

## **Thinking like a fish? Engaging with non-human difference through recreational angling**

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### **Abstract**

This paper investigates how recreational anglers make sense of, and engage with, fish behaviour over space and time. Drawing on fieldwork conducted around rivers in Yorkshire, UK, it explores how anglers differently categorise and differentiate between fish through their fishing practices. Drawing on Deleuze and Guattari's notion of becoming-animal, and attentive to Haraway's concerns for 'beings-in-encounter', the paper examines angling as a transformative practice, whereby anglers and fish adapt through their co-constitutive encounters. While anglers often attempt to 'think like a fish' when deciding on their tactics, we demonstrate their ambiguous classification of 'fish' on the basis of species, size and rhythm. Their attempts to become-fish are not always, therefore, with Haraway's 'actual animals' but with complex groupings. The paper argues that studies should be more attentive to the heterogeneity of the categories of human and non-human. It is also critical of assumptions that certain animals, such as fish, are alien to humans and calls for greater attention to be paid to these, and to the non-airy spaces in which they dwell.

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## 1. Introduction

Fishing is a well established and high participation sport across the world, yet the social science literature has largely ignored it. Similarly, the literature on ‘posthuman’ and animal geographies has focused upon warm-blooded animals, paying little attention to fish and aquatic environments, and upon groups or categories of animals, such as species and herds, rather than differentiations within species or between individual organisms, as problematised by Deleuze and Guattari (1988) and Haraway (2008). In this paper, we address these neglected areas by studying how humans and fish encounter each other through recreational angling in England.

As a noun, ‘fish’ is unusual in being both singular and plural. This ambiguity is reflected in the ways anglers talk about their interactions with the creatures; sometimes they generalise behaviour across ‘fish’, while at other times they relate to an individual ‘fish’. We look at how some anglers attempt to ‘think like (a) fish’, working out how fish feed and move, making sense of fish’s reactions to anglers’ activities, and through thinking about how the fish themselves influence the anglers and are affected by the anglers. We also consider how these angling encounters are played out temporally, drawing attention also to the times and rhythms of human-fish interactions. Through this empirical study, we negotiate a path between Deleuze and Guattari’s rhizomatic becomings-animal and Haraway’s more grounded focus on becoming *with* across species divides.

In the following sections, we outline how the animal geographies literature has focused on warm-blooded animals, on groups and species, and on domestic and livelihood relationships, to demonstrate the gaps identified above. We extend Matless *et al*’s (2005: 191) arguments regarding the ‘strategies by which humans meaningfully encounter the animal’, investigating the ways in which fish are both aggregated and individualised. Addressing Lulka’s (2009) concerns that geographers have ignored non-human difference, we show that anglers do not only think in terms of ‘fish’ but differentiate between them, in some cases building relationships with individuals. We develop his argument by emphasising the impact of human difference in dealing with non-human difference. We conclude by looking at the implications of our findings for future work in animal and posthuman geographies, countering assumptions made about the ‘alien’ nature of fish and calling for greater attention to be paid to animal heterogeneity. This is not merely a conceptual concern: anglers’ views matter because they actively shape fish populations and bodies, in that how they perceive, imagine and engage with fish directly impacts not only on the way they fish but also on their management practices (such as stocking rivers with fish and modification of the spaces in which fish live and grow).

## 2. Engaging non-human difference

The ‘new’ animal geographies (Philo and Wilbert, 2000) developed from two core concerns: that geographers tended to treat animals merely as part of ‘nature’ or ‘the environment’ (Philo, 1998); and that animals are ‘constitutive of human societies’ and not merely ‘passive

surfaces' onto which humans can project their values and meanings (Philo and Wilbert, 2000). As a corollary, and influenced especially by the relational and hybrid ontologies of authors such as Latour (1993) and Ingold (2000), animal geographers have argued that animals should be understood as part of a heterogeneously re-imagined 'society', where they could be conceptualised and included as 'strange persons' (Whatmore and Thorne, 1998), or 'a very "other" social group' (Philo, 1998). Animal geographies have been very successful over the past decade or so in dissecting 'nature' and developing more broadly posthuman geographies (see Panelli, 2010).

But while ostensibly more inclusive in its attempts to 'bring the animals back in' to social geography (Wolch and Emel, 1995), the animal geographies literature still includes some animals more than others (Whatmore, 2005). Fish are a particularly pertinent example, because they have largely been ignored in existing work on animal geographies (though see Bear and Eden, 2008). Two explanations can be identified for this: 1) their bodily characteristics; and 2) the spaces they inhabit.

In terms of their bodily characteristics, Scruton (2000: 111) draws attention to their 'cold-blooded and slimy' nature, their bodies being alien to humans. Jones (2000: 286-288) makes similar arguments about the 'alien' spaces they inhabit, contrasting water environments with the "'airy" spaces that we humans inhabit'. As we shall show, while these arguments may apply to some people, many anglers do not view fish merely as alien bodies behind an 'impassable screen' (Scruton, 2000: 111); rather, affective relationships can develop between some humans and some fish. For some humans, fish are less 'strange persons' (Whatmore and Thorne, 1998: 451).

As well as continuing to 'other' some animals, there is a tendency for animal geographers to focus on *groups* of animals – whether herds (Lorimer, 2006; Lulka, 2004), breeds (Holloway *et al*, 2009), species (Brownlow, 2000) or more nuanced spatial aggregates (Griffiths *et al*, 2000) – rather than on individuals. And even where individual animals and their relationships with humans are considered, it tends to be in a domestic (Fox, 2006; Johnston, 2008; Tuan, 1984) or in a livelihood (Holloway, 2001) context. Again, fish are rarely considered in either case.

