The good, the bad and the hands-on: constructs of public participation, anglers and lay management of water environments

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Abstract

This paper uses a qualitative study of recreational anglers in northern England to explore constructions of 'the public' in environmental management. We examine good and bad constructs of 'the public' and argue for a more differentiated view of the public through 'environmental engagement' that will more fully appreciate ways in which both 'specialised publics' and 'performative publics' are imagined and enacted. We demonstrate how these constructs play out through attending to the discursive and material 'hands-on' practices of anglers in environmental management and show how these link different geographies of public participation through both discursive and material spaces.

Introduction

This paper is about how a powerful environmental public – recreational anglers and the clubs that they belong to in northern England – get involved in environmental management and directly reshape aquatic ecologies and geomorphologies. In the literature, lay publics are often portrayed as powerless, unspecialised and excluded from decisionmaking about environmental and technological policy; improved public engagement is therefore advocated to correct these problems and move towards more open, inclusive environmental governance (e.g. Aitken 2009; Horlick-Jones et al. 2007; Irwin 2006; Irwin and Wynne 1996; Maranta et al. 2003; Owens 2000; Petts and Brooks 2006; Ungar 2000; Walker et al. 2010; Young and Matthews 2007). But such in/exclusion is often framed narrowly in terms of discursive debate, cognitive knowledge, lay expertise and interaction with the state and its agencies (e.g. Barnes et al. 2003). Moreover, where lay publics do become involved through campaigning organisations, they are sometimes criticised as being unrepresentative of the wider public.

In this paper, we interrogate these problematic assumptions and emphasise not only cognitive and discursive modes of public participation through 'official' channels of public engagement, but also modes that are empirical, pragmatic, relational but under-regarded. In this, we reflect a more general turn to practice (Whatmore 2006) and nonhuman agency (Latour 1993; 2005) in arguing for a more heterogeneous understanding of public engagement, wherein power to effect environmental management is not solely formed by knowledge, expertise and inclusion – notions that dominate the literature on public engagement (Staeheli 2010) - but relationally built through practice and demands a wider sense of 'environmental engagement' in which both talk *and* action form 'the public' (e.g. Staeheli et al. 2009 page 634). We show how some publics, like anglers, do not rely on the usual official (state) channels and dominant cognitive and discursive framings of environmental debate for participation, but deliberately shape the environment through hands-

on, directly embodied environmental management. But, although their environmental engagement is *both* discursive and practical, the more practical forms are often neglected in the literature, especially where they do not occur in the traditional sites of public participation.

That is not to say that the anglers we met considered themselves to be powerful. Instead, they frequently complained about the power of other organisations, such as the Environment Agency of England and Wales (EA), central government, local government and local landowners; put another way, they referred to traditional loci of power and public participation, in terms of government rather than governance; like the literature, they assumed discursive modes of engagement and environmental management to be more important. Despite this, we show how they are powerful in terms of (re)shaping and (re)designing water environments through practices that they might consider to be mundane, but that generate power relationally through nature-culture associations (Latour 2005).

Anglers are therefore not merely detached consumers of environmental benefits such as wildlife, amenity and scenery, as the 'general public' are often assumed to be in environmental consultations. Rather, anglers co-manage those benefits, often through informal collaboration. Rights to fish inland freshwaters in England and Wales are privately held by a complex mosaic of individuals, companies and angling clubs, who both control access for fishing via subscription or ticketing, but also manage these waters as environmental resources for collective benefits enjoyed mainly by their members through angling, but also often by other people, such as walkers, swimmers and boaters.

In what follows, we first review different constructs of 'the public' circulating in environmental debates. We then consider how anglers demonstrated (and felt about) these different constructs, especially by comparing state-sponsored, discursive modes of public participation with modes of embodied practice that reshape river environments, drawing on approaches from science and technology studies (STS) to contrast with the public participation literature. We use this to consider how discursive and practical modes of engagement are intertwined, although the former tends to be prioritised and the latter often ignored, obscured or omitted from public engagement exercises, but also employed by anglers often precisely because they feel let down by state-sponsored modes.

We also consider how the geography of public participation shifts as 'environmental engagement' is not only recognised within the traditionally 'public realm' of council offices, environmental agencies and government consultation, but also within less publicly visible environments such as river banks, often rarely frequented or even closed to non-members of angling clubs. We conclude by arguing that emphasising practice through concepts of 'performative publics' will widen the remit for public engagement with environmental management and emphasise the different (and shifting) roles that publics play.

Constructing 'the public' in environmental management

Including diverse publics as active citizens in environmental decisionmaking has been explored for issues as diverse as genetic modification (Horlick–Jones et al. 2007), aquaculture (Young and Matthews 2007), air pollution (Petts and Brooks 2006) and wind power (Aitken 2009). Despite arguments for broader and more innovative modes of participation, attempts at involving the wider public (especially attempts sponsored by the state) still frequently assume that 'the public'

is excluded, powerless and unknowledgeable about the environmental issue in question (Maranta et al. 2003; Owens 2000; Ungar 2000). Such projections or imaginaries of the public can be very powerful in shaping how the state or other agents approach public engagement (e.g. Ellis and Waterton 2004; Irwin 2006; Michael 2009; Warner 2002), with the resulting exercises themselves contributing to defining and organising 'the public' in specific ways (Felt and Fochler 2010). 'The public' is therefore not only an input to decisionmaking exercises through public engagement, but also an output from them.

