BOOK REVIEWS

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Amphibians and Reptiles of New Mexico

BY WILLIAM G. DEGENHARDT, CHARLES W. PAINTER AND ANDREW H. PRICE


North America is the third largest continent and, as such, guides to the faunas and floras that inhabit the continent are typically fragmented in a non-natural biogeographical manner. In the USA, a traditional and manageable way to compile faunal guides is by state, and this volume follows that tradition. New Mexico is the fourth largest state in the lower 48 and hosts at least 123 species of amphibians and reptiles. This volume contains accounts and colour plates of all the species. There is enough detail to make the book useful for the scientist, but it is also broad enough for any person interested in identifying amphibians or reptiles found in New Mexico.

The species accounts are extremely complete. They start with the scientific and English names, the location of the colour plate, and follow with discussion sections that include those entitled Type, Distribution, Description, Similar Species, Systematics, Habitat, Behavior (sic), Reproduction, Food Habits and Remarks. The authors did not skimp on the citations, giving the accounts a solid scholarly feel. Each account is accompanied by a distribution (dot) map framed with latitude and longitude.

Besides the distribution maps, there are a number of other illustrations scattered throughout the book. Clumped in the centre are 122 colour plates of physiography, habitat types and living specimens. In general, the photos are of high quality and a welcome addition. At the beginning of each major section (for example frogs, lizards, etc.) there is a key to the species and these keys are heavily illustrated with line drawings. With these illustrations even a novice could use the keys to identify what animal was hanging from their friend’s finger. Once past the key, the major sections are divided by family and each introductory page has what looks like a pencil sketch of a species representative of the family. These sketches are a nice touch, but appear to vary in quality.

The keys mentioned above are straightforward and simple to use, especially with the aid of the accompanying illustrations. In addition to the detailed keys are simple at-a-glance tables for quicker identification of species in species rich genera like Rana or Cryptophis (as used in this volume). These tables are handy, especially if bookmarked for rapid reference. The volume even has conversion tables between metric (International) and English measuring systems.

In general, this is a top quality guide to the herpetofauna of New Mexico. It is the match of any state amphibian and reptile guide and will be an important reference volume for years.

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Ecological Bulletins 51. Targets and Tools for the Maintenance of Forest Biodiversity

EDITED BY PER ANGELSTAM, MONIKA DONZ-BREUSS AND JEAN-MICHEL ROBERGE

510 pp., 27 × 19.5 × 2.5 cm, ISBN 14 05 11774 5 hardback, GB£40.00, Oxford, UK: Blackwell Science, 2004

Biodiversity maintenance in forest landscapes is currently acknowledged to be a central component of sustainable development. The latest issue of Ecological Bulletins, published in cooperation with the journals Oikos and Ecography, contains no less than 38 papers dealing with this topic, written by a large variety of authors from a range of stakeholder groups, including professional ecologists, policy makers, foresters and even a well-known home furnishing company. As stated by the editors in an introductory paper, the main aim of this book is the development of scientifically-founded performance targets and management-planning tools for the maintenance of forest biodiversity in boreal and mountain forests.

The book is divided into five sections, all starting with an introductory paper. In the first section, different stakeholders express their views about balancing biodiversity concerns and wood production. The second section contains only three papers and deals with understanding human influence on forest biodiversity, although natural disturbance regimes and successional dynamics are also discussed. In the third section, introduced by an interesting review of threshold detection, ecologists present the results of their search for habitat area thresholds for different animal species, most of them birds. Without monitoring tools such as indicator species, it is, of course, impossible to know whether formulated biodiversity targets are met. This issue is covered in the fourth section, while the fifth section elaborates this topic by presenting practical examples of assessment methods for the achievement of a certain conservation criterion. In a concluding article, a practical six-step procedure is presented for identifying thresholds to be used in the determination of forest management targets. The authors propose the establishment of international, multi-disciplinary teams (adaptive management teams) to test the elaborated procedure for different regions.

The three editors are to be congratulated on the enormous task of compiling these 36 papers. For policy makers and forest and landscape managers especially, this volume contains an excellent overview of available tools and possible targets for forest biodiversity management. The concluding chapter offers an interesting framework to start managing forest biodiversity. Do not expect a ready-to-use manual, but a well balanced and pragmatic elucidation of procedure requiring a multidisciplinary team. Too many conservation articles these days urge for such a multidisciplinary approach without giving any clue of how this should be accomplished in practice. This volume and the final paper in particular, offer a very useful initial framework.