Criticisms of the category of animal are not new. Derrida (2002) notes that all animals are very different (compare a lizard to an eagle, for instance), so the singularity of '*the Animal*' (p. 399) is highly problematic. More recently, various writers have suggested the need to give greater consideration to the subjectivities of individual animals (Hinchliffe *et al*, 2005; Holloway, 2001; Lorimer, 2006; Lorimer, 2007; Watson and Huntington, 2008). Wolch (2002: 728), for instance, observes that if the place of animals is going to be better understood, it is necessary to consider 'animal thinking and behaviour *per se* to better understand their subjectivity and ideas about people.' While an attractive proposition, it is fraught with difficulties – as Wittgenstein (1994: 213) astutely noted, 'if a lion could talk, we could not understand him'. It is not surprising, then, that group or species identities still dominate the literature. So while Hinchliffe *et al* (2005) follow individual vole trails, these

are often aggregated to permit discussion of ‘water voles’. A tension, therefore, develops between a species and a more-than-species approach.

There are exceptions. Matless *et al* (2005: 192) explore encounters between humans, wildfowl and otters, thus dealing with ‘other spaces’ (water and air) and the ways in which wildfowl are ‘treated as an aggregate migratory body’, whereas otters ‘are often individualized’. While relatively unusual in dealing with individual ‘wild’ animals, the animals being encountered are comparatively visible and, particularly in the case of otters, conform to the cute and cuddly appearance that makes individualisation by humans more likely (see Woods, 2000). Lorimer (2008) also examines the ways natural scientists and ornithologists make sense of non-human difference. In attempts to ‘become-predator’(p. 386) in surveying corncrakes, their knowledge practices are ‘practical, rigorous and standardized techniques that allow future corncrake surveyors to *tune in to* all the birds in their allocated survey area’ (*ibid*, emphasis added). Our paper differs in that we focus on practices that are not institutionalized or standardised (though which often engage with these more formal practices), but are more informal, recreational becomings-animal. While Lorimer focuses on surveyors becoming-predator, our discussion centres on attempts by anglers to become-prey. Through this, we offer further insight into the under-researched nature, form and diversity of ‘lay’ environmental knowledge practices more generally.

The notion of becoming-animal comes from Deleuze and Guattari’s *Thousand Plateaus*. In their rhizomatic ontology, they argue that ‘molecular collectivities’ take precedence over ‘molar subjects, objects, or forms’ (1988: 275); the resulting *multiplicities* are an attempt to move beyond dialectics and dichotomies. Studying angling through the notion of becoming-animal emphasises the transformative nature of the encounter (Calarco, 2008: 42), which is not merely about the anglers’ skilful mastery over a fish but about an affective contagion (p. 242), involving an assemblage of fish, human and technology, each one already multiple. In other words, they ‘enter into composition’ with each other (p. 274). Through this, ‘becoming-fish’ might mean more than using technological imitations of fly life; we show in this paper some of the characteristics of fish that anglers attempt to mimic or tune in to, while also considering that fish, viewed through this framework, might become-human.

We are cautioned by Haraway (2008: 27), however, who writes of Deleuze and Guattari’s ‘scorn for all that is mundane and ordinary, and the profound absence of curiosity about or respect for and with actual animals’. She instead promotes an interest in companionship and ‘ordinary beings-in-encounter’ (p. 5), attempting to move beyond the individual-species dichotomy.

Haraway’s attempt to ‘learn to be worldly from grappling with...the ordinary’ (2008: 3) is appealing for our research that examines how humans and fish are ‘entangled’ and ‘coshaping’ (p. 5) through everyday angling encounters. However, her ‘earthy’ (p. 3) focus on dogs, farm animals and primates contrasts with our ‘water’ beings and places. Her reading of the ordinary is typically limited to warm-blooded creatures, a problem evident in her discussion of feral pigs, viewed frequently as ‘pests’ in California. She claims that they are ‘not an easy case’ (p.297), because of their intelligence and emotion, attributes that heighten

the moral dilemma over whether to kill them. We argue that these characteristics are exactly what *do* make them an easy case – or at least render their case familiar, alongside other ostensibly ‘wild’ and ‘feral’ animals in cities (Griffiths *et al*, 2000; Gullo *et al*, 1998). We are led, then, to Deleuze and Guattari by the supposedly alien nature of fish, and by their ambiguous individualities and multiplicities, and to Haraway in our attempt to understand how *real* humans and *real* animals live together and make sense of each other.

The final key driver of this paper is an interest in the role of time and rhythm in angling encounters. Animal geographers, not surprisingly, have prioritised space in their analyses of human – non-human encounters. In this paper, we also emphasise the role of time and rhythm in these relationships. Adam’s work has suggested the ways in which ‘all organisms...display interdependent rhythmic behaviour’ (1995: 128; see also Ingold, 2000). Here, we develop her interest in the ‘organic rhythms of everyday life’ (1995: 21), emphasising rhythms and time as drivers of human-non-human relationships and as ways of becomings (Deleuze and Guattari, 1988: 272). A greater awareness of time helps to avoid reification of animals and humans as species, as bodies or as characterised by habit and practice, and emphasises the different ways of living within these groups. We are, therefore, interested in the performed relationships that are played out in angling, and in how these emerge and are characterised.

### **3. Methodology: engaging with heterogeneous practice**

The focus of this paper is on the ways that anglers both generalise about and differentiate between fish. While we follow Lulka (2009) in unpacking the ‘nonhuman’, it is also important to consider the ways anglers themselves – the ‘human’ – may be categorised and differentiated. There is little existing social science work on angling; from what there is, Bull (e.g. 2009), Franklin (e.g. 2001), and Washabaugh and Washabaugh (2000) all focus on fly fishing, thus neglecting the majority of anglers in England who coarse fish<sup>2</sup>. Further, the anglers in our study labelled themselves in three groups (see Table 1) and while the boundaries of these groups are porous and sometimes overlapping, they are useful to demonstrate how *human* difference also matters in dealing with *fish* difference and to emphasise that anglers are a heterogeneous group, performing a range of engagements with river environments through their uses of different methods, differing preferences about where they fish and their focus on different categories of fish. Angling, then, offers an important opportunity to study the ways in which a heterogeneous group goes about making sense of, and engaging with, river environments and animals through their recreational practices.