Traditional public engagement approaches also rely on the 'deficit model' of public understanding (Irwin 2006; Irwin and Wynne 1996; Michael 2002; Wynne 1995) in assuming that the public's lack of understanding about an issue can (and should) be remedied by information (mainly provided by experts) to generate scientific literacy, trust, legitimation and support for state policy. Public engagement can be ineffective or counter-productive if debates are framed in such unhelpful ways (Irwin 2001) or if engagement is geared to seeking legitimation for state policy, not to generating genuine and significant public input. Another problem is that, although people may know well and value local, familiar environments, they find it difficult to relate abstract environmental policy concepts (like sustainability or climate change) to their everyday realities (Harrison and Burgess 1994; Macnaghten 2003; Myers and Macnaghten 1998). Also, engagement exercises are often geared to rather grand policy decisions or future events, not the more mundane and everyday practices of environmental management. In this sense, public engagement (and its literature) narrowly focuses often on what publics *know*, neglecting what they *do*.

Also, when more knowledgeable publics do successfully engage in environmental debates, this can prompt a negative reaction. During the 2003 UK *GM Nation?* debate, the extensive public participation process was criticised (especially by scientific experts) for being dominated by 'green groups' and other people who already had (negative) views about GM crops: the ideal of undifferentiated, neutral and open-minded public input was felt to be swayed by activists with pre-existing opinions.[1] These publics were felt to be no longer open to (rational) persuasion by experts in line with the deficit model, because they had failed to fit the assumption about an unknowledgeable and therefore persuadable general public. By having less 'deficit' than was usually assumed, they drew criticism for not being legitimate representatives of this assumed 'general public', but in some way skewed or biased. Similarly, when (especially local) publics oppose new developments such as wind farms, incinerators or airport runways, their views are often denigrated as NIMBYism based on parochial self-interest.

There is therefore a dichotomy between 'good' and 'bad' public participation (also Gibson 2005; McClymont and O'Hare 2009) depending on whether participation is seen to be motivated by altruism and civic interest or NIMBYism and self-interest. This dichotomy means that, alongside a construct of 'the general public', another construct of 'specialised publics' or 'public interest groups' also circulates in policy debates, as outlined in Table 1. Whereas 'the general public' are commonly assumed by those who organise engagement exercises to be unknowledgeable about and excluded from environmental decisionmaking, 'specialised publics'[2] are seen positively as

[1] Criticisms of this view are given by Horlick-Jones et al. (2007) and Irwin (2006, page 315); Rowe and Frewer (2005) provide an example of such a view.
[2] Michael (2009) calls them 'Publics-in-Particular'.

more knowledgeable and perhaps already actively engaged with state decisionmaking, coopted into policy communities so that the state can tap into their knowledge and reduce challenges to its policies.

Table 1. Constructs of the public.

Features	**The General Public are assumed to be…**	**Specialised Publics are assumed to be…**	**Performative Publics through practice can be...**
Size	The majority	A minority	Potentially all
Definition	Broad cross-section of general population, but poorly differentiated (and often treated as if homogeneous)	Narrowly defined by sociodemographics (age, gender, race, income etc.), interests, location or politics	Heterogeneous arrangements across diverse groups, with no clear or static definitions
Scale	Often national or global in scope, with no specific local interests	Often local or regional in scope, may be opposed to local developments and accused of NIMBYism	Topologically defined through relationality
Degree of knowledge	Unknowledgeable about issues being debated	Narrowly knowledgeable about issues being debated, due to experience, local familiarity or self-education, but usually not formally trained (especially in science and medicine)	Knowledgeable but through practice
Importance of a specific agenda	Neutral and unbiased, with no strategic agenda	Pursuing a strategic agenda, possibly biased and contrary to policy	Diverse agendas, possibly unarticulated/tacit
Malleability	Capable of being persuaded, especially to change their views	Not open to persuasion and not likely to change their views, especially where they are opposed to a particular policy or development	Coproduced and thus contingently and dynamically changed
Mobilisation	Poorly mobilised and motivated to participate in policy and decision making	Well organised and motivated to participate in policy and decision making within state apparatus	Diversely engaged and mobilised within and outside state apparatus
Degree of involvement in public engagement	Reluctant to get involved in participation exercises and requiring much persuasion	Keen to get involved in participation exercises, may even have to be prevented from	Already participating through everyday practice (and sometimes also through specific exercises)

		dominating debates	
Direction of recruitment to public engagement	Engaged through top-down encouragement (usually by the state)	Engaged through bottom-up initiatives (e.g. NGOs)	Engaged in relational (flatter) topologies of association with state and non-state practices
Involvement in state decision making	Excluded from formal (state) policy and decision making	Often represented in formal (state) policy communities and decision making processes through consultation and/or membership; may also be co-opted to deliver services	Involved in decision making within and outside state apparatus
Power to influence environmental management	Powerless to influence formal (state) policy and decisions, except perhaps where deliberately consulted	Potentially powerful in some areas of formal (state) policy and decision making, especially where they have specialised knowledge; also able to work outside the state	Powerful through association with others (both state and non-state) in shaping environments, but contingently
Political role	Necessary for (state) policy and decision making to demonstrate democratic legitimacy	A threat to legitimacy if seen as biased because unrepresentative, exclusive or unaccountable	Coproducers of decisions and environments
Policy contribution	Providing input to make policy more acceptable and/or more implementable	Providing input that may make policy worse by skewing it in favour of special interests	Part of both policy formation and implementation

In some cases, specialised publics develop 'lay expertise', as Epstein (1995) shows for AIDS patient-activists. In environmental governance, amateur naturalists have used their lay expertise to co-produce scientific knowledge with professional (often state-sponsored) groups in support of policy, such as monitoring species distributions for museums of natural history (Ellis and Waterton 2004; Meyer 2010). And the growing literature on professional-amateur coproduction of knowledge (e.g. Callon and Rabeharisoa 2003) shows that even 'specialised publics' are highly differentiated with varying claims to expertise, so that labels such as 'lay' and 'expert' often cover a staggeringly broad range of knowledges. Yet this literature again tends to focus upon the epistemic issues of building communities of scientific practice, the associated boundary-work and questions of identity and credibility – that is, it emphasises knowledges and cognitive abilities in defining publics and tends to eclipse practices that are not explicitly connected with making and debating knowledge and/or with the state. There is therefore a problematic 'politics of the public', in terms of how different groups both claim to be 'the public' and also imagine

(and address) ‘the public’, so that “multiple publics... jostle against each other” for legitimacy and recognition (Staeheli et al. 2009, page 634).

