

Maturity and Methodology: Starting a Debate about Environmental Law Scholarship[†]

Elizabeth Fisher,* Bettina Lange,**
Eloise Scotford*** and Cinnamon Carlarne****

Abstract

Many environmental law scholars perceive environmental law scholarship as immature. We discuss why this self-perception has arisen and argue that a common theme is methodology. We argue that the subject can only mature when we face its methodological challenges head on, and we identify four particular issues that have given rise to these challenges: the speed and scale of legal/regulatory change, the interdisciplinary nature of the subject, the heavy reliance in environmental law on a diverse range of governance arrangements and the multi-jurisdictional nature of the subject. We argue that there is a need for debate in the face of these challenges and identify some starting points for that debate.

Keywords: environmental law scholarship, methodology, interdisciplinarity, environmental governance

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*Reader in Environmental Law, Corpus Christi College, University of Oxford, (liz.fisher@law.ox.ac.uk).

**University Lecturer in Law and Regulation, Centre for Socio Legal Studies, University of Oxford.

***Career Development Fellow in Environmental Law, Faculty of Law, University of Oxford.

****Assistant Professor, School of Law, University of South Carolina.

Let us be frank. According to environmental law scholars, environmental law as an academic discipline has spent the last 20 years coming of age.¹ The maturing of it as a scholarly enterprise has been eagerly awaited and predicted but adulthood has never arrived. Environmental law scholars still perceive that the best is yet to come.

The stubborn persistence of this perception of enduring immaturity signifies the need for environmental lawyers to take a harder look at, and talk more about, what they do, how they do it and why they do it. We see the need for an explicit and honest debate about the state of environmental law scholarship. To get that discussion going we put forward a very simple argument—environmental law scholarship can only come of age when scholars face the methodological challenges of environmental law research head on. This is because a lack of explicit and widespread discussion about methodology in environmental law scholarship has hampered the academic development of the subject and threatened the worth of environmental law as an intellectual discipline.

We can think of no better place to start a discussion about environmental law scholarship than in the *Journal of Environmental Law*. We know that what we have to say is controversial and provocative. As authors we are not arguing from any privileged position and we seek to avoid disciplinary imperialism.² We comprise a diverse group that includes an international environmental scholar, a socio-legal scholar, a regulatory/doctrinal scholar and a comparative/interdisciplinary scholar. In other words, we are, methodologically and intellectually, a profoundly divergent group of environmental law researchers. Yet, with that said, there is a striking convergence amongst our views as to the problems facing environmental law scholars.

The structure of this article is as follows. First, we briefly consider what is covered by the term 'environmental law scholarship'. Second, we examine why there has been an ongoing perception that environmental law scholarship is 'immature' as an academic discipline and how that perception reflects a questioning of the legitimacy of environmental law as an academic discipline. We identify four particular features of environmental law that have contributed to this state of affairs: its intellectual incoherence, the 'marginal' nature of the subject as an area of academic study, the poor quality of some

- 1 The language of imminent maturity pervades environmental law scholarship. See D Tarlock, 'Is There Any There There in Environmental Law?' (2004) 19 *Journal of Land Use and Environmental Law* 213; C Rose, 'Environmental Law Grows Up (More or Less) and What Science Can Do to Help' (2005) 9 *Lewis and Clark Law Review* 273; T Jewell and C Reid, 'Environmental Law' in D Hayton (ed) *Law's Future(s): British Legal Developments in the 21st Century* (Hart Publishing, Oxford 2000) 209; P Ryan, 'Did We? Should We? Revisiting the 70s' *Environmental Law Challenge in NSW* (2001) 18 *Environmental and Planning Law Journal* 561; D Driesen, 'Thirty Years of International Environmental Law: A Retrospective and Plea for Reinvigoration' (2003) 30 *Syracuse J Int L and Commerce* 353.
- 2 D Rhode, 'Legal Scholarship' (2002) 115 *Harvard L Rev* 1327.

environmental law scholarship and the sheer difficulty of doing environmental law scholarship.

In the third section, we argue that discussions about immaturity are really discussions about the complex methodological challenges of the subject. A focus on these challenges provides a constructive starting point for a debate about environmental law scholarship. As catalysts for this debate, we identify four different overarching methodological challenges: dealing with the speed and scale of legal/regulatory change, engaging with the interdisciplinary nature of the subject, addressing the heavy reliance in environmental law on a diverse range of governance arrangements and tackling the multi-jurisdictional nature of the subject.

In the final section we identify five steps that environmental law scholars should consider taking in order to address these challenges: reflecting on the relationship between choice of method and research questions asked, mapping the subject, engaging with more general debates over legal methodology (including socio-legal methodology), getting to grips with interdisciplinarity and having a more explicit debate about how to assess the quality of environmental law scholarship. In identifying these steps we do not aim to provide a definitive 'how to' guide for environmental law scholarship; in fact, we seek to avoid being prescriptive, since there are no magic methodological formulas or solutions for environmental law scholars. Rather, we wish to initiate a widespread and critical discourse about how environmental law scholars can produce methodologically rigorous scholarship. Such a discourse is needed for environmental law scholarship to mature as a scholarly enterprise.

Three points should be made before starting. First, the starting point for this article is not how other legal and non-legal scholars perceive environmental law scholarship. Rather, our starting point is the harsh and critical way in which environmental law scholars perceive environmental law scholarship and themselves. Second, our general focus is upon UK/EU and international environmental law scholarship, although we also do refer to Commonwealth and US literature due to the fact that the boundaries between these bodies of scholarship are porous. Third, our focus on environmental law scholarship does not discount the fact that similar debates are going on in other sub-disciplines of law and law more generally. The issues discussed in this article are similarly difficult and confronting for legal scholars in other areas of legal scholarship.³ The importance of these common challenges is illustrated in Section 4.3.

3 B Cheffins, 'The Trajectory of (Corporate Law) Scholarship' (2004) 63 CLJ 456; Rhode (n 2); Special Issue on Legal Scholarship, 63 University of Colorado Law Review 521–750 (1992); 'Special Issue - Legal Scholarship in the Modern World' 50 MLR 673–854 (1987); J Shaw, 'European Union Legal Studies in Crisis? Towards a New Dynamic' (1996) 16 OJLS 231.

1. Defining Environmental Law Scholarship

Before proceeding further it is important to define environmental law scholarship. Such an exercise is not semantic pedantry on our part. By defining the subject we want to make very clear what we are doing and not doing in writing this article.

Environmental law scholarship is a subset of legal scholarship. Legal scholarship is a pluralistic enterprise and there is a multitude of disciplinary approaches to the study of law.⁴ Any definition of 'legal scholarship' or 'environmental law scholarship' that does not recognise this fact is fundamentally problematic. For this reason, a starting point for thinking about environmental law scholarship must be a broad definition of legal scholarship. Feldman has defined legal scholarship in the following terms:

I define scholarship as *action* informed by a distinctive *attitude of mind* . . . *Legal scholarship* is a conception which results from the application of the concept of scholarship to the special kinds of problems that are discovered in the study of laws and legal systems.⁵

Those 'special kinds of problems' may vary with subject matter, research aim and disciplinary outlook. Those problems may not necessarily all be legal but the focus for analysis is the law, whether it is a focus on reasoning internal to the law or on law in context. In terms of research aim, scholarship may be undertaken for many different purposes, including addressing practical, policy and/or legal questions, informing law reform, classifying and systematising the law or undertaking an exercise in more open-ended intellectual exploration. For Feldman *all* of this scholarship amounts to scholarship if scholars working in a certain field are

guided by certain ideals, which distinguishes scholarship both from the single-minded pursuit of an end and from dilettantism.

The ideals include: (1) a commitment to employing methods of investigation and analysis best suited to satisfying that curiosity; (2) self-conscious and reflective open-mindedness, so that one does not assume the desired result and adopt procedures to verify it, or even pervert one's material to support a chosen conclusion; and (3) the desire to publish the work for the illumination of students, fellow scholars or the general public and enable others to evaluate and criticise it.⁶

4 D Feldman, 'The Nature of Legal Scholarship' (1989) 52 MLR 498; Rhode (n 3), 1329; M Dan-Cohen, 'Listeners and Eavesdroppers: Substantive Legal Theory and Its Audience' (1992) 63 Univ Colorado L Rev 569.

5 Feldman (n 4), 502.

6 Ibid 503.

Feldman's point is that the defining feature of legal 'scholarship' is that it is a product of scholars striving to realise certain 'ideals' in relation to intellectual endeavour.

Environmental law scholarship is scholarship predicated on the above ideals and addresses the 'special kinds of problems' that are discovered in the study of laws and legal systems that relate to the environment. Scholars have consistently highlighted the complex nature of those problems⁷ and, as we shall see, those problems include methodological issues.

There are two important points to note from this definition. First, environmental law scholarship may take many forms. Thus, for example, it may be socio-legal, doctrinal or jurisprudential. The mark of good environmental law scholarship is not that it deploys a *particular* method but that it must deploy *some thought-out* method. Moreover, it must seek to avoid being a 'resolutely single-minded pursuit of an end' or mere 'dilettantism'.

Second, while environmental law scholarship is an aspect of environmental law as a subject, they are not equivalent concepts. The academic discipline of environmental law, and the scholarship that characterises it, is different from the identity of environmental law as a whole subject, which also includes the contributions of legislators, administrators and practitioners, amongst others. Thus, the success and quality of environmental law scholarship is not directly dependent on the success of environmental law as a body of law in achieving certain outcomes or promoting certain values.⁸ These two issues are often conflated and, while we accept they are interrelated, the failure to differentiate has not helped in encouraging clear thinking about either environmental law scholarship or environmental law itself. In particular, it has meant that environmental law scholars have focused too much on the state of the environment and the law and too little on what they are doing. Rhode makes the point well in discussing legal scholarship more generally.

We reflect endlessly on the deficiencies of other participants in the legal culture – judges, legislators, lawyers, and government officials – but rarely devote similar attention to our own inadequacies. On the relatively infrequent occasions like this one, when we are explicitly invited to discuss legal scholarship, we seldom focus on the structural sources of the problems that we identify.⁹

With regard to environmental law scholarship, this has meant that, while the discipline is understood to be in a problematic state, the focus has tended to

7 Jewell and Reid (n 1); Rose (n 1).

8 R Lazarus, 'Judging Environmental Law' (2004) 18 *Tulane Env'tl L J* 201; D Wilkinson, 'Using Environmental Ethics to Create Ecological Law' in J Holder and D McGillivray (eds) *Locality and Identity: Environmental Issues in Law and Society* (Ashgate Dartmouth, Aldershot 1999).

9 Rhode (n 2), 1327.

be on the law and on other legal actors.¹⁰ This article adopts a different focus by putting environmental law scholarship itself under scrutiny. We are looking at the ‘structural sources’ of our scholarly problems, and not legal solutions to environmental problems.

2. Why Environmental Law Scholarship Is Perceived as ‘Immature’

It is an uncontroversial fact that most environmental law scholars wish to produce great legal scholarship. It is also the case that many environmental law scholars have produced great legal scholarship—evidenced by the prizes that environmental law scholarship has won, the pre-eminence of those who have published environmental law scholarship and the fact that environmental law scholars have posts in a diverse array of law faculties. Despite these successes, there still exists considerable intellectual self-doubt amongst environmental law scholars over the maturity—and, thus, perceived scholarly ‘worthiness’—of environmental law scholarship.¹¹

Indeed, there is a strongly held belief amongst environmental law scholars that the subject has not yet come of age as an area of legal scholarship and that the best is yet to come.¹² To put it bluntly—environmental law scholarship is characterised as immature.¹³ Moreover, these perceptions have not shifted in over two decades.¹⁴ Indeed, for environmental law scholars, environmental law scholarship seems to be like the Peter Pan of legal scholarship—‘the discipline that never grew up’.

