

Black poplar and the diversity of biodiversity action plans.

- Report on a survey of LBAPs

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The poplar choice: values and rationality in local biodiversity action plans

Abstract

The combination of rational and cultural objectives in the UK's local biodiversity action plans (LBAPs) provides rich territory for exploring the process and values embodied in devolved conservation policy. We take a species rejected by the national biodiversity action plan, but included in many LBAPs (black poplar, *Populus nigra* ssp. *betulifolia*), as a lens through which to examine these processes. In surveying 35 LBAPs we demonstrate the distinctiveness of local interpretations of the LBAP objectives. The processes used to select a given species are rarely standardised and transparent; pre-existing local networks and interests have strong influence on outcome. We argue that the reasons for prioritising black poplar are predominantly personal and pragmatic (the people and organisations are already in place to implement it) or popular and political (it is seen as a good choice for involving the public). Examining perceptions of success of these LBAPs highlights a tension between the achievement of quantitative targets, often for planting, and doubts about the ecological value of such actions. While LBAPs do not necessarily reflect public values for biodiversity, we highlight ways in which building on the values and pragmatic choices of experts acting in the context of local planning can lead to more holistic outcomes.

Introduction

The native black poplar is a tree which presents, in microcosm, many of the delicate judgements facing nature conservation today, as the cultural and social profiles of species begin to be taken into account. (Mabey 1996 p1)

Conservation sits at the heart of a tension between reductionist and holistic approaches. It is as much a product of this modern world as a reaction against it. (Adams 1997, Adams 2003, Kidner 2001, Murphy 1994). Recognising that our interaction with nature cannot be value free, Trudgill (2001) advocates a ‘democratized conservation ethic’ while Wood (2000) concludes democracy cannot save biodiversity. The 1992 Convention on Biological Diversity (CBD) epitomises these tensions, by demanding simultaneous rationalisation and democratisation. It requires all signatories to produce national biodiversity strategies and plans, and at the same time calls for a participatory approach to conservation (CBD 1992). The UK response ranges from the scientific priorities of the conservation elite, through the national level UK Biodiversity Action Plan (UKBAP), to the devolved local biodiversity action plans (LBAPs).

The UKBAP is marked by its reliance on ‘target-based conservation’ (Margules and Pressey 2000), after the Biodiversity Challenge group of conservation NGOs lobbied for rigorous procedures and greater transparency as the basis for allocation of resources (Wynne et al. 1995). Committees of scientists prepared the UKBAP in 1994, which prioritised and drew up 391 Species Action Plans (SAPs), and 45 Habitat Action Plans (HAPs) . By 1996 a framework had also been

established for the development of non-statutory LBAPs, with six broad aims (see box 1) which by 2004 incorporated local SAPs and HAPs.

Box 1 The aims of LBAPs (from England Biodiversity Group 2002)

1. translate national targets for species and habitats into effective action at the local level;
2. identify targets for species and habitats important to the local area, and reflecting the values of local people;
3. stimulate effective local partnerships to ensure programmes for biodiversity conservation are developed and maintained in the long term;
4. raise awareness of the need for biodiversity conservation and enhancement in the local context;
5. ensure that opportunities for conservation and enhancement of biodiversity are promoted, understood and rooted in policies and decisions at the local level;
6. provide a basis for monitoring and evaluating local action for biodiversity priorities at both national and local levels.

Box 1 indicates a tension between bottom-up and top-down intentions in LBAPs, by requiring both an explicit connection with the target-based UKBAP, and an element of local process (partnership and education). Is the primary purpose of the LBAP a top-down one (to implement the UKBAP), or is it a bottom-up one (to build local capacity)? These contrasting concerns and aspirations are evident in early reactions. Green (2000, p. 51) complains that it is:

stuck in an interventionist, hierarchical and isolationist approach that ...may sit conveniently within Government (and increasingly NGO)

bureaucracies – it is nicely prescriptive, and we can tick off each action as it is done, even if it fails to lead to the preferred conclusion. But it is not a long term solution. It will continue to keep Nature at arm's length.

The possibility of a more participatory approach is indicated by Harrison and colleagues (1998, p. 305):

a widening of the knowledge base on which the goals and practices of nature conservation are founded, and a more deliberative process of making decisions about what nature is important locally, will secure and strengthen public support for local biodiversity action plans..

Sufficient experience has now built up to examine these expectations. Evans' (2004) study of the Birmingham and Black Country LBAP suggests that LBAPs are highly heterogeneous and reliant on pre-existing structures . The processes whereby biodiversity claims are made in the Oxfordshire LBAP shows how the biodiversity 'buzzword' is reapplied to pre-existing agendas, such as wildlife conservation (Morris and Wragg 2003). So do LBAPs represent business-as-usual, fulfilment of a participatory ideal, or policy free-riding on early efforts of committed conservationists?

