

## SUPPLEMENTARY INFORMATION

### Structure and Chemical Organization in Damselfly *Calopteryx haemorrhoidalis* Wings: A Spatially Resolved FTIR and XRF Analysis with Synchrotron Radiation

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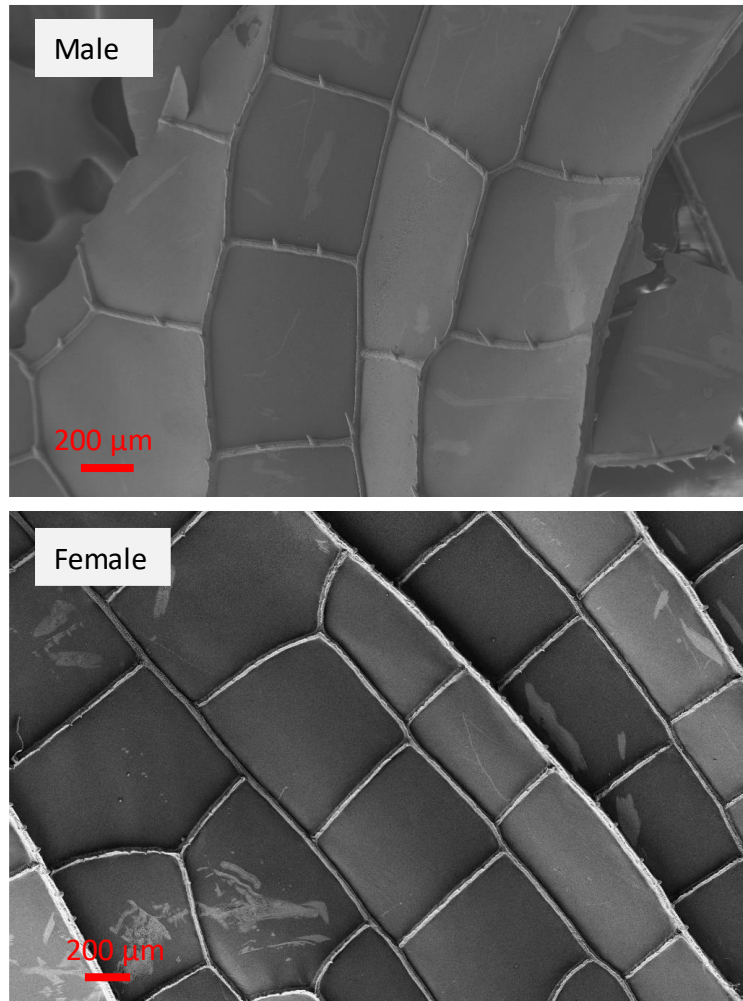
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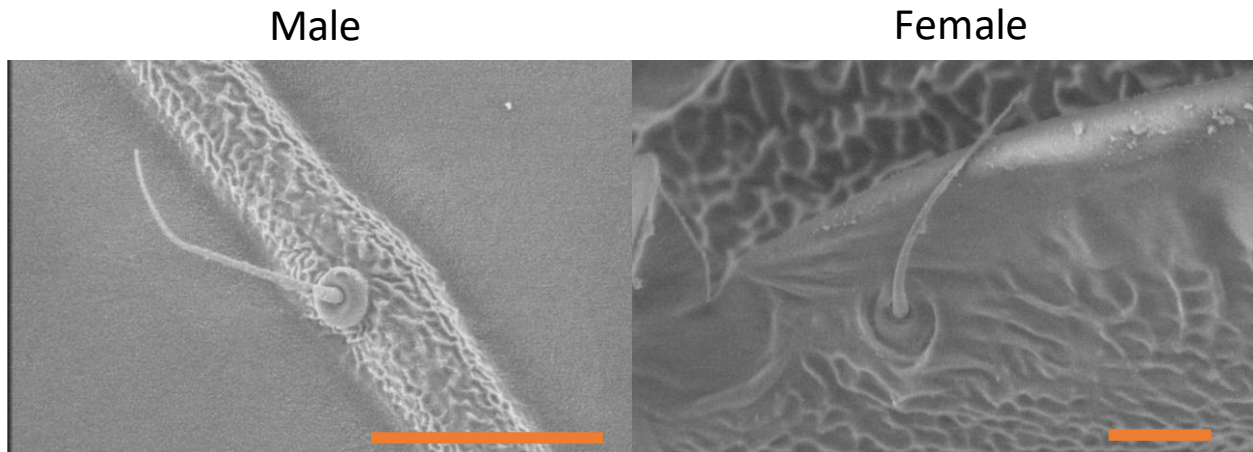
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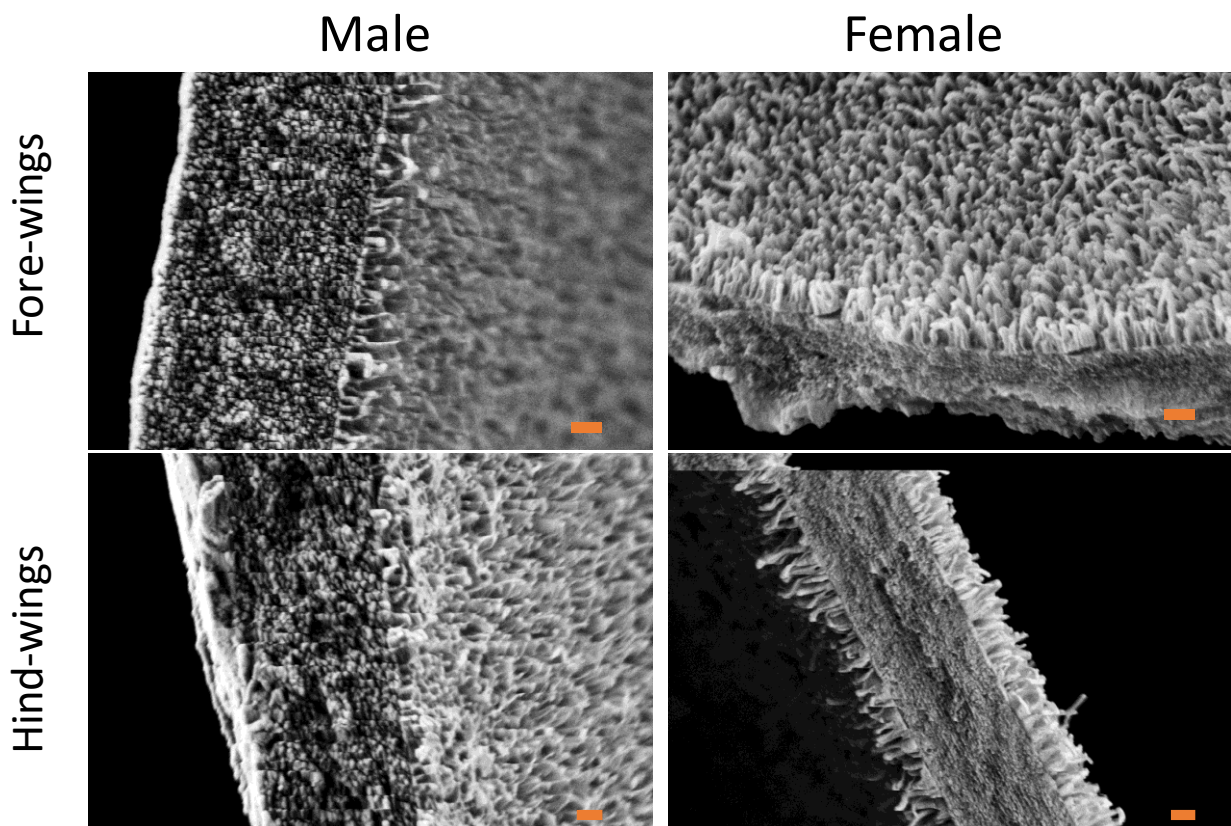


