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FOREWORD

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Following the publication of Ireland's third National Biodiversity Action Plan, there was recognition that greater engagement across society was needed in order to broaden the conversation on how to tackle biodiversity loss. This need was the impetus for Ireland's first National Biodiversity Conference 'New Horizons for Nature', which was held in February 2019 and hosted by the National Parks and Wildlife Service and the Irish Forum on Natural Capital. The content for the conference was built around three interconnecting themes: *Engagement, Planning for the Future and Investing in Nature*, and covered a wide range of disciplines including ecology, environmental economics and social science.

This special issue includes a selection of papers that capture the essence of the themes of that conference. They are somewhat different from the standard scientific papers normally published in this journal but nevertheless synthesize an important body of information relevant to the protection and management of biodiversity within the human socio-economic arena. They illustrate the reality and complexity of the challenges we face if we are to halt declines in biodiversity.

The paper by Kelly-Quinn *et al.* outlines the water quality problem in freshwater ecosystems and, importantly, the paucity of available data on invertebrate biodiversity in Irish freshwaters. It explores the implications of this problem for effective biodiversity monitoring in a changing world, many of which could be applied to other ecosystems. In their paper on nature and agriculture, McGurn and McKay highlight how the drive for increased levels of agricultural production is continuing to exert pressure on biodiversity. The authors suggest that protecting and enhancing biodiversity within the current farming systems will remain a challenge and that 'relying on altruism ... will lead to continued decline'; they go on to identify a need for a market where supplying biodiversity can produce a financial return for the farmer.

This point is also addressed by Sullivan *et al.* who discuss the role of incentives and other initiatives that support conservation action and outline how European Innovation Partnerships can provide a model by which a wide range of ecosystem services can be delivered through a results-based agri-environment payments approach. Such schemes connect to options for improving biodiversity on farmland and better integrating biodiversity into agriculture policy, including

nature-based solutions. Collier and Burke expand on this in their paper, outlining nature-based solutions and their potential to provide multiple co-benefits in the longer term.

In his paper, Bullock explains how the recognition of a broader range of environmental values can inform policy and strengthen public participation in efforts to improve environmental quality. Applying this approach, Norton *et al.* present an initial assessment of the level of terrestrial agroecosystem services generated in Irish catchments and include an estimation of the economic value of both ecosystem services and disservices. McGrath and Hynes investigate the topic of natural capital accounting and consider its potential applications in Ireland, including its use for supporting the measurement of sustainable development. Meanwhile, Crowley *et al.* illustrate lessons from practice to remind us that engaging and empowering people to take action to protect biodiversity is central to the realisation of our ambitions for nature.

The National Biodiversity Conference 'New Horizons for Nature' provided an opportunity to learn by listening and sharing experiences across disciplines and sectors. The outcome of the event was the 'Seeds for Nature Charter', which comprised a suite of commitments for nature and biodiversity that go beyond the current work programmes of the various government departments, state agencies, NGOs and businesses in an effort to scale up and fast track the implementation of the National Biodiversity Action Plan.

Since the event took place, the Irish Government has declared that we are in a climate and biodiversity emergency. In recent months, the momentum to protect, conserve and restore nature has grown, as many people rediscovered their connection to the natural world through the restrictions imposed by the global COVID-19 pandemic. Today, Ireland stands ready to adopt an ambitious and transformative post-2020 global biodiversity framework at the fifteenth Conference of the Parties to the Convention on Biological Diversity, and to work with the EU to shape the implementation plan for the EU Biodiversity Strategy as part of the European Green Deal. Now is the time to build a new Irish Plan for Nature and to make this plan a turning point that recognises the scale of biodiversity loss and its impacts on food security, livelihoods, health and the economy, and its interaction with climate change.

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Mary Kelly-Quinn,
Editor