Talking about the Birds and the Bees: Biodiversity Claims Making at the Local Level

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ABSTRACT

This paper adopts a social constructionist perspective to examine how the biodiversity 'claim' is constructed and contested at local level. A framework is deployed which is based on Hannigan's (1995) ideas that certain factors need to be present for an environmental claim to be legitimised within the international arena (i.e. scientific authority; popularisers; media coverage; symbolic and visual dramatisation; economic incentives and institutional sponsorship). Empirical research into the production and implementation of Oxfordshire's Biodiversity Action Plan and Farm Biodiversity Action Plans in England and Scotland is used as a vehicle to explore the legitimisation of the biodiversity claim at the local scale. The two strands of research highlight the current importance of biodiversity as a focus for environmental planning partnerships (although the extent of public 'buy-in' to the claim is unclear) and the way in which biodiversity as a 'buzzword' has been adopted by farmers with some reluctance and mainly for financial reasons. There is strong evidence that the scientific basis of the claim is crucial in terms of engendering support, and that the rhetoric employed at the local level is positive rather than a 'rhetoric of loss'. However, the need for further popularisation of the biodiversity issue is identified. Potential future lines of research enquiry are also outlined.

KEY WORDS

Biodiversity; environmental claims; social constructionism; Local and Farm Biodiversity Action Plans (LBAPs and FBAPs)

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BIODIVERSITY AS AN ENVIRONMENTAL 'CLAIM'

> 'Biodiversity', the term and concept, has been a remarkable event in recent cultural evolution: 10 years ago the word did not exist, except perhaps through occasional idiosyncratic use. Today, it is one of the most commonly used expressions in the biological sciences and has become a household word (Wilson 1996: 1).

This quotation highlights the rise to scientific, political and public prominence of biodiversity loss as an issue of global environmental concern during the 1980s and 1990s. The extinction of species provides the basis of this concern, but this in itself is an insufficient explanation of the successful 'career' of this global environmental problem. Hannigan (1995), in his social constructionist account of biodiversity, attributes its success to two independent developments during the 1980s. The first of these was the convergence of data from a number of related strands of scientific research, for example conservation biology[1] (see Spellerberg 1996; Spellerberg and Hardes 1992), that raised the profile of biodiversity loss and led to a series of high profile academic conferences, political hearings and public forums. Significant within this process was the role played by charismatic and well-known scientific 'entrepreneurs' or 'champions' (e.g. Paul and Anne Ehrlich and Norman Myers, see Hannigan 1995: 153) who were successful in promoting biodiversity within and beyond the scientific community. Secondly, growth in awareness of the relationship between biodiversity and economic development 'elevated biodiversity loss from a scientific environmental problem to a wider status as a socio-political problem' (Hannigan 1995: 152). Hannigan interprets the signing of the UNCED Biodiversity Convention in 1992 as a measure of the public and political legitimacy that biodiversity, as an 'environmental claim', has achieved. However, as this author goes on to argue, the process of environmental problem construction does not stop at the point where a legitimacy threshold is passed. Instead, an *ongoing* process of assembly, presentation and contestation of an environmental claim must take place, as claims makers attempt to convince others to accept that a problem exists and take ameliorative action. Thus, in respect of the biodiversity problem, the agreement reached by national governments in 1992 does not necessarily engender action on the ground within individual nations.

This paper builds on Hannigan's approach in order to explore the process of biodiversity claims-making at the local level within the UK and specifically seeks to examine how claims makers have sought to *legitimise* biodiversity as a prime concern amongst policy makers in statutory, private and non-government organisations (NGO), land managers and the public. The vehicle for exploring this process is the biodiversity action planning process which, in the UK, is currently being operationalised at national, county and farm scales (UK Local Issues Advisory Group 1995; UK Government 1994; Morris and Winter 1999,

Selman and Wragg 1999a). Following a brief elaboration of the concept of environmental claims making, the factors that Hannigan deems necessary for the construction of claims are presented as an organising framework. The process of biodiversity claims making at the local scale is then examined in relation to these factors, drawing on findings from empirical research into the production of Oxfordshire's Local Biodiversity Action Plan (LBAP)[2] (Selman and Wragg 2000) and Farm Biodiversity Action Plans (FBAPs)[3] across the UK (Morris and Winter 1999).

Local (or 'county') and Farm BAPs represent distinct local biodiversity initiatives, involving different constituencies of actors[4]. The LBAP process tends to involve a wide partnership of actors from all sectors (public, private and NGO) whereas FBAPs forge a link between fewer partners: English Nature (a public body providing grant aid); the Farming and Wildlife Advisory Group (FWAG) (an NGO responsible for FBAP delivery); the retail enterprise, Sainsbury's (who provided initial financial sponsorship); and seven farmers who supply fresh produce to Sainsbury's and piloted the approach. At the county scale, evidence is drawn from document analysis, participant observation of meetings, and interviews with key actors involved with the biodiversity planning process. Farm scale data comprises interviews with 30 English and Scottish farmers who have had FBAPs prepared[5], 10 FWAG advisers involved with their delivery[6], and key personnel within FWAG's head quarters and Sainsbury's 'Primary Agriculture' division. The paper concludes with a discussion of the prospects for the biodiversity claim and its claims makers as they seek to effect action on the biodiversity problem at the local level. This final section also includes some reflections on the process of 'claims-making' and outlines a number of potential research directions.