Black poplar (*Populus nigra* ssp. *betulifolia*) serves as an interesting case through which to explore the implications of this question. It is not a priority species at the national level, but has been prioritised for local action in many counties. Instead of examining one LBAP in depth, we use a single species as a lens through which to explore these issues of aspiration and cynicism, specifically by surveying across the range of black poplar's distribution, the values and processes that were

employed in decisions about black poplar's treatment through LBAPs. What do these decisions, and their effect, have to tell us about the role of LBAPs in the debate between conservation and democracy?

The cultural ecology of black poplar

Black poplar is described as 'our rarest and most splendid native timber tree' (Milne-Redhead 1990 p5), a subspecies indigenous to Britain (Cottrell 2004), which in prehistoric times dominated winter-flooded riverine woods. Demand for its heat-resistant and shock-absorbing timber along with widespread agricultural drainage in the seventeenth century reduced both the adult population and the wetland conditions needed for seed germination. Isolated remaining trees became 'marooned, ghosts of a wilder, wetter landscape' (Mabey 1996 p2). Trees were however propagated through cuttings, mostly from male trees, to mark parish and county boundaries, as well as close to farm settlements (Mabey 1996) until a faster growing hybrid (*Populus x euramericana*) was introduced in the nineteenth century. In the field it is difficult to distinguish between this hybrid and the native tree, which partly accounts for the lack of attention to its decline.

Edgar Milne-Redhead surveyed the species from 1973-78 (Milne-Redhead 1990), and estimated that fewer than 1000 trees remained in the UK, many of them near the end of their life. This work brought it to the attention of land managers and conservation supporters. A National Black Poplar Group was set up by the Forestry Commission in 1994 and various more local black poplar working groups have since been established around the country. In the same year English

Nature drafted a national species action plan which was not however included in the UKBAP (Sussex 2005).

Its wider public profile changed in 1993 with an article in the Daily Telegraph entitled ‘Help save our biggest tree from the chop’ (Roe 1993), which triggered a spontaneous national survey. This rallying article describes the black poplar as the “king of the English Countryside” and “the most endangered native tree in Britain”, perhaps tapping the patriotic sentiments of a relatively conservative newspaper. Readers responded by sending in over 1000 samples and descriptions, in what became known as the ‘Great Black Poplar Hunt’. Current revised estimates indicate 7000 trees in the British Isles (Preston, Pearman, and Dines 2002). Distribution (figure 1) varies from large local populations such as the 2400 (Cottrell 2004) in the Vale of Aylesbury, to single trees which have long been important cultural features.

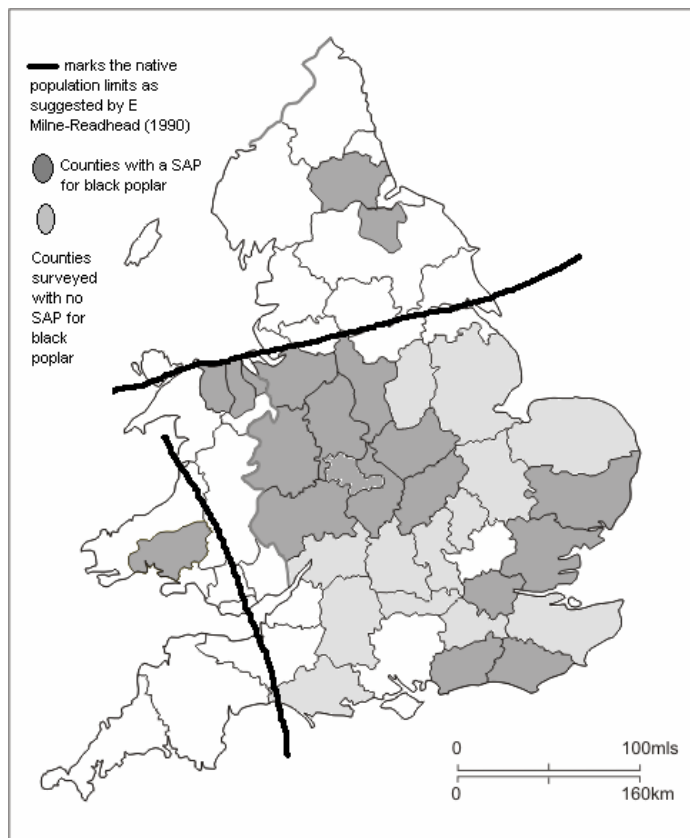
Hence in black poplar we have a tree with low genetic diversity (owing to reliance on reproduction through cuttings), reduced habitat, and ageing population. Perceived ‘layers of historical and ecological meaning’ (Mabey 1996) are associated with individuals and with its status as a landscape feature in its diminished native wet woodland. Some of that meaning is recently constructed through publicity associated with the first botanical survey, combined with the more populist approach of the Daily Telegraph’s Great Black Poplar Hunt.

