Type of contribution: Oral communication/Poster

**TITLE OF CONTRIBUTION**

Last Name and Name 1 & Last Name and Name2

1 Name of Institution, Address,  Zip Code, City, email

2 Name of Institution, Address,  Zip Code, City, email

**Text max 3000 characters, including spaces, no figures and tables: A**lthough its global importance for the maintenance of healthy ecosystems and for the contribution in providing economic benefits to human society (Gill et al., 2016), clade Anthophila is in severe decline worldwide since several years.  In this context, expanding the knowledge of interspecific dynamics among bee species for a conservation action plan in protected areas aimed to counteract Apoidea decline is of fundamental importance (Decourtye et al., 2019). Many studies show that honey bee density and beekeeping activities could negatively impact wild bee populations, mostly through competition for food source (Mallinger et al., 2017; Lazaro et al., 2021). In this study interspecific trophic competition was investigated trough the still little exploited approach of the palynological analysis combined to metabarcoding analysis of pollen gathered by both managed honey bees and wild bees in three Italian National Parks. Despite the small sample size, the entire trophic network was highly specialised (H2’=0.933). Results obtained in this investigation suggest that, overall, wild bee species are sustained by different pollen pastures from those of honey bees. The low sharing of resources could be due to the natural trend occurring in natural populations, where species tend to minimize competitive overlap by a niche differentiation or by a niche complementarity, as a result of a co-evolution between wild bees and managed honey bees.

National Parks play fundamental role in the protection of animal and plant species and conservation plans should focus on evaluating honeybee densities towards less intensive, more traditional, and sustainable beekeeping and on habitats protection to promote survival and reproduction of wild bee populations.

REFERENCES

GILL R.J., BALDOCK K. C., BROWN M. J., CRESSWELL J. E., DICKS L.V., FOUNTAIN M.T., GARRATT M.P.D., GOUGH L.A., HEARD M.S., HOLLAND J.M., OLLERTON J., STONE G.N., TANG C.Q., VANBERGEN A.J., VOGLER A.P., WOODWARD G., ARCE A.N., BOATMAN N.D., BRAND-HARDY R., BREEZE T.D., GREEN M., HARTFIELD C.M., O’CONNOR R.S., OSBORNE J.L., PHILLIPS J., SUTTON P.B., & POTTS, S.G. 2016. Protecting an ecosystem service: approaches to understanding and mitigating threats to wild insect pollinators. Advances in ecological research, 54:135-206.

DECOURTYE A., ALAUX C., LE CONTE Y. & HENRY M. 2019. Toward the Protection of Bees and pollination under global change: present and future perspectives in a challenging applied science. Current Opinion in Insect Science, 35: 123-131

MALLINGER R.E., GAINES-DAY H. R., & GRATTON C. 2017. Do managed bees have negative effects on wild bees?: A systematic review of the literature. PloS one, 12(12): e0189268.

LÁZARO A., MÜLLER A., EBMER A.W., DATHE H.H., SCHEUCHL E., SCHWARZ M., RISCH S., PAULY A., DEVALEZ J., TSCHEULIN T., GÓMEZ-MARTÍNEZ C., PAPAS E., PICKERING J.M. WASER N. & PETANIDOU T. 2021. Impacts of beekeeping on wild bee diversity and pollination networks in the Aegean Archipelago. Ecography, 44(9): 1353-1365.