CLAIMS MAKING AND THE SOCIAL CONSTRUCTION OF ENVIRONMENTAL PROBLEMS

The notion of claims making has been highlighted by sociologists within their investigations of the social construction of environmental problems (e.g. Burgess and Harrison 1993; Hansen 1991). Public concern over environmental problems (even when these are visible) is by no means automatic, thus environmental problems are, generally speaking, constructed by individuals or organisations (e.g. scientific experts and environmental groups) that define an environmental problem as worrisome and seek to raise its profile through claims making. Policy makers and legislators must become convinced by the arguments of claims makers if they are to take ameliorative action. Drawing on ideas from cultural studies, some environmental sociologists have conceptualised the claims making process as a circuit, in which the media are identified as playing a key role in the production and representation of environmental claims (Burgess

1990 and 1993; Burgess and Harrison 1993). The consumption of media products by various audiences then provides the basis for the subsequent round of meaning creation, thus completing the circuit.

The concept of the circulation of claims provides a useful context for our examination of biodiversity in that we are broadly concerned with the production, presentation and consumption of claims about biodiversity. However, unlike other environmental claims-making research which tends to focus on the role of the media, in this paper the spotlight is broadened to encompass the activities of a variety of individuals and institutions in the making and legitimising of local biodiversity claims. Hannigan's (1995) framework provides a particularly useful means of approaching this task (for him, the media is just one important element within the claims-making process – see below). Through the application of a social constructionist framework[7] developed from Solesbury (1976), Hilgartner and Bosk (1988), and Wiener (1981), Hannigan (1995) explores how environmental claims are created, legitimised and contested. However, he does not take an extreme constructionist stance, instead acknowledging the reality of empirical evidence for the existence of problems. This paper adopts the same position, striving to combine the constructionist insight that we can have no unmediated apprehension of nature with the realist claim that the world consists of more than human mediations (Peterson 1999; see also Lupton 1999: 35).

In developing his concept of environmental problem construction Hannigan (1995) highlights how the role and characteristics of claims makers, the content of the claim, and the way in which it is presented to others are important issues for consideration in terms of the successful construction and contestation of a claim at the international level. Hannigan identifies three key tasks that characterise the construction of an 'environmental claim'. First, it must be *assembled* using particular types of knowledge and information, notably scientific data. Second, the claim needs to be effectively *presented* in order for it to achieve legitimacy. The use of rhetoric and a variety of information channels, e.g. the media, are integral to this process. Finally, once an environmental claim has transcended the legitimacy threshold, it will be subject to on-going *contestation* as claims makers seek to ensure that ameliorative action is taken. Claims makers must successfully contest a claim if they are to sustain its legitimacy. Crucially, these three tasks are not temporally distinct, but 'interweave constantly' (Hannigan 1995: 40). Six factors are identified by Hannigan as necessary for the successful assembly, presentation and contestation of an environmental claim. These are summarised as follows:

1. Dependence on scientific authority for validation;
2. The need for 'popularisers' to translate the science of environmental claims for a wide range of audiences;

3. Carefully framed media coverage;
4. Symbolic and visual dramatisation of the problem: it must be presented in a stimulating and comprehensible format;
5. The identification of economic incentives for taking action;
6. Institutional sponsors are required, 'to ensure both legitimacy and continuity…especially once a problem has made the policy agenda' (Hannigan 1995: 56).

Evidence from the two scales of biodiversity planning activities (LBAP and FBAP) are examined in the subsequent sections with a view to establishing whether, and how, these (and any other) factors are key to the making and legitimising of biodiversity claims at the local level. In essence we seek to explain how a global claim can be translated into a legitimate issue at the local level. Legitimising the problem means more than just gaining attention and may occur when: sponsors are respected as having authority on the subject; an 'event' may represent a turning point for a problem (e.g. the publication of scientific findings); or there is prolonged media attention. We would argue that the adoption of the concern by policy makers and action by landowners also represent the legitimising of a claim.

NATIONAL, LOCAL AND FARM SCALE BIODIVERSITY ACTION PLANNING IN THE UK

The examination of biodiversity claims making locally takes place within the context of the BAP process in the UK, which is now briefly described. Biodiversity action planning at county and farm levels arises from the activities and recommendations of national biodiversity claims makers, particularly the voluntary sector who produced the UK Biodiversity Challenge (Wynne et al. 1994), and the cross-sectoral Biodiversity Steering Group (BSG) who were charged with producing costed action plans for plants, animals and habitats. The BSG includes academics; nature conservation agencies; business; representatives of the farming industry; the voluntary conservation bodies; and local and central government. Chaired now by the new-fashioned Department of the Environment, Food and Rural Affairs (DEFRA), this Group has been responsible for advising the UK Government on its response to the UNCED convention. The UK Biodiversity Action Plan (UK Government 1994) states that biodiversity is ultimately lost or conserved at the local level. LBAPs ('green plans' without statutory clout) are seen as one of the principle means by which conservation actions can be achieved (Harrison et al. 1998).