But the notion of politics is itself problematic here. STS approaches often extend ‘politics’ to animals and devices (e.g. Latour 1993; 2005) and also to people’s everyday (sometimes unarticulated) decisions and practices, challenging the idea that private, domestic, mundane practices are not political (and not important) by tracing how actions are poorly articulated, obscured or black-boxed. Applying similar arguments to public engagement would widen its scope to include mundane practices of direct environmental management that are frequently overlooked in the public engagement literature. This does not oppose the cognitive with the empirical, or, as Marres (2009) puts it, the linguistic and the sociomaterial, but emphasises that different modes of engagement are both carried out by different publics and also shape them: environmental publics are not fixed, but continually (re)imagine and (re)perform their roles, shifting between different constructs. The spatialities of these multiple publics are both public and private, inclusive and exclusionary, metaphorical and material: “neither fully material (in the sense of being rooted to specific spots on the ground) nor wholly metaphorical (in the sense of being entirely untethered to those spots on the ground)” (Staeheli et al. 2009, page 647).

We suggest that the first construct of the ‘general public’ in Table 1 is commonly invoked in public engagement exercises, the second construct of ‘the specialised public’ is more important where an issue is specific to location or other factors (such as agricultural policy where farmers are targetted or river management where anglers and canoeists are targetted) and the third construct of the ‘performative public’ is by comparison rather neglected and deserves more attention. As the final column of Table 1 suggests, the concept of ‘performative publics’ is helpful because it distinguishes publics that are not defined by address (such as through the technologies of environmental engagement exercises) but through embodied practice in situ in the environment. Whereas specialised publics may take centre stage in political struggles, such as public inquiries or protest rallies, performative publics are often active behind the scenes of public life.

Despite this, their power to effect environmental management is constrained by political recognition, but enacted through ‘hands-on’ material practice. Like Ingold’s (1993, 2000) agricultural labourers, recreational users are active in their coproduction of environments, alongside other agents, including fish, animals and rivers “in and through the processual unfolding of a total field of relations” (Ingold 1993, page 162).

And environmental practice also shapes these publics, so that they are not merely constructed through how they are addressed and imagined (although that may also be an influence, especially where they form to respond to a threat), but are coproduced by the environment that they also shape. Understanding environmental engagement relationally therefore also emphasises the interaction between people and things, again drawing on STS approaches, as well as between different sorts of people in defining and enacting these publics.

We realise that Table 1 simplifies a complex spectrum that changes with different times and issues. But attending to these different ways of constructing environmental publics is what matters, because the kinds of environmental democracy at stake are not merely discursively

delimited, revolving around questions of knowledge and expertise, but are also enacted through practice.

> "*How* people understand the meaning and importance of [the phrases] public, publicity and public space sets the terms for the kinds of democracy and citizenship at stake in 'public' controversies" (Staeheli and Mitchell 2007, page 808, italics in original).

Anglers and public participation

We now turn to our empirical work to consider how these constructs apply beyond the theoretical. We draw on semi-structured interviews and participant observation with 60 anglers in northeast England in 2006-8, who fished regularly (at least every month). Details of our methodology are available elsewhere (in press); here we invoke only a subsample of these 60, specifically those who were regularly involved in river and lake management through club committees and working parties; all have been given pseudonyms. Nationally, about 40% of regular anglers belong to at least one angling club (Sport England 2009) but only a minority of those will be involved in management, as one active angler explained:

> "there's very few people who do any work at all. It amazed me that this stretch I went into, there's an angling club has one bank of it, the opposite bank, which maybe had 20 members, and none of them had ever gone down and trimmed a branch off or done any work... It's astounding to me and a little annoying, really, that they're not prepared to get their hands dirty to improve the fishing." (Cliff, 60s, angler)

We do not, therefore, attempt a representative account of how the public, all anglers or even all 60 anglers we interviewed engage with rivers, but an account of how a minority of anglers enact themselves as a 'specialised public' and a 'performative public' (Table 1). We also draw upon semi-structured interviews with eight EA staff (five were also anglers and two more were 'lapsed' anglers) and angling representatives on EA committees, as well as EA documentation and participation observation on the riverbank and at EA meetings to triangulate with interviewing.

In some ways, anglers fit the construct of a 'specialised public' in Table 1. Anglers are a minority of the British public – only 0.66% of adults fish at least once a month (Sport England 2009) - and show a strong gender skew to male participants, but little socioeconomic skew (Mintel 2006). Anglers can be seen as more specialised and more knowledgeable than the average person about rivers and fish, because of their more frequent engagement with water environments, that is, due to their fishing practices, rather than formal education or scientific training in more traditional (but narrower) modes of environmental learning.

Hence, knowledge comes through practice but also shapes practice in that, although anglers share a broad strategic agenda of improving fishing and water quality, they often interpret 'improvement' very differently. Being knowledgeable about water environments does not mean that anglers are always right or even always in agreement: in our experience, individual anglers and angling clubs frequently disagree with each other and with others (such as the EA and local landowners) about what is happening in water environments and how they should be managed. Despite the assumptions outlined in Table 1, therefore, specialised publics can still be highly heterogeneous in their views and how far they support environmental policies, as we show next.

