

Supplementary Material

Ruary Mackenzie Dodds, Kari de Koenigswarter

ruarymackenziedodds@gmail.com

DUSK/DAWN CORRELATION SPREADSHEET

Date	up	back down	Dusk on day		Dawn next day		Up OK	Down OK
05-Jan		5.35	20.57	21.3	5.22	5.55	n/a	yes
07-Jan	21.15	5.55	20.57	21.3	5.24	5.57	yes	yes
08-Jan	21.11		20.56	21.29	5.25	5.58	yes	n/a
09-Jan	21.06	5.4	20.26	21.29	5.26	5.59	yes	yes
10-Jan		6	20.56	21.29	5.27	6	n/a	yes
12-Jan	21.13	5.42	20.56	21.29	5.29	6.02	yes	yes
13-Jan		5.46	20.55	21.28	5.31	6.03	n/a	yes
16-Jan	21.07	5.4	20.54	21.26	5.34	6.07	yes	yes
17-Jan	21.09	5.44	20.22	20.51	5.36	6.08	yes	yes
18-Jan		6	20.53	21.25	5.37	6.09	n/a	yes
21-Jan	21.08	6.05	20.51	21.23	5.41	6.13	yes	yes
22-Jan	21.23	6.15	20.5	21.22	5.42	6.14		1
23-Jan	21.22	5.39	20.5	21.21	5.44	6.15	1	5
25-Jan	20.29		20.48	21.19	5.46	6.18	yes	n/a
28-Jan		6.03	20.45	21.17	5.5	6.22	n/a	yes
30-Jan		6.12	20.44	21.15	5.53	6.24	n/a	yes
31-Jan		6.1	20.43	21.13	5.55	6.25	n/a	yes
03-Feb		6.19	20.4	21.1	5.59	6.29	n/a	yes
04-Feb		6.11	20.39	21.09	6	6.31	n/a	yes
05-Feb		6.07	20.37	21.08	6.02	6.32	n/a	yes
07-Feb		6.1	20.35	21.05	6.04	6.34	n/a	yes
08-Feb		6.12	20.34	21.04	6.06	6.36	n/a	yes
09-Feb		6.33	20.33	21.03	6.07	6.37	n/a	yes
12-Feb		6.22	20.29	20.59	6.11	6.41	n/a	yes
13-Feb		6.33	20.28	20.57	6.13	6.42	n/a	yes
14-Feb		6.25	20.26	20.56	6.14	6.43	n/a	yes
15-Feb		6.3	20.25	20.54	6.15	6.45	n/a	yes
17-Feb		6.24	20.22	20.51	6.18	6.47	n/a	yes
18-Feb		6.18	20.21	20.5	6.19	6.48	n/a	1
19-Feb		6.5	20.19	20.48	6.21	6.5	n/a	yes
21-Feb	20.4	6.26	20.17	20.45	6.23	6.52	yes	yes
22-Feb	20.33	6.46	20.15	20.44	6.25	6.53	yes	yes
23-Feb	20.47	6.25	20.14	20.42	6.26	6.54		5
26-Feb	20.14	6.34	20.09	20.38	6.3	6.58	yes	1
27-Feb	20.2	6.36	20.08	20.36	6.31	6.59	yes	yes
28-Feb	20.21	6.31	20.06	20.34	6.32	7.01	yes	1

36 recording date 72 entries 50 actual recordings 41 YES
 22 n/a 9 non-yes of which 2 were 5min outs and 7 were 1 min out
 5mins were 1 dawn and 1 1 mins were 2 dusk and 5 dawn

13 yes for UP
 28 yes for DOWN

Source timeanddate 2019 sun graph for wellington
 Civil twilight

EMERGENCE SEQUENCES

COMPLETE FILMED EMERGENCE 1

Filmed above Eastbourne 23/24.11.24

Larva A (male)

21.06 Leaves burrow

21.25 Arrives at take-off point

23.33 Abdomen and wings out

05.16 Wings horizontal

05.26 Take-off

Total emergence time: 8 hours 20 minutes

COMPLETE FILMED EMERGENCE 2

Filmed above Eastbourne, 12/13.12.24

Larva B (male)

22.07 Leaves burrow

22.14 Arrives at take-off point.

23.47 Wings out

23.56 Abdomen out

02.39 Wings horizontal

05.14 Take-off

Total emergence time: 7 hours 7 minutes

COMPLETE FILMED EMERGENCE 3

Filmed above Eastbourne 15/16.1.25

Larva C (male)

21.25 Leaves burrow

21.35 Arrives at take-off point.

23.46 Abdomen and wings out

04.13 Wings horizontal

05.46 Take-off

Total emergence time: 8 hours 21 minutes

COMPLETE FILMED EMERGENCE 4

Filmed above Eastbourne 21/22.1.25

Larva D (female)

22.00 Leaves burrow

22.14 Arrives at take-off point

00.05 Abdomen and wings out

03.22 Wings horizontal

05.57 Take-off

Total emergence time: 7 hours 57 minutes

COMPLETE FILMED EMERGENCE 5

Filmed above Eastbourne 3/4.2.25

Larva H (female)

22.07 Leaves burrow

22.24 Arrives at take-off point

00.01 Abdomen and wings out

05.49 Wings horizontal

06.15 Take-off

Total emergence time: 7 hours 8 minutes