In Oxfordshire, the LBAP, entitled '*Action for Wildlife'* (ONCF 1998), was published following several years of conservation planning-related activity by

Oxfordshire Nature Conservation Forum (ONCF) which grew throughout the 1990s to include over 50 representatives from different environmental, planning and land management related bodies from all sectors. ONCF stimulates discussion on conservation issues, helps promote countryside initiatives, and enables the sharing of resources and expertise. Consequently, an extensive and effective conservation network has developed within the county. In many ways the LBAP has superseded the Oxfordshire Nature Conservation Strategy (Oxfordshire County Council 1992) as environmental actors have reconvened to address the biodiversity issue. This shift of focus to biodiversity planning, rather than wildlife conservation more generally, reflects a level of legitimacy gained amongst local policy makers and planners through the government's stipulations that counties should develop LBAPs. A working group (the Biodiversity Link Group), representing a partnership between ONCF and Local Agenda 21, was established to develop the LBAP, which is very much 'vision-driven' (Selman and Wragg 1999a and 1999b). The recommended culture to be fostered in local biodiversity planning is one of partnership and consensus building within a multi-sectoral and multi-agency setting. The chair of the Forum has encouraged wide membership of the process, emphasising that the Group should be interested not only in technical processes pertaining to biodiversity planning, but also in 'the politics which create and maintain common ownership and commitment' (Buxton 1997). This illustrates the importance placed by key claims makers within the county (e.g. the ONCF chair) on presenting and legitimising the biodiversity claim through wider socio-political processes as well as adhering to the scientific principles associated with conserving biodiversity. It is clear that biodiversity planning at the county level (at least in the accompanying rhetoric) requires that as many organisations and individuals as possible 'buy into' the claim.

While LBAPs have been identified as a key mechanism for delivering BAP targets, the BSG has underlined the need for other policies to be developed which incorporate biodiversity objectives. The FBAP represents one of these 'other' measures, is a practical mechanism for achieving biodiversity targets at the farm level and has a distinct genesis to county BAPs. During the mid 1990s, FWAG began to consider adding new modules to their Landwise[8] approach that focused on biodiversity. Concurrently, Sainsbury's attempted to develop a corporate environmental policy, and specifically to 'green' their supply base, e.g. through the company's 'Living Landscape'[9] initiative. Sainsbury's approached FWAG (respected providers of conservation advice to farmers) to assist them in developing a farm biodiversity initiative. After piloting the concept[10], Farm BAPs were launched at the FWAG conference in October 1997. Since the 'public' launch at the Royal Show in July 1998 any farmer is now entitled voluntarily to commission an FBAP from FWAG. FBAPs are developed through on-farm discussions between a FWAG adviser and farmer or grower. A mini-

mum of four species and/or habitats are selected based on the farmer's expertise and advisor's guidance. The farmers must meet the costs of *implementing* the FBAP recommendations, although emphasis is placed on zero / low cost management options and advice on relevant grant aid (e.g. from agri-environmental schemes) is provided. By April 1999, 125 Farm BAPs had been delivered across England and Scotland. At present, further funding for FBAPs from external sources (including Sainsbury's) is uncertain.

CONSTRUCTING, LEGITIMISING AND CONSUMING THE BIODIVERSITY CLAIM AT THE LOCAL LEVEL

Evidence relating to the formulation and implementation of the Oxfordshire LBAP and FBAPs is now presented and discussed with a view to assessing the importance of Hannigan's factors in legitimising the biodiversity claim at the local level. By examining the construction of the LBAP and the way in which claims makers have attempted to penetrate the psyche of policy makers, land managers and the public it is possible to gain an idea of how the vehicle is being used to legitimise the term 'biodiversity'. FBAPs represent an interesting union between a supermarket accepting the issue as important in terms of marketing and production, and then working with FWAG to draw landowners into accepting, or 'consuming', the claim. Here legitimacy may be demonstrated by actions on the ground and levels of acceptance amongst farmers.

The construction of both the LBAP and FBAPs is underpinned by the science of conservation biology, and, as Hannigan (1995) suggests, this science provides authority for validation of claims about biodiversity loss, and the need for counteractive actions.

The importance of such scientific evidence is emphasised in Oxfordshire's LBAP: 'It is only with excellent data which show how plants and animals are faring over time, in response to developments in agricultural practice, land development, tourism and nature conservation activity, that we can make strategic decisions on improving biodiversity' (ONCF 1998: 30). In addition, species selected as priorities in Oxfordshire's 'Biodiversity Challenge' document (Berkshire, Buckinghamshire and Oxfordshire Naturalists Trust (BBONT) 1995: 3) are those which are: 'internationally rare or threatened; locally rare or threatened; indicative of rare or threatened habitat; characteristic of the county; and culturally valued'. All but the last of these criteria are firmly grounded in scientific evidence[11]. Throughout Oxfordshire's biodiversity planning documents it is implied that working towards the species and habitat targets (which are based on scientific evidence) will help to redress biodiversity loss. The general consensus amongst Forum members was that the science of the biodiversity claim was indisputable. However, there has been some concern shown

