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Introduction of the Evidence synthesis: article type

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1. Introduction

With over two million scientific publications appearing each year worldwide, there is an escalating need to access evidence and opinion to inform policy. In response, articles encompassing a breadth of policy and practice, from clinical medicine through to conservation science increasingly adopt an *Evidence Synthesis* framework. These articles access, appraise and synthesize scientific information and makes them readily available to non-specialists. They are rigorous, objective and transparent and driven by stakeholder needs, enabling the reader to make informed decisions. In an exciting new development, *Proceedings of the Royal Society B* will be extending its publication portfolio by launching a new article type entitled *Evidence synthesis* in June 2018, as part of a joint programme by the Academy of Medical Sciences and the Royal Society <https://royalsociety.org/topics-policy/projects/evidence-synthesis/>. Articles can range from brief review-style papers, through to meta-analysis and full systematic reviews of contentious issues. This editorial will serve to explain the appetite for such articles and the benefits for us in publishing them, as well as explain to authors the journal requirements for these pieces.

2. Publishing *Evidence synthesis* articles: the need and maximizing impact

An *Evidence synthesis* article contains no new research but is a synthesis of existing information relevant to an identified policy question. It differs from a standard review in that the identity of the audience is clear at the outset, and the article is tailored to its needs, with a strong element of critical evaluation. An *Evidence synthesis* article should state explicitly whether its goal is to summarize evidence in a policy-neutral manner, or whether it is making the case for a particular course of action based on expert interpretation of the underlying evidence. Fundamental to the process is the formulation of a clear question(s), supported by an appropriate justification for timeliness and relevance to the target audience. Evidence in support of particular actions relating to policy can arise in several ways, ranging from the scientific curiosity of individuals, to demand-led responses to government policy, through to global policy development. *Evidence synthesis* articles must highlight priority issues and the need for evidence to inform decisions, typically involving evaluation of published information in relation to needs, and sometimes interactions across organizations. Critical matching of need to response within a policy context is crucial not only to secure timeliness, but also to identify priorities in the face of limited resources. In such circumstances, any such decisions require the best available evidence.

An example of an *Evidence synthesis* format is the 'Restatements' produced by the Oxford Martin School at Oxford University. They are policy-neutral summaries of the evidence available for policymakers working in contentious areas (e.g. bovine tuberculosis, neonicotinoid insecticides, low-dose effects of ionizing radiation and ecosystem flood defences) and are developed as an explicit response to stakeholder needs.

The *Evidence synthesis* initiative at the *Proceedings B*, sets out to validate some specific requirements of such science–policy interactions: (i) the need to publish

quickly, because the evidence is representative of the date of writing (*Proceedings B* average time to first and final decision is 30 and 75 days, respectively); (ii) the need to disseminate widely, and our *Evidence synthesis* articles will be open access to maximize engagement; (iii) the need to be robust, up to date and representative of the available evidence, consistent with the comprehensive and expert peer review process at *Proceedings B*.

3. Potential topics and article style

As the Royal Society's flagship biological journal, *Proceedings B*, considers a wide range of potential policy-relevant topics encompassing all aspects of biology and the environment. Issues associated with management of natural resources, climate change, food security, health and disease, epidemiology, pollinator declines and so on, fall within areas of interest (see: Journal Aims and Scope: <http://rspb.royalsocietypublishing.org/about#question1>). Articles for publication must represent significant advances of broad interest offering up to date novel insights relevant to decision-making. Manuscripts of

interest to small groups of specialists are not encouraged. In line with *Proceedings B* editorial policy, all manuscripts will be assessed initially, and will be sent for peer review only if they satisfy quality criteria presented below.

4. Dealing with submissions

Authors interested in submitting an *Evidence synthesis* article will need to follow the Royal Society Publishing instructions for authors when preparing articles for submission. *Evidence synthesis* articles should be between 6 and 10 printed pages. Authors are allowed to submit supporting material as supplementary data. All submissions will be handled by *Proceedings B* editor, Prof. Gary Carvalho. The criteria for assessment will include: the importance and timeliness of the topic (in general, and to its target audience); the methodological clarity, management of uncertainty, quality and impartiality of the synthesis relative to its stated aim, and the degree to which the identified target audience will be served by the form of the *Evidence synthesis* (e.g. accessibility, length and adequate coverage).