Methodology

This paper is based on a survey of all LBAPs in England and Wales within the natural and planted range of black poplar. LBAPs can be tracked down through the UKBAP home page <http://www.ukbap.org.uk/>, leading to the LBAP itself or to the host local authority or NGO. We analysed these before conducting a telephone survey of all LBAPs which had a species action plan for black poplar, comprising 27 semi-structured interviews with respondents in 21 counties. We contacted a further 15 counties within the natural range of black poplar, to survey their reasons for not including black poplar in a SAP.

In surveying LBAP processes it is a challenge to find respondents who have both historical and current knowledge of the process, owing to high staff turnover. Of the 27 respondents to the main survey, 14 had been in post for fewer than four years, whereas most LBAP priorities were selected in 1997-2003. In six counties we were able to interview a second individual who did participate in the selection of LBAP priorities. A further challenge is to identify consistent sample units. Although many LBAPs are written at county level, some cross county boundaries (such as that of the National Forest) while others subdivide the county. The Yorkshire and Humberside division of the UKBAP has 24 areas each with their own LBAP. We believe that we have included all LBAPs (regardless of scale) which prioritised black poplar as a species. In surveying those which had not included black poplar, we focussed on those at county level or, where directed by the county, to a smaller unit representing them.

Figure 1. Counties surveyed in comparison with native distribution (original by authors)



Options selected for treatment of black poplar

Our survey shows that black poplar has been treated in a very diverse way by the range of options available (table 1). It was not prioritised by the UKBAP process. In fact no trees are listed as priority species under the UKBAP. Yet of the 36 LBAPs surveyed, black poplar has been allocated a SAP of its own in 21 LBAPs. In five of these it is also mentioned in a HAP. In five additional LBAPs it has no SAP but is mentioned in one or more HAP, while in a further ten counties within its natural range, the species is included in neither a SAP nor a HAP. Of these, three respondents explained that their approach focused on HAPs not SAPs, and

three more explained that their LBAP strategy is to include only UK priority species (i.e. those listed in the UKBAP).

Table 1: treatment of black poplar by the LBAPs surveyed

LBAP	SAP?	HAP?
Herefordshire	yes	Wet Woodland
Leicestershire and Rutland	yes	Floodplain Wetland
London	yes	Woodland, Canals
Sussex	yes	Floodplain Forests (in creation)
Worcestershire	yes	Lowland Wood pasture and parkland
Bexley	yes	no
Carmarthenshire	yes	no
Cheshire	yes	no
Conwy	yes	no
Denbighshire	yes	no
Durham	yes	no
Essex	yes	no
Flintshire	yes	no
Hambleton	yes	no
National Forest	yes	no
Norfolk	yes	no
Northamptonshire	yes	no

Shropshire	yes	no
Staffordshire	yes	no
Suffolk	yes	no
Warwickshire, Coventry and Solihull	Yes	no
Lowland Derbyshire ¹	yes until priorities revised in 2001 – Now incorporated in the HAP	Wet Woodland
Reading	draft under consultation	
Birmingham and Black Country	drafted 2000, not adopted	
Bedfordshire and Luton	no	Waterways and Wetlands
Buckinghamshire and Milton Keynes	no	Woodland, Rivers and streams
Lincolnshire	no	Wet Woodland
Oxfordshire	no	Wetland
Berkshire	no	no
Cambridgeshire	no	no
Dorset	no	no
Gloucestershire	no	no
Kent	no	no

¹ The Lowland Derbyshire Biodiversity Action Plan covers the remainder of Derbyshire outside the area covered by the Peak District LBAP.

Nottinghamshire	no	no
South Somerset	no	no
Southampton representing Hampshire	no	no
Surrey	no	no
Wiltshire	no	no

Planning for species or planning for habitats?

Inherent in the structure of LBAPs is a tension between planning for species and planning for habitats, reflected in the diversity of responses to the LBAP opportunity.