The empirical work we draw on was with anglers based in northern England, especially those fishing regularly on the rivers Swale, Ure and Esk (Figure 1). These three rivers represent a diversity of ecologies, geomorphological characteristics, styles of angling and structures of

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<sup>2</sup> In England coarse angling targets fish like barbel, pike and chub using bait-like worms and bread as well as artificial lures, generally on a catch-and-release basis. Game fishing targets salmon and trout using artificial flies and, while catch-and-release is increasingly common, is more frequently associated with the killing and eating of caught fish. Radford *et al* [2007: vi] estimated that 87% of time spent angling in England and Wales is on coarse fishing.

ownership and access. The Esk is known for salmon and sea trout; the Swale and the Ure have both game angling in their upper reaches and extensive coarse angling in their lower reaches.

Angler grouping	Key attributes
Match anglers	<ul style="list-style-type: none"> <li>• Compete against others</li> <li>• Attempt to catch the biggest weight of fish in a given period, so more interested in total weight of fish caught than in individual fish characteristics or species</li> <li>• May be members of local fishing clubs</li> </ul>
Pleasure anglers	<ul style="list-style-type: none"> <li>• Fish mainly for non-competitive enjoyment</li> <li>• Often more concerned with the fishing experience than with particular species of fish</li> <li>• May be members of local fishing clubs</li> </ul>
Specialist anglers	<ul style="list-style-type: none"> <li>• Focus on particular species of fish</li> <li>• Often focus on catching large individual ‘specimen’ or ‘trophy’ fish</li> <li>• May be members of local fishing clubs and/or national organisations such as the Barbel Society and Tenchfishers</li> </ul>

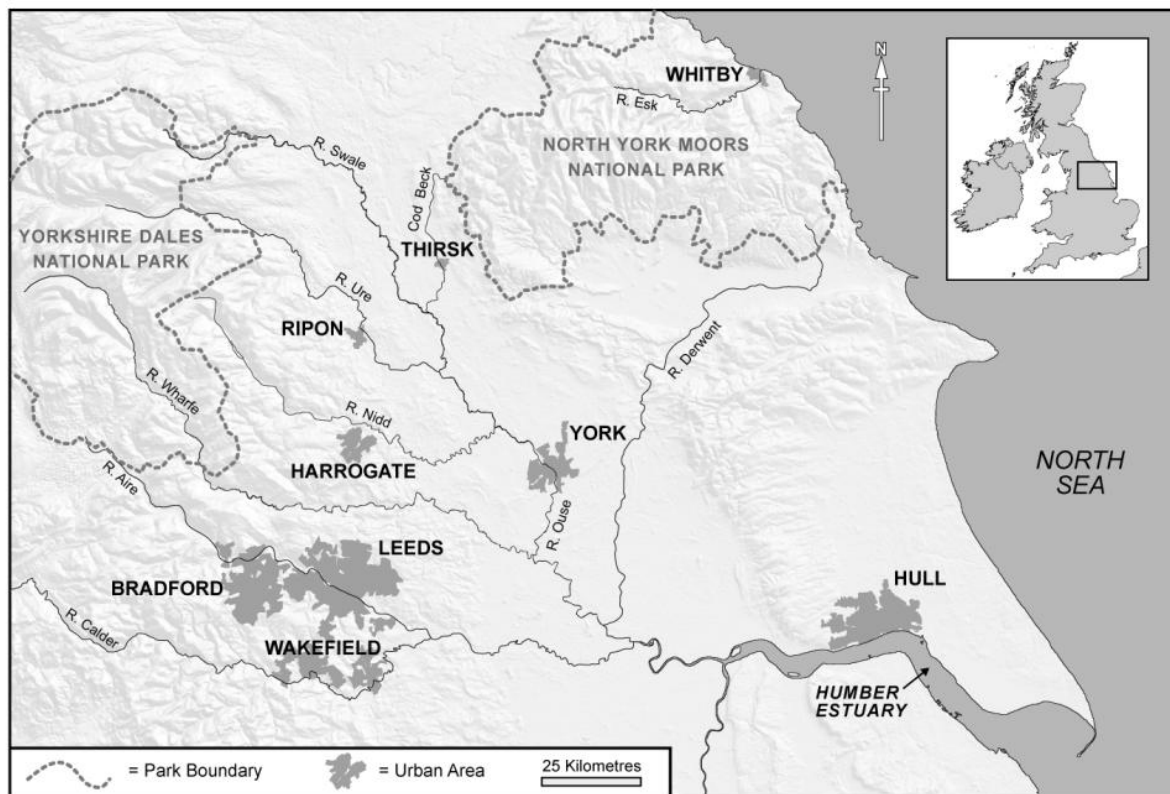
**Table 1:** Typology of anglers, based on descriptions given by participants

Our methodology reflects our interest in the different approaches to, and motives for, fishing. To form our sample, we initially approached clubs that lease or own fishing rights on these rivers and organised two focus groups – one of anglers who regularly fished on the lower Swale for a range of coarse fish, and one of game anglers who regularly fished on the middle Esk. We subsequently conducted semi-structured interviews with 60 anglers in 2006-8, first interviewing some of the anglers from the focus groups in more detail and recruiting further participants by attending matches and other events, by talking to owners and managers of fishing tackle shops, by posting a request on an online fishing forum, and by snowballing.

Except where prevented by poor weather conditions, interviews were digitally recorded, fully transcribed and analysed through thematic coding to saturation using NVIVO 7 qualitative analysis software. Participants have been given pseudonyms.

