Asexual reproduction is considered to be advantageous at the individual level, as it does not involve the cost of mating encountered in sexual reproduction. Despite this apparent benefit, asexuality is generally rare. Some insect groups present unusually high proportions of asexual species, Chalcidoidea for example, a superfamily of parasitoid wasps is especially convenient for studying asexuality, as it contains a high number of species and has a relatively high proportion of asexuals.

In this meta-analysis, we investigate various ecological traits associated with asexual reproduction. Ecological traits were gathered both manually from the scientific literature, and automatically from the Universal chalcidoidea database. Reproduction mode was inferred using a previously developed list, based on scientific literature. A pairwise analysis between asexual and sexual sister species revealed no significant association between reproduction mode and body size although it has often been pointed out that asexuality often occurs in small species. We also found asexual species to have more host species than their sexual relatives, indicating that they tend to be more generalist than their sexual counterparts. Finally, we found that asexuals can occupy more extreme latitudes than sexuals, which to our knowledge, has not been reported previously.