by the representatives of certain organisations that there had been insufficient consultation regarding the targets in the 'Challenge' document (also evidenced by Harrison et al. 1998). The Wildlife Trust (BBONT), for example, believed that a long consultation period would have been too time-consuming, resulting in targets being watered down, producing a 'less effective' document. This does not suggest that the scientific evidence itself was being questioned, however, it highlights how the biodiversity lists may themselves be 'constructions', the product of different values placed upon nature by the various stakeholders involved. At the farm scale there is evidence that the scientific authority on which the biodiversity claim is based is being contested by local knowledge of the environment 'which depends more on keen observation and common sense than on professional techniques' (Hannigan 1995: 43; see also Clark and Murdoch 1997; McHenry 1998; McEachern 1992). As one FWAG adviser illustrated 'farmers see BAP target species like skylarks on their farms and then say that they don't understand the bigger picture of skylark decline'. One farmer challenged the adviser's recommendation to include an otter as one target species. This was perceived as 'unrealistic' on what was a very busy site in terms of public access and agricultural activity.

Claims based on scientific evidence need to be translated into a popular discourse in order to achieve legitimacy amongst local communities. Hannigan (1995: 55) suggests that charismatic 'entrepreneurs' are central to this process, 'one or more scientific 'popularisers' who can transform what would otherwise remain a fascinating but esoteric piece of research into a proactive environmental claim'. This is also recognised by the BSG: 'messages and proposals for action are most likely to be received sympathetically if they come from leading and respected figures from the sector concerned' (BSG 1995: 6). Within Oxfordshire Buxton (2001) has identified the popularisers as being the key conservation actors – for example those individuals involved with writing biodiversity documents – who are well informed and keen to promote biodiversity issues. Through the network of the Forum, such individuals have been able to unite and consequently give weight to the promotion of biodiversity amongst their own organisations as an issue of prime importance. Furthermore, events have been organised in an attempt to popularise biodiversity amongst the public, for example, 'the launch of the LBAP should reach as many sections of the community as possible, including schools, local communities, businesses and industry. At the launch we begin the process of enlisting support of a number of people or organisations and individuals….' (Biodiversity Link Group 1998). The LBAP document was distributed to all Forum organisations, parishes (on request), public libraries, and landowners (via Forum members), and 5,000 leaflets were distributed to the public before and after the launch. As action plans for high profile species were completed, mini-launches with field events are planned to keep wildlife issues in the public eye. Feedback to partner organisa-

tions such as the Environment Agency and other statutory bodies (including the Local Agenda 21 process) is seen as crucial in terms of penetrating policy structures, in turn influencing central government. The Forum appears to have focused strongly on popularising the biodiversity issue amongst its member organisations and it is noted, 'many biodiversity style initiatives are already being developed in and around Oxfordshire…and have already embraced the BAP targets in developing their activities' (Biodiversity Link Group 1998). The Forum also aims to further popularise the biodiversity claim through working with neighbouring counties, site owners and landowners.

A clear need for popularisers is also evident at the farm level, to enroll farmers into the claim. The former UK Government Department of Environment Transport and the Regions (DETR), has recognised that, 'some farmers may be unaware of the value of their land for biodiversity or the ways in which they could help it to be maintained and enhanced' (DETR 1998: 14). Indeed, this was born out by the FBAP survey evidence. In spite of widespread take-up of agri-environment schemes, a lack of understanding and awareness of biodiversity was identified amongst farmers: 'The term biodiversity is lost on farmers', commented one adviser, who went on to suggest that it is perceived as scientific or political jargon, and that 'wildlife' is probably a more meaningful term. Referring to his FBAP, one farmer remarked: 'What is a UK BAP species, the RSPB red list and the Red Data Book? This is totally meaningless to farmers' (Bedfordshire farmer, 709ha arable and horticulture holding). His comments suggest that the distinctiveness of biodiversity as an environmental problem is not fully appreciated: 'This BAP isn't really necessary, although I accept that it has provided some structure to help determine priorities for future hedge work. But we should / could have been doing that anyway, by consulting our FWAG adviser, or the council'.

FWAG advisers have the potential to fulfill the role of populariser (limited evidence from the interviews suggests that respected members of the farming community could also play this part). As one adviser reflected, 'we're one of the major players in delivering … the advisory input [into the FBAP] … talking to them (farmers) gives them an impetus to start. It's the contact with the adviser that is the crucial thing, rather than the product *per se*'. The process of popularising the concept of 'biodiversity' (as opposed to wildlife in general) alerts farmers to important species they might not otherwise have considered in their conservation aims, for example, '…farmers do respond with interest if a specialist visits the farm and tells them about more obscure species, of beetle for example'. Similarly, another adviser asserted, ' We need to be aware of the BAP targets and need to persuade farmers to include BAP species.... one farmer wanted to include a buzzard – I persuaded him to include a barn owl (BAP species) instead. It is down to our skill as advisers to achieve this'. Respondent farmers confirmed these observations. For them, the on-site discussion with the

FWAG adviser was key to their positive response to the process of FBAP preparation, and may also be taken as a measure of how the bidoversity claim is gaining legitimacy amongst some landowners and managers.