Inevitably, there are also minor criticisms. It is not always clear how some of the chapters contribute to the specified objectives of the book, or more specifically, to the presented procedure for establishing conservation targets. This is probably not the fault of the editors. Although they share a vision of the topic or outcome of a volume, this vision is not necessarily shared by all the contribution authors. Therefore, the editors should be encouraged to elaborate their ideas developed in the final chapter in a more synoptic regular book containing a review of the most relevant literature. As a plant
ecologist, I was also somewhat disappointed with the very few papers dealing with plant, bryophyte or lichen diversity; the last two constitute a considerable part of the boreal forest species diversity. The third section, on the effects of boreal forest fragmentation, only focuses on animal occurrence and abundance. It is known, however, that plant species are also susceptible to habitat fragmentation, and recent research suggests that species with long generation times are prone to suffer from the so-called extinction debt. This implies that the spatial distribution of lichens and bryophytes is likely to mirror historical forest configuration rather than that in the present and that large-scale extinctions are to be expected.

The volume is very carefully edited, although the very rigid journal-like style is not always appealing to the reader. What I most missed was an index, a major shortcoming in such a huge volume mainly intended as a reference work. Nevertheless, this work belongs on the book shelf of everyone concerned with managing boreal and mountain forest biodiversity.

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The Politics of Fisheries in the European Union

BY CHRISTIAN LEQUESNE
xi +170 pp., 24 × 16 × 1.5 cm, ISBN 0 7190 6770 7 hardback,
GBP£50.00, Manchester, UK: Manchester University Press, 2004

As a biologist asked to review a book on political science, I approached this book with some trepidation, which seemed justified by the jargon-laden text of the introduction. Thankfully, this soon dissipated to reveal a thoughtful and extensively researched analysis of the political workings of EU fisheries and, unfortunately, how the politics usually take precedent over the fisheries management goals.

Lequesne provides an abstracted overview of the history of EU fishing activity, whilst comparing the variability in approach between nations. He describes the many levels on which the various actors interact, incorporates supply and demand problems into the explanation of how conservation measures can break down, and stresses how, within the EU, individual countries may have fundamentally different approaches and attitudes to fishery resources. However, this is not an ivory-tower journalistic study; Lequesne got his hands dirty and conducted face-to-face interviews with various scientists, fishers, management officials and politicians so as to examine the situation from all points of view (deciding in which situation his hands became dirtiest I leave to the reader). The result is that the problems and interactions he describes are current and ongoing.

Where fish stocks straddle the territorial waters of several nations, the ‘tragedy of the commons’ seems to be the inevitable result. Although the individual nations may recognize and express the will to control their fleets, as Lequesne states, the ‘dynamics of transnationised economies are . . . accompanied by a diffusion of responsibilities, which, in turn, blurs the exercise of political control’ (p. 111). In a zone encompassing such cultural diversity as Europe, the likelihood of instituting effective centralized control over shared resources such as implemented by the federal agencies of the USA remains slim. In fact the Common Fisheries Policy (CFP) has already been described as a failure (Daw & Gray 2005). Lequesne does not claim that the CFP has succeeded in substantially improving fisheries management (on paper, maybe, in practice, not really), but points out that mechanisms such as the CFP contribute to the growth of collective decision-making that would otherwise not come about.

Lequesne uses the issue of driftnetting as an effective example of how little science really impacts on policy decisions relative to public opinion as expressed by the media. Scientific evidence that dolphins were really suffering population-level impacts from the use of drift nets in the Atlantic was not always all that compelling, but televised images of entangled animals were. Of course, banning driftnets was strongly supported by Spanish Basque tuna fishermen who used more selective, but less cost effective, pole and line methods. This is one instance of fairly cynical manipulation of an environmental issue that happened to have an end result that suited a particular fishing sector.

This book illustrates clearly how one’s point of view may change the facts or, at least, the interpretation thereof. To a biologist, solutions to declining fish stocks are relatively simple: kill fewer fish. To a fisherman, such a solution is anathema. Like many of us, their views tend to prioritize personal short-term economic considerations over the long-term common good. This is the crux of all fishery management problems. This is an accomplished work on a complex and difficult subject, and I suggest that its readership should include fishery managers to enhance their understanding of what happens to their recommendations after they have been made.