Working with the state

Felt and Fochler (2010) argue that, if we think of public engagement exercises as technologies or machineries for levering stakeholder input, then we should consider not only how these exercises are designed but how also they are used (in this case, by anglers and other recreationists) and how that use itself *performs* those users (in this case, as specialised publics). For environmental management, how the EA imagines its publics is particularly important in shaping how it seeks to reach them, whom it recruits onto committees and how it speaks to them; this is likely also to shape the responses of people outside the EA, in terms of reorganising their relationship with the EA or their claims for recognition in turn. Environmental publics are therefore not passive, but shape technologies of public engagement as they imagine and perform (or reject) their roles.

In the case of anglers, their strategic interests fit well with EA policy to support fisheries and water recreation, so the EA recruits anglers onto its policy committees or co-opts them to deliver environmental services. Local committees called Consultatives, each usually covering only one or two river catchments, were established in the 1980s by anglers with the backing of the EA's predecessor, the National Rivers Authority, for anglers to put questions to state representatives and exchange information about water management. These fed into Fisheries Forums, which scaled up to the regional level, each covering multiple river catchments. Later, the 1995 Environment Act established Regional Fisheries, Ecology and Recreation Advisory Committees (RFERACs), as a meso-scale means for the EA to consult with and receive advice from various interests, and the Fisheries Forums were reorganised to feed into RFERACs. Attendees at Consultatives and Forums were usually anglers and EA representatives, but RFERACs also included other recreational interests (such as canoeing), riparian landowners and ecologists. Prospective members must formally apply to join RFERACs; because of this and the fact that they commonly meet on weekdays, the EA has shaped these 'specialised publics' so that they include a fairly narrow range of 'the public', especially older people with more education:

> "they're looking more for academic people than people at the grassroots type of thing... looking for people with more of a professional grounding, really... [so now] it seems as if it's much more, I would say, difficult for the ground floor fisherman to probably get onto that." (Graham, 60s, angler)

In interviews, anglers and EA employees expressed mixed reactions to these committees as traditional spaces of discursive engagement, with different ways of imagining these publics. One EA manager emphasised the 'expertise' in a RFERAC that can be used by the EA, but others were less positive, saying that Consultatives mean "getting the same things thrown at us every meeting" (Hugh, EA) and that RFERACs "don't use the expertise at all, or if they do, they don't like it, because it doesn't fit in with what they want to do, so that upsets them. So they tend then, if it doesn't fit in, to ignore the expertise" (Robert, angler and member of RFERAC). The EA's disappointment with these modes of engagement was one factor leading, in 2008, to Fisheries Forums being reorganised into larger units to be "more efficient" and "to engage more with customers," according to an EA speaker at the inaugural Yorkshire Fisheries Forum in 2008.

Such attempts at public engagement by the EA reflect also their own assumptions about and struggles to define their 'public', assumptions that matter for environmental democracy and public involvement (Felt and Fochler 2010; Staeheli and Mitchell 2007; Walker et al. 2010), because they influence how (and with whom) state agencies seek to engage and how those publics are performed. The term "customers" in the EA quote above is a particularly uneasy

imaginary that casts the EA as accountable to its public, but also seeking to make use of that public's expertise. For example, at an EA regional Awayday prior to their 'Customer Week' a fortnight later, a manager from their National Customer Contact Centre challenged EA staff thus:

> "Who are your customers? Do you know? Some people say they haven't got them. Our customer is anyone who contacts us... [Some staff think] that the environment's their customer... [or that] we don't have customers – we have people and organisations that we regulate."

This shows the diverse publics imagined by the EA and used (perhaps not explicitly) in designing and implementing engagement exercises. On another occasion, an EA Bi-regional fisheries meeting discussed which 'stakeholders' it should communicate with about modernising fisheries legislation. A policy manager from the EA National Fisheries team said that "we all know who the usual suspects are," suggesting that the same representatives of 'the public' regularly volunteer for or are co-opted by the EA, i.e. a narrowly defined 'specialised public'. Attempting to change this, he asked EA participants to think of other "local key stakeholder groups or individuals" who could be recruited instead and the resulting list provides a insight into how one part of the EA explicitly imagined its public:

- State representatives, agencies and quangos (MPs, ministers, Regional Development Agencies, National Parks, Consultatives, British Waterways)
- Private companies (in water supply and fish retailing)
- Nongovernmental organisations and charities (such as named Rivers Trusts)
- Local individuals (named)
- Associations of riparian landowners and unspecified "interests".

For Lezaun and Soneryd (2007), 'stakeholders' is a synonym for 'interested publics' that differ from the 'general public' because of this specific interest; Michael (2009, page 623) similarly defines 'Publics-in-Particular' as having "an identifiable stake" in an issue. We can only speculate on why the EA manager chose to say 'stakeholders' rather than 'public' here (perhaps because it sounded more precise and politically engaged?) but the point is that the EA group's delineation of who counts as 'stakeholders' was much narrower than we expected. For example, regional angling clubs were mentioned at the meeting, but not included in the list because they were said not to "carry a great deal of weight". The surprising result was that the public for fisheries management that was imagined by the EA gathering was dominated by the state and quasi-state sector, rather than by nongovernmental groups or individuals involved in fishing.

