Supporting Information

Appendix S2 : Details of the legend of Figures 3 and 4.

Figure 3: Examples on successive combinations of socio-economic scenarios, projections of extinction drivers, habitat or species range models and extinction models and biodiversity metrics, leading to projections of biodiversity losses following climate change. Numbers correspond to references (see Appendix S2). * (1) also used species extinction model that corresponds to the extreme of the IUCN status approach where the number of species committed to extinction =100% habitat loss.** (6) also used both Dose Response Relationships between conservation status and the elevation limits and then estimated the effects of elevational limit shifts induced by climate change on the future conservation status.

Figure 4: Overview of projections of loss of biodiversity due to climate change, for different taxonomic, temporal and spatial scales. The width of the box illustrates the spatial and taxonomic scales: global scale and several taxonomic groups, global scale and only one taxonomic group, continental scale and only one taxonomic group ( for plants,  for fish,  for aquatic invertebrates,  for mammals,  for lizards and  for birds,  for several taxonomic groups). For each study, the box is delimited by the upper and lower boundaries of the intermediate scenario, while maximum and minimum values of the whiskers indicate the highest and lowest biodiversity losses across all projections. The numbers correspond to references (see Appendix S2). Note that biodiversity loss given by studies (11, 12, 13, 5) are local, therefore are respectively expressed per cell of 50 sq.km across Europe (10), per cell of 30’ lat. by 30’ long. grid of world ocean (12), per river (13) and per pixel of 10’ grid (5). When there was no intermediate scenario (11), we defined the upper and lower limits of the box as the two middle values across all projections. In studies with more than one driver of species extinctions (*e.g.*, land-use changes (2), (6) and (1) or land-use changes, atmospheric nitrogen deposition and infrastructure development (7) and (8) or climate change and water withdrawal (12)), we calculated the mean proportion of losses due to climate change among the drivers, across all scenarios when it is possible (7),

(2) and (1). For these studies, the white fraction of the boxes indicates the proportion of species loss due to non-climate drivers for the intermediate scenarios and the coloured fraction indicates proportion of losses due to climate change. This figure illustrates that the different studies (i) generally predict significant biodiversity loss and (ii) use a combination of different biodiversity metrics, taxonomic groups and spatial scale and time horizon, making generalisations difficult.

Appendix S2 : References cited in Table 1, Figure 3 and Figure 4.

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