One of the valuable things about this book, for me, is how clearly Lequesne illustrates the human problems that invariably dog fisheries management, not only in Europe, where things are complicated further by multinational diplomacy, but also to a greater or lesser extent in other geographical arenas where single countries have sole jurisdiction over their waters. In fact, I had the feeling that the problems faced by Europe are in fact the same as elsewhere, just with larger-scale bureaucracies to be dealt with. The question is, now that the problems are better understood, does anyone have the will to address them?

Reference


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Responsibility in World Business: Managing Harmful Side-Effects of Corporate Activity

EDITED BY LENE BOMANN-LARSEN AND ODDNY WIGGEN

xv + 288 pp., 24 × 16 × 2 cm, ISBN 92 808 1103 7 paperback,
US$32.00, Tokyo, Japan: United Nations University Press, 2004

Responsibility in World Business consists of sixteen chapters divided into four parts. In Parts I and IV, the editors provide an ‘Introduction’
and ‘Conclusion’, respectively. A ‘Theoretical discussion’ of five chapters comprises Part II. Nine ‘Case studies’ follow in Part III.

There are no explicit statements about the intended readership. The subtitle, Managing Harmful Side-effects of Corporate Activity, provides potential readers with the key thrust of the content, and is more than sufficiently engaging to attract potential environmental and business readers. While the theoretical section of the book is largely aimed at an academic audience, it is likely that activists in environmental organizations and managers in businesses would find the arguments and information compelling reading from their respective points of view.

The key concept articulated in the theoretical discussions and case studies is the principle of double effect. This concept, treated as a moral principle, is about the unwanted side-effects businesses can have in the conduct of their operations; hence, there is need for corporate responsibility. The editors note that the extent of this responsibility falls somewhere between corporate citizenship, in which business is part of a community and has duties analogous to those of other citizens, and narrow legal compliance. Given this setting, their aim is to specify a minimum moral duty requirement which businesses can adhere to and comply with. To this end, they rely on casuistry as a context-sensitive method for dealing with moral problems when the moral solution for ‘what one ought to do is not clear’. The underlying theory of the double effect, explored in detail in the theoretical discussion, and tested in the case studies, is that there is an analogy between the principles of a ‘just’ war and a ‘just’ business. Given harmful side-effects, responsibility for business ethical purposes is based on criteria involving (1) stakeholder consultation with affected parties, (2) avoiding beneficial complicity (any kind of involvement in the wrongdoing of others), (3) assessing proportionality (justifying side-effects as reasonable and proportionate to stakeholders), (4) preventing or minimizing side-effects and (5) operating (or withdrawing) whenever it is not possible to proceed with fewer or no side-effects.

The theory and the tests ensure that the book has a central thesis, methodology and practical examples. Each case study provides a wealth of information about business activities and moral problems including the Union Carbide Bhopal catastrophe, Shell in Nigeria, Del Monte in Kenya, BP in Columbia, Levi Strauss and Motorola in China and ExxonMobil in Chad and Cameroon. Authors point to both analogies and disanalogies in theoretical and case study appraisals. In this regard, the material is well selected and organized and the arguments are for the most part logically presented. For an edited collection, the accounts are clear and readable. Indeed, a key strength of the content is that the editors have worked on a project with a very specific thesis which contributing authors have supported or expressed reservations about. Two shortcomings, however, do come to mind. Comparing and contrasting the double effect with discourses on negative externalities and counter productivity theory may have drawn out some additional points about the value of the ‘just’ war tradition. The inclusion of an expert from another ‘responsibility’ initiative such as the Global Reporting Initiative might have produced some additional and beneficial challenges to consider.

Judgements about whether the editors have achieved their stated aim or not will vary with the perspective one brings to the book. While many business actors may indeed see the analogy between the ‘just’ war tradition and an emerging ‘just’ business tradition as extremely pragmatic, environmentalists are likely to judge it as perverse. From my perspective, similarities between the morality of war and the morality of business immediately call into question the morality of business from a sustainability perspective. It is important to note that the ‘just’ business tradition does not address pressing questions of sustainable production and consumption. In addition, the ethical framework is neither performance based nor auditable through a third party verification process raising questions about its objectivity. What standard of reporting is expected?

Although short on references, the book is professionally produced and has a fine general appearance. Those teaching in the area of corporate sustainability will find this volume an essential addition to their collection. Environmentalists engaged in debates with companies may also find this volume an enriching source of information on business thinking.