Five LBAP representatives reported that their overall strategy is to focus on habitats. They justified this in terms of ecological processes:

I wouldn't want us to ...go back to an idea of lots of species with their own actions and everybody beavering away in a very reductionist way. How can we get processes in place on a large scale in order to deliver ecological outcomes? (Interview 10)

We didn't want a huge telephone directory full of individual species each with their own actions. That basically goes against the ways of ecological thinking. (Interview 10)

Others framed the dilemma more pragmatically, pointing out that species plans are more difficult to implement, although often with a higher public recognition

factor. Even where an LBAP emphasises habitat conservation, SAPs are occasionally written for species with no clear link to a habitat, or where there is overwhelming support for such a species. For example, in the case of black poplar, many are single planted trees, not found consistently in one particular habitat.

Amongst those LBAPs which use the SAP option, we see two main strategies which we might call the ‘long list’ and the ‘short list’. Durham, for example has 80 SAPs and Carmarthen 50, whereas Derbyshire currently has only two, and Flintshire has only four.

Proponents of the long list view the LBAP as a form of protection for those species selected in the face of development pressures. The belief was expressed that the LBAP list had credibility in the eyes of planners and developers and therefore the aim was to maximise the number of SAPs, albeit without implementing all of them:

I think it would be a shame to limit yourself to just five [SAPs] because having a plan is always a good thing ... if black poplar was identified within a development site, we've got a plan for it. (Interview 23)

Others are concerned to keep the LBAP as a manual for action with feasible targets:

You have to have very specific and smart with BAPs and I think a lot of them aren't. Because they are a new tool they generally tended to be all-encompassing, very aspirational and they need to be very concise and focus on work on the ground. (Interview 14)

The absence of a published SAP does not indicate that it has not been prioritised. We found two cases where SAPs had been written but their advocates were simply too busy “doing the work on the ground rather than doing websites” (Interview 44).

The reasons given for not allocating a SAP to black poplar highlight the lack of connection between the national and local BAPs, an aspect noted by the official 2002 evaluation (England Biodiversity Group 2002). While three respondents justified the absence of black poplar on the basis that it is not a UK priority species, this did not deter the 21 who did develop a SAP. In fact 38% of respondents representing a black poplar SAP were not aware that it is not prioritised in the UKBAP.

Furthermore, the HAPs which include black poplar represent a wide range of habitat types (table 1). In part this is a reflection of the perception that this species is not linked to a particular habitat. The results highlight however a slippery aspect of the biodiversity rationale, that a habitat is an ‘entity with fuzzy boundaries’ (Bowker 2000, p. 654). The UKBAP process represented a monumental effort to standardise habitat terminology (Midgley 2005), but many LBAPs have not adopted the same system.

Process and rationale for prioritising black poplar

Black poplar is not a national priority species, so local prioritisation processes have explicitly selected it wherever it has a local SAP. Contrary perhaps to those who worry about the effects of rationalisation, we find that those processes are

neither standard nor transparent. Of the 27 respondents interviewed about black poplar SAPs only five could list the selection criteria used at a general level within their LBAP, and several noted the lack of a ‘strict methodology’:

Perhaps it's a bit more haphazard than it should be but it's realistic action rather than just writing them for the sake of writing them. (Interview 20)

Although all the counties were facing the same challenge, they rarely compared notes across the county border. Only four respondents recognised other LBAPs as an influence on their black poplar plans:

For us it works, I don't know how everyone else operates. (Interview 20)

Instead, dependence on local actors affects the values informing the process, the choice of structure, and the effectiveness of the plan.

Most of the lists were chosen really by the opinions of educated experts, rather than going through a process. (Interview 21)

Despite this lack of a standard approach, in every SAP respondents were able to state reasons for selecting black poplar and several common themes emerged. Standard typologies of environmental values highlight direct use (consumption, sale), indirect use (ecosystem services e.g. soil conservation, windbreak, pollination), non-use (e.g. aesthetic) and option (potential use in the future) (Aylward and Barbier 1992). In the case of black poplar almost all the values mentioned fall into the non-use category. Black poplar is neither perceived as a *useful* species, nor cited as an *ecologically* valuable species (with some exceptions discussed below). In analysing these values, we therefore propose a different typology. We do not seek to develop mutually exclusive categories against which each decision can be scored; instead we seek like Henwood and Pidgeon (2001) to

‘make sense’ of what is going on by drawing out the main themes. Our typology is therefore emergent, overlapping and insofar as it is novel, heuristic.

In the case of black poplar, we find that reasons for prioritising it in a local SAP are expressed as a blend of the personal, popular, and pragmatic, influenced in turn by perceptions of symbolic value, and of political impact. We distinguish five categories of motivation, as follow.

Personal: In 71% of counties where black poplar has its own SAP, this choice is attributed to an individual advocate who was already particularly aware of the black poplar, and wanted to have it recognised by the BAP process.