This lack of maturity may have its positive attributes (see Section 2.2 below), but for many scholars it means that the scholarly worth and legitimacy of environmental law scholarship is not yet fully established.¹⁵ Since the subject

10 Lazarus (n 8); H Woolf, ‘Are the Judiciary Environmentally Myopic?’ (1992) 3 JEL 1; Ryan (n 1).

11 See, above n 1; L Kramer, ‘The Environment and the Ten Commandments’ (2008) 20 JEL 5.

12 C Hilson, ‘Editor’s Foreword’ (2008) 20 JEL 1; R Macrory, ‘Standards, Legitimacy and the Law – the New Environmental Agenda’ (2001) 18 Environmental and Planning Law Journal 242; G Winter, ‘Perspectives for Environmental Law – Struggling for Sustained Humanity’ (2008) 20 JEL 11.

13 This idea of maturity is comparable to that of Lakatos’ in relation to discussing the development of scientific disciplines: I Lakatos, ‘Falsification and the Methodology of Scientific Research Programmes’ in I Lakatos and A Musgrave (eds) *Criticism and the Growth of Science* (Cambridge University Press, Cambridge 1974).

14 W Howarth, ‘Water Pollution: Improving the Legal Controls in Retrospect’ (2008) 20 JEL 3; Kramer (n 11); O Lomas, ‘Predicting the Unpredictable’ (2008) 20 JEL 7; C Miller, ‘Has Environmental Law Become Humdrum?’ (2008) 20 JEL 8; Winter (n 12).

15 See, above n 1; Z Plater, ‘Environmental Law and the Three Economies: Navigating a Sprawling Field of Study, Practice, and Societal Governance in Which Everything is Connected to Everything Else’ (1999) 23 Harv Env’tl L Rev 359; V Wagner and A Holbey, ‘Environmental Law – A Global System of Law’ (1999) 10 International Company and Commercial Law

has not come of age, the knowledge claims of environmental law scholarship are not fully recognised.

There are many different reasons why the immature image of environmental law scholarship persists. Four are particularly significant: the intellectual incoherence of environmental law as a subject, the perceived marginality of environmental law scholarship in the legal academy, the poor quality of some environmental law scholarship and the sheer difficulty of carrying out environmental law scholarship. An analysis of each of these reasons exposes what underlies the image of environmental law as immature.

2.1 *Intellectual Incoherence of the Subject*

The first reason why environmental law scholars perceive their discipline to be immature is that environmental law, as a subject, is incoherent.¹⁶ Incoherence here means that the subject has no single guiding logic, no overarching doctrinal framework or no 'constitutional' grounding. Thus, for example, Westbrook notes

Despite being a burgeoning area of practice, environmental law is not a discipline, because it lacks the professional consensus on a coherent internal organization of materials a discipline requires. The field's intellectual incoherence makes teaching environmental law difficult, and gives rise to widespread frustration among professors and students.¹⁷

This view is echoed by others. Environmental law, as a subject, is ad hoc,¹⁸ a conceptual hybrid,¹⁹ straddling many fault lines,²⁰ and presumed to have no philosophical underpinnings.²¹ It is a sprawl and that means environmental law courses tend to be superficial surveys.²²

The reasons given by scholars for the subject's incoherence vary. For some scholars this incoherence is due to the narrow focus of practitioners—the

Review 239; A Philippopoulos-Mihalopoulos, *Absent Environments: Theorising Environmental Law and the City* (Routledge-Cavendish, Abingdon 2007) 25; C Reid, 'Environmental Law: Shifting Through the Rubbish' (1998) *Juridical Review* 236–54.

16 D Tarlock, 'The Future of Environmental Law "Rule of Law" Litigation' (2002) 19 *Pace Environmental Law Review* 575; Plater (n 15), 359 and 374; R Macrory, 'Editor's Foreword' (2006) 18 *JEL* 1; Tarlock (n 1), 218.

17 D Westbrook, 'Liberal Environmental Jurisprudence' (1994) 27 *UC Davis L Rev* 619–21.

18 J McDoldowney and S McDoldowney, *Environmental Law and Regulation* (Blackstone Press, London 2001) 8–9.

19 M Stallworthy, *Understanding Environmental Law* (Sweet and Maxwell, London 2008) 4.

20 L Heinzerling, 'The Environment' in P Cane and M Tushnet (eds) *The Oxford Handbook of Legal Studies* (OUP, Oxford 2003) 703.

21 S Coyle and K Morrow, *The Philosophical Foundations of Environmental Law: Property, Rights and Nature* (Hart Publishing, Oxford 2004) 1.

22 Plater (n 15), 361.

practical anxieties of this group, and the speed of legal change undermine the development of intellectual coherence and thus hamper scholarly maturity.²³ For others, it is part of the historical reality of the subject²⁴ and, for others again, it is due to the failure of environmental law scholars to identify the conceptual basis of their subject.²⁵ Finally, some scholars find that the subject's incoherence stems from environmental law's operation in an 'unsustainable society' that is at odds with green legal theory.²⁶ The subject's incoherence as a body of law is thus viewed as the discipline's scholarly incoherence.

But many scholars have sought to address this incoherence, for instance by identifying an overarching intellectual paradigm for the subject.²⁷ The presumption is that once a paradigm is adopted, the subject will have 'grown up'. Such a paradigm often takes the form of a grand narrative, a set of common 'principles' or a single purpose for the subject.²⁸ The problem is that such efforts tend to deny both the complex reality of the subject and the importance of plurality of legal scholarship. Likewise, much ink has been spilled attempting to define the boundaries of the subject as if this exercise will bring with it intellectual coherence.²⁹ Despite the effort, no definitive definition of the subject has been forthcoming.³⁰

As we will discuss below, we think that environmental law's incoherence is real but that it does not determine the immaturity of environmental law scholarship. However, many environmental law scholars do see it as a sign of the immaturity of their discipline and the fact that environmental law scholarship has not come of age. This perception arises not simply from self-doubt but from a conflation of the complexities of environmental law *as a subject* and the quality of the *scholarship* that environmental lawyers create in relation to their subject. The incoherence of environmental law is not something that must (or can) be tamed by the intellectual efforts of environmental law scholars; rather it is the acceptance of that incoherence, and its methodological treatment, that marks mature environmental law scholarship.

23 Ibid 364; Howarth (n 14), 3; Kramer (n 11), 5; D Farber, 'Foreword' (2005) 32 *Ecol L Q* 383–6.

24 Heinzerling (n 20), 703–4; McEldowney and McEldowney (n 18), 7–9; Woolf (n 10).

25 Philippopoulos-Mihalopoulos (n 15), 25; E Freyfogle, 'Five Paths of Environmental Scholarship' (2000) *Univ Illinois L Rev* 115; Coyle and Morrow (n 21).

26 M McGonigle and P Ramsay, 'Greening Environmental Law: From Sectoral Reform to Systemic Re-Formation' (2004) 14 *Journal of Environmental Law and Practice* 333–52; A Flournoy, 'In Search Of an Environmental Ethic' (2003) 28 *Colum J Envtl L* 63; Wilkinson (n 8).

27 Plater (n 15); Tarlock (n 1); Coyle and Morrow (n 21).

28 N de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (OUP, Oxford 2002); Freyfogle (n 25).

29 D Wilkinson, *Environment and the Law* (Routledge, London 2002) 40.

30 Stallworthy (n 19), ch 1.

2.2 Perceived Marginality of Environmental Law Scholarship

Second, environmental law is perceived to be immature by environmental law scholars in the sense that it is seen, as an academic discipline, as marginal to mainstream legal scholarship. This perceived marginality has four interrelated aspects that reflect both positively and negatively on the scholarly identity of environmental law. They are grounded in both pure perception and hard facts.

First, environmental law scholarship is perceived to be marginal in that it is a small area of academic study compared with other areas of legal scholarship. There is some evidence of this. Those who cite environmental law as a research interest in academic directories and on law faculty websites are fewer than those who cite interests in other 'applied' areas of legal research, such as family law, medical law, labour law and human rights.³¹ Furthermore, environmental law has remained a relatively small option in UK law schools.³² A low number of scholars working in an area does not mean that the area is marginal. In relation to environmental law scholarship, however, the small size of the scholarly community has promoted that assumption, particularly because of the second aspect of perceived marginality—the disconnection between mainstream legal and environmental law scholarship. This disconnection concerns the practical context in which environmental law scholars are operating. Within the UK at least, demand for environmental law teaching comes from a significant number of non-law students.³³ Likewise, environmental lawyers often find themselves writing simultaneously for lawyers and non-lawyers³⁴—an activity which does not place them at the core of the scholarly legal academy. This disconnection of environmental law scholarship from mainstream scholarship is furthered by the fact that non-lawyers also write about environmental law.³⁵

The third reason for perceived marginality can be related back to the radical roots of the subject in alternative politics and the new social movements.³⁶ Much early environmental law scholarship was grounded in radical challenges

31 A rough survey of the 2007/8 Society of Legal Scholars Directory shows that 111 Ordinary Members listed environmental law as a special interest compared with those listing interests in other representative 'applied' legal subjects; 121 listing labour law; 136 listing family law and 141 listing medical law. A slightly different picture emerges from a rough survey of declarations of academic interests in individual staff profiles from UK universities Websites. One hundred twenty-one academics listed environmental law as a special interest compared with 87 listing labour law; 123 listing family law and 133 listing medical law.

32 S Bell and others, *Teaching Environmental Law* (UK Centre for Legal Education, Coventry 2003) stating that 57% of environmental law courses had fewer than 25 students in them.

33 *Ibid.* 8.

34 McEldowney and McEldowney (n 18); Wilkinson (n 29).

35 S Beder, *Environmental Principles and Policies: An Interdisciplinary Introduction* (Earthscan, London 2006).

36 T Bonyhady, *Places Worth Keeping: Conservationists, Politics and the Law* (Allen & Unwin, St Leonards 1993).

to mainstream legal and political ideas, which failed to encompass and/or recognise the issues of importance to environmental law scholars.³⁷ The 'marginality' of the subject was thus deliberate and marginality is thus a virtue of environmental law scholarship—the lack of maturity a sign that environmental law scholars have not narrowed their intellectual field of vision. Indeed, recognition by the mainstream brings with it the threat of assimilation and, thus, the loss of what is of intellectual value in environmental law scholarship.³⁸

The fourth aspect of the perceived marginality of environmental law scholarship derives from the fact that, compared with other applied subjects, there seem to be relatively few articles of environmental law scholarship published in mainstream legal journals.³⁹ This lack of mainstream placement provides yet another sign for environmental law scholars of the marginality of their subject.

Table 1 illustrates that there are few environmental law articles published in some mainstream legal journals as compared with other applied legal subjects. The table compares the number of articles (excluding book reviews and short notes) published on environmental law (including associated areas of health risk regulation) with the number published in four other applied legal subjects in 11 mainstream English language journals published in the EU and UK between 2000 and 2007. As the boundaries of any legal subject are difficult to define, each applied subject has been defined broadly and these numbers should only be taken as rough guides.

Overall, there are fewer articles concerning environmental law than concerning other legal topics. In particular, it can be seen that there is relatively little environmental law scholarship published in law journals with a national or socio-legal focus. The latter is surprising considering that some of the ground breaking socio-legal work has been in the environmental area.⁴⁰ The situation is different, however, in journals with a European or international law focus. These journals publish a comparatively large body of environmental law scholarship relative to the other topics.