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Insect Diversity Conservation
BY MICHAEL J. SAMWAYS
xi + 342 pp., 24.5 × 17.5 × 1.5 cm, ISBN 0 521 78947 8 paperback, GB£30.00/US$55.00, Cambridge, UK: Cambridge University Press, 2005

Michael Samways is an unashamedly passionate advocate for the conservation of ‘the little things that run the earth’, to borrow E.O. Wilson’s memorable description of the insects. These organisms represent perhaps as much as 75% of terrestrial species, and Samways sets out to explore the reasons for conserving them, the main threats to their survival, and the practical approaches used to prioritize and achieve their conservation.

A notable aspect of this book is its truly global perspective, and the author does well to draw together a huge diversity of examples from ecosystems all over the world; the list of references alone stretches to 50 pages. For me, one of the best things about this book was the amount I learned about the peculiarities and specifics of insect conservation the world over; a reminder that with a group as speciose and ecologically diverse as the insects, conservationists inevitable face a huge diversity of challenges and potential solutions. All of conservation biology is here, from intensive autecological study and conservation legislation for ‘charismatic microfauna’ like certain butterflies, to considerations of the impacts of habitat modification and fragmentation on ecosystem functions mediated by insects, like nutrient cycling and pollination.

The book is nicely produced and well illustrated, with a diagram or plate on almost every other page. I found a few minor factual errors in the text (for example on p. 96, Hesperia comma is the silver-spotted skipper butterfly, not the comma), and quite a few typographical errors in the references.

I came to this book direct from editing journal manuscripts concerned largely with identifying ever more efficient ways of killing pest insects, so it was refreshing to read a text that begins with the description of insects as ‘these jewels of our planet’. I hope that
Samways’ enthusiastic text will win many converts to the cause of insect conservation.

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Sampling Rare or Elusive Species. Concepts, Designs and Techniques for Estimating Population Parameters  
EDITED BY WILLIAM L. THOMPSON

Counting animals and plants is so fundamental to conservation biology that it is often taken for granted. When dealing with rare and elusive species (and as this book points out, ‘sparse’, ‘rare’ and ‘elusive’ are quite different concepts), counting individuals can be very difficult, and field biologists often resort to using whatever measure of abundance is intuitively and logically appealing. As this book emphasizes, such measures may not be biologically meaningful. This is because simple counts do not take into account spatial and temporal variation in the detectability of the organisms concerned. The literature on the statistical models that can estimate and control for variation in detectability was once beyond the grasp of the average field biologist. This propagated a gulf in communication between those dealing with theory and those dealing with practice. Recent years have seen this gulf bridged, and as Kenneth P. Burnham points out in his foreword, this has been driven by both practical needs for better methodologies coupled with increasing cooperation between statisticians and field biologists. The publication of this book, which neatly summarizes where the field has reached in terms of both theory and practice, is therefore very timely.

The book is sensibly organized into five sections. Part one, ‘Overview and basic concepts’, contains three chapters that provide important background for the later sections. Lyman McDonald’s entirely non-mathematical essay in chapter 2, provides a survey of views on sampling rare populations. This is a refreshingly reassuring account as it embraces successes, failures and warts-and-all case studies trawled from a wide range of researchers. The remaining two chapters in this section go on to introduce the idea of detectability and how it affects estimates of population parameters. Part two, ‘Sampling designs for rare species and populations’, describes various sampling designs for estimating the abundance of rare species, including some, such as adaptive cluster sampling, that have not yet been widely applied to field data. For some species, estimating occupancy, rather than abundance, may be the prime goal of the exercise. However, the problem of incomplete detectability applies to presence-absence studies as well as to those seeking to estimate population parameters; apparent absence may be due to actual absence or to a low probability of detection. Part three, ‘Estimating occupancy’, reviews and develops current models in this area in a further three chapters. These models would seem to have enormous potential for countries such as the UK, which rely on a voluntary workforce of naturalists to gather data on the presence-absence of a variety of species in different parts of the country. Part four, ‘Estimating abundance, density, and other parameters’, consists of six chapters that cover non-invasive genetic sampling, camera trapping, use of animal tracks, adaptive sampling and bioacoustics, survival estimation and model evaluation. The case study on the Mexican owl provides a salutary lesson for the government agencies who commission population assessments and the field biologists who execute them. Spatial and temporal variation in abundance affects the precision of parameter estimates and the power to detect population trends. The sample sizes required to achieve sufficient power to detect the trends sought by conservation agencies may require resources and logistics that may be prohibitive. In the final, single-chapter section of the book, the editor of the volume looks to the future. His take-home message is clear. Future directions in this area can be summarized in three words, innovation, technology and software. He points out that many of the traditional sampling designs were developed for moderately abundant species and that the biodiversity crisis will be a strong driving force to develop further designs and counting techniques for rare and elusive species.