FWAG may be able to act as an effective populariser of biodiversity at the individual farm level, but as an organisation holds a limited capacity to deliver FBAPs to a wide constituency of farmers due to staffing and financial constraints (Winter 1996). Furthermore, there is a sense that the idea of targeting of certain species to reduce biodiversity loss sits somewhat uncomfortably with the FWAG philosophy of whole farm conservation planning. This was acknowledged in some comments from advisers: 'My concern about Farm BAPs is that they are too focused, there's too much emphasis on target species and not enough on habitat… you can't have the former without the latter…We need to get away from species and place more emphasis on habitat and on linking habitats …We do whole farm work well and specialise in this'. Another adviser implied that FWAG may not be the most appropriately placed organisation to spread the claim owing to lack of 'in-house' information: 'The danger with Farm BAPs is that they will focus on the same type of (more common) species. It can be nice to pick the more challenging species...However, this requires consultation with English Nature and local BAPS; if we lack local knowledge we could miss key species'.

People (such as the populariser just described) as well as objects (such as texts) are important in constructing, and contesting environmental claims. Among the latter, media texts are highlighted as particularly significant within the claims-making literature. Globally and nationally, biodiversity has been referred to in the media, e.g. the recent BBC TV series 'State of the Planet' narrated by the popular naturalist David Attenborough. However, media reporting at subnational level is also seen as crucial to the local construction and legitimisation of the claim. Within Oxfordshire, the launch of the LBAP in April 1998 was designed to attract media attention but coverage was not as successful as the Forum had hoped. In fact, in general media coverage has not been extensive, but there has been a regular article, 'Country Matters' by David Horran in the Oxford Times which has covered conservation issues. At the Biodiversity Link Group meeting (10/07/01) it was reported that a 'new' journalist (Peter Canne) would be taking over and would welcome input from the Forum. In response, the Group agreed that they would write an article giving an update on biodiversity planning and current actions in Oxfordshire in order to raise the profile of boidiversity. BBONT has had more media success with publicising Species Action Plans since it is believed that people identify more strongly with particular animals (ONCF Project Officer 2001). The Forum, on the other hand, is concerned with developing Habitat Action Plans which are thought to be less 'attention grabbing'. Among the respondent farmers, while a small number did indicate that it was the media that first alerted them to Farm BAPs, the biodiversity issue has been given limited coverage in the farming

press and even this has not necessarily resulted in a positive response: 'I've read about biodiversity in the press but without understanding what it meant…I've also seen BAPs mentioned…. and I was more offput [sic] – there were no facts to back it up' (Shropshire farmer, 121ha beef and sheep holding).

Representing an environmental problem visually within texts (both media and other) can 'dramatise' the nature of a claim and facilitate its acceptance. As Hannigan (1995: 56) highlights, images about an environmental problem 'provide a kind of cognitive short cut compressing a complex argument into one which is easily comprehensible and ethically stimulating'. At the farm scale, two aspects of dramatisation were evident. Firstly, a number of advisers argued there was a need to select the 'visible' and 'obvious' species to retain farmers' interest; 'farmers tend to respond to the big 'obvious' species….everyone loves a barn owl, or other birds', and, 'species need to be visible, otherwise farmers won't be interested'. Secondly, the visual presentation of Farm BAPs appears to be important in legitimising the biodiversity problem and persuading farmers to take action; also, in maintaining that legitimacy once the FBAP has been prepared. For example, FWAG advisers commented that the FBAPs were being placed on office and staff canteen walls to raise awareness since they were visually impressive documents. It was felt that although farmers might not understand buzzwords such as biodiversity, or have the time/inclination to read documents, visual representation of the issue was effective. The farmers agreed, for example, 'The photos [in the BAPs] have been very useful in showing the men out in the field what they should be looking out for and to persuade them to get out and move a nest rather than squash it' (Lincolnshire farmer, 109 ha horticulture and arable holding).

There is evidence of the use of similar visual devices in Oxfordshire's Biodiversity Challenge and LBAP, both of which show pictures of attractive species with public appeal, such as small mammals and birds. The use of selected species in publications by county biodiversity claims makers is designed to act as a tool to 'excite people and focus attention' (Oxfordshire 100 Group 1994). Alongside the visual, symbolic dramatisation of the biodiversity problem in the LBAP, the use of particular rhetorical devices is also deployed. Claims makers for global biodiversity adopted a 'rhetoric of loss', linking the issue to terms such as 'catastrophe', 'loss of dinosaurs' and 'limits to growth'. A 'rhetoric of loss' is also evident, but to a far lesser extent, in biodiversity planning at the county level: 'We need to halt their decline (species) and to promote recovery of their range. Most of these are of the highest priority in the national context but there are also some which are particularly threatened in Oxfordshire…' (ONCF 1998: 2). However, these statements are rapidly translated into a call for positive action:

> '… the decline in biodiversity that we are now witnessing is of increasing concern at a local, national and global scale. This BAP has been written to reverse these

> trends in Oxfordshire and to show every interested person how they can help….[and]….. Everybody needs to work together – specialist and non-specialist alike. Without partnerships we will continue to lose the wonderful wildlife of our county, but if we co-operate we can make a real difference' (ONCF 1998: 1).

