Supplemental information

Identification and biosynthesis of novel male specific esters in the wings of the tropical butterfly, *Bicyclus martius sanaos*

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Legends for supplementary figures

Figure S1. Wings of male *Bicyclus martius*. **(a)** forewing on the ventral side. **(b)** hindwing on the ventral side. **(c)** forewing on the dorsal side. **(d)** hindwing on the dorsal side. **(e)** brushes on the dorsal side of forewing. **(f)** patch-like tissue on the ventral side of forewing. **(g)** brushes on the dorsal side of hindwing. Red circles indicate the sampling positions. The high-resolution photos were collected using a Leica DFC495 digital camera coupled to a Leica M125 stereomicroscope. Pictures were lightened and sharpened in Photoshop CS4.

Figure S2. Mass spectra of DMDS-adducts of monounsaturated esters. (a) DMDS-adduct of ethyl 11-hexadecenoate. **(b)** DMDS-adduct of isobutyl 11-hexadecenoate. **(c)** DMDS-adduct of 2-phenylethyl 11-hexadecenoate.

Figure S3. Mass spectra of 2-phenylethyl esters from wings of male *Bicyclus martius*. (a) 2-phenylethyl tetradecanoate (compound 6). **(b)** 2-phenylethyl octadecanoate (compound 10). **(c)** 2-phenylethyl octadecenoate (compound 9).