We do not make any attempts in this paper to ‘think like fish’ ourselves – the purpose is to examine how anglers and fish encounter each other and to consider such ‘co-relationality’ (Johnston 2008: 645) more fully. The logical extension of the arguments we make here would be to examine the ways in which fish make sense of angler difference and similarity. A rich scientific literature already exists on the movements of individual fish (Baade and Fredrich, 1998; Bolland *et al*, 2008; Clough and Ladle, 1997) and the impact of animal predators (Fraser *et al*, 2006). Our methodology here did not directly observe fish behaviour, but it did

encourage anglers to reflect not only on how they approached fish and were affected by fish behaviour, but also on how they perceived their own impact on fish movement and behaviour. While not a truly symmetrical methodology in its treatment of fish and humans, it does adopt a relational perspective, acknowledging that fish are both *affected* and *affective*.



**Figure 1:** major Yorkshire rivers

#### **4. Engaging with fish: generalisations and differentiations**

To deal with the difficulties associated with fish being largely invisible to humans (because they are underwater), many anglers try to ‘think like a fish’ (referred to explicitly by four participants and discussed implicitly by others) in order to catch fish, especially to understand ‘why the fish want to live at a certain point’ (Charles). As noted, much existing work in animal geographies has focused on animal-human relationships on, or above, earth. Here, the spaces inhabited by humans and fish are not only different, as highlighted by Jones (2000), but are clearly demarcated, the transition between water and air emphasised by the water’s reflectiveness and its frequent opaqueness. Anglers, then, are going from their normal, airy environment (and the capabilities and senses they use there) to the normal water environment of the fish (and attempting to engage with their capabilities and senses). While a challenge, it is not, as Scruton (2000) claims, an insurmountable one.

To summarise, anglers face a variety of challenges in their attempts to catch fish: they are attempting to catch creatures that they cannot see; these creatures inhabit very different, and

clearly bounded, lifeworlds to their own; and not all fish behave in the same manner or have the same characteristics. While in other hunting sports, such as deer stalking or grouse shooting, the hunter can see the target animal, anglers often do not know which species or size of fish they will catch until it is actually caught – rather they must practice ‘watercraft’ (Burton, 2008: 127), looking for signs of fish, and making sense of their experiences over time. In this encounter, we want to focus not just on what ‘thinking like a fish’ involves, but on what ‘fish’ the anglers are trying to think like – they may not only be unsure about which fish they are interacting with but even about whether there *are* any fish in the stretch at all.

It is in this potential absence that angling seems at its most distant from Haraway’s focus on beings-in-encounter; a defining feature of many angling trips is the failure to encounter! However, viewed through Deleuze and Guattari’s approach, we might understand angling encounters as not always between ‘individuated animals’ (1988: 240) but involving ‘a multiplicity, a becoming, a population, a tale’ (p. 241). The absence of an individual on a particular occasion, in other words, does not preclude the possibility of an angler’s becoming-fish in the hope of catching.

The next three sections explore how anglers discuss similarities and differences in fish, as part of the process of trying to ‘think like’ – and ultimately become – (a) fish. These various engagements might be understood as different, and frequently overlapping, scales of relationality, where anglers engage with: 1. individual fish; 2. different species of fish; and 3. generic ‘fish’.

#### **4.1 Differentiating between individual fish**

In this section, we look at two ways in which *individual* fish matter to anglers. The first is where the same fish is caught more than once. The second is where anglers deliberately focus their attention on a particular fish. The prized nature of individual fish for anglers is most widely evident in the capture (and sometimes killing) of particularly large ‘trophy’ specimens – stuffed salmon are found mounted on the wall in country hotels and photos in angling magazines frequently show anglers with their prize catch. Parallels between wildlife photography and shooting animals have often been drawn (Ryan, 2000) and similar practices can be identified in contemporary UK angling. But such photos are not merely displays of skill and prowess (cf Brower, 2005) – indeed, many anglers in this study did not publish or display their photos but kept them in private albums. Rather, they may also act as a reference point for future encounters, allowing the angler to compare and identify the *same* fish when re-caught later. Even where the individual fish is not killed but released, the taking of a trophy photograph is part of the individuation process in that it identifies a *distinctively* different fish. For example, Geoff talks of his recognition of a fish he had caught twice over two years:

‘I caught one particular fish and it’ll have a distinctive like a marking or a lesion and I’ve gone two mile up with her and maybe two year later I’ve caught the same fish. Two miles up.’

Where (usually very large) individual fish are particularly distinctive and caught repeatedly, they may be given names. Our participants mentioned a barbel on the Great Ouse called The Traveller (referred to by Barry) and a barbel on the Wharfe called Three Whiskers (which Tim said he had caught twice), the UK Carp Directory (2009) aims to catalogue every named carp in the UK, offering a particularly striking example of photographic capture, and there was widespread national coverage of the death of Benson the carp (BBC, 2009). This recognition of, and association with, individuals, directly contradicts the earlier suggestions of Scruton regarding the alien nature of fish. While not displaying the same levels of intimacy as discussed in studies of livestock-human relations (Convery *et al*, 2005; Holloway, 2001; Wilkie, 2005), or between humans and their pets (Fox, 2006; Haraway, 2008), in their recognition and naming, they appear to be less different from other animals than might be expected.

Further, some anglers are not only aware of, and recognise, individual fish, but may even target individual fish. Two barbel specialists in our sample had a similar approach to their fishing, watching a particular barbel (if the water is sufficiently clear) and trying to learn its habits and movements. Mick explains:

‘I have watched that fish feeding time and time again when I have been trying to catch it, and whereas the majority of barbel will come into the swim and feed for perhaps a couple of minutes, peel away and then come back five or ten minutes later and keep doing that, you can watch big individual fish that you are trying to catch and they sort of conform to a pattern after a while, so you can plot how to try and get them to take your hook bait. When that fish comes into the swim, it just eats non-stop for two hours and then goes.’