It was just done because an officer who has particular knowledge of the county highlighted it as a species of particular interest ... [our plans] generally reflect the expertise and experience of the members of the partnership and their input. (Interview 23)

If I've got someone who approaches me with an interesting project for something and we haven't got a HAP or SAP it will make me think, right, that one will be done next. (Interview 20)

Popular: Black poplar was chosen in 62% of cases because it was perceived as well-known to the public. To fulfil their aims as the local arm of the UKBAP process, public involvement is beneficial to the success of the LBAP. Local volunteers provide the energy for local action groups and the support of local landowners is necessary to ensure appropriate planting of new trees.

It was a well known species and it was used to drum up support. Something the public can get behind really. (Interview 15)

We wanted some [species] which were familiar to the public, because a lot of it is about catching the public's imagination, get them involved. (Interview 12)

Ecologically symbolic: No respondent claimed any *direct* ecological value in conserving black poplar, but 52% of responses justified its selection in terms of a threatened subspecies, or as *representative* of certain habitats. We have dubbed this 'ecologically symbolic' value, as black poplar is being used to focus concerns about genetic erosion or habitat loss which are wider issues that in turn have impact on ecosystem function. For example, five respondents describe it as a 'flagship species' which can be used to promote related habitats.

Culturally symbolic: Related to the previous category, but in the arena of cultural ecology, 48% mentioned that the black poplar had been selected for its 'local character'. These remarks relate to perceived public affections for particular landscapes or historic individuals.

Black poplar was seen as quite a distinctive feature of the ... flood plain and it was also historically used to mark out parish boundaries. (Interview 14)

One county developed Character Action Plans that explicitly focus on species with local character. Two counties included cultural targets in their BAPs aimed at ensuring the meaning of the tree was preserved in new planting projects.

Pragmatic: This category was applied to the 43% of responses that suggested black poplar had been chosen as a species for which it would be easy to achieve targets. Conservation actions for the black poplar are readily achievable with minimal resources. Surveying and monitoring tree populations is easier than, for example, rare invertebrates. Strategies for increasing population numbers are also more straightforward than with other species, through the creation of nurseries and tree planting projects.

For 28% of respondents targets are also more achievable because black poplar projects were already underway.

Many LBAPs and the HAPs and SAPs within them are more a reflection of what's going on anyway ... because there's no money for new actions ... but the LBAPs probably have helped by concentrating people's minds on doing something about it . (Interview 21)

I suspect there was an element of 'well we are already doing some of the work so let's get credit for it' . (Interview 3)

Having distinguished these five categories of motivation, we recognise that there was considerable diversity in the rationale given for choosing black poplar, to the extent that each type of motivation was used by other respondents as a reason *not* to select it for a SAP. For example, in one LBAP which had not selected it:

it's not particularly uncommon in [this county] and it's a very difficult species to identify accurately. (Interview 15)

We also recognise how interlinked they are. The cultural symbolic value of the tree contributes to the popular appeal of the project which in turn has pragmatic value in making the actions more achievable given local support.

Impact of black poplar SAPs

Black poplar is one of the most successful choices for local SAPs. 62% of respondents thought their black poplar SAP had been ‘very successful’ when compared with other SAPs, while 24% thought it had led to ‘some action’ and the remaining 14% that it had led to ‘very little action’. Respondents noted variously that it had ‘raised the profile of black poplar’, ‘produced a lot of good publicity for the BAP’, ‘put [black poplar] on the map’ and that all initial targets had been achieved.

Dramatically. We’ve got figures. We’ve gone from 34 individuals to around 3,000 individuals.

Many agree that black poplar was a good choice for the SAP treatment:

The prospects have improved since the action plan because everyone has focussed on it but we picked a species we knew we could deliver on.

(Interview 3, emphasis added)

The work was probably happening anyway but it may have given us some credibility. (Interview 2, emphasis added)

Such responses beg the question of whether the LBAP structure really made any difference to local conservation efforts. Respondents recognised the difficulty of assessing that, but typical conclusions were:

I think the BAP process has helped make it larger scale, more effective, more actions and outcomes. (Interview 10)

It's always a job to know just how much the biodiversity process helps but I think actually the black poplar is an excellent example of how the biodiversity process helped a hell of a lot. It picked up an existing initiative and basically gave it an extra push. (Interview 9)

There is great similarity across the targets, which are typically modelled on the national action plan put forward by English Nature (Spencer 1994). All of the SAPs included a target to identify and protect all existing trees, and a target to increase tree numbers. In 43% of SAPs this was formalised as a numerical target, with a goal figure and a date. One effect has been to steer enthusiasts into mass planting of cuttings. Some expressed confusion about whether the approach was scientific:

We hope we are doing the right thing but to be honest we don't really know. (Interview 2)