The same 'positive rhetoric' is evident in the four 'persuading statements' for the public that are set out at the beginning of the LBAP: 'we have a responsibility for Stewardship'; 'biodiversity is important to our moral and aesthetic values'; 'biodiversity has benefits for our society'; and, 'biodiversity has economic value' (ONCF 1998: 4). Reference is also made to positive wildlife conservation taking place in Oxfordshire, 'tremendous achievements have already been made, such as the re-introduction of the Red Kite to the Chilterns, the return of the Otter to the county, the restoration of the River Cole and the on-going restoration of damp meadows and pastures in the Upper Thames Tributaries ESA' (ONCF 1998: 8).

The economic value associated with conserving biodiversity is seen by Hannigan as a crucial factor in legitimising the claim. There appear to be three elements to this factor at the local level. The first is similar to that suggested by Hannigan on a global scale which relates to the *wider economic benefits* of conserving the biosphere. This is evidenced in the LBAP, in which wider economic incentives for conserving biodiversity are identified as: the need for genetic material in developing productive crops; biotechnology to benefit agriculture, forestry, medicine and the environment; and, the fact that varied landscapes also benefit tourism and recreational activity. The second element relates to *the financial benefits of partnership*. Within Oxfordshire, Buxton (1993) identifies the importance of the Forum's liaison function in terms of fund-raising and aiding the flow of resources from the grant-giving partners to the, 'money-hungry doers' or charities. The Forum partnership fosters a political and commercial culture in which resource needs are better understood. The third factor identified is *practical incentives for actions on the ground*. The LBAP highlights how agri-environment schemes have been modified to include biodiversity targets, and have economic incentives attached for farmers. Similarly, the FBAP links actions for biodiversity to financial incentives, for example, Sainsbury's promotional brochure states: 'The long term success of farming and the countryside relies on establishing a healthy balance between commercial activities and nature. Biodiversity…is key to maintaining this balance as it forms part of farming's natural resource base' (Sainsbury's 1998: 2).

However, recognition of the need to protect biodiversity because of its intrinsic wealth-generating potential was not evident amongst the respondent farmers. Instead, the economic benefits from having a FBAP prepared were the prime concern. Farmers viewed the FBAP as a means of enabling them to sustain relationships (and hence market outlets) with Sainsbury's. Furthermore, deci-

sions surrounding the selection of particular species for the BAP were frequently made on the same basis; one respondent commented, 'we've chosen four species which the adviser was satisfied with, and which they could easily demonstrate on site to Sainsbury's' (North Yorkshire farmer, 48ha poultry holding). The availability of financial support by Sainsbury's, and funding provided by marketing groups, was another reason for commissioning FBAPs; without this many farmers would definitely not have proceeded. There was also strong evidence from the survey data that some FBAP species were selected because of their direct economic benefit to farm management e.g. bumble bees, which are crucial for soft fruit pollination.

The need for institutional sponsors in the successful construction of an environmental problem 'is especially important once a problem has made the policy agenda and legislation is sought' (Hannigan 1995: 56). Biodiversity has been on the UK policy agenda since 1993, but there has been concern that local authorities still lack statutory powers to protect biodiversity. However, they are expected to develop LBAPs and in that way may be seen as institutional sponsors of the biodiversity claim. In Oxfordshire there is no one institutional sponsor (as identified by Hannigan at the global scale). Instead, institutional backing stems from the strength of the conservation network (ONCF), both in terms of financial resources and support for the biodiversity claim. The claim is reinforced through its common ownership by a number of organisations and interested parties. The donors within the Forum may be seen as some of the institutional sponsors and there are many of these, for example, the Oxfordshire LBAP document was sponsored by a number of governmental and non-governmental environmental organisations and private companies[12] . In Oxfordshire it has been the participation of so many organisations, groups and individuals which has so far ensured the continued successful contestation of the biodiversity claim.

The financial and symbolic sponsorship of FBAPs by the retail giant Sainsbury's perhaps represents a double-edged sword for biodiversity claims makers at the farm level. On the one hand, the majority of farmers with FBAPs advocated retailer involvement in promoting the claim. For example, one farmer stated, 'FWAG are best at encouraging producers to commission FBAPs via the supermarkets. A signal from the end customer will encourage / persuade growers to commission and implement BAPs' (Cornwall farmer, 462ha, horticulture holding). These sentiments were put more bluntly by another farmer: 'If this had come directly from FWAG I'd have chucked it straight in the bin; because it said Sainsbury's on it, I didn't…Working through supermarkets lends weight' (North Yorkshire farmer, 52 ha poultry holding). Some advisers reinforced these comments as they spoke of the importance of new contacts forged through FBAPs and the influence of supermarkets (and also some members of the processing industry) in driving good conservation practice on farms.

On the other hand, Sainsbury's, or any other retailer,[13] may not be the most appropriate institutional sponsor. A number of advisers drew attention to

antagonism or cynicism from farmers towards supermarkets, particularly to the view that the supermarkets' support of biodiversity is purely a marketing strategy. While these doubts remain, it may fall to organisations such as FWAG, to provide the necessary institutional sponsorship of the biodiversity claim. FWAG has bridged the gap between conservation and agricultural communities, largely through advocating the voluntary principle. For example, one farmer commented: 'Supermarket involvement [in biodiversity] is all very well, but there is unlimited scope for FWAG to pursue this more pro-actively on an independent basis…Personally, I prefer carrots not sticks, and feel that FWAG is more than capable of enticing and persuading farmers to follow the carrot if presented in the right way' (West Sussex farmer, 203ha arable and horticulture holding). However, a potential danger of FWAG assuming the role of institutional sponsor is that as biodiversity is delivered as part of the Landwise package (i.e. whole farm environmental advice), the particularities of the biodiversity claim may be diluted. Evidence from the survey suggests that this is already happening to an extent, with farmers and advisers alike commenting that FBAPs were useful in raising general awareness about 'conservation' and 'environmental' matters, and in reinforcing existing environmental management practices rather than introducing significantly new or different biodiversity-specific practices.