Here, watching and accustoming himself to the habits of a particular fish is a process that leads to Mick’s attempts at becoming that fish. Having observed the fish’s habits, Mick then engages with these, feeding it for an extended period, simultaneously accustoming the barbel to his habits, before including a hook with the bait and catching the fish. Bert adopts similar methods, and speaks of the way he ‘spend[s] as much time watching’ the fish as actually fishing for them (again, demonstrating the complexity and heterogeneity of ‘angling’, because others, especially match anglers, do not claim this kind of attention to the individual animal). Here, then, we can begin to see not only how an angler might attempt to become fish (and here a very particular fish) but also how he encourages the fish to become angler: ‘Becoming is always double that which becomes becomes no less than the one that becomes’ (Deleuze and Guattari, 1988: 305).

For specialists, catching barbel in a particular stretch of river over a season involves not only the observation of an individual fish, and engaging with its rhythms, on each fishing expedition, but also knowledge of the number and characteristics of the population of barbel in that stretch, walking the river over an extended period to ‘understand how the behaviour works’ (Bert). These rhythmic engagements and bodily recognitions demonstrate a complex process of becoming-fish for anglers, not simply by imitating the fish but by sharing their

rhythms, engaging with their patterns and encouraging them to adapt to new foods. Deleuze and Guattari (1988: 274) give the example of becoming-dog:

‘Do not imitate a dog, but make your organism enter into composition with *something else* in such a way that the particles emitted from the aggregate thus composed will be canine as a function of the relation of movement and rest, or in molecular proximity, into which they enter’.

We can see a similar composition in this becoming-fish. However, this considerably simplifies the relationship that is taking place. These anglers are not *only* interacting with these individual fish. They have chosen to interact with these particular fish because they are members of a *species* that the anglers find particularly attractive for their fishing. As such, they are more-than-beings-in-encounter; the fish is a multiplicity even in its individuated form: ‘schools, bands, herds, populations...are affects and powers, involutions that grip every animal in a becoming’ (Deleuze and Guattari, 1988: 241). The form of Mick’s encounter with an individual barbel was explicitly informed by his previous encounters with other barbel.

While it is more unusual to take such an interest in the individual fish, it is considerably more common to differentiate between fish on the basis of species. In the next section, we look at how and why anglers differentiate between fish in this way, and how this can lead to different becomings-fish.

#### **4.2 Differentiating between species of fish**

Many angling publications are devoted to particular species of fish – notably barbel (Miller, 1996; *Barbel Fisher*), tench (Church, 2005), trout (Crawford, 2002; *Trout Fisherman*), salmon (Graesser, 1987; Keachie, 1997; *Trout and Salmon*) and carp (Crow, 2006; *Total Carp Magazine*). Anglers’ interest in species is for various reasons, such as the fishing experience they provide, predicting the best ways to catch a fish and the ease of catch. Species, in other words, offers a shorthand for more complex differentiation, because species have particular characteristics beyond bodily appearance that differ from the characteristics of generic ‘fish’. Perhaps the most common differentiation is through physiological characteristics. Craig enjoys fishing for barbel, for instance, because:

‘they really are the hardest fighting fish that you’ll ever catch... they’re built for it, they’re all muscle and their tail and their fins are about twice the size of any other fish, so they really can swim, you know. *[laughs]* They’re far more powerful than salmon or whatever. Yeah, yeah, there’s no comparison.’

Anglers might, then, have a preference for one species over another because of the fight that they can put up. The fight of a fish, however, is not down to strength alone. Some of our participants referred to the differing intelligence of fish. According to Damian:

‘It’s wrong to anthropomorphise, but chub are more intelligent than most other species. I don’t know if intelligence is the word, but barbel are head and shoulders above chub. But barbel are thick by comparison to big chub. They’re clued up.’

The differing intelligence of fish relates to Mick’s observations that ‘by watching what they are doing, you can then adapt what you are doing to try and fool them’; more satisfaction might be found from catching a fish viewed as being more intelligent because of the additional challenge this provides.

A second means of differentiating between species is by sight. While it is often hard to see the fish in the rivers, some anglers identify species by the bubbles they produce. According to Arnold, ‘You can see bubbles. Certain bubbles for carp, certain bubbles for tench.’ Such identification allows anglers to target particular species more precisely.

However, as we showed in the previous section, dealing with fish difference can extend beyond fixed characteristics of size, power and intelligence. Some anglers develop their relational engagements through an understanding of fish rhythmicity and the spawning patterns of particular species:

‘pike usually spawn about May and then they might spawn again in June. I’ve seen it for myself in open season. The first two weeks of June are usually absolutely terrible for fishing. You ask any good river fisherman and he’ll tell you that it’s quite a difficult time. Because they’re either spawning or have just finished spawning or they’re cleaning off’. (Geoff)

Such views are reflected in fishing literature. For example, Figure 2 outlines the feeding habits of five species that are key for coarse anglers. According to this, some species, such as barbel, are more likely to feed in flood conditions, when there is a high sediment load (‘colour’) and are less likely to feed in periods of low flow. Others, such as roach, are likely to respond to food in all conditions. While bigger fish, such as barbel, have the strength to cope with feeding in flood conditions, smaller fish, such as dace, are more likely to seek shelter. In other words, a flood literally changes a fish’s water world, and both the fish and the angler must adapt their habits to suit the new conditions. Extending this argument, floods may be dangerous for anglers, so match and pleasure anglers often avoid the particular space-time of floods. Barbel and bream specialists, however, are often attracted by flood conditions. Like fish, humans therefore adapt and develop with environmental conditions, in order to match the fish’s own time-spaces.

For some anglers, then, fishing becomes a holistic environmental immersion, and both a spatial and temporal practice. In differentiating between species, anglers are not merely watching fish behaviour or imagining desirable bodily, intellectual or behavioural characteristics. Rather, they use these characteristics in an attempt to think like a fish and, in so doing, adapt their own behaviour, becoming-fish. They concurrently engage with the complex spatialities and rhythmicities of river environments, where their relationships with fish are influenced by seasonal and everyday variations in weather.