Indeed concern has been expressed over the ecological impact of indiscriminate planting of black poplar. The sudden surge in planting will create an imbalanced age structure in the population unless it is maintained over a long period. In addition the use of local stock for seedlings, which is specified in 38% of SAPs, is likely to reinforce the genetic vulnerability of black poplar. Although the Forestry Commission point out that the natural distribution has already been disrupted, and the diversification of genotypes through exchange between localities is more important (Cottrell 2004), some LBAP officers take a contrasting approach:

We are trying to get them planted as locally as possible, particularly keeping trees in the same river valley catchment. ... I very much feel keep [...shire] trees planted in [...shire]. (Interview 2)

This relates to the more fundamental question of what does a black poplar SAP achieve for nature conservation. At one level, there is no doubt that black poplar was on the verge of at least local extinction: the 34 individuals in Sussex were all over 150 years old. But beyond the conservation of individual species, how does this affect our wider ecosystem? One respondent brought the discussion full circle, to the choice between species and habitats:

it's a classic one really, I mean you can plant a few, but that's gardening really. The ecological requirements of the species are very much large scale landscape stuff. You can look at it in a landscape way and say we need more floodplains and so on but realistically its not something you can do with a species plan. (Interview 15)

The SAP / HAP division has been overcome through one notable case where the achievements of the SAP have led directly to a more ecological focus on habitat restoration. In Sussex two individuals conducted surveys before the LBAP had been written, and in 1997 incorporated the Sussex black poplar project as a working group of the Sussex Wildlife Trust. The objectives of their first SAP were met by 2003 and they revised their goals, turned into the Sussex Floodplain Forests Group, and developed a funding plan for habitat restoration in close connection with landowners. The shift of focus to habitats is reflected in the revised SAP which, since June 2005, includes objectives such as 'ensure appropriate and sympathetic management of watercourses, wetland habitats and

hedgerows for black poplar in Sussex'(Sussex 2005). In this case, the 'success' of a SAP lies beyond the achievement of targets and numerical goals. Indeed some of the reasons for choosing black poplar were not formalised into targets in the SAP itself (for example, raising public awareness of the LBAP as a whole).

The 'values of local people'

When we embarked on this research we hypothesised that the number of local black poplar SAPs indicated wide popularity of this species and that examination of these SAPs would reveal something about public values for biodiversity. This expectation was a complex one, but in any case it has not been fulfilled. We would argue that we cannot report on public values by studying LBAPs, and instead that LBAP choices represent the values of a small number of dedicated enthusiasts, as expressed in a highly pragmatic context. There is an element of expediency, amongst for example those who said that they picked black poplar because they could deliver on it. But far more chose it because projects already existed, or someone was enthusiastic enough to write a plan.

Behind these pre-existing interests and projects are the values of the authors of the plans. These are the people who might be expected more than others to prioritise on an ecological basis. But instead they cite 'catching the public imagination', and the landscapes that black poplar represents. What can this tell us about the 'values of local people' cited in the aims of the LBAP project (box 1)?

It is striking that the values drawn out in our categories are quite different from the 'public values' revealed by a study based on hypothetical choices.

Montgomery (2002) used questionnaires to ask a random sample of people to indicate choices amongst hypothetical species to be saved. She found that respondents prioritised species with ecological functions, followed by those with commodity-based benefits and human attributes; last were recreation, aesthetics and symbolic references.

By contrast we find, like Henwood and Pidgeon (2001) who study the ‘symbolic space [that trees and forests] occupy in people’s personal worlds and ... cultural environments’, that values are not related to the economic but to the meaningful and emotional. Amongst responses describing it as ‘splendid’ and ‘impressive’, the following stand out:

It’s a good early goal tree. Because it’s obvious and beautiful. It’s like an elephant. They are characterful trees, they engender a lot of loyalty.

(Interview 44)

It’s a nice thing, everybody loves it, it’s got a nice cosy feel, it’s got a story to it... (Interview 25)

Emotional and symbolic value are closely linked. Feelings affect meanings, which affect perceptions which affect feelings (Milton 2002). In several cases the scientific and emotional justifications were closely entwined:

nationally it was seen to be so rare, so you could almost say it was [chosen] from an emotional point of view (Interview 5).

There is an ambiguity in these responses however. It is not always clear whether the values are those of the respondent or the assumed values of the public. Some respondents distanced themselves from more popular values, and while five

believed the Daily Telegraph article influenced the choice of black poplar, one noted:

The article was just a side issue ... [but] it raises interest among the general public a lot so it is really useful and it's a good thing to wave around. (Interview 44)

So, while we find evidence for the type of *ad hoc* and contextualised activity advocated by Hinchliffe *et al.* (2005), and the 'local science' that Evans (2006) found missing from other local environmental policy-making, we do not find evidence for the wider engagement of the public, nor the building of environmental citizenship (Ellis and Waterton 2004).