CONCLUSION

Through the application of a constructionist approach to environmental problems, this paper has sought to demonstrate how the growth in importance of the biodiversity loss issue can be understood as a set of social processes. In particular, the notion of biodiversity as an environmental claim has been examined, and building on Hannigan's (1995) 'model' of claims making the fate of this claim has been explored, in its translation from the global stage to local level biodiversity planning activities. Hannigan's framework has been fitted within, and enabled a particular operationalisation of, the broader concept of a circuit of claims making, which entails understanding of the processes surrounding both the production and consumption of claims. This final section of the paper seeks to highlight the key findings and identify some possible research directions.

At the county scale of biodiversity planning, there has been a high level of success in drawing in key actors from the nature conservation sphere enabling the biodiversity claim to automatically reach an audience of at least 50 organisations. This has led to a marked reordering and refocusing of priorities in terms of policy and action and is evidence of the legitimisation of the biodiversity claim within these organisations. Furthermore, the linking of biodiversity planning with the Local Agenda 21 group has also engaged actors who are concerned with

community-related, rather than environmental, issues. Thus, the claim appears to have been successfully spread amongst those 'in the know' (and those with an appreciation of conservation biology), although further tracking of the progress (or, in Hannigan's terms, 'career') of the claim within local environmental groups and agencies would be revealing. While a number of activities and publications have been produced and distributed within the county geared towards winning public involvement the data does not permit an evaluation of the extent of public 'buy in' to the biodiversity claim. Work undertaken by Harrison et al. (1998) into the 'consumption' of the biodiversity claim by the wider public suggests that this is likely to be a highly contested process. Although limited evidence of the media's coverage of biodiversity was collected in the studies reported herein, a disappointing level of media interest gives reason to suggest that the impact of the biodiversity claim on the public may be somewhat limited. This suggests two lines of future enquiry: examination of local level media coverage of biodiversity; and, building on locationally specific studies (e.g. Burgess and Harrison 1993; Harrison et al. 1998), a more extensive investigation of public understandings of biodiversity. Meanwhile, a recommendation for action may be to encourage biodiversity planning activities which engender the participation of the public, and also landowners, through consensus building techniques (as in the case of Buckinghamshire's BAP process) and may serve to make the biodiversity claim more comprehensible (see also Burgess 2000).

At the farm scale more evidence has been presented of the contestation of the biodiversity claim among the farming community – a key audience for this claim. Here, real question marks exist over the impact of the claim, with the term 'biodiversity' largely unfamiliar and meaningless to many farmers and growers. In the apparent 'negotiating in' of particular species to their FBAPs, farmers are constructing priorities for 'their' 'nature' that do not necessarily correspond with those of the claims makers. Part of the difficulty here appears to lie with the (potential) sponsors and popularisers of the claim, i.e. the involvement of a major retailer may prove to be more of a barrier than a facilitator to advancing the biodiversity claim. Furthermore, FWAG as an organisation may encounter difficulties with its philosophy and resource base in attempting to popularise the claim. While Hannigan notes that sometimes it is the distinctiveness of an environmental claim, e.g. 'acid rain' rather than 'air pollution'; 'biodiversity' rather than 'nature conservation', that can contribute to its successful contestation, evidence from farm level data suggests that making the claim distinctive in this way may actually be impeding its progress, with farmers relating more strongly to traditional terminology such as 'wildlife' and 'nature conservation'. There clearly is a need for FBAPs to be monitored (many of the FWAG advisers highlighted the lack of resources available for monitoring as a significant weakness of these BAPs) and, within this process, attention needs to be paid to the impact on farmers' awareness and understandings of biodiversity, and the

ways in which these correspond and conflict with those of the claims makers. These issues surrounding the 'consumption' of the biodiversity claim by farmers could also be explored within the monitoring of agri-environment schemes which, increasingly, are assessed in terms of their contribution to biodiversity and UK BAP targets.

In many respects it appears from the evidence presented that the biodiversity claim is being assembled, presented and contested at the local level through similar processes to those that are occurring on the global stage. For example, the scientific basis of the claim is clearly apparent, and, attempts to dispute this through recourse to local knowledge of the environment present no great challenge to the credibility of the biodiversity loss claim as provided by the science of conservation biology. Nonetheless, subtle but important differences in the claims making process emerge from the analysis. Notably, the rhetoric of loss, used by the global biodiversity claims-making to good effect, is downplayed in the local context in favour of a rhetoric of rationality and calls for action through the deployment of positive language. Words of encouragement may be more effective than those that are alarmist and antagonistic, particularly to some of the key groups targeted by claims makers, such as landowners.