**Figure S1.** Overview of the male and female *Calopteryx haemorrhoidalis* wing membranes.

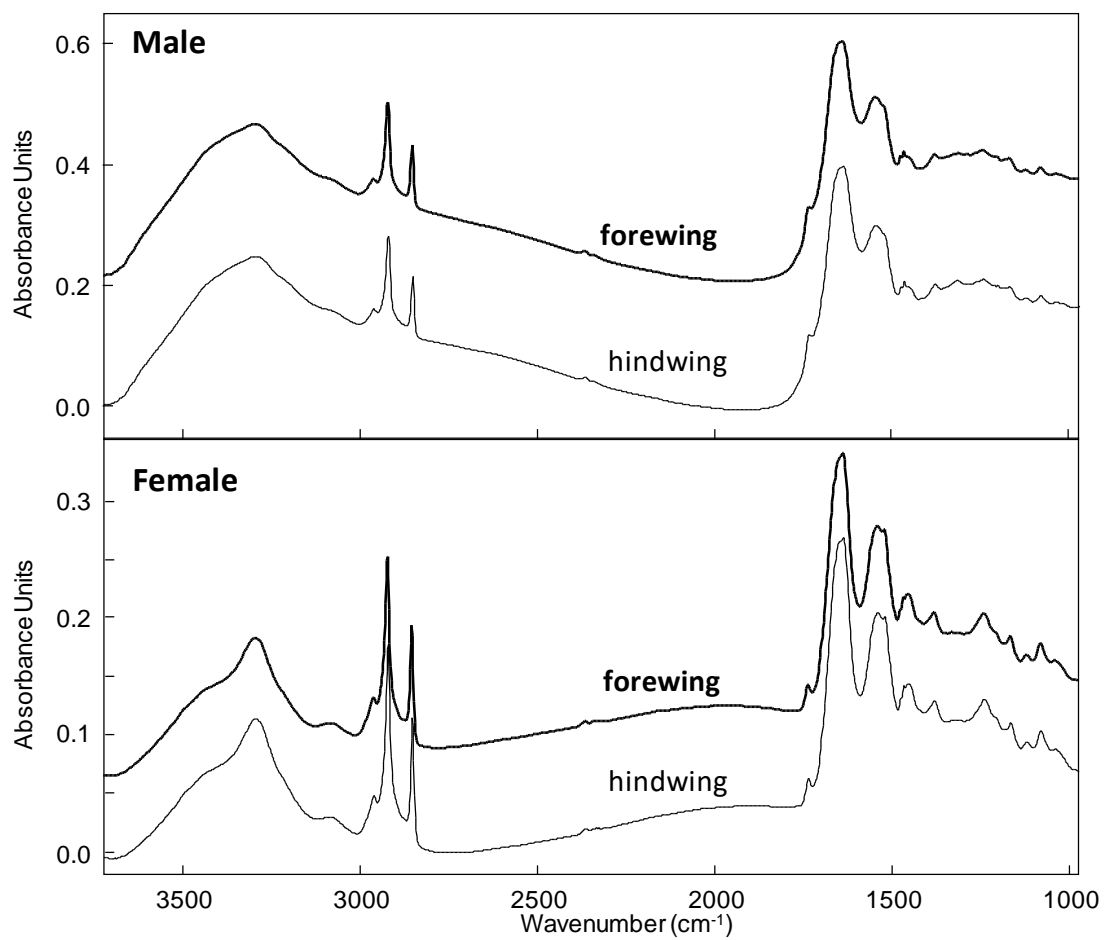
Scanning electron micrographs showing the veins and hairs on the membrane of male and female wings.



