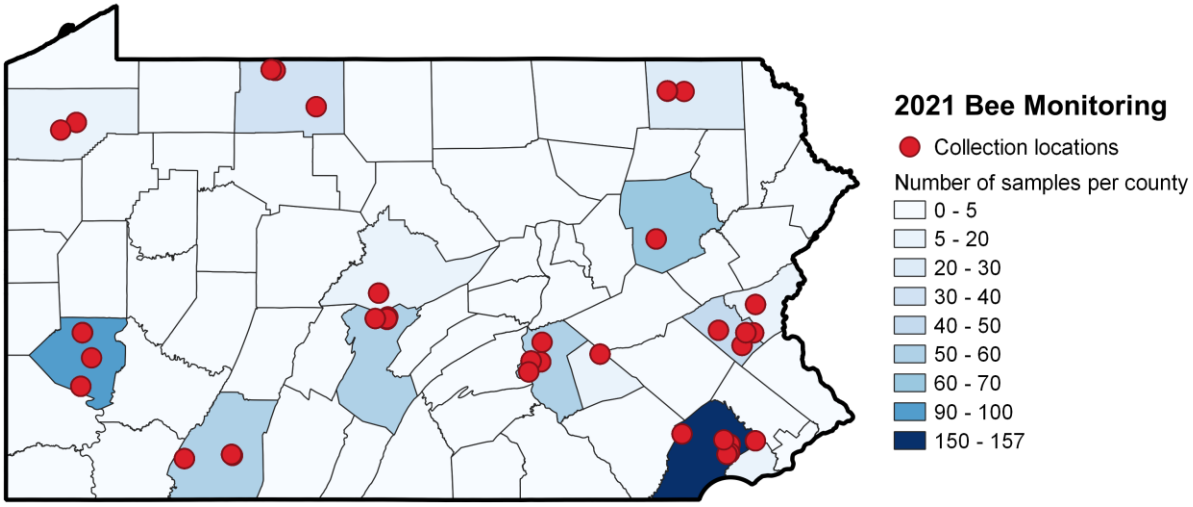
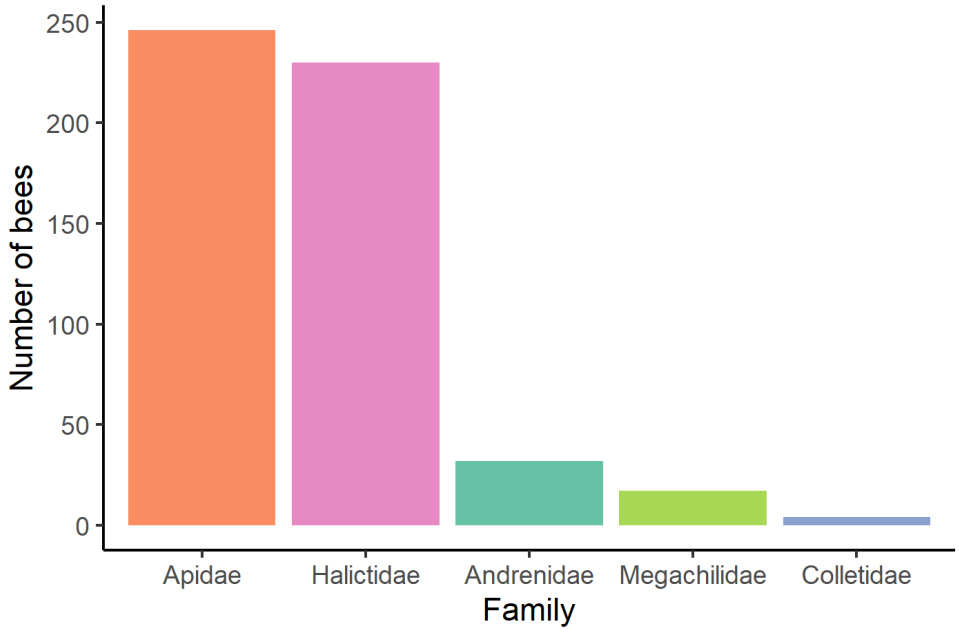
2021 Bee Monitoring Program