These two sections have explored some of the ways anglers categorise fish, to address Lulka's (2009) concern about the lack of attention to non-human difference in animal geographies. Here, the differentiation is not merely between warm- and cold-blooded creatures (Whatmore, 2005) but within these categories too, such as differentiation by species. This has been an important classification in the animal geographies literature, although often with reference to public response to species introductions (e.g. Brownlow, 2000) or concern about a particular species being 'out of place' (e.g. Gullo *et al.*, 1998). This paper, though, is about worldly grapplings – the affective *encounters* between individuals in which species remains a tool by which anglers attempt to access and become their prey, even when engaging with a particular individual.

Conditions	Species				
	Chub	Dace	Roach	Barbel	Bream
High and coloured	x	x	✓	✓✓	✓✓
Normal level and coloured	✓	✓	✓✓	✓	✓✓
Normal level, tinge of colour	✓✓	✓✓	✓✓	✓	✓
Normal level and clear	✓	✓	✓✓	✓	x
Low and clear	✓	✓	✓✓	x	x

**Figure 2:** relationship between colour (sediment load) of a river and likelihood of species feeding (Grigorjevs, 2008: 3)

Other anglers are less interested in such classification and ostensibly approach fish as a generic category. We explore this in the next section.

### 4.3 Generic fish

The commonality of the previous two sections – and, indeed, of anglers themselves – is a focus on *fish*. While we have, to this point, emphasised attempts to differentiate between fish, all anglers are unified by their focus on fish (as opposed to mammals, reptiles, amphibians or birds). It is not, therefore, surprising that most anglers talk about 'fish' as shorthand for the creatures they interact with. However, some anglers generalise fish behaviour, aggregating the creatures and putting less emphasis on difference, and it is these anglers we focus on in this section. Previous work on the aggregation of animals has focused on wildlife and resource management (Bear and Eden, 2008; Lulka, 2004), where animals have been grouped by populations or species. Aggregations are also central to the performance of human-animal encounters in everyday recreational situations. In the most extreme cases, our participants talked of the ways in which 'fish' behave, conforming to particular generic patterns of

behaviour that might apply across all species and individuals. Talking about where a fish might choose to rest in a river, Neil suggested:

‘I should imagine it’s just the habit of the fish. Is that the right word, habit? Or its nature – that’s what it does do. Same as a bird picking a nest. It picks its place and I suppose that’s a gift it just has’

Other anglers similarly spoke of where fish were most likely to be found in a river, focusing on an area of the river channel between fast- and slow-moving water, often described by them as a ‘crease’ (also Nudd, 2007). Charles felt that fish are generally likely to be found here because ‘they’re looking for somewhere they can hold in the stream to catch where the supply of food’s coming by that they can get for...least expenditure of energy’. Mike also discussed the role of the crease, stating that:

‘the fish tend to hang about in the creases, because that’s what fish do – they eat! They don’t do anything else. They eat, sleep, if you like – apparently they sleep but I don’t know. But that’s all they do.’

At this level, then, ‘thinking like a fish’ involves thinking like *fish* – they are characterised as having basic attributes and it is not necessary to differentiate beyond these when trying to locate fish in a river. Mike takes this generalisation a stage further, describing fish as ‘animals. All animals are like that, aren’t they? Eat and sleep. And I don’t see why fish wouldn’t be any different.’ These quotations are all characterised by a focus on habit, pattern and repetition. As Mike commented, ‘that’s what fish do’ – their behaviour is typified by predictable habits, observed by anglers over a number of years and corroborated by what they have read in angling literature, seen on angling television programmes, and heard in their discussions with other anglers.

Given the focus of anglers on the likely whereabouts of fish in a river and the connections they make between location and feeding habits, it is not surprising that many of their attempts to think like fish centre on how to present bait, because understanding how bait might move or might be viewed by fish in water was presented as a key skill in angling. Thomas, for instance, discusses the way in which fish cannot be expected to be lured by something distant; rather, it is important to present bait where the fish might expect to find food:

‘you’ve got to think ‘if I’m a fish, I’d be laid there or I could be laid there’ and you’ve got to fish it round to that thing and bring it round so that it’s - you’ve brought it round, you’ve presented it just right for that fish. If it comes past it, if it wants it, it’s going to take it.’

Interviewed on a riverbank while fishing, Arnold gives a similar perspective:

‘Well, you try to think like the fish... if there was food coming down, how’s it coming down? You see? You’ll throw some into the water [*and he throws half a dozen yellowish maggots into the river about two feet out from the bank and we watch them sink slowly in the clear water*], because the faster it takes to go down, maybe you might be fishing there [out in the flow], but you’ve got to chuck your stuff in

there for it to land on the bottom there, because of the flow. Out in the middle, that would go down, so if you chuck that in the middle they wouldn't go down like that [*he gestures straight down in a vertical line*], they go down like that [*he gestures in a 45 degrees declining slope downstream*].'

Here, thinking like a fish involves an imagining of the bait from a fish's perspective, thinking particularly in visual terms. Ernie discussed attending angling shows, where demonstrations were given in tanks to show how bait moves in water, and drew similarities between the presentation of food for fish and humans:

'If somebody just put a spoonful of slop on your plate, it doesn't look very appetising and you'd probably turn your nose up. You get a sad looking bait that doesn't fall through the [water] naturally, you know, leave that alone. It's got to be something that says 'ooh, I wouldn't mind having a go at that.' You know, bit of cake!'

While clearly anthropomorphic, such views should not necessarily be discounted as they represent a form of relationship 'not based on our shared sentience' but 'on our actual relationships', as played out by individual anglers (Johnston, 2008: 646). So while such instances might not represent the 'becoming animal' described in the hunting practices of certain indigenous groups (e.g. Watson and Huntington, 2008; Willerslev, 2004), they do show how recreational fishing is an interactive process of breaking through the apparently impenetrable boundary of water. For the anglers in this section, their understandings of the water environment are almost as significant as their understandings of the fish. Their frequent inability to *see* below the surface of the river, in spite of their adoption of technologies such as Polaroid glasses, is often balanced out by honing their other senses, such as touch (in feeling the shape of the riverbed by dragging a weight across on the end of a fishing line), or by 'reading' the water surface for signs, such as 'creases', of what lies beneath (see Eden and Bear, forthcoming). Through the specific knowledge practices of angling, neither the fish nor the environment in which they live are alien (Jones, 2000) to anglers in the way they might be to non-anglers.