Path dependency and democracy

Our research demonstrates a remarkable diversity of pathways available for planning of a single species. Evans (2004) has noted the conflicting effects of path dependency as constraint and opportunity, with LBAP steering group members being selected from existing conservation networks. Likewise Selman (2004) notes the widespread role of (pre-existing) social capital in participatory landscape planning. Yet some members of black poplar working groups see their success as independent of either the UKBAP or the Daily Telegraph publicity. They often operate without funds, and emphasise their informal nature. One representative hinted that LBAPs might cut across the achievements of existing groups:

we seem to be getting enough work happening on the ground ... We are fulfilling the outcomes of a BAP [without having one]. I know it's not maybe the proper way to do it, but we seem to be achieving goals.
(Interview 44)

The defensive note here, the idea that BAPs are now the ‘proper way’, suggests that rational planning is colonising existing social capital, rather than of social capital formation (as is the more commonly perceived challenge) (Pennington and Rydin 2000).

Others expressed frustration with the participatory process imposed on them:

it is a community driven thing and it's got so many flaws in it ... there's a lot of [plans] about school grounds, church yards etc, it's all very urban fringe and I'm there tearing my hair out cos I've seen all these wonderful [wet woodland] habitats [but] no-one's going to come forward to write the plans and take ownership. If someone's prepared to write a plan and implement it that's demonstrating that that is the site that is important to the local community, not me as some lordly ecologist thinking that wet woodlands are more important. (Interview 22)

So does the widespread selection of black poplar at LBAP level (in 72% of those covering its natural range), combined with its rejection at UKBAP (scientific) level, represent a triumph of cultural ecology over scientific elitism, or simply the ‘tyranny of participation’ (Cooke and Kothari 2001)? We suggest it is neither, and that participation is a more subtle project than simply involving local knowledge and values.

The key here seems to be in the differentiation of kinds of knowledge. Commonly a distinction is made between scientific and local knowledge, the latter portrayed as resistance to the ‘universalising scientific knowledge’ which has dominated

conservation decisions in the UK (Johnston and Soulsby 2006) and is epitomised in the UKBAP (Midgley 2005). In the development of LBAPs we see evidence for a different, not hybrid but contextualised knowledge, that of the local specialist. The holders of this knowledge are often the same actors as those involved in making or implementing national decisions, but acting in different contexts. This probably maps on to the ‘locally produced science’ that Evans (2006) found so rarely translated into policy. He points to LBAPs as one context where this might happen with more ease. This certainly appears to be the case with black poplar, but perhaps translation is simply not required – the SAPs and HAPs are drawn up by actors who already hold this knowledge.

Environmental professionals operate like everyone else in a value-laden world (Hull et al. 2003, Trudgill 2001). The context of local planning allows those actors to express more personal values benefitting from the space to function outside their official capacity (Selman and Wragg 1999). We see this as a strength, a benefit of the ‘looser network of governance’ offered by LBAPs (Evans 2006). However we question whether it really is as reflexive and conscious as these authors hope: there is a healthy amount of *ad hoc* creativity (Hinchliffe et al. 2005), but the need for learning from that *ad hoc* response is still there. Arguing for more reflexivity in planning in general, Howe and Langdon (2002) cite the ‘durable and embodied nature of the intuitive practices of many actors in planning and development processes’, which can only emerge through examination of practice and its effects. We do not see this as supporting elitism, but rather as recognizing the effectiveness of the processes used in LBAP planning.

Nevertheless our study reveals an ambivalence about involving the public. There are strong differences of opinion about people's ability to recognise and care about black poplar; and although many of the SAPs include actions to raise public awareness they are not the high priority actions. Others too, reflecting on this territory between science and local values, conclude that there are difficulties in reaching consensus on environmental value, and that if left to the public more globally rare habitats would be excluded (Johnston and Soulsby 2006).

Rationalisation, biodiversity and human ecology

Success is widely claimed in the case of local black poplar SAPs. But what is the nature of success here? Choosing a popular species, with its ready-made support groups, has clearly made it relatively easy to attain targets of the quantitative type. LBAP officers are forced to prioritise. In doing so are they choosing 'biodiversity that matters' (Harrison and Davies 2002) or achieving targets at the cost of ecological meaning?

