* **Biodiversity is declining because of global change causing asymmetry in the loss of biodiversity.**

We live in a world amidst accelerating erosion of resource diversity in ecosystems (Grime 1998, Worm et al. 2006, Srivastava et al. 2012). Anthropogenic disruption to functional interactions within ecosystems alters assemblage, threatens biodiversity, and diminishes resource richness (Camargo et al., 2020; Donoso et al., 2020; Jordano et al., 2007; Lorts et al., 2008; Monteiro et al., 2021; Pigot et al., 2016). Animals play a key role in shaping their ecosystems through fundamental ecological processes such as seed dispersal, changing plant biomass, nutrient recycling, pollination, and physical structure alteration (González-Castro et al., 2019; Hempson et al., 2017; McAfee et al., 2018; Parr et al., 2018). However, due to persistent progression of human activities causing abrupt environmental disruptions, we have created an asymmetric skew in the loss of biodiversity, with animals at higher trophic levels and lower populations sizes going extinct first via habitat loss or fragmentation (Davies et al., 2000; Duffy, 2003) (Cramer et al. 2007). This decline of animal populations and species richness is well documented worldwide and has raised concerns on how this will impact the assembly and sustainability of ecosystems (Powers & Jetz, 2019; Spooner et al., 2018; Wang & Loreau, 2016).

* **Plants importance to ecosystems connected to animals?**

Plants considerably affect the resource availability to animals, making plant communities an influential characteristic of an ecosystem (Bascompte & Jordano, 2007; Sebastián-González et al., 2020). Plant community assembly and succession is influenced by abiotic (e.g., soil nutrients [Aerts, 1999; Coomes & Grubb, 2000]) and biotic (e.g., seed dispersal [Carlo & Morales, 2016; González-Varo et al., 2013; Levine & Murrell, 2003; Nathan & Muller-Landau, 2000; Olden et al., 2004; Tylianakis et al., 2010) factors. Manipulating these factors can create drastically different plant communities from the same starting points (Bakker, 1998; González-Castro et al., 2019).

* **There is increasing concern with frugivores because they play a vital role in dispersing seeds in the environment.**

Grime 1998 – Benefits of plant diversity to ecosystems: immediate, filter, and founder effects

Worm et al. 2006 – Impacts of biodiversity loss on ocean ecosystem services

Cramer et al. 2007 – Forest fragmentation differentially affects seed dispersal of large and small-seeded tropical trees

Srivastave et al. 2012 – Phylogenetic diversity and the functioning of ecosystems