



NATURE IN CRISIS: BIODIVERSITY LOSS AND ITS CAUSES

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The new IPBES report is extremely troubling but not surprising. Over the past few decades, study after study has revealed broad-scale declines in species and natural ecosystems around the world as well as here in the United States. This report synthesizes those findings into a comprehensive, if frightening, assessment of the precarious condition of much of our planet. It also highlights just how dependent—directly and indirectly—we humans are on the services being provided by nature.

The report estimates that as many as one million species worldwide are facing extinction over the next few decades. Based on my more than 30 years of professional involvement in assessing the status and extinction risk of species in the United States and internationally, I consider this to be a conservative estimate. In part this is because the estimate of extinction risk for insect species, an extremely large but poorly known group of organisms, appears to be quite conservative in light of the many recent studies revealing widespread declines in this group (what has been referred to as the “insect apocalypse”). The widespread collapse of monarch butterfly populations in the United States is one illustration of these insect declines. Second, the IPBES report uses an estimate of 8 million species worldwide, of which only about 1.3 million have been scientifically described and named. The total diversity of species on Earth is unknown but estimates vary widely, with most ranging between 5 and 20 million, but with some as high as 100 million. The 8 million figured used in the IPBES estimate is therefore on the low end of this spectrum.

The United States is not immune to the global declines documented in this report. Indeed, based on conservation status assessments conducted by NatureServe and its state government-based network of natural heritage programs, fully one-third of species in the best known groups of plants and animals are vulnerable and at increased risk of extinction. About 150 U.S. species already are presumed extinct, and another 500 or so species have not been seen in recent years and are considered “possibly extinct.” The United States has been a leader in the development and application of responsible hunting and fishing regulations, and as a result, unregulated harvest of wildlife is not the same level of problem for species in the United States as IPBES documented globally. Nonetheless, most of the other global threats to biodiversity, ranging from habitat loss and the spread of invasive species to climate change, also threaten U.S. plants and

animals. Indeed, rapid climate change is a “force multiplier” that is exacerbating many of the existing threats to species, and contributing to their declines. The future of wildlife in the United States and around the world increasingly will be linked to our ability to carry out “climate-smart conservation,” an approach that National Wildlife Federation has been dedicated to developing and advancing.

The IPBES report makes clear that we are facing twin, linked crises: the biodiversity crisis, characterized by the decline and extinction of species; and the climate crisis, characterized by rapid and accelerating climatic changes that threaten both people and wildlife. Based on the findings of this report, as well as other assessments, including the U.S. National Climate Assessment, it is clear that we must take aggressive action on both biodiversity declines and climate change if we are to maintain a high quality life for Americans now and into the future.