The major strength of this book is its well-balanced integration of statistical models with practical case studies. The case studies cover a wide variety of taxa, and are neatly integrated with discussions of model development. The information is presented in an unfussy typeface with clear diagrams and useful referencing throughout. These features should give the volume wide appeal. As the book deals with a topical subject that is currently undergoing rapid development, I fully expect that further books on the subject will start to appear within the next few years as the demand for emerging tools in this area grows. Nevertheless, wildlife biologists who are engaged in developing monitoring programmes for rare or elusive species will find this book hard to beat for a user-friendly, comprehensive and wide-ranging introduction.

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BY R.P.C. MORGAN

Professor Roy Morgan’s third edition of Soil Erosion and Conservation is an authoritative, well-researched and accessible contribution to the study of soil erosion and its control. The balance between scope and depth of the subject matter covered is ideal, reflecting Professor Morgan’s 35 years’ international experience in lecturing, research and consultancy on soil erosion, with particular interests in erosion assessment, erosion modelling and the use of vegetation in soil protection. At a time when soil erosion is moving up the environmental agenda (as evidenced by the EU’s Thematic Strategy for Soil Protection and forthcoming Soil Framework Directive), this publication is extremely apposite and welcome.

The order of contents is logical, with early chapters covering the causes and impacts of soil erosion, supported by substantial references to both classical and cutting edge research. This understanding of the physical processes and mechanics of soil...
erosion is used as the basis for the design and implementation of sound, effective erosion control strategies. These wide-ranging methods, encompassing agronomic, mechanical and soil management practices for erosion control and soil conservation, are covered comprehensively in the later chapters. The subject matter is considered at various spatial scales, from the impacts of erosion at the international level, to traditional erosion control practices carried out on individual farmers’ fields.

This third edition contains new and updated sections, reflecting the evolution of erosion studies and practices since the 1986 and 1995 editions of the book. More emphasis is now given to the economic, social and political constraints to the implementation of soil conservation practices, especially the role of the legal framework in supporting land managers and communities to implement and maintain soil conservation programmes. This is essential, because to paraphrase Michael Stocking (University of East Anglia) and Norman Hudson (formerly of Cranfield University), no matter how well-designed the technical aspect of a soil conservation programme, it will fail unless the right economic, social and political conditions prevail.

There are also completely new sections on tillage erosion, terrain analysis in erosion risk assessment, tracers in erosion measurement, and the validation and sensitivity analysis of erosion models.

There is an appropriate balance between theory and practice throughout. Numerous references of previous research studies are cited, as well as case studies demonstrating the application of the theoretical aspects of soil erosion control. Practical techniques such as erosion hazard assessment, experimental measurement of soil erosion and soil conservation practices are presented in a way such that the reader would be able to apply these techniques.

I would recommend this book as both a reference text and practical manual to final-year undergraduate and postgraduate students, and practitioners with an interest in the degradation and conservation of the soil resource. The layout of the sections, use of text boxes, numerous diagrams, informative data tables and clear figures make the pages attractive and easy to read, as well as allowing easy navigation throughout the book.

Soil is currently regarded as a non-renewable resource, capable of carrying out a wide range of environmental functions (including production of food, fuel and fodder, storage of water and nutrients, provision of habitat and cultural features, and filtration and chemical transformations). This book clearly illustrates the processes and adverse impacts of soil loss through erosion. It also demonstrates the strategies available to communities, land managers, consultants, advisors and scientists in conserving this precious resource.