Answering this question is not straightforward. Most people who get involved in biodiversity action planning are not planners – they are people who love nature. Their motives are ecological and emotional, not bureaucratic or mercenary (very little funding is associated with the LBAPs which are not statutory). But biodiversity planning forces the authors of plans into the quantification of nature (cf. Gaston 1996). By splitting it up into ecosystems (those fuzzy entities that have to acquire boundaries) and species that can be separated, identified, counted and prioritised, nature is reduced to parts. This of course is one of the main

concerns about the whole trend to rationalisation of conservation (Adams 1997, Green 2000).

Adams (2003) urges us both to interact with nature, and to release it, give back its ability to adapt. Species level planning cannot, at face value, achieve such a release, nor is it particularly democratic. At one level, clearly, instead of the LBAP serving black poplar and through it ecology, the black poplar has been made to serve the LBAP. But at another level the rational and reductionist process has been humanised by the kind of systemic thinking that led to the formation of the floodplains working group in Sussex.

Even within the rationalist approach of the LBAPs, the qualitative and intangible are unavoidable. Both are part of the overall human ecology (Lawrence 2006). Only through survey and mapping was the decline of black poplar noticed – but it was an emotional connection to black poplar that made people respond to that information. Furthermore, being a landscape species, the black poplar SAPs help to take the focus out of nature reserves. Clearly black poplar *is* an entry point for some, a flagship species – and can lead to a more holistic concern with habitat. And it is this emotional response, wherever it comes from, that is perhaps the strongest basis for conservation in the future.

Reflections on methods

Our study complements others which focus more directly on exploring actor's values held in relation to biodiversity. Difficulties associated with the reductionist approach of contingent valuation are by now widely recognised (Henwood and

Pidgeon 2001) although alternatives are often still reductionist and abstract (Montgomery 2002). Social researchers advocate intensive, iterative group approaches (Burgess, Limb, and Harrison 1988, Henwood and Pidgeon 2001) to identify underlying values. We complement that by examining the real choices made by people who have already demonstrated their concern for nature, but are responding pragmatically to a new set of bureaucratic requirements. Our findings are not dissimilar to theirs in supporting the role of cultural and personal meaning and context in explaining conservation decisions.

All of this suggests that the current highly quantitative approach to LBAP evaluation (DEFRA 2006) may be missing much of the point. Quantitative targets are appropriate for actions where there is scientific consensus but the objectives of LBAPs relate as much to public ‘imagination’ and involvement. Other LBAPs are even more populist; respondents gave examples that had been chosen for public recognition and popularity despite being considered a low conservation priority, such as kingfishers and badgers. Furthermore, as we have seen, one type of action can lead to another, with possibly more profound ecological consequences – actions which are not picked up through quantitative target assessment. Understanding the impacts of such approaches would require a separate, qualitative and participatory evaluation, and the kind of reflexivity not yet known to planning processes (Howe and Langdon 2002).

Conclusions

We took the case of black poplar as a species which could help us to understand how the rationalisation process introduced through LBAPs sits with cultural and

individual processes of relating to nature. In surveying 35 LBAPs, we demonstrate a remarkable diversity of processes and outcomes related to a single species. LBAPs vary in favouring species or habitat action plan, and in developing long (aspirational and precautionary) lists or short (practical and feasible) list. The inclusion of a species in the UKBAP has highly variable implications for its selection in an LBAP, and the habitats categories used for local planning do not consistently match those used in the UKBAP.

We must consider whether the black poplar case is typical. Where a black poplar plan was instigated and is judged to be successful, that success is attributed (with some circularity) to the fact that it is a widely known and valued species which was easy to deliver on. Arguably in the case of black poplar we have a species with more cultural than ecological significance, in that landscapes rather than ecosystems are perceived to be diminished by its absence. The ecological benefits of successful plans are not yet established, and we feel that similar research across a wider range of SAPs and HAPs would help to explore the effects of plans based on ‘flagship’ species or more specialist priorities.

Evans (2004) highlights the reliance on pre-existing interests and groups as both opportunity and constraint. LBAP representatives might respond that the LBAP itself is both opportunity and constraint. Underfunded and with high staff turnover, reliance on existing groups is the only way they will work. LBAPs, we find, are a messy blend of personal preference, intuitive practice, and political pragmatism. But we see evidence in the flexible approach (at least in the case of

black poplar) for both commitment from established biodiversity actors, and accommodation of new actors). This is one strength of the LBAP approach.

Another strength is more incipient and must be analysed elsewhere. It lies in the scope for learning through the processes of partnership at local, regional and national levels. Our research supports concerns that LBAPs introduce an excessive interest in quantitative targets, at the cost of less tangible but more ecological efforts. The distinctive approach that has (perhaps unintentionally) emerged and evolved through the local biodiversity planning process offers scope for combining cultural values of nature, with the rationality of plans, but only if we keep that possibility in mind as we evaluate the achievements of the process.

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