

# Editorial

## The times they are a-changin’

I start writing this Editorial right after the announcements of three (apparently) successful trials of vaccines against COVID-19. These have monopolized media attention over recent days, and they indeed represent hopeful, promising advancements in the global fight against this disease. However, the excitement this news originate must not hide the current and harsh reality: we are still in the very midst of the pandemic. Italy recorded more than 800 deaths yesterday. In the UK, where I live and work, we lost 10,000 people because of COVID-19 only in November and we are far from being over the peak of this second wave. Despite this, the government has just announced that mixing of up to four households will be allowed over the Christmas week, ignoring most of the recommendations from science advisory panel that was hired by the very same government.

In fact, the pandemic has highlighted the gaps between science, public opinion and government actions. The scientific evidence now clearly points towards wearing masks and limiting movements of people as two measures that can greatly reduce infection risks and thus deaths (Firth et al., 2020; Peoples, 2020). Yet no-masks protest groups are seen in streets of cities all over the world. Ecologists have warned for a long time that the destruction of natural habitats and consequent biodiversity loss will lead to a greater risk of emerging zoonosis (although this might not be directly linked to COVID-19) (Keesing et al., 2010). Yet, natural forests are still being destroyed at alarming rates (Betts et al., 2017). In a world where unnecessary travelling has become

unreasonable, epidemiologists long predicted that novel local zoonosis may quickly transform into global pandemics (Findlater & Bogoch, 2018). Yet, most countries were unprepared to face one and failed to maintain appropriate stocks of protective equipment. It did not help that many so-called world leaders are blatantly against science. But it might help that some of these, starting with Donald Trump, are on their way out. His elected successor, Joe Biden, has already announced that the USA will re-join the Climate Agreement. This is a huge discontinuity from the recent past, and it re-instates some hope the darkest times are behind us and a new, stronger Green Economy is on the horizon.

Nevertheless, this mismatch between scientific evidence and policy-making highlights also something else. That is, we scientists must become better communicators (Toomey, Knight, & Barlow, 2017). Science should not only be made to satisfy our curiosity and passion, but it must also be a driver of political, economic, technological as well as ecological change. And the only way to achieve this is to communicate our ideas and our results better and to a wider audience than we are used to. To this end, Avocetta strongly supports the Conservation Evidence initiative (<https://www.conservationalevidence.com/>), which aims at summarising the effectiveness of conservation actions, with the ultimate goal to support policy-makers in taking fast and efficient evidence-based decisions (Sutherland et al., 2020). We now offer the possibility to submit a new short article type, named “Conservation Evidence” to highlight successful, but also unsuccessful, stories of bird conservation. We hope that this initiative will benefit ornithological conservation in Italy and beyond. This

is an important moment to focus on conservation, because the pandemic has also highlighted the effects that human activity has on wildlife. A recent paper has shown that white-crowned sparrows, which usually sing at higher pitch in urban areas to avoid the masking effect of traffic noise, quickly re-adjusted to the silent spring of the COVID-19 lockdown by decreasing their song frequency to more efficient levels (Derryberry, Phillips, Derryberry, Blum, & Luther, 2020). This suggests that some species can rapidly respond to novel environmental conditions we humans impose on them, but also that conservation measures aimed at reducing traffic noise could have fast and positive impacts on wildlife.

*The times they are a-changin'* worldwide, and so they are for *Avocetta*. In this volume we present a new graphic design, which was specifically planned to be both dyslexia-friendly and colour-blind friendly, while adding a touch of modernity. We also now offer articles in *Early View*, a move that speeds up our publication process considerably and will increase the visibility of the accepted articles. We have also started to collect PhD theses defended by Italian researchers abroad, which we will publish as a collection in the issue of June 2021. We invite more students to submit their work through our website before then (<https://www.avocetta.org/review-of-phd-dissertations/>). This is not the only effort we are making to support and promote the work of early-career researchers. We will co-organise and teach an online Course in Scientific Writing (<https://www.avocetta.org/courses/>), specifically tailored to young scientists such as PhD students. We are also proud to stand by the Publication Partners initiative, together with other international journals, to contribute in mitigating the potential effects of the pandemic lockdown on the development of scientific careers of early-career scientists (<https://www.avocetta.org/publication-partners/>).