Anglers are also aware of these imagined roles and sometimes perform themselves as a 'specialised public' by participating in EA committees. But anglers we spoke to often felt that Consultatives were merely "talking shops" (Craig, 56; Damian, 53) that failed to achieve much beyond fulfilling the EA's duty to consult, criticising discursive engagement as limited and weak. Most anglers we talked to perceived anglers (as a group) to have little influence on the EA and other environmental management bodies. For example, no representatives of angling or other water recreations (e.g. canoeing, swimming) were included in formal consultation over how to implement the European Water Framework Directive in the study region in 2007-9, according to the Humber Basin Management Plan (2009, Appendix L). Anglers that we spoke to found this lack of influence especially aggravating because anglers, unlike canoeists, boaters or walkers, are

required to buy a rod licence annually from the EA (currently £26 for an adult, £5 for 12-18s) to pursue their hobby on inland waters, which they perceive to be poor value for money:

> "I think we pay an awful lot of money to them and we don't see a great deal in return... they have these Consultatives and all that kind of thing, but anglers don't really have a say at all." (Craig, 56, angler)

That said, two angling bodies were mentioned as influential. First, the Specialist Anglers' Alliance (SAA) was a lobbying group set up by serious amateur anglers, who devoted more time and effort to their sport and representing it than do most hobby anglers:

> "when the Water Framework Directive was proposed, there was all these bodies contacted and they were all to do with flood and planning and sewage works, water companies, et cetera, et cetera. Anglers had no representation at all, they actually had to get off our backsides and do something physically, and it was the Specialist Anglers Alliance that actually went and said, 'Oi, hang on a minute, we have got a voice, we need some input.'" (Ray, 30s, angler)

Second, the Anglers' Conservation Alliance (ACA) was a nongovernmental organisation that sought injunctions to prevent water pollution and prosecuted those damaging rivers or lakes to secure compensation for riparian owners or renters for the loss of fishing and for remedial work (Bate 2001). As well as using specialised legal knowledge, the ACA drew on anglers' environmental knowledge by bringing them into court cases as expert witnesses, successfully performing water management, albeit often in a post-hoc way, by private regulation to enforce remediation outside the state or where the state was perceived to have failed.

In 2009, several national clubs in England and Wales merged to form the Angling Trust and adopted a wide remit, from lobbying government over water protection to mapping non-native plant species and promoting coaching (see http://www.anglingtrust.net).[3] This merger was specifically undertaken because angling representatives perceived the need for a stronger voice to represent anglers and for a single national 'governing body' that Sport England could officially recognise. In this reflexive move by users of public participation (Felt and Fochler 2010), anglers have performed themselves as a 'community' or 'specialised public' by projecting a singular (ideally consensual) voice where previously several voices vied for policy recognition, and one that is intentionally oriented towards the state and adopts multiple roles.

It is too early to say how successful this new body will be, but this history of reorganisation and dissatisfaction does suggest that anglers have been disappointed by the state's efforts at discursive and deliberative modes of public engagement for water management, modes that are the most common interpretation of public participation in the literature (e.g. Healey 1999; Owens 2000; Rowe and Frewer 2005). While continuing to work with the state, they developed other modes of achieving their goals, creating new NGOs (ACA, SAA, Angling Trust) and instigating prosecutions and regulatory action. Through performing new and revised forms of participation (Felt and Fochler 2010), anglers are enacting (often quite deliberately) different roles and identities as 'specialised publics'.

[3] The ACA was relaunched in 2009 as Fish Legal, an arm of the Angling Trust.

Working with water environments

We have suggested that the public engagement literature is dominated by work on 'civic', cognitive or rationalist modes, exercises that take place in offices and other indoor spaces of debate and ways in which 'publics' are constructed primarily through discursive means, whether these are written (Warner 2002) or debated (Felt and Fochler 2010; Michael 2009; Lezaun and Soneryd 2007), and that the public are principally defined by knowledge, location or self-interest. We have also said that many anglers – even when constituted successfully as 'specialised publics' – find discursive and cognitive modes of engagement less than satisfactory.

We now invoke ideas from STS to emphasise other modes of environmental engagement that are empirical, pragmatic and relational, but are often obscured in discussions of public engagement, because they often take place outside these formal, cognitively defined spaces of environmental debate and include nonhuman agency that is distributed through association (Latour 1993; 2005) and the active performance of environmental management. As well as specialised publics produced through knowledge, debate, speech and writing acts, we also need to attend to performative publics produced through practice in the form of hands-on environmental management. A more heterogeneous understanding of public engagement is needed, where power to effect environmental management is not limited by knowledge, expertise and inclusion, but relationally built through coproductive practices in diverse spaces outside those dedicated to debate.

Attending more to practice would mean attending not only to how the public is enacted through discourse (Michael 2009; Warner 2002), avoiding bias towards elites with greater knowledge or social capital who are better able to mobilise and articulate their views, and focusing on what people do. This is fundamentally the challenge of a turn to practice. Moreover, specialised publics can themselves be fairly specialised in terms of the distinctive environmental practices that they undertake, thus differentiating them (again) from 'the general public' and their domestic practices. What work, then, do anglers do by way of 'hands-on' environmental management?

