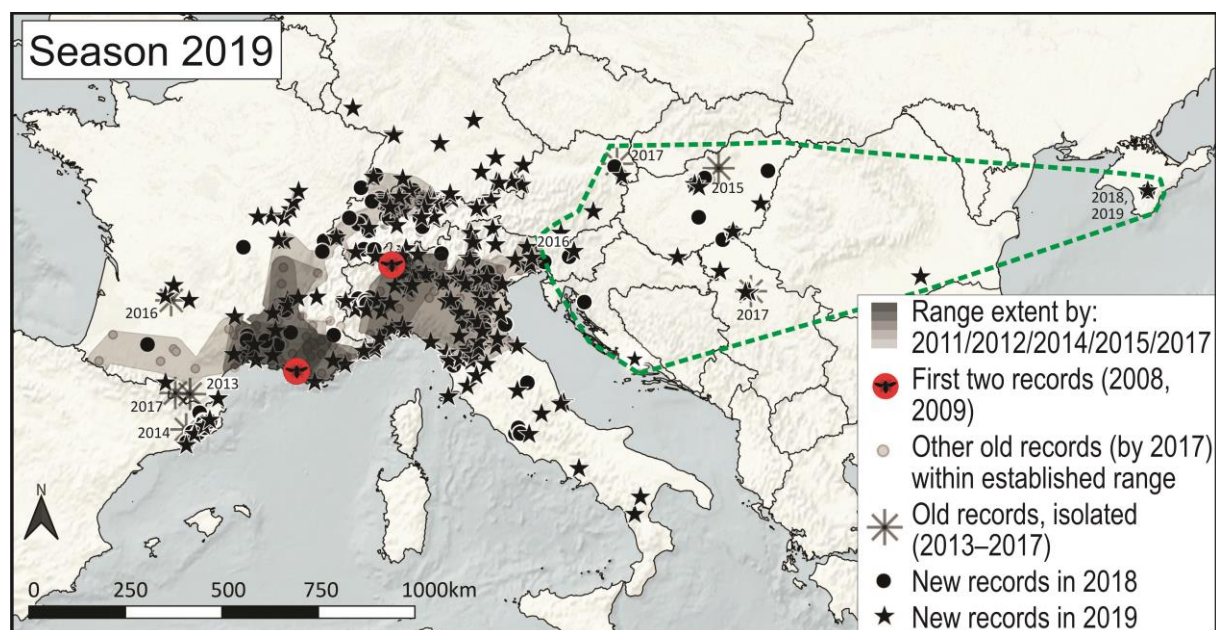


Supplementary material 1.

Summary visualization of the *Megachile sculpturalis* distribution and spreading through Europe for the period 2011–2019, shown as series of tentative expansion phases. The region of 'broader' SE-Europe with documented occurrences (2015–2019), and the nearby records along its western periphery (2016–2019), is enclosed within the dashed green line (record details available in Suppl. material 5).



Approximations of 'minimal' range hulls of plausible continuous spreading, reached by selected seasons (2011, 2012, 2014, 2015, 2017), are shown with varying shades of grey (darkest in the primary expansion cores, lightest in most recently colonized areas). Occurrences in the last two presented seasons (2018, 2019) are shown with black symbols; the two earliest detections are marked by black-on-red symbol (2008, 2009); other old records (grey circles) are visible only if not overlapped by most recent ones. Few records from 2013–2017 that appeared as isolated from the seemingly continuous main range in western Europe (and remained as such for at least 3–4 years), are additionally emphasized with large grey asterisks. They might be indicative of tentative jump-dispersal events, leading to temporarily disjunctive extra-limital colonizations; alternatively, some represent the visible 'outliers' in a hidden continuous spreading.

➤ This compilation is a part of the ongoing, more extensive Europe-wide survey of *Megachile sculpturalis* expansion; preliminary results of the survey were presented as series of summary phase-maps for the period 2008–2019 (Četković et al. 2020; <https://srbee.bio.bg.ac.rs/english>). Herewith we included the slightly modified version of the summary map for the reference season of 2019 (as documented with all records available by 2021). Reproduced with permission from the Centre for Bee Research of the Faculty of Biology, University of Belgrade.