

Editorial

20 years after View from the Park: advance ecology and avoid editorial rejection in *Oikos*

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Oikos has a long-standing tradition in publishing original and innovative research on all aspects of ecology. The journal's emphasis has always been on theoretical and empirical work aimed at generalization and synthesis across taxa, systems and ecological disciplines. At the same time, *Oikos* has always been a little quirky – a little odder than other, equally valuable ecologically focused journals. This balance of quirkiness and rigour was best captured by John Lawton's View from the park contributions that influenced our thinking and practice in ecology. The “View from the Park” essays remain timely and relevant; Lawton presciently communicated key concerns about ecological research that continue to resonate 20 years later:

- 1) the disparate and uncoordinated study of processes and patterns across too many haphazardly chosen model species,
- 2) the lack of a proper theoretical basis in many ecological studies,
- 3) mismatches between experimental and natural scales, and
- 4) the overestimation of ecological relevance of the researchers' own pet species.

[For your convenience, we collected all his essays online; < [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1600-0706/homepage/virtual_issues.htm#8](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1600-0706/homepage/virtual_issues.htm#8) >]

Today, a major goal of *Oikos* is to drastically improve gatekeeping to assure high scientific standards in ecology and serve as a publication house of real progress in the field. As is the case of many other prestigious journals in ecology, we receive many more manuscripts than we are able to handle with the necessary high editorial standards. On one hand, increase in submissions is a clear sign reflecting the maturity and importance of ecology as a science determined by many factors such as increase in demographics, funding, and the fact that ecology has become extremely relevant to societal interests and needs. On the other hand, we have been witnessing a discouraging tendency in which authors place emphasis on manuscripts that are somewhat shallow by considering the least amount of data or work required to warrant publication. Submissions of limited impact have dramatically increased in numbers throughout the years and do not fit our goal to publish work that aims at generating synthesis in ecology. *Oikos* aims at publishing research that can advance the field in a non-trivial manner by either changing our views on current ecological theories or by providing strong evidence or new insights regarding ecological mechanisms underlying patterns at multiple levels of biological organisation. Our journal, as many others, therefore adopts a strong culture of editorial rejections in which papers are not sent out for peer review when the manuscript does not fit our goals. In this way, authors can quickly reconsider a submission to another, often more specialised journal in which the expectation is somewhat less than



that of *Oikos*. At the same time, this procedure also ensures a proper editorial handling of those manuscripts that reach a level in which editors and reviewers feel strong about the contributions of the paper. This editorial serves two complementary goals in the spirit of Lawton's "View from the Park". One is to provide a guide to explain the types of submissions that are and will continue to be rejected outright without undergoing peer review. The second is to understand the type of contributions that *Oikos* seeks to publish and that are likely to advance the science of ecology. Below we explore a number of relevant aspects that allow potential authors interested in publishing in *Oikos* to identify the strong and weak features and the overall nature of the work required to become an appropriate contribution to *Oikos*.

Papers may be good pieces but do not contain strong contextual ecological relevance

Ecological studies should not be designed without relevant background knowledge about the life history and biology of the studied species. These insights thereby serve as a baseline for future experimental or pattern-oriented work to test and generate insights about the mechanisms that underlie important and general ecological patterns. Many submissions document the influence of biotic and abiotic factors on habitat use, demography and species distributions without providing any further insights on the relevance of this knowledge for the broader field of ecology and evolution. Moreover, they miss the mark by not having a strong narrative regarding how the premises and findings of the study should change our views on past and current ecological mechanisms and theories. Contributions of this kind are valuable to increase a 'stamp collection', however these studies are too local in nature and do not attain a relevant level of synthesis and novelty that *Oikos* seeks. It has become almost common place to have access or amalgamate information from different sources to generate data at very large and global scales. Many papers received by *Oikos* fail to report and generate results that are at par with strong mechanistic and theoretical basis to understand how the interactions among mechanisms at different smaller scales generate the patterns observed at much larger scales (Lawton 1999, View from the Park 25: Size matters]. Describing patterns of species distributions and diversity are essential steps to build a solid understanding about mechanisms involved in structuring biodiversity on Earth, but *Oikos* is not the proper outlet for these contributions. We redirect such studies to specialised, taxonomically-oriented journals or those specialised in pattern oriented and descriptive biodiversity.