First and most dramatically, angling groups and representatives reshape rivers and lakes through physical (re)construction, to correct perceived problems of banks eroding (bad for anglers' comfort and access to the water) and water flow being too uniform (bad for fish and, in consequence, bad for anglers trying to catch fish). Weirs and groynes may be built, using wood, stone or concrete, to change and diversify flow, and gravel may be added to improve fish spawning. Figure 1 shows an example of a groyne put in place by a group of members in the local angling club, to shape a small river into more diverse flow. Here we see not merely practices of attending meetings and speaking, but practices that are embodied literally through building environments with physical labour and machinery, directly implementing their visions of the environment not through general policy but through specific, targetted interventions of the type that many would assume only the EA had the power and technology to effect:

> "I usually move between half-a-tonne and five-tonne rocks… if a bank's eroding, I'll probably put rocks round the toe of the bank to stop it eroding, or I'll move the flow off the eroding part. If trees have fallen in, I'll get the excavator to pull them out, tidy it all up. So there's a huge difference in the river after I've done my work on it." (Cliff, 60s, angler)

Second, vegetation is managed. Angling clubs remove vegetation, dredging out weed or woody debris and removing species identified as 'invasive exotics' like giant hogweed, with working parties of regular committee members and other volunteers using rakes, saws, hatchets, chainsaws and weedkiller to perform environmental management. Anglers described to us how they raked out channels, wading deep into the water in their waterproof gear or in one case in a swimming costume because of high water levels, or using boats to travel along and across the river to dredge out weed. There is also a sense of ownership here (justified or not by angling club leases), of the environment as one's own responsibility (not the responsibility of aan abstract 'somebody else') and thus an object of one's own hands-on, immediate management.

> "We had a lot of areas last year choked up with weed… I got a rake and went and cut channels through the weed so people could fly fish more easily." (Donny, 60s, angler)

Vegetation is also planted: "tonnes of willows" along with ash, oak, alder, hawthorn trees have been planted along the River Swale by a local NGO (the River Swale Preservation Society), the EA and angling clubs (Figure 2). This means that a voluntary sector charity, a public sector agency and various private members' clubs performed together to carry out a habitat management strategy on contiguous patches of the same river, a flatter topology of interacting with people and things (Table 1) rather than an overarching, formal management plan. As we walked along rivers with anglers, they would point out trees that they or their friends had planted, trees that they had pruned (showing us cutting implements that they regularly carried in their fishing kit) and other physical evidence of anglers' engagement literally with the shape of the water environment.

Sometimes, these hands-on management practices were prompted by self-evident (to anglers, that is) faults: "if it's a deep, still pool, it gets just a little bit dull and [reshaping] improves it" (Bill, 71). But sometimes they were prompted by state agencies or in partnership with them: Graham (60s) said that his angling club had put in eight weirs on the recommendation of the EA "to clean the gravel and make the flow better"; another club planted trees provided by the EA; yet another purchased weedkiller to eradicate an invasive species from their pond, but the EA applied it. As a consequence, even EA staff commented that they now find it difficult to identify (or remember) which organisation planted which stretch of the river, for example. This heterogeneity is complicated further because ownership or rental of riparian rights varies over short stretches (~500m) of a river in England, or even between the two banks, resulting in a patchwork of diverse practices across time and space.

This shows that angling clubs are participating in environmental management directly alongside the state but not only in the discursive ways that have received more attention in the literature, but also through directly implementing environmental management. They are deliberately performing not only as specialised publics in a cognitive sense, but also as specialised publics in a performative sense – performative publics that were 'getting their hands dirty' remaking aquatic ecologies and geomorphologies. Moreover, anglers seemed to feel their hands-on environmental management as performative publics had more positive effects on fish populations and water quality than their involvement as specialised publics in the state's efforts at public consultation and management: they preferred to practise environmental engagement in situ and hands-on, rather than engaging in debates that they felt were less than concrete, although both modes contributed to their sense of what anglers did and should do.

There is therefore a complex pattern of state and nonstate practices at work in managing rivers. Anglers are coopted by the state as stakeholders in committees, but also lobby for environmental reform outside the state; sometimes anglers are co-opted by the state as 'lay managers' to practise habitat management, but sometimes counter it by restocking or littering. The different modes of engagement and different constructs of 'the public' interact, blur and shift here. Sometimes anglers talked as if they were subsidising the state: "saving the [Environment] Agency hundreds of pounds a year pulling trees out with our own winch and power saw" (Graham, 60s) and some claimed back costs through EA grants for "putting trees in and things to hold the banksides back" (Paddy, 80s). This could be argued to be a form of subcontracting by the state, paying publics (in what is often referred to as the voluntary or 'third sector' of society) to deliver environmental services, drawing on anglers' resources in terms of bodies, skills, knowledges and machines and thus also legitimating them as performative publics.

As in many partnerships, however, this can be problematic. Anglers perceived internal conflict between different sections of the EA, especially between the fisheries staff (who were felt to share anglers' views) and the flood defence staff (who were not). Indeed, EA fisheries staff we interviewed referred to EA flood defence staff as "the guys who go round destroying rivers" and "the slash and burn boys".[4] In addition, when EA policy changed over time, it appeared contradictory to anglers: "they'll work with us for several years, getting an area of trees planted and then they'll eventually go down and dig them out" (Gareth, 50s, angler). Here we see multiple different imaginings at work – how the anglers see the EA, how the EA see the EA and how the EA see the anglers – and all will shape the kinds of management practices that each does.

Cooption is thus an uneasy relationship, so hands-on or lay environmental management by publics may fail to comply with 'official' regulatory systems of consents for river work. Instead, anglers often saw the EA's (supposedly expert and certainly professional) management as unhelpful and obstructive:

> "I used to get my own local men and there was no fuss, no bother, no interference, no nothing. And then it got that the Agency started to get a bit more hold of things." (Neil, 83, angler)
>
> "We've got to obtain National Parks' planning permission [for digging a trench]... It's ludicrous. It could well be three years in getting this planning permission... In the old days [i.e. before such rules, a mythical] Farmer Giles would have got a JCB in there, dug a trench and the river would have done what we wanted to do." (Cliff, 60s, angler)

As well as physical reconstruction and vegetation management, anglers also 'lay manage' river ecologies, getting rid of fish predators, like cormorants, goosanders and mink by getting licences and guns to shoot them or fitting noisy 'scarers' or netting over a pond surface to discourage them from feeding. Angling clubs also regularly restock lakes and rivers with young fish where populations are perceived to be too low or too old. Clubs reported spending thousands of pounds