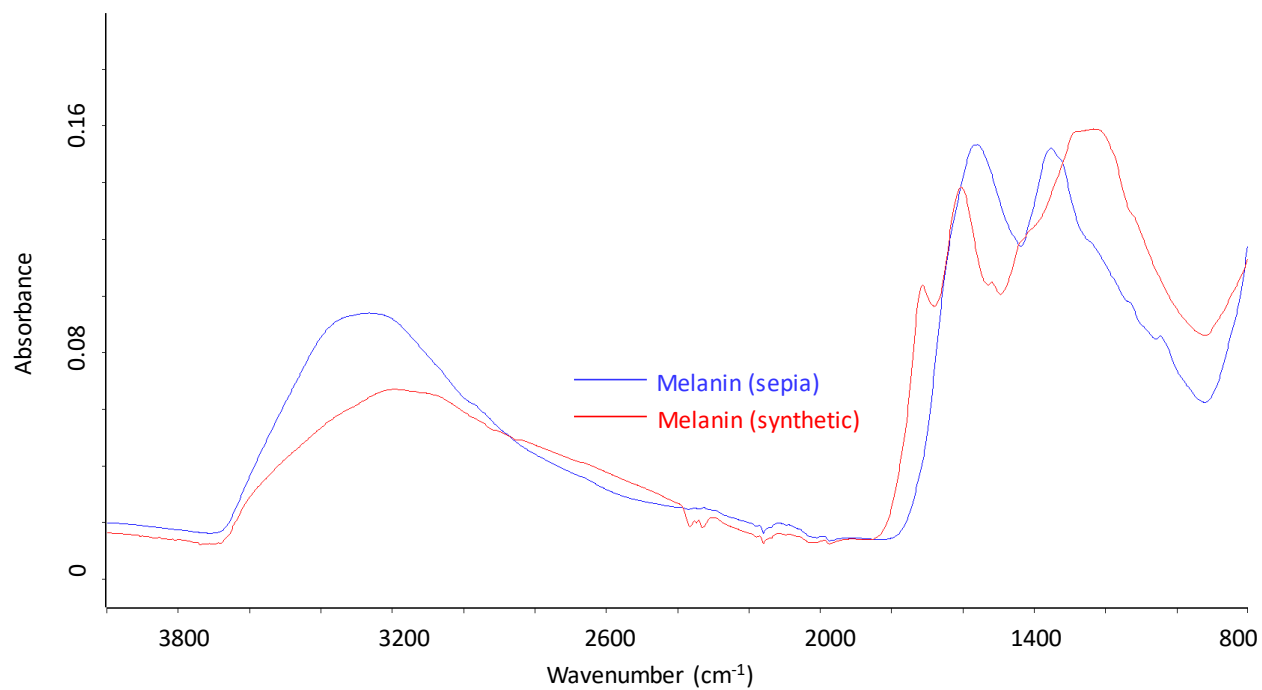
**Figure S2.** Vein and hair of male and female *Calopteryx haemorrhoidalis* wing membranes of fore- and hind-wings imaged under low vacuum SEM (Scale bar 20  $\mu\text{m}$ ).



**Figure S3.** Scanning electron micrographs of the fore- and hind-wing membranes of male and female *Calopteryx haemorrhoidalis* (Scale bar 200 nm).



**Figure S4.** Average s-FTIR spectra obtained from the fore- and hind-wing membranes of male and female *Calopteryx haemorrhoidalis*.



**Figure S5.** Reference ATR-FTIR spectra of the natural melanin exacted from *Sepia officinalis*, in comparison to the synthetic melanin produced by the oxidation of tyrosine with hydrogen peroxide.