

Appendix 4

Classification protocol used to assign decision-making bias and user compliance levels to harvested IUCN Red List species.

We compared predictions from our model against data on 206 terrestrial harvested species from the International Union for the Conservation of Nature's (IUCN) Red List of Threatened Species. We considered species belonging to the orders Anseriformes (geese and ducks, $N=37$), Cetartiodactyla (even-toed ungulates, $N=90$) and Carnivora (carnivores, $N=79$) as these are commonly targeted by subsistence, recreational and trophy hunting activities globally (Di Minin et al. 2019, Hill et al. 2019).

Using the "advanced search" option on the IUCN Red List website (<https://www.iucnredlist.org/>, accessed 14th January 2019), we filtered species by criteria relating to Taxonomy ("Anseriformes", "Cetartiodactyla" and "Carnivora"), Red List Category ("NT or LR/nt" and "LC or LR/lc"), and Threats ("Intentional use (species is the target)"). We only considered species listed as Least Concern or Near Threatened so as to minimize confounding factors associated with threat status. Filtering resulted in a total of 206 species to which the classification of decision-making bias and user compliance shown in Fig. A3.1 was applied (see below). More specifically, we classified each species according to 1) its stated population trend at the latest assessment (decreasing, stable or increasing), 2) the type of harvesting it was most commonly under (unregulated, regulated or banned), and 3) the level of illegal harvest most commonly reported for a population (low, medium or high). We

then used population trend as a measure of management outcome, harvesting type as a measure of decision-making bias (with unregulated and banned taken to reflect pro-user and pro-conservation biases), and illegal harvest level as a measure of user compliance. Classifications were carried out by two of the authors and subsequently compared to ensure consistency.

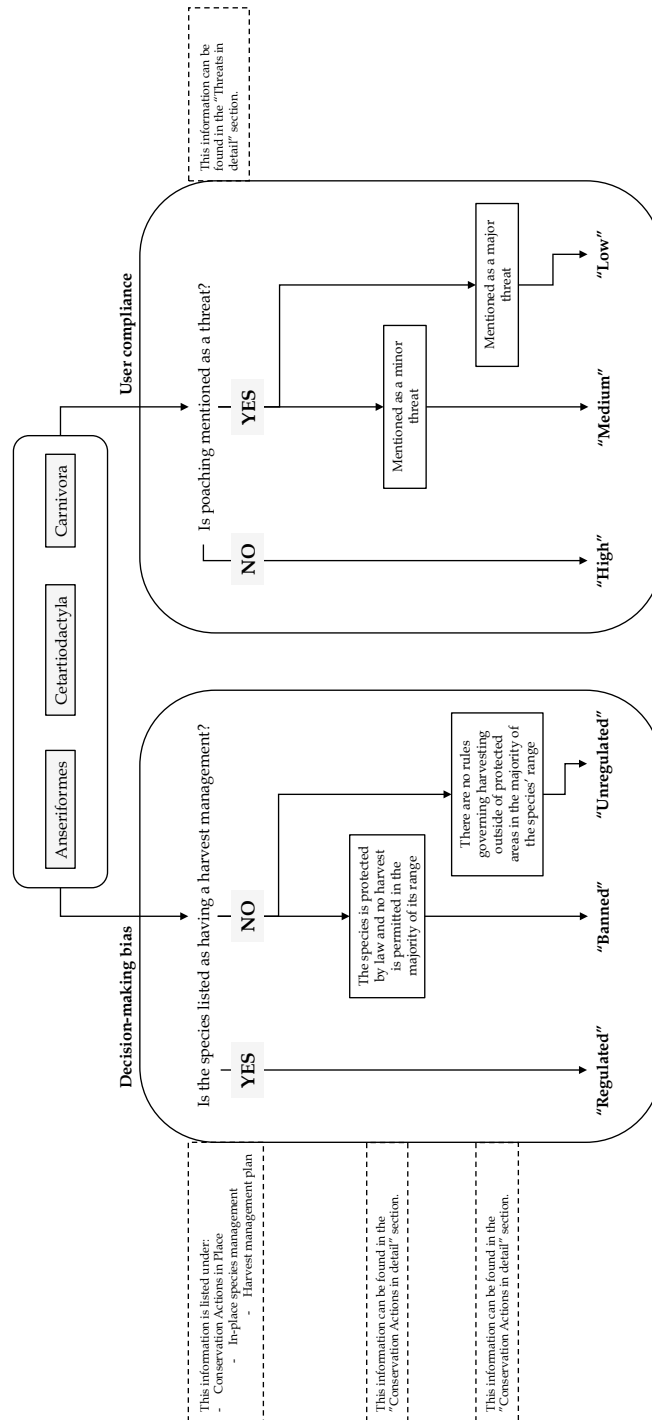


Fig. A4.1. Classification protocol used to assign decision-making bias and user compliance levels to harvested IUCN Red List species.