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First results on the impact of the invasive yellow-legged hornet *Vespa velutina* on natural communities and ecosystems

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The yellow-legged hornet *Vespa velutina* Lepeletier 1836 is an Asiatic hornet species introduced in France in 2004 that is colonizing many European countries. In Italy, since its arrival in 2012 and 2013 with the detection of first adults and nests respectively, the species is quickly spreading throughout the northwest part of the country. *Vespa velutina* is considered an invasive alien species because of its impact on natural ecosystems, apiculture, and human well-being. In fact, *V. velutina* actively preys on honeybees, wild bees, and other native insects and thus could disrupt natural communities and ecosystem equilibrium. For these reasons, monitor and control activities recently started in Italy, thanks also to the contribution of an European Life Project (LIFE14 NAT/IT/001128 STOPVESPA) "Spatial containment of *Vespa velutina* in Italy and establishment of an Early Warning and Rapid Response System". Quantifying the impact of an invasive alien species is a fundamental process for the establishment of management plans at a national or international level, because data on biodiversity and economic losses are requested by decision-making bodies. Consequently, one of the aims of the STOPVESPA project is the evaluation of the impact of *V. velutina* on natural pollinator communities and the ecosystem services they provide. We therefore established a monitoring network of areas with and without the presence of *V. velutina*, where the insect community is sampled at regular intervals. In this work we present the most relevant results obtained in the first year of activity.