Confirmatory papers need to be innovative

Empirical tests of (basic) theory are essential to forward the field of ecology. *Oikos* is a prime journal to publish these findings if they provide the necessary next step to put theory

into an explicit ecologically relevant context. In many cases, experimental studies provide valuable additions to the literature, but do not advance the field in that particular moment (Lawton 1994, View from the Park 10: Something new under the sun?). These studies are in the end what Lawton often referred to as trivial variations on a few common themes (Lawton 1992, View from the Park 5: There are not 10 million kinds of population dynamics). It is equally worrying that a high number of manuscripts are developed with very narrow views, particularly by not referring to either (older) seminal work, theory and cross references to parallel studies in other systems using different model species. For instance, one can learn a great deal about the processes underlying stream-fish communities by patterns described on desert spiders. We concur with Lawton's worries about the lack of scholarship that goes with the current "tyranny of now" (Lawton 1991, View from the Park 2: Warbling in different ways). There Lawton expresses "Bright young graduate students with lots of ideas don't want to be bothered to find out whether somebody else might actually have had the same idea". This is likely the case of many young scientists that now more than ever suffer from not having the adequate time to make sense of trends in the literature in the jungle of publications.

These studies are the fuel for proper systematic reviews and meta-analyses and are hence essential for ecological synthesis, but on their own, the added value to ecology in their adopted format, it provides rather marginal contributions. It is crucial to keep in mind that "*Oikos* publishes original and innovative research". So, before considering *Oikos*, always ask yourself how your finding advances the field of ecology and evolution. Build a strong narrative in the Introduction that allows us to clearly see how your work will advance ecology and evolution in a general sense, not for that particular system or taxonomic group. In addition, too many studies do not frame their results, or do not attempt to quantify the importance of their single experiment or narrow observational study for ecological processes and patterns at higher scales of ecological or evolutionary organisation. If your work does not validate (provide strong evidence of) established ecological concepts and theories, then ensure you tested theoretical (or at least with a strong conceptual basis) predictions at the proper scale (Lawton 1999, View from the Park 25: Size matters), and with the proper model species (Lawton 1991, View from the Park 4: Are species useful).

New methods?

Oikos has a tradition of publishing papers with a strong methodological emphasis. In contrast to other journals that publish methods in ecology and evolution as one of their central goals (or single goal), *Oikos* desires such papers but they need to be properly integrated within an ecological framework. The methodological contributions we receive are very often too limited and as such, we reject them immediately. However, we frequently invite authors to work on a revised manuscript that integrates a novel (often statistical)

approach into an empirical context that allows understanding the nature of the ecological or evolutionary mechanisms underlying the reported results in ways that traditional methods would not allow. In this way, the proposed method has a much greater chance to be well received by potential users (Lawton 1991, View from the Park 3: Ecology as she is done, and could be done). *Oikos* neither publishes data-or design papers for the same reason.

Papers need to tackle ecological questions

This point reads like a trivial one, but we are experiencing a substantial amount of submissions that document patterns in organismal physiological variation and morphology without further tests of their ecological relevance. We define ecology as the study of interactions among organisms and the environment at the individual, population, community and even deep evolutionary scales. Pure descriptions of phenotypic variation will not be considered by *Oikos*.

Relevance, a matter of definition?

