nor complete entities. Adopting this perspective means paying attention to how actors shape regulatory entities. Actors can ascribe an issue certain characteristics, such as being local or global in scope, calculable or indeterminate, curable or incurable, and robust or vulnerable. In doing so, they also make assumptions about appropriate remedies, relevant knowledge, and how to distribute responsibilities.
- 46 Despite strong mobilization and claim-making activities, local residents failed to garner support for their problem definition and suggested remedy. This occurred because public agencies and political representatives developed an alternative understanding of the issue, and framed it so that uncertainties concerning the need, side effects, and effectiveness of spraying in combination with the complexity of how to arrange (decide on and fund) the spraying were put in the centre. No actors were constructed who were definitively ascribed responsibility for the issue and assigned the ability to act. In addition, the local population failed to assign a broader spatial identity to the issue or mobilize extralocal allies. By inventing complexity (concerning organization and responsibility) and enacting uncertainty (thereby favouring a specific standpoint), the CAB and municipality succeeded in slowing down the process and postponing decision-making, making it harder for the local population to continue mobilizing. Briefly stated, they constructed a regulatory object that was poorly equipped for political intervention, in contrast to the object that the local residents constructed and tried to spread.
- 47 Although the local population held a rather homogenous view of the CAB and municipality, there was actually a divergent understanding of the NPPM issue inside these bodies. If the local residents had been aware of this, they could have used the knowledge strategically to build a coalition with those civil servants and politicians whose understanding was close to theirs. In addition, as emphasized above, the local population failed to construct a broader spatial identity for the NPPM problem.
- 48 However, it is too early to state that the battle is over. Obviously, future developments are hard to predict and depend on factors such as the future development of the NPPM population, action taken by local residents, and media attention to the issue. Furthermore, a new ally of the local population may now enter the stage: medical expertise. In June 2009, an article was published in the *Journal of the Swedish Medical Association* [Holm *et al.* 2009] entitled “NPPM: a Great Health Problem in Southern Gotland.” Based on a postal survey conducted in summer 2006, the article reported that 18% of residents had symptoms on their skin and mucous membranes. In the most exposed community, almost 90% of respondents (80 of 92) stated that they had symptoms.
- 49 Whereas entomologists have nature as their field of competence, and mainly discuss the ecology of NPPM, medical science puts human beings at the centre. This epistemic shift in scientific understanding of the issue may change its framing, and human nuisance in the form of allergic reactions may become more important in future definitions of the problem. The constructed regulatory object is not immutable, but is open to negotiation and reconfiguration in the near future.

- 50 The NPPM problem has only been temporarily alleviated. In spring 2010, residents may again mobilize to press for spraying, or at least demand that public bodies do something to limit the NPPM population.

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NOTES

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See “Minnesanteckningar: Arbetsgrupp om tallprocessionsspinnaren.” Visby, County Administrative Board of Gotland, 22 March 2005.

See “Skrivelse angående tallprocessionsspinnaren.” Visby, County Administrative Board of Gotland, 26 April 2005.

See “Yttrande: Bekämpning av Tallprocessionsspinnaren (TPS) på södra Gotland’ Dnr 2006/0080-44.” Gotlands Kommun, Ledningskontoret, 28 February 2006.

See “Yttrande: Bekämpning av Tallprocessionsspinnaren (TPS) på södra Gotland’ Dnr 2006/0080-44.” Gotlands Kommun, Ledningskontoret, 28 February 2006.

RÉSUMÉS

Résumé

Ce texte analyse, dans la partie méridionale de l’île de Gotland, située sur la côte sud-est de la Suède, le traitement politique de l’invasion de la mite, un insecte provoquant des réactions allergiques chez l’homme. Compte tenu de cette nuisance et de ses effets possibles à terme sur le tourisme, la population affectée exigea l’aspersion de produits pour réduire et contrôler cet insecte. Cependant, on se prononça contre ce type de traitement, et ce en raison du manque de connaissances quant à ses répercussions écologiques, notamment sur la biodiversité. Des

entretiens furent menés avec des acteurs de premier plan afin de comprendre comment ils appréhendaient ce problème et comment ils essayaient de le gérer. Le postulat de cette étude, c'est que la régulation ne porte pas seulement sur des objets spécifiques mais qu'elle contribue aussi largement à créer ces objets. L'approche empirique s'intéressera à la façon dont les acteurs perçoivent le problème et aux solutions qu'ils proposent. En dépit des demandes des résidents locaux pour que soient aspergés des insecticides, les instances publiques n'entreprirent aucune action particulière pour contrôler la population d'insectes mais choisirent délibérément de gérer les demandes formulées par la population locale. Le résultat en fut qu'on ne se contenta pas de gérer des mites mais qu'on géra aussi des hommes.

Abstract

This paper analyses, in southern Gotland, an island located on the southeast coast of Sweden, the political process for handling the outbreak of an insect, the moth, causing human allergic reactions. Given the human nuisance and possible long-term damage to the tourist industry, the affected populace demanded spraying to reduce and control the insect population. However, there were warnings against such a treatment because of gaps in knowledge of its wider ecological consequences, not least its effects on biodiversity. Key actors were interviewed to investigate their understanding of the problem and how they tried to make it governable. The point of departure is that regulation not only governs specific objects, but is also deeply involved in their construction. The empirical analysis investigates involved actors' conceptualizations of the problem and the proposed remedy. Despite local residents' demands for spraying, public agencies took no substantial action to control the insect population, but instead deliberately acted to manage the local population's claim-making. Thus, what took place was a process of governing not just moths, but men too.

INDEX

Mots-clés : mite processionnaire du pin, île de Gotland (Suède), biodiversité, aspersion d'insecticides, gestion du risque, réglementation environnementale, intervention biologique
Keywords : biological intervention, Gotland Island (Sweden), environmental regulation, pine processionary moth, risk, spraying, biodiversity