37 C Stone, 'Should Trees Have Standing?: Towards Legal Rights for Natural Objects' (1972) 45 *South Calif L Rev* 450.

38 Tarlock (n 1), 230; on a related point, T Jewell, 'Public Law and the Environment: The Prospects for Decision-Making' in T Jewell and J Steele (eds) *Law in Environmental Decision-Making: National, European and International Perspectives* (Clarendon Press, Oxford 1998) 79–80.

39 R Lazarus, 'Environmental Scholarship and the Harvard Difference' (1999) 23 *Harv Envtl L Rev* 327.

40 B Hutter, 'Socio-legal Perspectives on Environmental Law: An Overview' in B Hutter (ed.) *A Reader in Environmental Law* (OUP, Oxford 1999); K Hawkins, *Environment and Enforcement* (OUP, Oxford 1984); G Richardson, A Ogus and P Burrows, *Policing Pollution: A Study of Regulation and Enforcement* (Clarendon Press, Oxford 1982).

Table 1. Academic articles organised by topic published between 2000 and 2007

Journal	Environmental law	Medical law	Family law	Labour law	Human rights
Generalist Academic Law Journals					
<i>Law Quarterly Review</i>	4	11	17	10	32
<i>Legal Studies</i>	6	15	9	1	15
<i>Oxford Journal of Legal Studies</i>	5	8	2	3	8
<i>Cambridge Law Journal</i>	7	17	16	6	47
<i>Modern Law Review</i>	5	21	12	13	22
<i>Journal of Law and Society</i>	5	8	6	12	17
<i>Social and Legal Studies</i>	4	14	11	2	12
Subtotal	36	94	73	47	153
International Law and Comparative Law Journals					
<i>European Law Journal</i>	8	5	2	11	15
<i>European Law Review</i>	14	4	10	24	49
<i>European Journal of International Law</i>	14	0	0	4	33
<i>International Comparative Law Quarterly</i>	16	1	9	1	31
Subtotal	52	10	21	40	128
Overall total	88	104	94	87	281

While this table crudely reflects the marginality of environmental law scholarship, it does not explain why few environmental law articles are being published in mainstream UK legal journals. It is not simply that these figures do not reveal how many environmental law articles were submitted to these journals, how many were rejected, the basis of rejection or the ratio of submissions to rejections in other applied fields. More importantly, these figures also do not reveal the thought processes of environmental law scholars in deciding whether to submit articles to particular journals and even why they chose to write on particular topics. Indeed, the variability in the number of articles being published in different journals on these applied legal subject areas is a strong indication that the reasons for this state of affairs are institutionally and intellectually complex.

2.3 Poor Quality of Some Environmental Law Scholarship

The third reason for the persistent image of environmental law scholarship as immature is the quality of some of this scholarship. To be very blunt, there is some truly woeful environmental law scholarship out there. It may be in the minority but we should not pretend that it does not exist. And we need to acknowledge that we as scholars may have had something to do with its existence, whether through writing it, reviewing it or supervising it.

There are a number of reasons for the existence of poor scholarship. Some of it is poor simply because it is mislabelled as scholarship. In this category we place purely descriptive environmental law commentary aimed

at practitioners. More problematically, there is a body of environmental law scholarship that exhibits the two problems highlighted in Feldman's quotation above—'resolutely single-minded pursuit of an end' and 'dilettantism'. With regard to the former, there are many examples of commentary that is polemic at the expense of careful academic analysis. This type of work is often justified by a looming environmental crisis or by the need to promote a certain ideology. A common feature of this scholarship is a complete failure of the scholar to engage with the actual legal or socio-legal issues facing a court, legislature or decision-maker. Law is simply an instrument and the researcher applies no critical framework for understanding it.

With regard to 'dilettantism', there is a tendency for some scholars to be 'bower birds',⁴¹ dragging everything into their scholarship that is adorned by a certain label such as 'environmental' or 'sustainable development' with very little critical awareness that these concepts cannot be taken out of context and may mean different things in different contexts. 'Precaution-spotting' is one example of this tendency to presume the same label means the same thing across jurisdictions.⁴² Another example can be seen between disciplines with scholars happily picking and mixing social science disciplines. The literature on 'risk' is a case in point: scholars see the word 'risk' and presume it means the same thing in different disciplines and different bodies of social science thought.⁴³

All disciplines suffer from the blight of poor scholarship. But poor scholarship directly contributes to the perception of the immaturity of environmental law scholarship in a way that poor scholarship in other disciplines does not. This is partly because of the combined effect of the existence of such scholarship with the marginal image of the subject. Because of this, marginality begins to look less like a sophisticated intellectual choice and more like an illustration of the inferiority and immaturity of the subject. More importantly, however, as environmental law scholars we lack consistent criteria for judging the quality of research. There is little within environmental law scholarship to assist in critiquing and ranking the quality of that scholarship. We know dreadful environmental law scholarship when we see it, but environmental law scholars have developed little discourse to define such scholarship. Much of this has to do with the fact that environmental law scholars recognise the value of diversity and wish to foster it—they eschew

41 The male of the Australian satin bowerbird (*Ptilinorhynchus violaceus*) collects anything blue (both natural and manmade) to adorn his bower as a means of attracting numerous female birds. This can result in a bower full of flowers, plastic straws and clothes pegs.

42 E Fisher, 'Precaution, Precaution Everywhere: Developing a "Common Understanding" of the Precautionary Principle in the European Community' (2002) 9 *Maast J Eur and Comp L* 7.

43 E Fisher, 'Risk and Environmental Law: A Beginner's Guide' in B Richardson and S Wood (eds) *Environmental Law for Sustainability* (Hart Publishing, Oxford 2006).

disciplinary imperialism. Moreover, the radical roots of the subject have made environmental law scholars appreciative of the need for new scholarly approaches and hesitant to be hypercritical of experimentation. The problem is that the line between dilettantism and innovative interdisciplinary research is a very fine one, as is the line between a 'single-minded pursuit of an end' and recognising that the law may have a particular normative or ideological basis which is being promoted.

2.4 *Difficulties of Environmental Law Scholarship*

The final and most significant reason why environmental law scholars perceive environmental law scholarship to be less grown up than other disciplines has less to do with the *quality* of scholars and scholarship and more to do with the *problems* of scholarship. The perception of immaturity is a product of the fact that environmental law scholars are painfully aware of just how difficult an academic study of the subject is.⁴⁴

The difficulty arises because environmental law regimes tend to be complicated mixtures of established legal concepts, *sui generis* reforms, non-legal regulatory ideals, policy and legal norms from a range of different jurisdictions. In studying any area of environmental law, there is an acute awareness of the limitations of particular methodologies,⁴⁵ a difficulty with knowing what the scope of analysis should be⁴⁶ and a tension between wanting to treat environmental law issues as part of a distinct subject as well as seeing them as examples of more generic legal problems.⁴⁷ Environmental law as an object of scholarship and research does not yield easily to a single paradigm, methodology or explanation.

In light of these difficulties, environmental law scholars have become plagued with professional self-doubt. They ponder whether their subject is too insular,⁴⁸ whether the subject fails to take into account particular regulatory or governance techniques,⁴⁹ whether environmental law scholars need to be equipped with skills they do not yet possess⁵⁰ and what is the appropriate

44 Hilson (n 12); T Jewell and J Steele, 'Law in Environmental Decision-Making' in T Jewell and J Steele (eds) *Law in Environmental Decision-Making: National, European and International Perspectives* (OUP, Oxford 1998).

45 Heinzerling (n 20); J Freeman and D Farber, 'Modular Environmental Legislation' (2005) 54 *Duke L J* 795.

46 Jewell and Reid (n 1); B Richardson and S Wood, 'Environmental Law for Sustainability' in B Richardson and S Wood (eds) *Environmental Law for Sustainability* (Hart Publishing, Oxford 2006).

47 P Cane, 'Are Environmental Harms Special?' (2001) 13 *JEL* 3; Jewell (n 38).

48 Hilson (n 12).

49 Rose (n 1); Freeman and Farber (n 45); Jewell and Reid (n 1).

50 Rose (n 1).

role for normative values in their scholarship.⁵¹ What such self-doubt highlights is that the relationship between the maturity of the subject and the legitimacy of the subject is a very real one. The intellectual challenges of the subject make the validity of any knowledge claims difficult to justify.

3. The Need to Focus on Methodology and Methodological Challenges

The discussion above may appear overly ponderous. Who wants to reflect deeply on the discontents of environmental law scholarship when focusing on solutions would seem a far more productive enterprise. We, however, support such reflection because to understand why the 'coming of age' narrative has persisted in environmental law scholarship is to lay the foundation for a real debate about the state of the subject. In particular, two things are clear from the above discussion.

First, the perception of environmental law scholarship as immature is a profoundly complex one, replete with both positive and negative reflections of the subject and multiple intellectual strands. Immaturity, simultaneously, signifies the incoherence of environmental law as a subject, and the quality and marginality of, and difficulties inherent in generating environmental law scholarship. Getting to grips with this multi-dimensionality is part of getting to grips with environmental law as a body of scholarship.

Second, we see that a common theme in these multifaceted debates over immaturity is that of methodology, in particular how environmental lawyers address, and are faced with, methodological issues. There are many different understandings of methodology; but, taking a dictionary definition, it is the 'branch of knowledge' concerned with method, where method is defined as

A special form of procedure or characteristic set of procedures employed (more or less systematically) in an intellectual discipline or field of study as a mode of investigation and inquiry, or of teaching and exposition.⁵²

Methodologies may take many different forms, but generally speaking a methodology amounts to a systematic procedure that a scholar applies as part of an intellectual enterprise.

In our discussion above, the theme of methodology is ever-present, albeit in different ways. The marginality of environmental law scholarship is partly due to the fact that environmental law scholars have to, or choose to, deploy different methodologies from mainstream scholars. The poor quality of

51 D Kysar and J Salzman, 'Environmental Tribalism' (2003) 87 *Minnesota L Rev* 1099; Howarth (n 14), 3.

52 *Oxford English Dictionary*.

environmental law scholarship is nearly always related to the poor quality of scholarly methodology. The intellectual incoherence of environmental law as a subject is seen by some in the fact that there is no singular methodological approach to environmental law scholarship. The difficulties and challenges of environmental law scholarship are really methodological difficulties and challenges. Moreover, methodology is a concept inherent in the notion of legal scholarship. Feldman identified that producing good scholarship requires a focus on methodology, critical reflection and communication.⁵³ The greatness of legal scholarship is defined by a commitment to a belief in the importance of methodologies as part of the intellectual exercise of scholarship. A focus on methodology thus provides a way of simultaneously reflecting on the concerns of environmental scholars and the concept of great legal scholarship. This provides a valuable way forward for environmental law scholars to think about their subject.

In thinking about methodology, it is important to restate a point we made in Section 1. A commitment to the value of methodology is not a commitment to a particular methodology,⁵⁴ but is a commitment to developing methodologies that are 'best suited' to the type of questions being asked. Not only is a 'best suited' methodology an ideal in itself but it is also the focus for both critical reflection and communication, and so methodological rigour is critical to ensuring that all three 'ideals' of environmental law scholarship are adhered to. Methodologies are not formulas to be adhered to. As Feldman notes, scholarship requires self-reflection and a slavish reliance on rigid method is inconsistent with such critical analysis. As we will argue in Section 4.1, the first step towards methodological rigour is to recognise the reflexive relationship between methodology and the research questions we ask.