The network of organisations involved in biodiversity claims making at the county scale reinforces Hannigan's observation made at the global scale, that the claim has achieved an 'institutional momentum' (although this may not be the case with other counties in the UK where a less 'open' approach has been taken to writing LBAPs, involving fewer actors). However, the presence and impact of this network, that arguably represents the institutional sponsors of the biodiversity claim at the county scale, at the same time contradicts Hannigan's general model of environmental problem construction in which one or two agencies are required to fulfil this role. It is perhaps inevitable that a wider constituency of organisations and individuals will assume a sponsorship function as attempts are made to develop programmes of action to address an environmental problem. Another area in which there is variation in the global and local level analysis of the biodiversity claim is in relation to the economic dimension of the problem. Hannigan argues that the success of the global biodiversity claim can be partly attributed to the fact that it is an economic and political, as well as an environmental problem. The economic arguments for biodiversity are clearly evident at the local level, and are most notable in the encouragement of farmers to commission FBAPs because of the potential financial opportunities for the farm business. However, this economic incentive for local level action on biodiversity does not equate with the recognition, at the global scale, that economic development is dependent upon averting further biodiversity losses.

To what extent these tensions and discrepancies are an indication of the limitations of the framework of the sort proposed by Hannigan, a reflection of the complexities inherent within claims-making processes, or a product of the

peculiarities of the biodiversity claim itself is open to debate. Hannigan's framework undoubtedly has a use in sketching out the career profile of an environmental claim, particularly up to the point of where it gains a measure of legitimacy and acceptance on the international stage (all of Hannigan's case studies refer to international and global environmental problems). However, such an approach may require modification if it is adequately to accommodate issues relating to the claims-making activities that surround action such as formal policy / planning processes rather than acceptance of an environmental claim. This reinforces the point made elsewhere within this conclusion (but also by others, notably Burgess and Harrison 1993) that the part of the circuit of claims making concerned with the consumption of claims must be a central focus of future research into biodiversity.

NOTES

[1] The emergence of conservation biology in the late 1970s encouraged research into biodiversity and the ecological dynamics of extinction, and stands in contrast to other natural resource fields such as wildlife management.

[2] The LBAP was written in response to the 'Biodiversity Challenge for Oxfordshire' (BBONT, 1995) which sets out targets for biodiversity planning (for species and habitats) (Oxfordshire Nature Conservation Forum, 1998). The document has a colourful cover depicting wildlife, and sets out the reasons for the need to conserve biodiversity, details the wildlife resource within Oxfordshire, and, outlines priorities for development of Species Action Plans (SAPs) and Habitat Action Plans (HAPs). The county Agenda 21 document (Oxfordshire County Council, 1997) also contains a section on biodiversity along with other issues to be tackled in the interest of sustainable development. Technical Species Action Plans and Habitat Action Plans are currently being devised by a number of Task Forces.

[3] The FBAP comprises a folder containing a text and pictorial profile of selected species or habitats, a farm map highlighting the areas where they currently or could potentially exist, and an overview of management options. The accompanying work guide provides a detailed timetable of management tasks aimed at enhancing on-farm biodiversity. Each FBAP is tailored to the environmental and socio-economic characteristics of the commissioning farm.

[4] Note that the formulation of each county, or local, BAP is unique but similar patterns of partnership working tend to apply.

[5] Represents approximately 20% of the FBAPs prepared in England and Scotland at the time the research was undertaken in 1999.

[6] The comments of individual FWAG advisers are not attributed in the paper, to enable respondent's anonymity to be preserved.

[7] It is acknowledged that the constructivist perspective encompasses a diversity of approaches to examining environmental issues (e.g. Whatmore, 1999; van Koppen, 2000) and it is not without its critics (Peterson, 1999; Soule and Lease, 1995; Demeritt, 1998).

[8] Landwise is the name given to FWAG's whole farm conservation advice programme (Winter, 1996).

[9] The Living Landscape initiative is a company attempt to broaden what the Sainsbury quality encompasses in terms of environmental factors. It applies to all of the company's activities, from production to transport etc. However, at present the initiative is focused on primary agriculture because this is the area of greatest public and customer concern. The intention is to extend it to all areas of company activity, but this is a long term objective.

[10] Initially, effort was focused on the fresh produce sector and was quickly extended to eggs. Sainsbury's are currently working with their premium meat and dairy suppliers to further extend the FBAP concept into the livestock sector, although progress has been slow due to the economic circumstances of the livestock industry. The company is also considering whether Farm BAPs should be compulsory for their suppliers in the future.

[11] Data used in constructing the Biodiversity Challenge and LBAP has come from Ornithological Societies, Natural History Society, Butterfly Conservation, FWAG, Pond Action, County Botanical Recorder, British Dragonfly Association, Thames Valley Mammal Group, British Herpetological Society, Royal Society for the Protection of Birds (RSPB) and West Oxfordshire Field Club, plus UK BAP and Red Data Book (Selman and Wragg, 1999a, p.658).

[12] The Chilterns Area of Outstanding Natural Beauty; the Council for the Protection of Rural England; the Environment Agency; Oxfordshire County Council; RSPB; and, Thames Water.

[13] Sainsburys are not alone in their support of biodiversity issues. Other retail chains have also become involved e.g. Tesco's 'Support the skylark' campaign.

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