[4] EA thinking is necessarily heterogeneous, given the diversity of specialisms and regional conditions that the EA covers, and it changes over time (see Adams et al. 2004). It is notable that most of the people we spoke to in EA fisheries departments were anglers themselves and often supported anglers' modifications. We did not interview staff in EA flood defence departments, but suspect they may well have different views of anglers' modifications and support more traditional views of managing flooding by moving water more quickly through the system.

a year putting in tens of thousands of juvenile fish from their favoured target species (especially salmon, but also bream, roach, chub and tench): sometimes we watched them literally being poured into the water from the back of a van into a pond. Sometimes, the choice of species is contentious in terms of ecological match, such as where fish were stocked in waters they would not reach without human intervention or where they were not felt to be suitable or happy, such as barbel stocked in small fishing ponds.[5] Again, anglers who performed stocking often said that thi was because "the Environment Agency don't put anything in" (Sid, 40s, club secretary), so the voluntary sector takes into its own hands an activity that they consider the state should do, enacting a quasi-state role.

One example of the EA and anglers together gathering knowledge and performing environmental management was recounted by the membership secretary of a large angling club. One hot summer, he was telephoned by a club member saying that fish were dying in the club's pond.

> "I rang the Environment Agency and they came and threw a monitor in. [The EA person] says 'it's oxygen levels. Your lake's just too warm, your fish are just dying'. I said 'well, what can we do?' He says 'well, you could get a generator and leave it in overnight but someone might pinch it'. I said 'well, what about netting what fish we've got in out and putting them in the bottom lake, which is a lot deeper?' He threw his monitor in there and said 'the oxygen level's OK in there. You can do that fair enough'. So I rung round a few guys, got ten guys to come up with trawler nets, we netted the lake, got every fish out of it, put them in the bottom lake and this year we've re-stocked the top lake. Didn't realise it would be that blooming warm in July. Just took all the oxygen and the fish started dying. But we had the resources to go and do it ourselves - get the nets and take them all out." (Sid, 40s)

Finally, as well as managing nonhumans, angling clubs also manage other humans, both anglers and non-anglers. Club bailiffs patrol their club's waters and check that people fishing there have a valid rod licence, club membership and/or day ticket as required and that they obey any site rules, such as using barbless hooks or not fishing at night. Again, this subsidises the EA, as anglers perceive it has insufficient staff or money to do such "spot-checking" properly (Cliff, 60s, angler). One bailiff told us that the EA wrote to ask if he and the other bailiffs in his angling club would be willing to routinely check for rod licences as well as for club membership (they refused).[6]

This role of managing people is explicitly acknowledged, with the Barbel Society known "as the barbel police" and the head bailiff for a large angling club assembling "a posse" to deal with night poachers. But as well as nominated bailiffs, ordinary anglers also keep an eye on other anglers, to ensure that they follow club rules and behave properly, and scold or even evict members for bad behaviour like littering: "I have to go and give them a hard word and try and educate them" (Steve, 43, club bailiff). Non-anglers may also be managed, being excluded from riparian zones by notices and bailiffing, and admonished for speeding through fords or littering.

[5] We discuss the human-animal interactions involved in angling and these varied management practices in more detail in two other papers (Authors, in press).

[6] Club bailiffs have no statutory powers beyond those of other anglers, all of whom have the right to request anyone to see a rod licence, but EA bailiffs are "treated as if they were a police constable with the same powers of arrest, search and seizure" under the 1975 Salmon and Freshwater Fisheries Act (Carty and Payne 1998, page 23).

This lay management reflects the more general moral ordering of the countryside through enforcing 'correct' behaviour - in this case not through state legislation and prosecution, but through social norms (or private prosecution in the case of ACA/Fish Legal). In parallel to how tourists behaving badly in the English countryside have been constructed as 'anti-citizens' (Matless 1997[7]), anglers construct the 'anti-angler' as one who does not care about the water environment, who drops litter, who does not have a licence or pay their fees or who treats fish badly:

> "we have got 117 members [in our club] and everybody knows each other so if anybody misbehaves or does anything that they shouldn't do, we know straightaway and they are weeded out and they will be brought up in front of the committee and dealt with." (Ray, 30s, angler)

Thus the 'specialised public' of the angling clubs regulates both itself and the (non-angling) 'general public', enacting different versions of the constructs in Table 1. Together, these practices of lay management add to public participation in discursive spaces and show how publics do environmental management, from altering the aquatic ecology in club waters to protecting water quality by monitoring pollution and reducing litter.

Analysing environmental practice

We have shown how anglers partly enact themselves as 'specialised publics', resulting in an uneasy relationship with state-sponsored environmental management, but also shape their environments as 'performative publics' through hands-on practices, practices that are rarely included in analyses of public engagement, despite their role in shaping environments. Latour (2005) suggests in his 'sociology of associations' that agency becomes visible because it is about *doing* things and the doing leaves traces that analysts follow. We have shown how anglers leave traces, from pruning cuts on trees to groynes that direct water flows in diverse ways, traces of how they perform hands-on environmental management in a highly responsive, locally tailored way, far from the discursive spaces of debate in which environmental policy is made and in which they feel they have less agency.

It has been argued that the abstract concepts that dominate policy fail to engage public interest and ownership by local communities is more important (Petts 2007). Hence activities such as gardening have been promoted as a way to improve public participation and social capital through local involvement in ecologising practices (Blomley 2004; Hinchliffe et al. 2007). In our study, anglers described their water management practices as "a bit like gardening" (Norman, 60s, angler) or "manicuring" (Cliff, 60s, angler) as "anglers are very protective of their water" (Sarah, 50s, angler).