Despite the fact that anxieties about methodology underpin anxieties about immaturity, there has been little attention given to methodological issues beyond simple commands that environmental law scholars should read more widely,⁵⁵ should be more interdisciplinary,⁵⁶ should take into account different ways of governing⁵⁷ and should analyse a range of jurisdictions.⁵⁸ Environmental law scholars are told to do lots of things but there is little

53 Feldman (n 4), 503.

54 Ibid.

55 J Wexler, 'The (Non)Uniqueness of Environmental Law' (2006) 74 *George Washington L Rev* 260; Richardson and Wood (n 46).

56 Heinzerling (n 20); Macrory (n 12); Hilson (n 12).

57 J Scott and J Holder, 'Law and New Environmental Governance in the EU' in G de Búrca and J Scott (eds) *Law and Governance in the EU and US* (Hart Publishing, Oxford 2006); E Fisher, 'Unpacking the Toolbox: Or Why the Public/Private Divide Is Important in EC Environmental Law' in M Freedland and J-B Auby (eds) *The Public Law/Private Law Divide: Une Entente Assez Cordiale?* (Hart Publishing, Oxford 2006).

58 de Sadeleer (n 28); Richardson and Wood (n 46).

critical analysis of how they should do them and the challenges and choices they may face in doing all these different things.⁵⁹

This dearth of critical analysis is largely due to the fact that it is very difficult to talk about methodology without careful consideration of the methodological challenges facing environmental law scholars. Or to put it another way—we need a discussion about why environmental law scholarship is so darn difficult as an intellectual enterprise. A challenge in starting such a discussion is that there are many different methodological challenges and issues that one could discuss. We pick four: the speed and scale of legal/regulatory change, the interdisciplinary nature of the subject, the heavy reliance in environmental law on a diverse range of governance arrangements and the multi-jurisdictional nature of the subject. We do not pretend that these four issues exhaust all the methodological challenges of the subject but we consider them a good starting point because, as will be seen, they reflect many of the reasons why the subject is perceived to be immature. We briefly examine them each below and the particular methodological challenges they raise.

3.1 *Speed and Scale of Legal or Regulatory Change*

The first challenge that environmental law scholars face is coping with the speed and scope of legal development in the environmental law field.⁶⁰ While this feature of environmental law development is well recognised, it is rarely analysed.⁶¹ There are at least four important general features of legal development in relation to environmental law that give rise to significant methodological challenges.

The first is that most of this development has occurred in the last 35 years, which in legal terms is very short. Not only that but many areas of environmental law have been subject to a series of dramatic reforms which overhaul earlier reforms.⁶² Legal development has often involved regulatory experiments rather than a linear progression towards a better model of regulation.⁶³ This means that scholars have been dealing with regimes, institutions and

59 See B Lange, 'Researching Discourse and Behaviour as Elements of Law in Action' in R Banakar and M Travers (eds) *Theory and Method in Socio-Legal Research* (Hart Publishing, Oxford 2005).

60 Reid (n 15); Heinzerling (n 20); Plater (n 15).

61 Cf. E Scotford, 'The New Waste Directive – Trying to Do It All . . .' (2009) 11(2) *Environmental Law Review* (forthcoming).

62 Such as the regime of Integrated Pollution Control in the UK: Royal Commission on Environmental Pollution, *Air Pollution Control: An Integrated Approach, Fifth Report* (Cmnd 6371, HMSO, London 1976); Part I, Environmental Protection Act 1990; Pollution Prevention and Control Act 1999.

63 E Fisher, *Risk Regulation and Administrative Constitutionalism* (Hart Publishing, Oxford 2007) 66–9.

laws with little history by which to assess or understand them. The case law is often thin and patchy, as is scholarly discourse. History is seen to be important but different historical foundations for the subject are identified in, inter alia, property law, pollution law, tort law and planning law.⁶⁴

Second, much of the development in environmental law has been largely reactive, in that the catalysts for reform have been continuing shifts in governmental policy⁶⁵ and developments in scientific understanding and consensus. Contrast this 'reactive' identity with other legal subjects such as contract or property that are essentially concerned with establishing predictable rules by which society lives.⁶⁶ This reactive nature has meant that, while to understand any law requires appreciation of its wider socio-political context, there is a danger that that law is understood in purely instrumental terms.⁶⁷ Moreover, while environmental law may have developed reactively, it does also have a role in establishing the ground rules for consumption, production and the use of property.⁶⁸ This role is reflected somewhat crudely in the relatively recent shift in international environmental law, as well as in the EC Treaty, to the general prescription of environmental policy and laws, for example on the basis of ideas of precaution and intergenerational equity, in a way that is to be 'integrated' into all other areas of economic and social policy.⁶⁹

Third, legislative and policy reform is often excruciatingly detailed and is not straightforward to understand. For a scholar to make sense of a regime there is a need to master a large amount of material that is often in novel forms and derived from diverse sources.⁷⁰ This requires a considerable commitment of research capital. Moreover, even when an area is mastered, much can depend on how a regime will be applied in the future and how it interacts with other regimes.⁷¹ This is a particular problem for scholars in the UK where regulatory regimes are dominated by administrative and prosecutorial discretion.⁷²

64 Cf R Cocks, 'Victorian Foundations' in J Lowry and R Edmunds (eds) *Environmental Protection and the Common Law* (Hart Publishing, Oxford 2000); Coyle and Morrow (n 21).

65 C Reid, 'Regulation in a Changing World: Review and Revision of Environmental Permits' (2008) 67 CLJ 126.

66 F Lawson and B Rudden, *The Law of Property* (Clarendon Press, Oxford 2002).

67 B Lange, *Implementing EU Pollution Control* (Cambridge University Press, Cambridge 2008); Kysar and Salzman (n 51); Jewell and Reid (n 1).

68 Coyle and Morrow (n 21).

69 UN Conference on Environment and Development, *Rio Declaration on Environment and Development* (1992), Principles 4, 15; Treaty of Rome, as amended, Arts 6, 174(2). See n 113 and accompanying text below.

70 L Etherington, 'Mandatory Guidance for Dealing with Contaminated Land: Paradox or Pragmatism?' (2002) 23 Statute L Rev 203; Lange (n 67), ch 5.

71 B Pontin and C Willmore, 'Displacing Remedies from Environmental to Planning Law: The Enforcement of Contaminated Land Legislation in Britain' (2006) 6 Ybk Eur Evtl L 97.

72 K Hawkins, *Law as Last Resort: Prosecution Decision-Making in a Regulatory Agency* (OUP, Oxford 2002).

Fourth, the development of environmental legal regimes stretches across traditional legal disciplines in English law, across jurisdictions (see Section 3.4), and across legal disciplinary boundaries within other jurisdictions. The scale of change in such regimes thus spans a broad array of legal areas, each with their own conceptual and jurisprudential boundaries and histories, and concomitant (often implicit) methodological traditions. Environmental law scholars must not only be general interdisciplinarians (see Section 3.2) but also be *legal* interdisciplinarians in that they must engage carefully with legal concepts and academic debates within other legal sub-disciplines.⁷³ Environmental law scholars must thus be administrative law, tort law, property law, criminal law and intellectual property law scholars. Moreover, developments in environmental law often borrow from these other areas of law in crude and surprising ways.⁷⁴ Many environmental regimes developed are also non-legal or have significant non-legal aspects.⁷⁵ All this means that environmental law scholars have a lot on their plate when it comes to grasping, analysing and reflecting critically on 'environmental law'.

This state of affairs results in environmental law scholars facing particular methodological challenges arising from the speed and scale of regulatory change. First, they rarely have the luxury of critical reflection but rather find themselves hastily responding to each new set of legal and regulatory changes. Scholarship thus often describes law reform but scholars rarely get a chance to reflect on change; just as one new set of changes is made sense of, another wave of reform comes along. This means that the line between scholarship and commentary becomes blurred since even to comment on the law, in all its frustrating detail, becomes a significant task. Moreover, commentary is important because the succinct description of rapid environmental law development by specialists is of considerable value. With that said, by itself, it is not scholarship.

Second, the sprawl of the subject means that most environmental lawyers can only focus on selected aspects of it. The temptation for environmental legal scholars is to pick one identifiable ('favourite') environmental area and stick to it. Thus we see clusters of scholarship around certain areas and themes. Where there are more overarching academic approaches, such as around environmental principles or the concept of integration, scholars tend not to engage in the detail of particular regulatory areas.⁷⁶ The same is true

73 We are grateful to Maria Lee for highlighting this. See M Lee, *EU Regulation of GMOs: Law and Decision Making for a New Technology* (Edward Elgar Publishing, Cheltenham 2008).

74 Royal Commission on Environmental Pollution, *Managing Waste: The Duty of Care* (Eleventh Report, Cmnd 9675, 1985); Fisher (n 63), ch 3.

75 Lange (n 67); Scott and Holder (n 57).

76 M Doherty, 'Hard Cases and Environmental Principles: An Aid to Interpretation?' (2003) 3 *Yearbook of European Environmental Law* 57; A Lenschow, 'New Regulatory Approaches in "Greening" EU Policies' (2002) 8 *Eur L J* 19.

of teaching; few courses attempt an exhaustive analysis of the subject.⁷⁷ The end result is that environmental law scholars resemble something akin to a group of international diplomats without a translation service. Important conversations are being had amongst clever and informed people, who are all at the right convention, but there is a limit to what they can achieve by simply being in the same room together. Some academics have argued that the problem is with the fragmentation of environmental law itself, looking to 'environmental principles' to unify and rationalise the subject.⁷⁸ But this ignores the fact that the subject is fragmented and sprawling. Despite this, identifying means of communication for, and thereby connections within, the subject is important. This is discussed further in Section 3.4.

Third, environmental law scholars are constantly in danger of using unsuitable frames of reference, particularly when studying new legal phenomena. Or to put the problem another way, there is a crisis of methodology because it is difficult to determine what questions to ask and what methods to use in asking such questions about new legal ideas. Thus, for example, the traditional demarcation between policy and law that a doctrinal common lawyer feels comfortable preserving and respecting is not so clear in the environmental law context: to preserve this distinction is to ignore the fact that law and policy are playing more nuanced roles in environmental law than those identified in mainstream legal scholarship.⁷⁹ Yet, at the same time, this does not mean that these conventional legal concepts are not relevant and scholars ignore the fundamental legal features of such concepts at their peril.⁸⁰ The same scholarly danger exists in analysing new environmental regulatory regimes and novel administrative practices, many of which involve conventional legal concepts—this issue is discussed further in Section 3.3.

3.2 *Interdisciplinarity*

The second often-cited methodological challenge in environmental law scholarship concerns interdisciplinarity, whether interdisciplinarity is understood in terms of the subject matter of environmental law itself being interdisciplinary⁸¹ and/or scholars being expected to be interdisciplinary.⁸² In other words, interdisciplinarity is perceived as both a reality and a methodological expectation of environmental law scholarship. Despite this being the case, there has been little analytical reflection on the nature of

77 Bell and others (n 32), 10–2; Plater (n 15).

78 de Sadeleer (n 28).

79 E Scotford, 'Mapping the Article 174(2) EC Case Law: A First Step to Analysing Community Environmental Law Principles' (2008) 8 Ybk Eur Envtl L 1.

80 Ibid.

81 Heinzerling (n 20), 702; Bell and others (n 32), 10.

82 Hilson (n 12).

interdisciplinarity in the subject and the label ‘interdisciplinary’ is often used to refer to very different aspects of environmental law scholarship. Indeed, references to interdisciplinarity are often references to at least four different features of environmental law scholarship. These four types of interdisciplinary enterprise are distinct from the need for ‘legal interdisciplinarity’ identified in Section 3.1. Each of these different forms of interdisciplinarity have their own inherent methodological challenges.

