

Harnessing the data revolution to help slow down the extinction rates: from basic science towards influencing global policies

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The escalating power of machine learning, big data and exascale computing provides biologists and conservation practitioners with essential tools to address one of humanity's greatest challenges as identified by the World Economic Forum 2021: biodiversity loss. The design and implementation of species conservation strategies directly rely on accessing a high variety and volumes of information on species' genetics, habitat, threats and human use. Despite promising advances in digital infrastructure and open data, we are still struggling to provide essential analytics for effective decision-making. In this talk, I will show examples of the results of a global initiative aiming to map, quantify and disseminate species open information to conservation policymakers globally. While addressing how this heavily rely on the development of basic science within a network of collaborators working on key evolutionary questions on birds and other vertebrates.