Ecological studies need focus on the higher aim to understand the organisation of life and be relevant in uncovering how it influences ecosystem processes (Lawton 1991, View from the Park 4: Are species useful). A lot of research aim at developing plans for the conservation of species, to document the impact of certain invasive species on novel communities, to predict distributional changes under climate changes or spread of specific wildlife diseases, among many other related themes. These studies often target the species being studied as the central focus. Following our earlier points, such studies are extremely relevant to guide local managers and/or policy makers but they rather use ecological insights to make too specific predictions rather than developing and or deepening existing insights that have broad relevance beyond the study species and/or ecosystem. The studies of wild bees are, for instance, of high relevance for pollination, but studies showing different bee communities in different landscapes, vegetation types are again another example of confirmatory research despite its putative importance of pollination and ecosystem services.

We embrace theory,.. in theory

Since we put the integration of theory and empiricism central to the advance of ecology and evolution, we consider new solid theory. As for empirical work, emphasis on theory should be again on the understanding of broad, and widely relevant ecological processes within or across specific scales of biological organisation. As such, too specialised theory will be returned to the authors regardless of the quality and elegance of the underlying mathematical developments. Moreover, be aware that *Oikos'* readership is primarily connected with ecology through empiricism and not by means

of physics, mathematics or philosophy. Independent of the mathematical procedures, your theory needs to be picked up by empiricists to foster the highly needed crosstalk, and conversely, the theory needs to be sufficiently connected within current broader ecological contexts (Lawton 1996, View from the Park 16: Corncrake pie and prediction in ecology). Too often the math submitted in manuscripts is so specialised and not explained (enough) to guide our readership through the developed reasoning (and equations). Theoreticians, please take this at heart: if readers cannot judge the relevance and/or mathematical reasoning, our readership will simply not appreciate your work. In many cases, our journal is not the best outlet for hard core ecological or evolutionary theory where mathematics rather than ecology is central.

Too limited overall

Finally, and most relevant, *Oikos* is receiving too many studies that simply do not reach our bar of quality, despite potential relevance to advance the specific field targeted by the authors. While correlative studies combined with a good analytical framework may advance the field substantially and are needed in this respect, many correlative studies are often assembled from too limited data sets to infer proper mechanisms or lack the proper level of replication. With the rise of AIC-based or related model selection criteria, many studies contrast a huge array of sometimes very complex statistical models to infer mechanistic insights underlying observed patterns. Often final models are not informative at all. The question is not so much about what mechanism is correct, statistically significant, but about the relative contribution of a plurality of mechanisms; patterns in ecology, (Lawton 1996, View from the Park 15: Patterns in ecology), and often resemble too much a fishing trip in the pool of ecological theory. Most studies following this approach fail to explain why non-selected variables were not important in the particular system being studied. This speaks to generalization – if time, resources and funding were spent measuring predictors of interest is because they were mostly likely deemed important elsewhere. So, why weren't they important in your system? Ecology and evolution as fields could profit a great deal by understanding the issue of why certain mechanisms are relevant in certain systems but not in others. We know that many processes in ecology include a stochastic component and are context-dependent. New specific insights on taxon or system specific idiosyncrasies are not helping us any further. Alternatively, embrace variation, focus on it and put effort to understand its importance for ecological and/or evolutionary dynamics. In agreement with Lawton's admiration for the small ones (Lawton 1998, View from the Park 21: Small is beautiful, and very strange), it becomes obvious that we need to study patterns in organisms that matter, and are therefore usually different from the commonly studied pet organisms we all like (Lawton 1998, View from the Park 24: Pigeons, peregrines and people).

We are confident that the field of ecology made significant progress since the publication of Lawton's essays, but there is still a lot of advance to be made, especially in the light of the ecological and environmental crisis we are currently experiencing. Fundamental ecological sciences remain essential to build a solid understanding of ecological functioning and to develop predictive approaches that will allow us to act rather than to report (when it is too late). We see an important role for *Oikos* as a key-player here-in, and engage ourselves to persist in stimulating and publishing the best ecological research.

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