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Disconnected Rivers. Linking Rivers to Landscapes

BY ELLEN WOHL.

xiii + 301 pp., 24 × 16 × 2 cm, ISBN 0 300 10332 8 hardback,
GB£25.00, London, UK: Yale University Press, 2004

Ellen Wohl’s passionately written book provides its readers with a historical overview as well as an analysis of the current state of rivers in the USA. Giving numerous examples, she exposes the reckless usage in the past of these rivers with little concern for their intrinsic natural values, and in doing so is well aware of the necessity to look beyond the obvious characteristics of a river to its more complex ecosystem context of form and function. Central themes are historical sins committed by the mining industry in the processes of colonizing and developing the country, through industrial and agricultural pollution, and through the mismanagement of river flow. Legislative reactions in order to alleviate impacts have been slowly developed, thereby holding back recovery. Clearly, American rivers suffer even today from a multitude of environmental disturbances and in some respects they are in a worse condition than ever through the proliferation of new chemicals. Growing concern about the state of the rivers led to legislation beginning with the Rivers and Harbors Bill 1824, and the 1849 and 1850 Swamp Acts, which unfortunately counteracted the intended protection against floods; it is now well understood that swamplands mitigate flooding. Successive governmental legislation and mitigation plans have had very costly consequences and resulted in mixed success at best. The concluding parts of the book deal with restoration and rehabilitation of rivers. Here, frightening examples of ‘improvements’ of streams and rivers exemplify the mismatch between management and river ecosystem needs. A cry for competent management of these wounded rivers and for introducing restoration science and its growth concludes the book.

It is not explicit who are the intended readers of Disconnected Rivers but clearly a broad readership is addressed, ranging from those who appreciate rivers for their contribution to scenic beauty and recreation (most) to those who see rivers as a convenient tool to get rid of wastes or as crucial for the generation of hydropower. Readers of the book will become increasingly aware that everybody has an important role to play in changing the state of American rivers for the better.

The main tenet of the book is the notion that rivers are harmed essentially because we do not understand how they work. Ellen Wohl’s mission is clearly to act as an eye opener. This is accomplished by revealing numerous historical mistakes made by the European Americans, in particular, with their belief in human dominance over nature exemplified in a series of strong regional impacts across the nation. The charges are massive and the book is eerily written in the tradition of Rachel Carson’s Silent Spring, but also follows up on Wohl’s own book, Virtual Rivers (2001). The broad selection of impacts, for example placer mining, pollution and erosion, all point in the same direction of use and abuse, in the past as well as in the present with persisting legacies and today’s new threats. The charges rest on solid ground; throughout the book there are ample references in support of the claims presented. The message is clear: the only way of solving the problems is via measures informed by science.

This is not simply a book about rivers; rivers are the systems used here to indicate that the entire lifestyle is unsustainable. In response to multiple small-scale investigations showing grim consequences of chemical pollution to human health, Professor Wohl asks why there is not a ‘collective outrage over what can only be termed an epidemic of cancer in the industrial world’, and argues convincingly for more extensive studies linking cancer incidence to environmental contamination.

The book is easy to read, with technical details generally explained in plain and clear language, and is very well produced. A note here is warranted: the referencing with endnotes following most paragraphs is somewhat awkward. This makes the text less cluttered but, unfortunately, it is tricky to find out exactly who is cited for what, because there are generally multiple referenced works for each note. Furthermore, this sometimes makes it difficult to distinguish the author’s own statements from those being cited. Illustrations and
photos are sketchy, but clear and to the point, the latter not overly well reproduced but cleverly selected, providing interesting glimpses of historical activities of an industrial nature along rivers.

The American dipper is suggested to be an indicator of river health, like the miner’s canary. Sure enough, the presence of dippers is a trustworthy sign that a river is in good shape having a fair supply of aquatic insects, but their absence is more problematic. For one, dippers are only found in western North America and could thus only work as an indicator inside this region. Readers may erroneously suspect that an absence of dippers in suitable streams, such as in the Appalachians, could be due to pollution when the explanation is more likely related to biogeography. For other information on the dippers I missed reference here to work by Stephanie Tyler and Stephen Ormerod (for example the excellent book *The Dippers*, published by T. & A.D. Poyser in 1994, which synthesized dipper ecology taking a global perspective).

The author gives a broad and informative account of the various impacts in a trustworthy but at the same time personal manner, including intriguing anecdotes from her own childhood. She not only deserves respect and credit for her important compilation of history, but also for stressing that the abuse of rivers is as much a current problem as something caused by ignorance in the past. The tools needed to reverse the unsatisfactory development are available today, the scientific evidence is unequivocal, yet wrong decisions in terms of management and legislation are still the rule. This is the frustrating truth.

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