First, a reference to interdisciplinarity often highlights the fact that environmental law scholars need to understand environmental problems.⁸³ Understanding the problems that law applies to is a feature of all legal scholarship. But it is particularly pertinent in relation to environmental problems since those problems are often highly technical and points of disagreement in understanding environmental problems exist between different areas of specialisation, or are embedded within areas of specialisation. Disagreements over risk assessment methodology, regulatory impact assessment and the role of environmental models are just three examples among many.⁸⁴ This need for legal scholars to understand and keep pace with these technical debates is not in fact a challenge of interdisciplinarity, rather it is recognition of the fact that environmental law scholars (and environmental law practitioners for that matter) need to develop two different types of expertise.⁸⁵ First, they need to develop contributory expertise—that is, expertise that contributes to the development of legal scholarship.⁸⁶ It is this expertise with which this article is concerned. Second, scholars need to develop interactional expertise with other disciplines (both scientific and social scientific) so that their legal scholarship is based on a sound understanding of environmental problems.⁸⁷ Such expertise is interactional expertise because, while environmental law scholars must understand other disciplines’ insights into environmental problems, environmental law scholars are not contributing to those disciplines directly.⁸⁸ It should also be recognised that interactional expertise needs to be dynamic and scholars thus particularly agile; such expertise will need

83 Rose (n 1); Heinzerling (n 20); C Cranor, *Toxic Torts: Science, Law and the Possibility of Justice* (CUP, Cambridge 2006).

84 Committee to Review the OMB Risk Assessment Bulletin – National Research Council, *Scientific Review of the Proposed Risk Assessment Bulletin from the Office of Management and Budget* (National Academy of Sciences, Washington, DC 2007); L Heinzerling, ‘Regulatory Costs of Mythic Proportions’ (1998) 107 *Yale L J* 1981; T McGarity and W Wagner, ‘Legal Aspects of the Regulatory Use of Environmental Modeling’ (2003) 33 *Envtl Law Rep* 10751.

85 H Collins and R Evans, *Rethinking Expertise* (University of Chicago Press, Chicago 2007). See also E Fisher, ‘The Role of Environmental Courts in Developing Environmental Law: The Administrative Law Dimension’ (2008) Brodies Lectures in Environmental Law <<http://www.law.ed.ac.uk/blogsandpodcasts/podcasts.aspx>> accessed 30 April 2009.

86 Collins and Evans (n 85), 24–7.

87 *Ibid* 28–40.

88 By ‘directly’, we mean contributing to the core of another discipline.

continual redevelopment in light of the pace of technological and scientific change. This sets a high bar for environmental law scholars.

The second type of interdisciplinary scholarship in which an environmental law scholar engages involves studying regulatory concepts that have a significant non-legal aspect and which are often derived from other disciplines.⁸⁹ The most obvious example of this is scholarship relating to governance and regulation.⁹⁰ This scholarship is discussed in detail in Section 3.3, but it is also relevant here as a distinct form of interdisciplinary enterprise. This is because the expertise of environmental law scholars in relation to these issues is more than interactional. Legal scholars are contributing to the development of expert knowledge about these concepts.⁹¹ Examples of such regulatory concepts include emissions trading schemes⁹² and regimes in which negotiation has a significant role to play.⁹³ It should be noted that dealing with these types of regimes is not only a challenge for environmental law scholarship but is also a feature of administrative law scholarship and socio-legal scholarship, where legal pluralism and other means of legal and non-legal ordering are major foci of research.⁹⁴

The third reason why environmental law is often understood to be interdisciplinary is that environmental law scholarship and teaching often occur outside law faculties and in the context of other disciplines and problem-focused research. Much of that problem-focused research is undertaken in the wake of public controversy where there is an urgent search for answers.⁹⁵ While there are some exceptions, in these contexts law is understood not so much as a complex cultural phenomenon but rather as a 'plug and play' instrument that is expected to deliver certain results. Take, for example, a recent interdisciplinary reader on the environment that includes a selection of extracts from law articles on a wide range of topics and from judgments with little discussion about the important legal differences between these extracts.⁹⁶

89 Scott and Holder (n 57).

90 J Scott and D Trubek, 'Mind the Gap: Law and New Approaches to Governance in the European Union' (2002) 8 Eur L J 1.

91 C Joerges and R Dehousse (eds) *Good Governance in Europe's Integrated Market* (OUP, Oxford 2002); G de Búrca and J Scott (eds) *Law and New Governance in the EU and the US* (Hart Publishing, Oxford 2006).

92 Committee on the Human Dimensions of Climate Change – National Research Council (ed) *The Drama of the Commons* (National Academies Press, Washington, DC 2002).

93 J Freeman and L Langbein, 'Regulatory Negotiation and the Legitimacy Benefit' (2000) 9 New York Univ Envtl L J 60; Scott and Holder (n 57); J Steele, 'Participation and Deliberation in Environmental Law: A Problem Solving Approach' (2001) 21 OJLS 415.

94 H Arthurs, *'Without the Law': Administrative Justice and Legal Pluralism in Nineteenth Century England* (University of Toronto Press, Toronto 1985).

95 M Strathern, *Commons and Borderlands: Working Papers on Interdisciplinarity, Accountability and the Flow of Knowledge* (Sean Kingston Publishing, Wantage 2004) 3.

96 G Edelson et al. (eds) *Environment: An Interdisciplinary Anthology* (Yale University Press, New Haven 2008) ch 22.

The concept that an extract of a judgment can have scholarly authority with little reference to the legal point being argued and the wider legal context seems absurd to a legal scholar but is not obvious to a non-lawyer. For many non-legal scholars, law is nearly always part of the solution but there is often very little appreciation of the complexity of legal institutions, ideas and processes involved.⁹⁷ When there is such an appreciation, it is rarely matched by a willingness to engage with such complexity. Rather, there is often frustration and boredom with a legal scholar's preoccupations with such issues—academic lawyers are described in less than flattering terms with their academic outlooks cast as 'unexciting and uncreative, comprising a series of intellectual puzzles scattered among large areas of description'.⁹⁸ The development of any discourse about environmental law methodology in such a context is profoundly difficult and consistently downplayed as less important than the functioning and responsiveness of the laws themselves.

The fourth reference to interdisciplinarity in environmental law scholarship is really a reference to the need to develop a new discipline to deal with environmental problems. Such a new discipline transcends traditional disciplinary boundaries, which are barriers to effectively addressing environmental problems.⁹⁹ This is often described as a need for 'transdisciplinarity', in which there is the development of a 'transcendent language, a meta-language, in which the terms of all the participants' languages are, or can be, expressed'.¹⁰⁰ This type of interdisciplinarity does not concern urgent problem solving but more the development of a new ambitious intellectual paradigm of environmental studies. The challenges and time required to create such an overarching paradigm are considerable.¹⁰¹

Identifying these types of interdisciplinarity is not about decreeing certain forms of interdisciplinary scholarship as illegitimate or wrong-headed. With that said, some interdisciplinary research does veer towards the 'single-minded pursuit of an end' and 'dilettantism'. Rather, identifying different forms of interdisciplinarity clarifies that interdisciplinarity, by being both a fact

97 Fisher (n 63), 14–6.

98 Cownie as quoted by McCrudden in C McCrudden, 'Legal Research and the Social Sciences' (2006) 122 LQR 632–7.

99 E Fisher and R Harding, 'The Precautionary Principle: Towards a Deliberative, Transdisciplinary, Problem-Solving Process' in R Harding and E Fisher (eds) *Perspectives on the Precautionary Principle* (Federation Press, Sydney 1999); H Nowotny, 'The Potential of Transdisciplinarity', (Seminar, Interdisciplines Website 2003) <<http://www.interdisciplines.org/interdisciplinarity>> accessed 1 April 2009).

100 G McDonnell, 'Disciplines as Cultures: Towards Reflection and Understanding' in M Somerville and D Rapport (eds) *Transdisciplinarity: Recreating Integrated Knowledge* (EOLSS Publishers Ltd, Oxford 2000) 27.

101 J Thompson Klein, *Interdisciplinarity: History, Theory and Practice* (Wayne State University Press, Detroit 1990) ch 8.

and aspiration of environmental law scholarship, creates a range of different methodological challenges that scholars must engage with and reflect upon.

3.3 Governance

The third issue in thinking about legal, particularly socio-legal, methodology in environmental law is that the creation of both—sometimes hybrid—public and private governance regimes in often novel and sometimes non-legal ways has been central to environmental law reform in the last decade.¹⁰² This has been noted in relation to the two challenges above but is also a methodological challenge in its own right. This is because the phrase ‘governance’ is a ‘catch-all’ for ‘any strategy, tactic, process, procedure, or programme for controlling, regulating, shaping, mastering or exercising authority over others in a nation, organisation or locality’.¹⁰³ Problems of governance can also be understood as problems of legal pluralism in that implicit in governance regimes are often novel forms of authority, legal and otherwise.¹⁰⁴

The methodological challenge raised by governance regimes is that such regimes require scholars to take a ‘more diverse view of state authority and its exercise’¹⁰⁵ but, in doing so, it is not clear what form such a ‘diverse view’ should take and how it differs from existing scholarly approaches. Indeed, the concept of governance is much admired and referred to in worshipful tones but rarely scrutinised and deconstructed by environmental law scholars.¹⁰⁶ Methodological difficulties tend to be overlooked.

Scrutiny and deconstruction, however, are not easy. These governance regimes, in departing from traditional, hierarchical modes of regulation, do so in *sui generis* and disparate ways. Thus, sometimes, legal rules provide a basic framework while the substance of legal decision-making is steered by policy. UK town planning and the contaminated land regime are examples of this governance approach.¹⁰⁷ By contrast, the EC Water Framework Directive¹⁰⁸ creates a complex regime of soft and hard law. This regime specifies general

102 D Fiorino, *The New Environmental Regulation* (MIT Press, Cambridge 2006); R Stewart, ‘A New Generation of Environmental Regulation?’ (2001) 29 *Cap Univ L Rev* 21; N Gunningham, ‘Environmental Law, Regulation, Governance: Shifting Architectures’ (this issue).

103 N Rose, *Powers of Freedom: Reframing Political Thought* (CUP, Cambridge 1999) 15.

104 Arthurs (n 94).

105 R Rhodes, ‘What Is New About Governance and Why Does It Matter?’ in J Hayward and A Menon (eds) *Governing Europe* (OUP, Oxford 2003) 66.

106 D Esty, ‘The Case for a Global Environmental Organisation’ in P Kenen (ed) *Managing the World Economy: Fifty Years After Bretton Woods* (Institute for International Economics, Washington, DC 1994); P Harris, ‘The European Union and Environmental Change: Sharing the Burdens of Global Warming’ (2006) 17 *Colorado J Intl Envtl L Policy* 309.