More significantly here, though, it also offers an example of the way that 'fish' are often thought of as an aggregate. Without knowing exactly which fish might be attracted to the bait, the individual fish is, for some anglers, irrelevant. This was discussed by an *Angling Times* writer, who talked about his 'quandary' about which bait to use on the River Thames:

'Chub, bream, perch, roach and even the odd barbel live in this stretch, so picking a species to target wasn't easy. As always, I plumped for a tactic that would keep my options open – the pellet/feeder combo, which has to be the ultimate pleasure angler's approach. I just love getting bites, and as long as they're from better-than-average fish I'm not too fussy what comes along' (Bowler, 2007: 30).

Not all anglers are prepared to generalise to quite the same extent. Despite reference to similar behavioural traits, Charles commented that:

‘You can never actually say that there’s a hard rule of thumb or anything like that. There’s no fixed tablets of stone or anything like that. There’s always the unexpected.’

Here, we have shown some of the ways fish are often thought of (and treated) relatively generically by anglers – a third way by which anglers might become-fish. For these anglers, difference between fish is not ostensibly of interest. Even here, though, they are attempting to tune into particular types of fish behaviour (i.e. feeding) at particular stages of their lifecycles (e.g. when they are not breeding) and their practices are guided by the rhythms and temporalities of fish. Anglers in their becoming-fish are becoming not just ‘fish’ but ‘fish-that-might-be-attracted-to-feed’ and, as such, implicitly acknowledge different ways of being fish.

#### 4.4 Categorical limits

So far, we have shown some of the ways by which anglers emphasise similarities and differences between fish. But a tension remains in the neatness of these categorisations because where quite generic traits are often evident, individual fish can remain unpredictable. As Brown (2007: 28) puts it, ‘there are no firm rules in pike fishing because individual pike will always do what they have to do to survive.’ A barbel specialist, Mike, makes a similar observation, differentiating not only by species, but also by age and size, relating these characteristics to intelligence, power and strength:

‘The smaller fish – smaller, usually up to about 8-9lb, the teenagers – they’re the sprinters. You know, like we are between sort of 16 and 25. They’re the ones. They sprint, they go like hell everywhere. The bigger fish, the older ones, they’ve got a bit more up top. A bit more up in their head, because they tend to slug it out a lot more.’

Although more specific than the species, Mike’s differentiation is still by *groupings* of fish. So while species provides a useful shorthand, some anglers add further layers of differentiation, finding that one form of categorisation is insufficient as they attempt to simulate and track the behaviour, movements and rhythms of fish. So the divisions that we have drawn between engaging individuals and engaging with categorisations are blurred and some anglers put greater emphasis on the individual fish than others.

Similar tensions are explored by Deleuze and Guatarri (1988: 244), who argue that it is ‘always with the Anomalous...that one enters into alliance to become-animal’. Their ‘anomalous is neither an individual nor a species...but a phenomenon of bordering’ (p. 245). Understood through this rhizomatic ontology, the fish that anglers become is never *only* an individual, nor a species or genus – these categories are overlapping and fluid. This perspective is attractive as it captures the impossibility of knowing the characteristics of a fish the angler cannot see; the becoming involves a multiplicity of past encounters, ideas from angling literature and conversations with other anglers – an ‘arrangement of affects’ (Malabou, 1996: 128). It highlights, therefore, that becoming-fish is not merely the

relationship between two individuals. In contrast, Haraway (2008: 298) focuses on entanglements between companion species and has considerably less to say on how hunters make sense of and engage with the hunted, merely commenting that ‘adept hunters’ treat their prey ‘like wily animals with lives of their own’. Quite *how* they treat them like wily animals is less clear. While the notion of the Anomalous might appear too abstract for Haraway’s liking, we argue that angling encounters do not always begin with ‘actual animals’ (Haraway, 2008: 27); they begin with an arrangement of affects, sometimes leading to engagement with actual animals which may also be affective in future encounters. As such, the concept denies the possibility of an unchanging, predictable encounter and shows that the approaches to becoming-fish we have outlined here are not separated or internally coherent, but fluid and imperfect.

## **5. Human and non-human difference: angling as co-produced**

In spite of our criticisms of practices within animal geography, we have focused almost exclusively so far on the understandings and meanings anglers attach to fish. But angling is a more-than-representational affective relationship between fish and angler. Indeed, Deleuze and Guattari (1988: 305) argue that ‘becoming is always double, that which one becomes becomes no less than the one that becomes’. Clearly, an angler has to follow the movements of a fish to catch successfully and a fish may or may not respond to an angling attempt. In a similar way to Callon’s (1986) scallops, some fish may refuse to respond in the way that technology and expert advice predict. Anglers therefore also ponder whether fish might learn to avoid particular baits or approaches:

‘I think they just take the Mickey out of you when you’re fishing - eat the worms and you don’t actually catch anything! Whether they’re getting wise, I don’t know’ (Tom)

‘The fish know where the fishermen are, so they go where the fishermen aren’t’ (Bert).

Anglers often also see the ability of fish to actively avoid being caught as a particularly pleasurable and challenging aspect of fishing on rivers. So fish agency and their particular nonhuman skills and abilities are not problems for anglers, but part of angling fun and its challenge as a sport of encounter:

‘the fish aren’t daft. They know their territory and they know where these places are and they know how to get away from you, you know. It’s more us against them’ (Christine)

Other anglers discussed the ways in which fish habits had changed over time – a result, they felt, of their awareness of angler behaviour. Here, Steve discusses the way carp have changed their feeding time from day to night:

‘to get the carp on [the Trent] you used to have to fish on the night, which most of the match anglers and the general anglers don’t do. And what I found was that the fish

weren't feeding during the day because they were being pressured by all the anglers, so they'd wait till it was dark and they'd feed all night and there was so many fish in that river that you couldn't get a bait down to them. It was horrendously full of fish'.