But anglers' power to control or shape the environment is elusive and nonhuman agency remains significant. Sid (40s, angler) recalls removing giant hogweed (an invasive and damaging species) on a river bank managed by his club, only to realise that it was also growing on the other side of the river, which was managed by another club who were not removing it, and "when it's got flowers and seeds, it's going to blow across [from the other bank] and it'll be here again next year, so we'll have to do it again." Hands-on management and gardening are thus not merely

[7] See also Robbins (2007) regarding lawn-gardening norms in the American suburbs and Parker (2006) regarding the Countryside Code in England.

ways to enable publics, but also shape the environment in a multitude of small, seemingly mundane and everyday practices, without ascribing power wholly to individual agents or actions. And they also shape those publics – anglers may choose (sometimes explicitly, sometimes not) ways of enacting themselves as environmental publics, but they will also be changed by those enactments, as knowledges and practices co-evolve and their roles shift and change.

It is important to note that we are *not* arguing that anglers' practices are the same as or better than public engagement through discursive modes. We do not see an opposition between discursive and practical engagement (e.g. Marres 2009); rather, that anglers enact (and shift between) multiple possible modes of working with the state and water environments.

Nor do we suggest that anglers are always right in how they practise environmental management - they may be ineffective or even detrimental in unintended and unanticipated ways. Robbins (2007) argues that norms of maintaining the archetypical American suburban lawn create 'turfgrass subjects' - subjected, that is, to agribusiness marketing of fertilizers and weedkillers, as well as to complex ecologies of pests and climate that are often highly detrimental to non-lawn ecologies. The environmental practices of publics like these may create problems, rather than simply and unproblematically correcting a 'democratic deficit' in environmental management. For example, one university scientist we also interviewed argued that the way that the anglers cleared woody debris from a small tributary to promote fishing will have long term negative effects:

> "the perception was it was bad for fish getting up the river, but it wasn't, they weren't brick walls, there were ways for the fish to get through... [the anglers took the debris] all out and then [the tributary] has just been kicking out sediment ever since, you know, for five, six years, so once they're in, removal can be really really bad, because you're then removing the equilibrium that that river's kind of gained."

However, ineffective management may also happen under professional environmental management, and the EA also changes its view as to what constitutes effective environmental management (e.g. Adams et al. 2004). So we are *not* saying that anglers are *more* correct than other sorts of managers, nor are we uncritically or romantically valorising their particular knowledges, as is sometimes inferred by critics of attempts to open up and diversify definitions of expertise. Rather, we emphasise how different sorts of knowledge-practices constitute environmental management and that developing taxonomies of and drawing boundaries around environmental truths can be unproductive (Murdoch and Clark 1994, page 129).

Conclusions

In this paper, we have examined a highly specialised and active group of environmental recreationists, to contrast with how the general public are often seen in environmental management. Adopting diverse roles, anglers do not rely on official channels, dominant cognitive modes and discursive spaces for participation in environmental management, but deliberately shape the environment through hands-on practices in the wider environment, pursuing their own strategic, but diverse, goals. And they do this in ongoing, often rather mundane and largely ignored ways. Sometimes these practices take place in collaboration with state institutions but sometimes they directly conflict with them, and this complex pattern is complicated further by how the EA, as the state agency, also struggles both to imagine and to engage with its public.

We agree with Staeheli and Mitchell (2007, page 795) that "not only is consensus about what constitutes the public or public space impossible, it is not even desirable." We have therefore been more explicit about the *differences* between how environmental publics are imagined and enacted (Table 1), using anglers to show that even 'specialised publics' are themselves heterogeneous and to counter how practice is often eclipsed by a focus on cognitive questions of knowledge and expertise within public participation.

The third column of Table 1 suggests that 'performative publics' produce themselves as more-than-discursive groups that are mundanely active in environmental management. River landscapes are thus made as heterogeneous tasks by diverse actors 'congeal', as movement is stabilised and becomes solid, at least temporarily (Ingold 1993, page 162). Rather than simply representing specialised interests or knowledges, these publics engage in specialised practices that both shape the environment and shape themselves by enacting them as 'performative publics'.

Emphasising environmental practices also emphasises how power is produced in ways that escape the control of the more powerful (usually the state), and extends our concept of environmental management to embrace also the mundane practices of cutting, planting, dredging and the like that anglers and other environmental publics undertake. Such mundane practices are less studied by researchers (outside the domestic household, that is), because literature concentrates upon discursive practices, glamorous, high-profile exercises rather than upon the everyday relationships through which people practise lay environmental management. More research is needed on the lay management practices carried out by other specialised publics (not only by anglers), but currently unacknowledged, and how these practices can be expanded and recognised politically.

Finally, we realise that the idea of 'performative publics' will be much harder for policymakers to use in promoting public participation. Anglers may invest literally years of their lives on/in/by rivers and lakes in developing these practices, so they provide no quick and easy fix to public exclusion for other groups. And such experiences are not enjoyed by everyone – some people may heartily dislike environmental activities like angling, canoeing, swimming or birdwatching – so we do not prescribe them as an off-the-peg solution for public participation. Rather, we emphasise that environmental publics are achievements of practice, of activity and of association across diverse time-spaces and interactions. It is therefore important to acknowledge and study not only the front-of-stage consultation exercises in public engagement, but also the behind-the-scenes hands-on activity of the enthusiastic minority in understanding how our rivers and lakes come to be how they are.

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Figure 1. Weir built into River Esk by a local angling club.

Figure 2. Angler's eye view of willows planted along the River Swale.

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