107 Town and Country Planning Act 1990 and Part IIA Environmental Protection Act 1990.

108 Directive 2000/60/EC Establishing a Framework for Community Action in the Field of Water Policy [2000] OJ L327/1.

legal duties through a complicated system of networked actors who develop legal and non-legal frameworks of water quality regulation for particular EC regions.¹⁰⁹ In contrast again are environmental governance regimes that involve self-regulation and rely on non-legal techniques, such as environmental management or rule systems, customary practices and environmental ethics internal to a particular private-regulated organisation.¹¹⁰ Then there are schemes such as the new EC chemicals law, REACH, which reconfigures the conditions of market access for chemical manufacturers in the EC.¹¹¹ Thus, the environmental scholar ends up with a long list of regulatory examples that do not necessarily bear any relationship to each other—governance does not replace traditional frameworks with a single new paradigm of how the regulatory state does and should operate. Moreover, these reforms have not been limited to regulatory activities within the traditional boundaries of environmental law—rather such reforms have required scholars to think across existing areas of law and to analyse how environmental concerns are integrated into other areas of decision-making.¹¹² The most obvious examples of this are the types of governance arrangements provoked by the scope and operation of the integration principle in Article 6 EC and the closely related principle of sustainable development.¹¹³

There are no overarching methodological solutions for legal scholars dealing with the emergence of these environmental governance regimes. Rather, there are three significant challenges. The first challenge concerns determining whether there is any role for law at all and, if so, what that role is.¹¹⁴ For a scholar to focus on law may be a misleading exercise in that more important features of a regime might be overlooked, such as institutional and local culture.¹¹⁵ Yet, there is also a danger that ignoring the legal aspects of these regimes involves ignoring fundamental features—if not the backbone—of them.¹¹⁶ While law comprises only a single component of the architecture

109 Scott and Holder (n 57); C Knill and A Lenschow, 'Compliance, Communication and Competition: Patterns of EU Policy Making and their Impact on Policy Convergence' (2005) 15 *European Environment* 114.

110 H Schepel, *The Constitution of Private Governance* (Hart Publishing, Oxford 2005); S Wood, 'Voluntary Environmental Codes and Sustainability' in B Richardson and S Wood (eds) *Environmental Law for Sustainability* (Hart Publishing, Oxford 2006).

111 Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) [2006] OJ L396/L. See E Fisher, 'The "Perfect Storm" of REACH: Charting Regulatory Controversy in the Age of Information, Sustainable Development, and Globalization' (2008) 11 *J Risk Res* 541.

112 Jewell (n 38), 79–81.

113 Lenschow (n 76).

114 C Carlarne, 'Good Climate Governance: Only a Fragmented System of International Law Away?' (2008) 30 *Law and Policy* 4.

115 J Holder, *Environmental Assessment: The Regulation of Decision-Making* (OUP, Oxford 2005).

116 E Fisher, 'Administrative Law, Pluralism and the Legal Construction of Merits Review in Australian Environmental Courts and Tribunals' in L Pearson and C Harlow (eds) *Administrative Law in a Changing State: Essays in Honour of Mark Aronson* (Hart Publishing, Oxford 2008).

of some environmental governance regimes, it may be a vital component, the absence or inadequacy of which could render the entire regime ineffectual.¹¹⁷ This tension reflects a more general 'dilemma' within legal scholarship of 'not taking law seriously or taking it too seriously'.¹¹⁸ Moreover, it is not always clear what body of law is relevant. Thus, for example, should international and multi-level environmental protection governance regimes be understood in terms of administrative law or public international law or on some other basis?¹¹⁹ Is focusing on the role of courts being too legally centralist or not?¹²⁰

The second methodological challenge is that, in light of the sprawling, multi-dimensional and novel nature of these regimes, there is a potential oversupply of relevant legal and social science concepts, unresolved questions about new interactions between legal concepts, as well as the need to engage with sociological, economic and political science perspectives in order to understand how law contributes to these regimes. A scholar is thus faced with an embarrassment of riches when it comes to scholarly methodologies. Thus, for example, a range of categories has been developed in order to analyse various environmental governance regimes, such as 'command and control', 'economic incentive', 'self-regulation', 'co-regulation', as well as 'post-regulatory', 'procedural', 'expressive' and 'reflexive' environmental law.¹²¹ While these phrases reflect a reality—the fragmentation of environmental law into a number of different types of regulation—they also raise the methodological challenge that a whole range of existing and novel legal concepts are potentially relevant for understanding environmental governance regimes. This is particularly the case with respect to governance regimes that mobilise different aspects of law, economics and social ordering. Thus, for example, to understand adequately emissions trading schemes, there is a need to understand property law, regulatory theory, Coase's theory and other economic ideas about the market, as well as theories of distributive justice. What is the 'best suited' methodology is by no means clear in such circumstances,¹²²

117 E Fisher and P Schmidt, 'Seeing the Blindspots in Administrative Law: Theory, Practice, and Rulemaking Settlements in the United States' (2001) 30 *Common Law World Rev* 272.

118 D Galligan, *Law in Modern Society* (Clarendon Press, Oxford 2007) 4.

119 B Kingsbury, 'Global Environmental Governance as Administration: Implications for International Law' in D Bodansky, J Brunnee and E Hey (eds) *Oxford Handbook of International Environmental Law* (OUP, Oxford 2007).

120 J Scott and S Sturm, 'Courts as Catalysts: Rethinking the Judicial Role in New Governance' (2007) 13 *Columbia Journal of European Law* 565; Arthurs (n 94).

121 C Scott, 'Analysing Regulatory Space: Fragmented Resources and Institutional Design' (1995) *PL* 329; E Orts, 'Reflexive Environmental Law' (1995) 89 *Northwestern University Law Review* 1227; I Ayres and J Braithwaite, *Responsive Regulation – Transcending the Deregulation Debate* (OUP, New York 1992); N Gunningham and P Grabosky, *Smart Regulation* (Clarendon Press, Oxford 1998); G Teubner, L Farmer and D Murphy (eds) *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self Organisation* (John Wiley & Sons, Chichester 1994).

122 For a recent attempt to model scholarship relating to emissions trading, see S Bogojevic, 'Ending the Honeymoon: Deconstructing Emissions Trading Discourses' *JEL* (forthcoming).

nor is it when studying more straightforward regimes such as the use of regulatory contracts or negotiated rulemaking.¹²³ Even more mainstream regulatory frameworks are ambiguous. For example, should environmental impact assessment be understood and studied as radical reflexive environmental law or as a minor adjustment to normal administrative law principles?¹²⁴ In some cases the methodological choice will not matter, but in others it will lead to scholars asking themselves very different questions, having very different priorities and relying on different sources. In other words, fragmentation in environmental law is also created by methodological choices of scholars. Thus, for example, while traditional legal techniques privilege normative questions concerned with assessing environmental governance for compliance with standards of fairness, efficiency or specific legal principles, political science, sociology and economic analysis often start first of all from 'how' questions, seeking to understand governance regimes through an examination of the sociological, economic and political dynamics which underpin environmental governance.¹²⁵ Likewise, the concept of 'governance' is itself a methodological construct that emphasises some aspects of a regime as opposed to others—the same is true of 'constitutionalism'.¹²⁶

Third, as scholars we need to be aware that such diverse environmental governance regimes play an important role in constructing our understanding of regulatory problems.¹²⁷ For example, traditional pollution regulation tended to be based on linear understandings of cause and effect between a particular pollutant and pollution with little regard paid to the surrounding environment.¹²⁸ More recent 'holistic' and 'integrated' regimes, such as the EC Water Framework and IPPC Directives,¹²⁹ focus on broader concepts of ecological quality that recognise that ecosystems draw for their existence on all three interconnected environmental media: air, water and land.¹³⁰ This shift in approach is not just a shift in regulatory technique but also in what is understood as the 'environment' and how to 'protect' it. In part this presents a

123 D Dana, 'The New Contractarian Paradigm in Environmental Regulation' (2000) *University of Illinois Law Review* 35; C Coglianesi, 'Assessing Consensus: The Promise and Performance of Negotiated Rulemaking' (1997) 46 *Duke L J* 1255.

124 Holder (n 115); J Sax, 'The (Unhappy) Truth about NEPA' (1973) 26 *Oklahoma L Rev* 239.

125 McCrudden (n 98).

126 E Fisher, 'The European Union in the Age of Accountability' (2004) 24 *OJLS* 498–9; J Weiler, *The Constitution of Europe: Do the New Clothes Have an Emperor?* (CUP, Cambridge 1999) 223.

127 S Jasanoff, *Designs on Nature: Science and Democracy in Europe and the United States* (Princeton University Press, Princeton 2005); Fisher (n 63).

128 W Howarth, 'The Progression Towards Ecological Quality Standards' (2006) 18 *JEL* 3.

129 See n 108, above; Directive 2008/1/EC Concerning Integrated Pollution Prevention and Control [1996] *OJ L257/26*.

130 Howarth (n 128).

challenge of how scientific knowledge is integrated and utilised within these regimes.¹³¹ However, it also presents a challenge in understanding how these regimes construct different understandings of the environment and environmental problems.¹³² Thus, as a further example, in the UK the land contamination regime largely conceptualises land contamination as a problem of land use planning, while in the United States it is understood as a major public health issue.¹³³ The 'problem' of biotechnology is also framed differently in relation to different governance regimes.¹³⁴

3.4 Multi-Jurisdictional Nature of Environmental Law Regimes

The final set of methodological issues and challenges for environmental law scholars derives from the fact that environmental law tends to operate in multi-jurisdictional frameworks. Legal and regulatory initiatives in one jurisdiction are often directly and indirectly related to legal and regulatory initiatives in another.¹³⁵ Nearly every environmental law scholar knows that environmental problems are often transboundary and that, therefore, environmental responses need to be transboundary as well. Beyond that, however, scholarly discussion becomes patchy. International environmental lawyers are more aware of the problems created by the multi-jurisdictional nature of environmental law regimes than are national environmental lawyers—the latter group are often blind to how a particular national law is embedded in a multi-level system. However, once identified, jurisdictional plurality provides an analytical challenge for almost every environmental law scholar. Environmental regimes not only sprawl across jurisdictions but also are often, as noted in Section 3.3, both legal and non-legal in nature and often have opaque institutional structures.¹³⁶ Again, what it means to be methodologically rigorous in studying such regimes is by no means obvious. In particular, there are three challenges that arise out of this complex feature of environmental law regimes.

The first methodological challenge was touched on in Section 3.1 and that is how to face the problem of issue fragmentation in environmental law, which

131 Lange (n 67), ch 6.

132 D Winickoff and others, 'Adjudicating the GM Food Wars: Science, Risk and Democracy in World Trade Law' (2005) 30 *Yale J Intl L* 81.

133 J Hird, *Superfund: The Political Economy of Environmental Risk* (Johns Hopkins University Press, Baltimore 1994); Pontin and Willmore (n 71).

134 Jasanoff (n 127).

135 G Winter (ed) *Multilevel Governance of Global Environmental Change: Perspectives from Science, Sociology and the Law* (CUP, Cambridge 2006).

136 E Vos, *Institutional Frameworks of Community Health and Safety Legislation: Committees, Agencies and Private Bodies* (Hart Publishing, Oxford 1999); C Joerges, 'Law, Science and the Management of Risks to Health at the National, European and International Level – Stories of Baby Dummies, Mad Cows and Hormones in Beef' (2001) 7 *Colum J Eur L* 1.

is highlighted and compounded in a multi-jurisdictional setting. Indeed, issue fragmentation has particularly characterised international environmental law and international law scholarship from the outset. Since the 1970s, each new international environmental treaty negotiated in public international law has created a set of issue-specific institutions, rules and procedures.¹³⁷ This problem-specific approach, often accompanied by the creation of multi-lateral environmental agreements and associated institutions, has enabled the negotiation of numerous laws and treaties to tackle complex environmental problems that otherwise would have gone unaddressed.¹³⁸ Single-issue legal development has created a field that can point to numerous success stories, such as reductions in ozone-depleting substances and control of trade in endangered species. It has also created a body of scholarship in which scholarly expertise is often limited to a particular subject matter. As Bodansky, Brunée and Hey note

[A]n expert on the law of marine environmental protection might find it difficult to navigate an air pollution agreement. Similarly, an expert on the rules governing carbon sinks may have trouble communicating with an expert on international emissions trading, notwithstanding the fact that both issues fall under the Kyoto Protocol on climate change.¹³⁹

The failure of scholars to address this balkanisation of scholarly expertise has meant that too much academic analysis is based on the descriptive study of regimes in isolation—often understood as one-off successes and failures—without a broader analytical perspective being taken.