As well as where and when they feed, fish can choose what they feed on. One influence on this is the existence of a statutory fishing season in England and Wales. This prohibits coarse angling between 15<sup>th</sup> March and 15<sup>th</sup> June. Damian spoke of the difficulties in 'educating' fish to respond to anglers' baits in June, at the start of the legal angling season. He finds that, when the season ends:

'they start going back to foraging for natural food, and pretty quickly, so it would then be hard to educate them back on. You could start fishing, say, in June...and not really start to catch till August. But the fish were there all the time, but they just weren't used to being fished for with bait'

The habits of anglers and fish, then, change relationally: the attitude of fish to bait may change during a season, hence anglers must also adapt their tactics during a season. Similarly, Hayes (2008: 28) suggested barbel are 'growing wary of pellets fished on the hook', as this has become the most common tactic. Taylor (2008: 38) comments that 'bream have now got a taste for' the bait that anglers have used to target barbel and carp, while 'traditional baits almost seem to have lost their effectiveness for this species', justifying the constant commercial development of new baits.

We might view the fish as becoming-human, through their negotiation of angler rhythms and practices. 'Thinking like a fish' is thus reflexive, where anglers think about how *they* might be viewed by fish and emphasise that fish can *adapt* to the changing rhythms of anglers. From this perspective, as the water environment becomes less 'alien' for anglers, so perhaps the airy world above water becomes part of the living space of fish, so that the spatial dichotomy of familiar and alien appears increasingly redundant.

## 6. Conclusions

In this paper, we have shown some of the ways through which anglers endeavour to become-fish. While their discussions of attempts to 'think like a fish' suggest practices of imitation, their engagements with fish rhythmicities resemble more closely Deleuze and Guattari's notion of becoming. Anglers who focus on individual fish are primarily concerned with the behaviour of the creature during the time they interact with it, but anglers who approach fish as a generic grouping are more concerned with patterns that they have seen repeated seasonally and annually. Through focusing upon differentiating both anglers and fish, we have attempted to move beyond over-simplified versions of 'animal' in geography, negotiating a path between Deleuze and Guattari's monstrous becomings and Haraway's more worldly or earthy grapplings. In doing so, we have engaged with the everyday (but not necessarily at all mundane) attempts of anglers to think like fish, attempts that are frequently ambiguous.

This ambiguity renders Haraway's call to study 'actual animals' (2008: 27) problematic. The empirical research we have presented in this paper is very much concerned with actual animals, but the anglers 'learn to be worldly' through a diversity of individual interactions and generalizations. Their becoming-fish, in other words, develops through their history of angling experiences, their classificatory practices and their specific interactions with individuals.

Our focus on becoming has emphasised the transformative nature of angling, concurring with Haraway's view that humans become through being with other species. However, our work suggests that greater attention needs to be paid to the *diversity* of these species (and, importantly, other individuations and groupings) and the variety of encounters that result. Our focus on angling practices has highlighted the tendency in existing literature to aggregate 'humans' and 'animals' in human-animal relationships. Here, we have begun to extend Lulka's (2009) arguments by showing some of the ways in which *difference matters*: anglers do not merely engage with 'fish' but with various aggregations and with individual fish, each of which might be expected to behave differently in different circumstances. The question mark in the paper's title is, therefore, key: there is ambiguity in the singularity or plurality of the 'fish' with which anglers interact. In attending to human-fish relationships, we have addressed a considerable gap in the existing literature, which has sidelined such 'alien' creatures in favour of a focus on (most frequently) pets and livestock. We have demonstrated here that anglers do not see the cold blood or scaly bodies of fish as alien or as a barrier to attempting to understand and, to an extent, empathise with them.

Our work also differs from the majority of existing studies on human-animal relations, which has tended to focus on sustained relationships in domestic and livelihood contexts. In angling, interactions might be intermittent and fleeting, rather than everyday and sustained. This does not negate the possibility of 'relationships of intimacy' (Johnston, 2008: 645) between anglers and fish, even though these might appear quite different to the relations between a pet and its owner, or cattle and a herdsman. The recreational nature of angling still frequently involves an engagement with the rhythmicity of fish, developing an understanding of habits and patterns at varying scales, from individual to species (and even genus) and through years of fishing or of observing a particular fish for just a few hours.

We have shown some of the ways in which space and time are central to the ways co-relationality develops. Specifically, the water space inhabited by fish provides a challenge to anglers that leads to different ways of thinking about – or like – fish. In many instances, anglers are attempting to become-fish that they cannot see, relying on senses beyond sight to inform their encounters. In this way, anglers, possibly unlike many other humans, do not draw sharp distinctions between water environments and the "“airy” spaces that we humans inhabit' (Jones, 2000: 286), instead devising new means of engagement that simultaneously reduce the 'alien' characteristics of fish. This is emblematic of Haraway's (2008: 3) call to 'learn to be worldly from grappling with': through particular knowledge practices, such as angling, the apparently distant and different can become close and familiar. Matless *et al* (2005: 192) referred to water, soil and air as 'other spaces' but we have problematised this assumption and suggest that further work could usefully explore co-relationality in such

spaces. This grappling may not solely involve angling itself, but wider fishery management practices, from stocking to culling predators, practices through which anglers are often deeply involved in physically changing the ecology of rivers.

It is important to note finally that any attempt by anglers to think like a fish is, ultimately, a futile task. By becoming-fish, anglers are, as Deleuze and Guattari (1988: 29) put it, ‘fully a part of the crowd and at the same time completely outside it, removed from it’; they are ‘on the edge’. The possibility of becoming-fish, alongside the impossibility of actually thinking like a fish, is what provides a continuing challenge and pleasure for anglers.

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