

# Slow-moving journals hinder conservation efforts

Critical policy decisions miss out on research stuck in an 18-month publishing queue.

*Sir*— Conservation biology is a crisis discipline, burdened with the responsibility of providing rapid scientific answers that can help us protect our world's threatened biodiversity<sup>1</sup>. Because we lack basic natural-history information regarding thousands of species on the precipice of extinction, there is a clear opportunity for biological research to make valuable 'real world' contributions. Indeed, conservation science can play a timely and pivotal role in judicial and legal decisions about resource policy<sup>2</sup>.

However, to make a meaningful contribution to conservation decisions, scientific input is often needed on the timescale of months, rather than the years typical of many major scientific journals. Because of the urgency surrounding conservation, we investigated the speed with which the major conservation-biology journals publish research relative to comparable journals in organismal biology. Our results are disquieting. Rather than being faster, in response to the biodiversity crisis, leading journals in conservation biology are the slowest to publish primary research.

To discover how long it takes an original scientific finding to find its way into the peer-reviewed literature, we examined a wide array of biological journals and recorded the time in days from submission to publication for every research paper appearing in 2000. We excluded journals that appear more often than bi-weekly or less often than quarterly, or that fail to list the dates on which manuscripts were both received and accepted, and we focused on research articles (excluding special features, commentaries and essays). We selected journals to represent four categories: conservation and applied ecology; taxonomically oriented research; behaviour; and evolution and genetics. Within each category, we selected journals that have the highest science-impact scores<sup>3</sup> or that represent the largest professional scientific societies. Journals satisfying both criteria were chosen first.

Among the examined journals, the three conservation and applied-ecology journals stand out as having the slowest publication processes (Fig. 1), with an average median lag time of 572.2 days from submission to publication. In contrast, the four genetics and evolution journals had an average median lag time of only 249.1 days. It is noteworthy that three of the four journals in this 'fastest class' encourage or require online submission, whereas none of the conservation journals allows online submission.

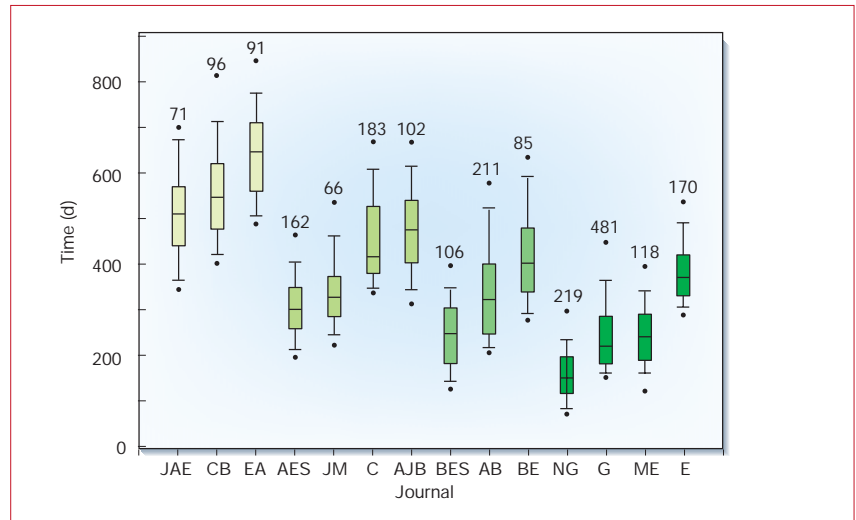


Figure 1 Median time, in days, from submission to publication for journals representing four disciplines within organismal biology. Conservation and applied ecology (yellow columns): JAE, *Journal of Applied Ecology*; CB, *Conservation Biology*; EA, *Ecological Applications*. Taxonomic (light green): AES, *Annals of the Entomological Society of America*; JM, *Journal of Mammalogy*; C, *Condor*; AJB, *American Journal of Botany*. Behaviour (medium green): BES, *Behavioral Ecology and Sociobiology*; AB, *Animal Behaviour*; BE, *Behavioral Ecology*. Evolution and genetics (dark green): NG, *Nature Genetics*; G, *Genetics*; ME, *Molecular Evolution*; E, *Evolution*. Extent of the boxes indicates 25th and 75th percentiles, lines within boxes represent medians, capped bars represent 10th and 90th percentiles, and circles represent 5th and 95th percentiles. Numerical labels are sample sizes.

We believe that the leading journals in the area of conservation biology have a heightened responsibility for rapid dissemination of research results. Our survey indicates that these scientific outlets are not measuring up to this responsibility. If conservation biology truly is a crisis discipline, then the discipline's journals must make rapid handling of submitted research articles a high priority. Otherwise, if we cannot rapidly publish science concerning threats to biodiversity,

opportunities for conservation action could be missed and species may pay the price for our procrastination.

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1. Wilson, E. O. *Conserv. Biol.* **14**, 1 (2000).

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## Sharp eyes saw through early effort to fake prints

*Sir*— While surveying the history of fingerprinting at the National Archives of India in New Delhi, we came across an early reference to forged fingerprints, similar to that described in your fascinating News item "Detectors licked by gummy fingers" (*Nature* **417**, 676; 2002, and see D. Ehrenfeld, *Nature* **418**, 583; 2002).

In 1917, when the science of fingerprinting was in its infancy, news of a demonstration by a lawyer in a court in Howrah (Bengal, India) threatened to undermine the value of this discipline

(*Home Department Proceedings* 202–206 (A), Police Branch, Government of India, August 1919).

The lawyer, Babu Panchkowsky Chatterji, was then invited to Bengal Fingerprint Bureau and asked to re-demonstrate his experiment. He took a thin piece of paper and smeared it lightly with gum arabic. He then placed it over a fingermark and pressed it for one to two minutes. Next, he slightly wetted the paper and separated it from the original impression so that it now carried the negative of the imprint. He applied the negative to a fresh sample of paper, wetted and pressed it again, and removed it, thus producing a clear replica of the original