Moreover, in international environmental law scholarship, overlaps and gaps are all too common, and scholars have, thus far, failed to develop effective mechanisms for facilitating coordination between distinct areas of international environmental law.¹⁴⁰ Indeed, by creating a field that encourages scholars to develop expertise in issue-specific as well as jurisdiction-specific environmental laws, the gaps and inter-linkages in and between environmental problems, between these specialist regimes and general public international law, and between international environmental law and other areas of law, are frequently left unaddressed in scholarship. This creates intellectual blind spots and a lack of co-ordinated analysis about the nature of international

137 Driesen (n 1), 356.

138 R Churchill and G Ulfstein, 'Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little Noticed Phenomenon in International Law' (2000) 94 *AJIL* 623.

139 D Bodansky, J Brunnee and E Hey, 'International Environmental Law: Mapping the Field' in D Bodansky, J Brunnee and E Hey (eds) *Oxford Handbook of International Environmental Law* (OUP, Oxford 2007) 4.

140 G Palmer, 'New Ways to Make International Environmental Law' (1992) 86 *AJIL* 259–63.

environmental law.¹⁴¹ Questions challenging the parameters of, and methodological approaches to, international environmental law include analysing the complex interaction between trade/development and environmental regimes, reconciling human rights and environmental protection, negotiating the boundaries between land law and environmental law, examining together international cultural heritage and national heritage and landscape laws, and conceptualising the relationship between international environmental law and public international law. These issues are dealt with in some scholarship,¹⁴² but not in a connected way or not in a way which recognises that such issues are ‘some of the most challenging questions with which any international lawyer will have to deal’.¹⁴³ Moreover, as in relation to governance, there needs to be an acute awareness that there are different ways to characterise these relationships and interfaces.¹⁴⁴

All of this represents a methodological challenge because a failure to deal with this problem of issue fragmentation leads to a failure to identify common legal themes and legal problems. It is not so much that issue fragmentation is a problem because it gets in the way of a grand theory of international environmental law—as already stated we doubt the existence of such a theory—rather issue fragmentation results in a failure of scholars to focus on the legal interrelationships and commonalities that exist in environmental law. Or to put the matter another way—there is too much focus on identifying particular species of tree and not enough on analysing how particular identified species interact with the rest of the ‘legal’ ecosystem.

The second methodological challenge is the need to develop rigorous techniques for analysing the interrelationship between local, national, regional and international environmental laws. This interrelationship remains under-explored and scholarly debate on the proper methodology for undertaking

141 The development of ‘soft’ international environmental law is one example. See D Bodansky, ‘Customary (and Not So Customary) International Environmental Law’ (1995) 3 *Ind J Global Legal Studies* 105; C Chinkin, ‘Normative Development in the International Legal System’ in D Shelton (ed) *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (OUP, Oxford 2000).

142 O Perez, *Ecological Sensitivity and Global Legal Pluralism* (Hart Publishing, Oxford 2004); C Carlarne, ‘The Kyoto Protocol and the World Trade Organization: Reconciling Tensions Between Free Trade and Environmental Objectives’ (2006) 17 *Colorado J Intl Envtl L Policy* 45; S Baughen, *International Trade and the Protection of the Environment* (Routledge-Cavendish, London 2007).

143 A Boyle, ‘Relationship Between International Environmental Law and Other Branches of International Law’ in D Bodansky, J Brunnee and E Hey (eds) *Oxford Handbook of International Environmental Law* (OUP, Oxford 2007) 145.

144 E Scotford, ‘Book Review: International Trade and the Protection of the Environment’ [2009] *Lloyds Maritime Commercial L Q* 145; E Fisher, ‘Beyond the Science/Democracy Dichotomy: The World Trade Organisation Sanitary and Phytosanitary Agreement and Administrative Constitutionalism’ in C Joerges and E -U Petersmann (eds) *Transnational Trade Governance and Social Regulation: Tensions and Interdependencies* (Hart Publishing, Oxford 2006).

such analyses remains virtually non-existent.¹⁴⁵ This is despite the practical importance of this interrelationship becoming more obvious in case law and legislation.¹⁴⁶ Scholars tend to work in one jurisdiction with only occasional and rather crude inroads into another, often with a single-minded purpose in mind. Where there are attempts to provide a more overarching approach, they tend to suffer from being overly simplistic and from a lack of appreciation of the significance of legal culture.¹⁴⁷

There are many instances of the need to study the importance of jurisdictional interrelationships and to understand the complexity of both national and international legal cultures. There is, for example, an urgent need to recognise that national climate change and nature conservation policies are closely related to international and other national regulatory initiatives.¹⁴⁸ Beyond describing this state of affairs, however, it is not clear how to develop a deeper legal understanding of these relationships, particularly when much of what going on is 'not law' and/or is at the very boundaries of international law and national law. While more scholars are beginning to look at cross-issue linkages,¹⁴⁹ the disciplines of domestic and international environmental law continue to inhabit relatively distinct scholarly domains. Add to this parallel existence the growing field of regional environmental law (such as European Community environmental law) and the situation grows even more complicated. The end result is that there is no obvious way to negotiate the national/international legal relationship, but it must be negotiated to make sense of these regimes.

This challenge relates to the third methodological challenge in thinking about the multi-jurisdictional nature of environmental law—the need to expand comparative legal analysis in environmental law. In particular, where and how to use comparative legal methodologies in environmental law must be addressed. This is becoming more important due to the increased transplantation and borrowing of regulatory and legal concepts between jurisdictions.¹⁵⁰ Environmental principles are a case in point.¹⁵¹ Yet, environmental law

145 C Redgwell, 'National Implementation' in D Bodansky, J Brunnee and E Hey (eds) *Oxford Handbook of International Environmental Law* (OUP, Oxford 2007) 923.

146 Case C-459/03 *Commission v Ireland* [2006] ECR I-4635; Case C-188/07 *Commune de Mesquer v Total France SA*, Decision of the ECJ (Grand Chamber), 24 June 2008.

147 Fisher (n 63), ch 5.

148 C Carlarne, 'Climate Change Policies an Ocean Apart: United States and European Union Climate Change Policies Compared' (2006) 14 *Pennsylvania State Env't L Rev* 435.

149 A Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17 *JEL* 3.

150 J Wiener, 'Something Borrowed For Something Blue: Legal Transplants and the Evolution of Global Environmental Law' (2001) 27 *Ecol L Q* 1295; P Busch, H Jorgens and K Tews, 'The Global Diffusion of Regulatory Instruments: The Making of a New International Environmental Regime' (2005) *Ann Am Acad Polit Sci* 146.

151 de Sadeleer (n 28); A Trouwborst, *Evolution and Status of the Precautionary Principle in International Law* (Kluwer International, The Hague 2002).

scholarship fails adequately to explore, or to provide methodologies for exploring, environmental laws across jurisdictions. In particular, there is little reference to important debates within mainstream legal methodology about how to carry out comparative legal analysis.¹⁵² This is not to say that good comparative environmental law scholarship does not exist—it does—but comparative environmental law remains at best a marginal sub-field and there is little discussion of its methodology.

Moreover, the narrowness of current comparative analysis magnifies many of the problems already discussed. This is because states do frequently borrow legal tools from one another, and because local, state and regional environmental laws interact in complex and significant ways such that the relationships between domestic and international environmental law are subtle and multifaceted. The nuances of these cross-jurisdictional relationships impact the shape of environmental law at every level yet receive scant scholarly attention.

4. Developing a Critical Discourse: Five Issues for the Agenda

Our list of methodological challenges is alarmingly long. But this is entirely our point—environmental law scholars face a multitude of methodological challenges which occur in a variety of ways, for a range of reasons, and which highlight the rich and multi-layered nature of our discipline. These challenges are not easily met. There are no simple formulas, checklists or methodologies for scholars to adhere to. Nor are there deep foundations or a grand narrative of the subject waiting to be discovered.

The only realistic way these challenges can be met is through a widespread and honest discussion among environmental law scholars about these methodological challenges, and how they present in particular scholarly endeavours. Thus what the subject needs is not codification, unifying principles or an overarching theory, but rather an extensive, inclusive and critical discourse about how environmental law scholars can strive towards producing scholarship in the light of the methodological challenges of environmental law research. Pointing to the need for such a discourse may appear to be a cop-out but our point is that maturity and great scholarship does not come through arrogance, ignorance or over-simplification. It comes from careful self-reflective thought and discussion. This will take time, as well as the focusing of careful scholarly attention on individual projects, case by case.

152 See Section 4.3 below.

As we see it, for such a self-reflective discussion to develop, there needs to be focus on five substantive issues by environmental law scholars (and we are very much including ourselves in this group of scholars encouraged to respond to this agenda for action). These five issues flow from our discussion above; we identify them because we see that exploring these issues is a way for legal scholars to move beyond discussions about immaturity to *thinking more critically* about what it is environmental law scholars do and how we can do it better. We do not see these five issues as exhaustive but they provide an important and useful agenda for discussion. As with the various methodological issues and challenges identified above, we recognise them as overlapping but identify them as distinct since each is an important issue in its own right.

4.1 Reflecting on Methodological Choices

The first issue that environmental law scholars need to address more explicitly is the reflexive relationship between methodology and the research questions we ask. As already noted, methods should be appropriate to answer our research questions. But our implicit or explicit methodological perspectives also steer us towards particular types of research questions. There is a two-way, reflexive relationship between methodology, on the one side, and the questions we ask about environmental law, on the other. Recognising and scrutinising this relationship is an important first step to methodological and scholarly rigour.

As environmental law scholars, we cannot aim towards a unified method, but we need to be upfront and honest about this so as to put our methodological choices under the kind of self- and peer-scrutiny that legitimises our endeavours and demonstrates the challenging scholarly choices that we confront and make. In thinking through those choices, we need not only to broaden our frame of analytical possibilities but also to think about what we are trying to achieve. The importance of doing this can be seen most obviously in relation to the study of governance regimes where, as highlighted in Section 3.3, a range of methodological concepts can be used to study a particular regime. Thus, for example, methodologies that focus on actual social practices, such as ‘communicative interactions’,¹⁵³ have value in that they can be empirically studied, allow a more critical approach to be taken to law, focus on relationships ignored in conventional legal analysis and

153 D Nelken (ed) *Law as Communication* (Dartmouth, Aldershot 1996); G Teubner, ‘After Legal Instrumentalism? – Strategic Models of Postregulatory Law, in: Dilemmas of Law in the Welfare State’ in G Teubner (ed) *Dilemmas of Law in the Welfare State* (Walter de Gruyter, Berlin 1986); R Lofstedt, ‘How Can We Make Risk Communication Better: Where Are We and Where Are We Going?’ (2006) 9 J Risk Res 869.

also aid in the understanding of law. A study through the lens of theories of ‘network governance’¹⁵⁴ is also valuable and yields different results. At the same time, however, social theory can be particularly illuminating in studying the ambiguous relationship between law and economic activity.¹⁵⁵ Moreover, associated scholarly areas such as legal geography provide a powerful prism through which to study how law constructs an understanding of the environment.¹⁵⁶ In each case, there are methodological choices to be made and those choices have scholarly consequences—methodology should never be taken as a given and methodological choice should always be either explicit or at least carefully considered and defensible.