Figure S1

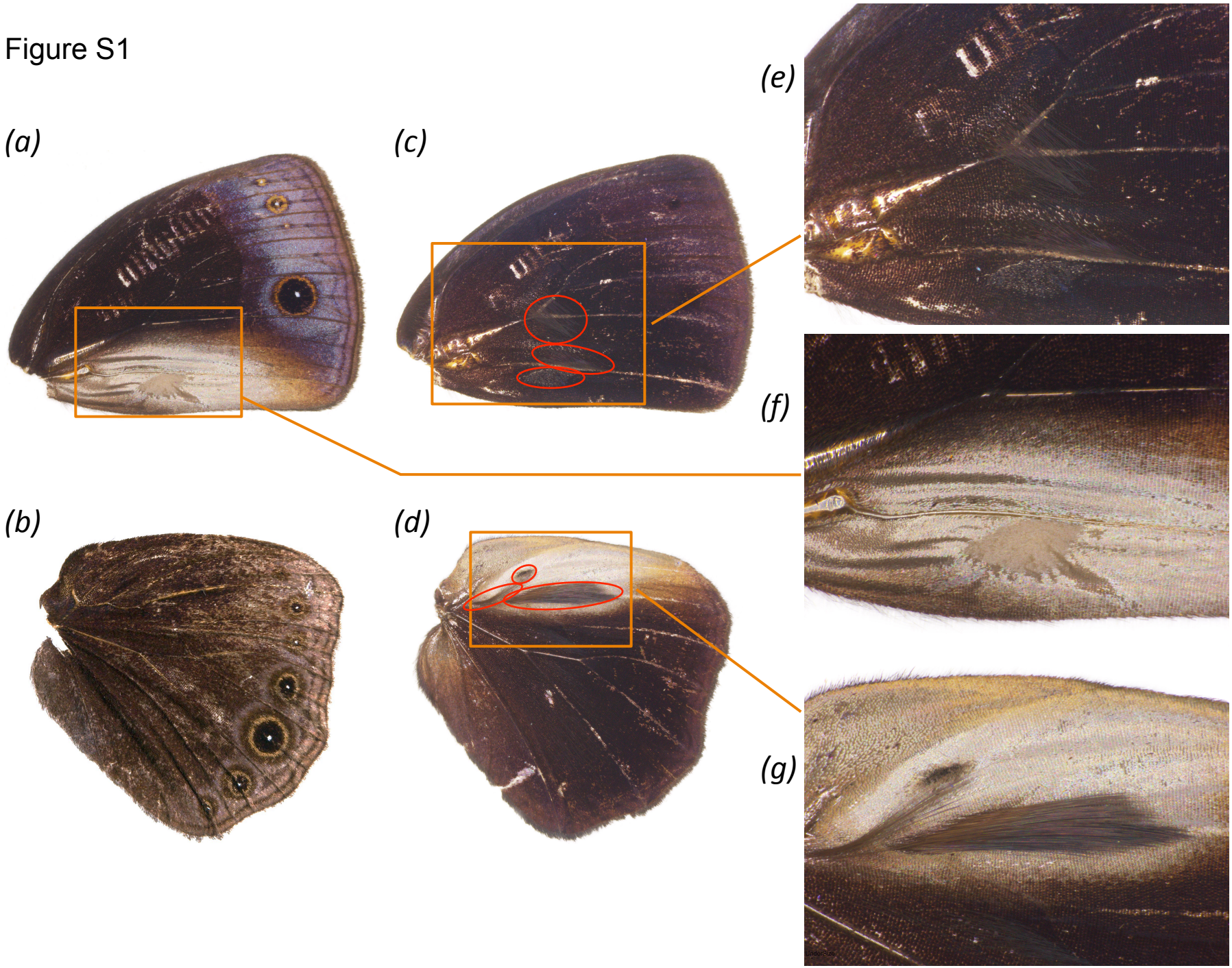


Figure S2

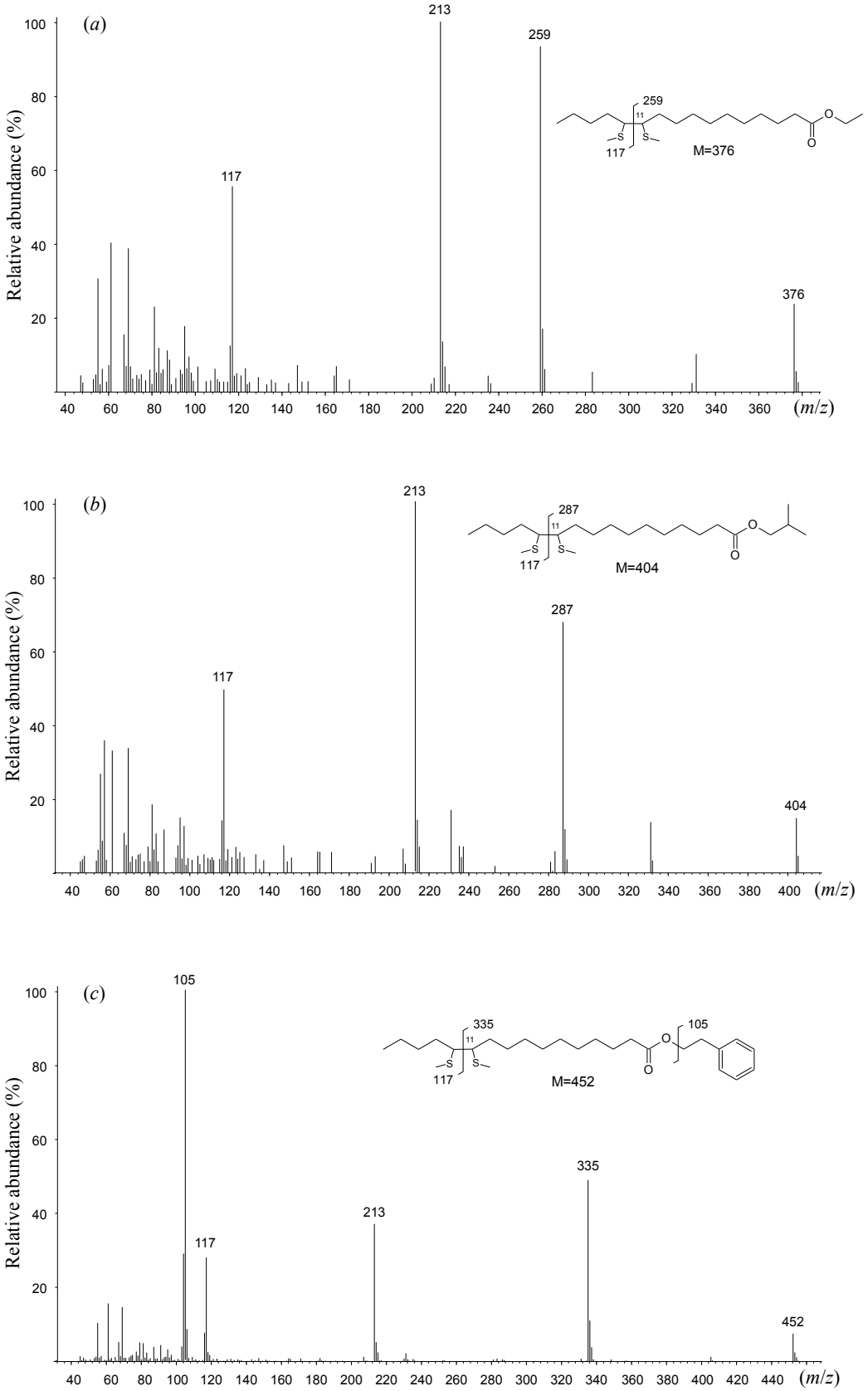
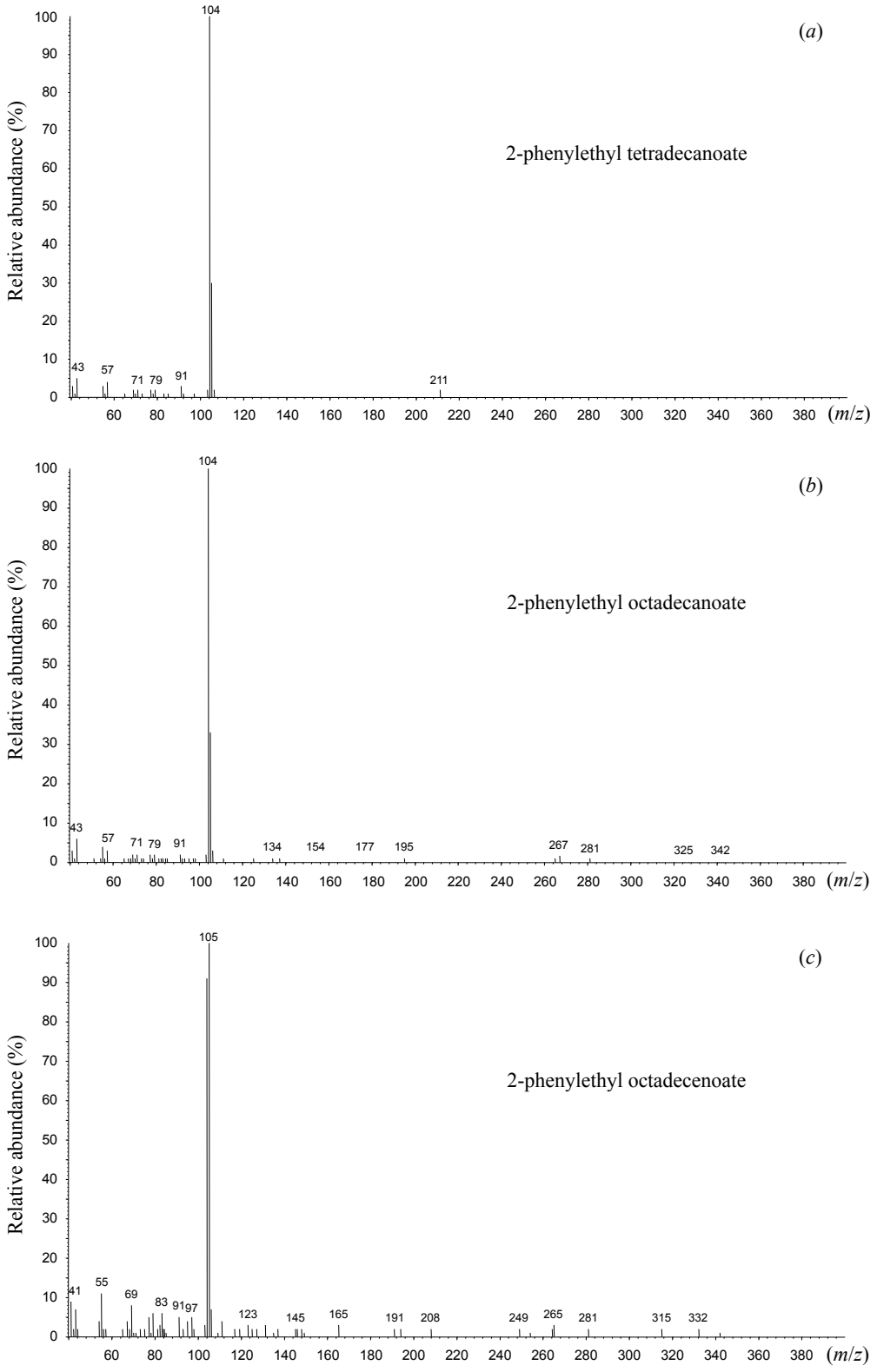

(a)
Relative abundance (%)
(m/z)
213
259
117
376
M=376
(b)
Relative abundance (%)
(m/z)
213
287
117
404
M=404
(c)
Relative abundance (%)
(m/z)
105
335
213
117
452
M=452

Figure S3


(a)
2-phenylethyl tetradecanoate
Relative abundance (%)
104
43
57
71
79
91
211
(m/z)
(b)
2-phenylethyl octadecanoate
Relative abundance (%)
104
43
57
71
79
91
134
154
177
195
267
281
325
342
(m/z)
(c)
2-phenylethyl octadecenoate
Relative abundance (%)
105
41
55
69
83
91
97
123
145
165
191
208
249
265
281
315
332
(m/z)