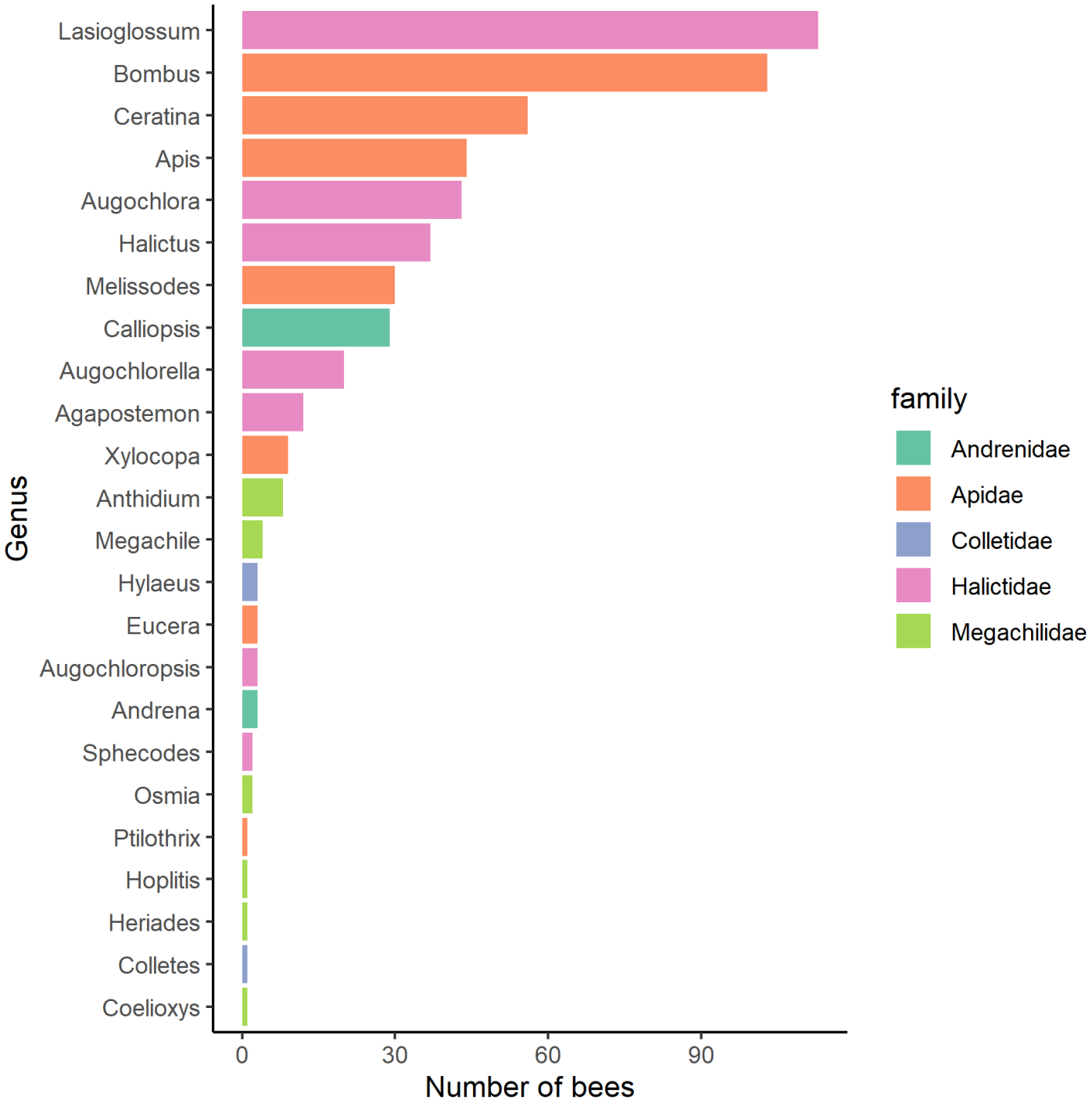
Preliminary Results



Ten Master Gardeners collected bees throughout Pennsylvania between August and October 2021. In total they collected over 500 bees across 14 counties. Preliminary analysis shows at least 20 new country records, and there will definitely be more once everything is fully identified.



Master Gardeners collected bees from 5 of the 6 families found in Pennsylvania. Bees in the Apidae (bumble bees, carpenter bees, longhorn bees, etc) were the most abundant followed closely by bees in the Halictidae (sweat bees). These two families tend to be most abundant in bee collections in general, and they are the bees that are most active in summer and fall. Many bees in the Andrenidae (mining bees), Megachilidae (mason bees, leafcutter bees) and Colletidae (cellophane bees, yellow-faces bees) are most active in spring. This, in part, explains their low abundance in the 2021 collections.



Master Gardeners collected bees from 24 bee genera! At this point, nearly all of the bees are identified to the genus level (the taxonomic level between family and species). We do not yet know how many species are in the collection but likely 50 or more. As is always the case in nature, a few groups were common while many more were rare. Small sweat bees in the genus *Lasioglossum* and bumble bees (*Bombus*) were the most abundance in the collection. *Lasioglossum* mostly showed up in in bowl traps, while *Bombus* were collected mostly by netting, but also a few in blue vane traps. There are a few kleptoparasitic bees (*Coelioxys* and *Sphecodes*) not surprisingly, in low abundance. Their were also a few collections of *Anthidium* which are invasive species. There are many possible stories this rich collection of bee biodiversity data will tell in the future!