It should also be stressed that this is not just an issue with respect to governance regimes; it is relevant to more traditional doctrinal analysis as well. Thus, for example, in the study of environmental principles there has often been a reliance on jurisprudential theories of ‘legal principles’ with little consideration of whether this is the appropriate analytical frame.¹⁵⁷ There are also methodological choices to be made in the study of the interaction between national and international environmental law. By making those choices more considered and explicit and by increasing scholarly dialogue about alternative approaches, there is a far greater chance that better choices will be made and better scholarship will result.

4.2 Mapping the Subject

The second step environmental law scholars should take is to recognise the importance of mapping environmental law as a methodological instrument and scholarly exercise. Mapping provides a means for developing a more spatial and temporal geography of the subject, which is an important step in analysing areas of environmental law more critically. It also is a tool for locating scholarship within the complex domain of environmental law and within law more generally. In other words, exercises in mapping go some way to addressing the various problems of issue and jurisdictional fragmentation discussed in Sections 3.1 and 3.4 above. As well, they aid scholars in their response to rapid developments in environmental law in so far as they provide

154 M Warning, ‘Transnational Bureaucracy Networks: A Resource of Global Environmental Governance: The Case of Chemical Safety’ in G Winter (ed) *Multilevel Governance of Global Environmental Change* (CUP, Cambridge 2006); M Castells, *End of Millenium* (2nd edn, Blackwell Publishers, Oxford 2000).

155 Hutter (n 40); see also U Beck, *Risk Society: Towards a New Modernity* (Sage Publications, London 1992).

156 N Blomley, D Delaney and R Thompson Ford (eds), *Legal Geographies Reader: Law, Power and Space* (Blackwell, Oxford 2001); W Taylor (ed) *The Geography of Law: Landscape, Identity and Regulation* (Hart Publishing, Oxford 2006).

157 See Scotford (n 79)—arguing strongly against this approach.

a wide frame for critical reference. Maps can become the translation service the subject so badly needs.

With that said, mapping must be done with an awareness that maps, like all models and going back to the discussion in Section 3.1, frame the world in a particularly chosen way and that they can serve a range of purposes.¹⁵⁸ Different scholars will map for different reasons and with different scholarly concerns in mind. The map of a doctrinal scholar will be different from the map of a social theorist, which will be different again from that of the legal theorist wishing to propose a theory of post-modern law.¹⁵⁹ These differences are not a reason to abandon mapping, however, but rather a reason to engage with these complexities. Indeed, it is this critical awareness of the contextual and constructed nature of the mapping exercise that distinguishes it from mere commentary.

There is of course a need to map in multiple dimensions to take into account the array of actors, institutions, norms, jurisdictions and regimes encompassed by the subject. The point of mapping is not that we might generate a single map of environmental law; rather, the hope is that we might assemble an atlas that reflects the broad terrain of environmental law in a variety of cartographical representations, which all contribute with their unique legends and keys to building a deeper understanding of the special world under scrutiny.

4.3 *Engaging with Legal Methodology Discourses*

The third step that should be taken by environmental law scholars is that they need to develop a greater appreciation of the debates about methodology that are being carried out by legal scholars. This of course includes socio-legal scholars.¹⁶⁰ The generally held perception of environmental law as existing at the fringes of the legal academy has meant that there has often been an unspoken presumption that general discourses about legal scholarship are not directly relevant to environmental law scholarship.

The discussion above makes clear that such a presumption is a fallacy. Environmental law scholars have much to gain from a more critical engagement with mainstream legal methodology debates. Moreover, we should not pretend that environmental law is the only subject undergoing a crisis

158 M Hesse, *Models and Analogies in Science* (University of Notre Dame Press, Notre Dame 1966).

159 Cf Scotford (n 79); Philippopoulos-Mihalopoulos (n 15); de Sadeleer (n 28).

160 H Genn, M Partington and S Wheeler, *Law in the Real World: Improving Our Understanding of How Law Works – Final Report and Recommendations* (Nuffield Inquiry of Empirical Legal Research, London 2006).

of maturity, and similar developments can be seen in other areas of law.¹⁶¹ Environmental law scholars have much to learn from those debates as well.

Indeed, there is an irony in the fact that environmental law scholars have often been quicker to argue for the need for interdisciplinarity than for the need to engage with legal methodology debates. Yet within legal scholarship there is a rich and pluralistic discourse about law and its relationship to the rest of the society, particularly in the realm of socio-legal studies.¹⁶² One of the most striking features of the statistics in Table 1 above is how little environmental law scholarship has been published in socio-legal journals.¹⁶³ The same is true for comparative law methodology where little of the sophistication of debates about comparative legal analysis has found its way into environmental law scholarship.¹⁶⁴ Likewise, debates about issue fragmentation are actively being carried on in the more general international law context.¹⁶⁵

It is also worth noting that engaging with debates about legal methodology is important for interdisciplinary research. To be interdisciplinary, one must have an appreciation of one's own discipline. This may seem counter-intuitive, but to contribute to broader discourses about environmental problems, environmental law scholars need to have a nuanced understanding of what they are contributing.¹⁶⁶ Yet we suspect that environmental law scholars often strive to have a more subtle appreciation of the methodologies of other disciplines than of their own.¹⁶⁷

4.4 *Engaging with Discourses About Interdisciplinarity*

This relates directly to the fourth step that should be taken: environmental law scholars need to understand what it actually means to be interdisciplinary.

161 Cheffins (n 3); R Thomas, 'Deprofessionalisation and the Postmodern State of Administrative Law Pedagogy' (1992) 42 *J Legal Educ* 75; A Fischer-Lescano and G Teubner, 'Regime Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law' (2004) 25 *Michigan J Intl L* 999.

162 Galligan (n 118).

163 Three recent exceptions are J Holder and T Flessas, 'Special Issue: Emerging Commons' (2008) 17 *Social and Legal Studies*, 299–405; 'Special Issue: Global Warming, Governance and the Law' (2008) 30 *Law and Policy* 385–529; R Lee and E Stokes, 'Special Issue: Economic Globalization and Ecological Localization: Socio-Legal Perspectives' (2009) 36 *J L Soc* 1–166.

164 E Orucu and D Nelken (eds) *Comparative Law: A Handbook* (Hart Publishing, Oxford 2007); M Reimann and R Zimmermann (eds) *Oxford Handbook of Comparative Law* (OUP, Oxford 2006).

165 M Prost and P Clark, 'Unity, Diversity and the Fragmentation of International Law: How Much Does the Multiplication of International Organizations Really Matter?' (2006) 5 *Chinese J Intl L* 341; Fischer-Lescano and Teubner (n 161).

166 Cranor (n 83).

167 D Tarlock, 'Joseph Sax: Visionary Lawyer' (2008) 14 *Hastings West-Northwest J Envtl L and Policy* 17.

Above, we identified four different ways in which an environmental law scholar can be interdisciplinary—in regard to each of these there needs to be critical reflection. Thus, the challenges of interactional expertise should not be underestimated—such expertise is not just acquired by reading a couple of science textbooks.¹⁶⁸ Moreover, scholars also need to be more critical about the ‘empirical and theoretical claims from other disciplines’.¹⁶⁹ Interactional expertise is not just accepting what another discipline has to say about the world as an unquestionable truth. Likewise, truly transdisciplinary research takes time and effort—a reality at odds with the fact that interdisciplinarity often taken places in projects that are rushed responses to crises.¹⁷⁰

The real point is that very little interdisciplinary literature has found its way into environmental law scholarship. For many environmental law scholars the discussion in Section 3.2 will be new, even though much of it is typical of interdisciplinary scholarship. There is little general awareness that there are different types of interdisciplinary discourse and/or that environmental law scholars are interacting with a range of different disciplines in many different ways. Moreover, as already noted, environmental law scholars have not taken the lead in these interdisciplinary enterprises and often play a supporting role in another discipline’s pursuit of its own intellectual agenda.

Environmental law scholars need to be more assertive—about what a study of law can contribute to environmental studies that is not contributed by other disciplines and about why exploring the nuances of environmental law within the field and at its disciplinary borders is more than mere academic self-indulgence.¹⁷¹ Valuable interdisciplinary communication no doubt involves lawyers navigating the complexities of other disciplines, but such communication can only develop if environmental law scholars have confident methodological insights into their own work to share with those working in other disciplines.

4.5 *Developing a Discourse About the Quality of Environmental Law Scholarship*

The final step that should be taken in the development of a more critical scholarly discourse among environmental lawyers is the most difficult—it is the need to develop a more explicit discourse about how we as scholars can judge the quality of environmental law scholarship. Such a discourse is inherently about methodology and we see the development of this discourse

168 Collins and Evans (n 85), chs 3 and 4.

169 Heinzerling (n 20).

170 J Thompson Klein (n 101).

171 McCrudden (n 98), 646–9.

as being central to promoting rigorous environmental law methodology and thus scholarship.

First, the perception of environmental law scholarship as marginalised, young, but worthy, has arguably meant that scholars have often been less faultfinding and more encouraging than in other legal areas. As noted in Section 2.2, environmental law scholars value scholarly diversity and are wary of disciplinary imperialism. These are valid considerations but, at the same time, it cannot be the case that 'anything goes'.¹⁷² We cannot ignore the fact that we need a more explicit discourse about what is, and what is not, great environmental law scholarship. Such a discourse should naturally grow out of discussions about methodology.

Second, and following on from this, it should be clear from the discussion so far that any standard of quality cannot be based on a single methodological approach. This challenge is not new to legal scholars; the pluralism of legal scholarship generally means that a relatively open-textured approach has been taken by legal scholars in judging the quality of scholarship, including interdisciplinary scholarship by legal scholars.¹⁷³ Yet no such discourse has developed in relation to environmental law scholarship and it is a discourse that is likely to be controversial in light of the many challenges we have highlighted above.

In particular, there is a challenge in reconciling the assessment of the quality of legal scholarship within the legal academy with quality assessment from the perspectives of other disciplines.¹⁷⁴ Within different disciplines there are different criteria for judging scholarship, which are products both of the scholarship itself as well as institutional cultures. We cannot ignore these differences. With that said, a good starting point for establishing a quality standard for environmental law scholarship is Feldman's definition of scholarship, set out in Section 1, in particular, the importance he places on critical reflection.

5. Conclusion

In this article we have been proactively candid. Our arguments may make uncomfortable reading, just as they were uncomfortable to write. We, like nearly all environmental law scholars, have been guilty of failing to get to grips with the methodological challenges of the subject. The discussion above is thus based on our experiences, frustrations and mistakes. Our overall

172 P Feyerabend, *Against Method: Outline of an Anarchistic Theory of Knowledge* (3rd edn, Verso, London 1993).

173 The operation of the Law Panel in the Research Assessment Exercise in the UK is an example of this.

174 See the discussion on accountability in interdisciplinary research in Strathern (n 95), 68–86.

conclusion is not to privilege one methodology, one disciplinary lens or one area of environmental law scholarship. Rather, environmental law scholars need to mobilise as a group to talk more frankly and honestly about these issues.

We realise that this is not easy. Maturity is sobering. But, for environmental law scholarship to come of age, scholars need to reflect critically on their research methodology. This is particularly necessary in relation to the speed and scope of regulatory change, interdisciplinarity, diverse governance regimes and the multi-jurisdictional nature of the subject. We have suggested five steps to aid in this process of critical reflection which cut across these four challenging issues: taking a reflexive approach to methodology choices, mapping the subject, engaging with debates about legal (including socio-legal) methodology, understanding more carefully the concept of interdisciplinarity and finally having an explicit debate about the quality of environmental law scholarship. The end result is likely to be messy, time-consuming and intellectually demanding. As Rose has noted about the subject more generally, 'a mature environmental law is not pretty',¹⁷⁵ but the worth of environmental law scholarship is more likely to be recognised if this demanding challenge is embraced.

175 Rose (n 1), 292.