It is undoubtful that the COVID-19 pandemic has impacted all of us scientists. I greatly miss all the interactions I used to have with students in the lecture room and with my colleagues in the

coffee room. A large portion of the excitement in my life as a scientist, discussing ideas with my peers, is now occurring over Zoom, and it often feels unreal and limiting. I am probably luckier than many other researchers who have seen their projects considerably impacted by the pandemic, as I was still able to go ahead with local field work during both last spring and this autumn. Yet, it still felt very different, and much slower than usual. And lab work and field courses were postponed. But the times have changed, and we need to adjust to them one way or another. I re-wrote my lectures and exams to make them more suitable for online learning and assessment. I had to set aside some planned experiments, but this came with the benefit of more time to focus on things I had long left behind in dusty drawers, such as unfinished analyses, writing old manuscripts, and reading papers. And I realized, among other things, that there is a lot of data out there waiting for us to analyse it. Online repositories such as GBIF and PREDICTS for biodiversity time-series, Movebank for animal movement or Comadre for animal population models, are yet to be exploited in full (Culina et al., 2018). Meanwhile, meta-analytical techniques have improved considerably in recent years and offer the possibility for robust quantitative syntheses of published literature, which could also improve our assessment of conservation evidence. I am by no means invoking the abandonment of binoculars and hiking boots, but rather offering a glimpse of positive thinking during these gloomy times. Science needs us and the world needs science, more so now than ever.

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## References

- Betts, M. G., Wolf, C., Ripple, W. J., Phalan, B., Millers, K. A., Duarte, A., ... Levi, T. (2017). Global forest loss disproportionately erodes biodiversity in intact landscapes. *Nature*, 547(7664), 441–444. doi: 10.1038/nature23285
- Culina, A., Baglioni, M., Crowther, T. W., Visser, M. E., Woutersen-Windhower, S., & Manghi, P. (2018, March 1). Navigating the unfolding open data landscape in ecology and evolution. *Nature Ecology and Evolution*, Vol. 2, pp. 420–426. Nature Publishing Group. doi: 10.1038/s41559-017-0458-2
- Derryberry, E. P., Phillips, J. N., Derryberry, G. E., Blum, M. J., & Luther, D. (2020). Singing in a silent spring: Birds respond to a half-century soundscape reversion during the COVID-19 shutdown. *Science (New York, N.Y.)*, 370(6516), 575–579. doi: 10.1126/science.abd5777
- Findlater, A., & Bogoch, I. I. (2018, September 1). Human Mobility and the Global Spread of Infectious Diseases: A Focus on Air Travel. *Trends in Parasitology*, Vol. 34, pp. 772–783. Elsevier Ltd. doi: 10.1016/j.pt.2018.07.004
- Firth, J. A., Hellewell, J., Klepac, P., Kissler, S., Jit, M., Atkins, K. E., ... Spurgin, L. G. (2020). Using a real-world network to model localized COVID-19 control strategies. *Nature Medicine*, 26(10), 1616–1622. doi: 10.1038/s41591-020-1036-8
- Keesing, F., Belden, L. K., Daszak, P., Dobson, A., Harvell, C. D., Holt, R. D., ... Ostfeld, R. S. (2010, December 2). Impacts of biodiversity on the emergence and transmission of infectious diseases. *Nature*, Vol. 468, pp. 647–652. Nature Publishing Group. doi: 10.1038/nature09575
- Peebles, L. (2020). Face masks: what the data say. *Nature*, 586(7828), 186–189. doi: 10.1038/d41586-020-02801-8
- Sutherland, W. J., Alvarez-Castañeda, S. T., Amano, T., Ambrosini, R., Atkinson, P., Baxter, J. M., ... Wordley, C. (2020). Ensuring tests of conservation interventions build on existing literature. *Conservation Biology*, 34(4), 781–783. doi: 10.1111/cobi.13555
- Toomey, A. H., Knight, A. T., & Barlow, J. (2017). Navigating the Space between Research and Implementation in Conservation. *Conservation Letters*, 10(5), 619–625. doi: 10.1111/conl.12315



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