



Figure 3. Time-calibrated phylogenetic tree of insect evolutionary relationships. Tips show the names of taxa at ordinal and sub-ordinal levels. Bars on nodes correspond to the 95% credibility intervals of node-age estimates, with red indicating the nodes for which the median age is pushed back by more than 50 Myr. Green stars indicate the nodes calibrated with MSG fossils; yellow circles indicate nodes calibrated with other fossils. Two key evolutionary innovations in insects (wings and complete metamorphosis) are shown at the relevant nodes. Red triangles indicate Hexapoda and Insecta. Below the tree the following are shown: (i) bars with periods and epochs from the International Chronostratigraphic Chart v. 2019/05 [36]; (ii) scale axis of the tree expressed in millions of years; (iii) origin of plant groups; (iv) bar with warmer (red) and cooler (blue/dark blue) periods [37]; and (v) plot of O_2 concentration versus time according to [38]. Abbreviations as in figure 2. (Online version in colour.)