This is an electronic appendix to the paper by Yu *et al.* 2004 Oviposition strategies, host coercion and the stable exploitation of figs by wasps. *Proc. R. Soc. Lond.* B **271**, 1185–1195. (DOI 10.1098/rspb. 2003.2630.)

Electronic appendices are refereed with the text. However, no attempt is made to impose a uniform editorial style on the electronic appendices.

APPENDIX A: STYLE LENGTH DATA

To parameterize our model, we use oviposition data from *Ficus microcarpa* (Jousselin *et al.* 2001) and *F. maxima* (E. Jousselin, E.A. Herre, unpublished data). In the former species, foundresses were experimentally introduced and allowed to oviposit (n = 1 & 3). In the latter, measurements were made on syconia exhibiting natural variation in foundress number (n = 1 through 7). Ovules were scored for the presence of a wasp egg, producing what we call an 'oviposition profile': the positive relationship between foundress number and the percentage of ovules with eggs. Ovules were also scored for distance from the syconium center in terms of either pedicel length (*F. microcarpa*) or more directly, style length (*F. maxima*) (Tables A1 and A2).

Because Jousselin *et al.*'s (2001) data *Ficus microcarpa* use pedicel length, whereas our model is based on style lengths, we converted Jousselin *et al.* (2001)'s pedicel length classes into style length classes by using Anstett's (2001) relationship of style to pedicel length for this species, mindful of the fact that the relationship is highly variable across syconia, and that pedicel length variation underestimates style length variation (Ganeshaiah *et al.* 1999), which leads to an overestimate of predicted oviposition percentages. Moreover, Anstett (2001) measured the relationship of style to pedicel lengths at wasp emergence. However, syconia expand during development, causing pedicel lengths to be longer than in the data of Jousselin *et al.* (2001), which were measured at receptivity. To map the data of Jousselin *et al.* (2001) onto that of Anstett (2001) we have assumed that all pedicels expand by a constant proportion between receptivity and emergence and that the midpoint of Jousselin *et al.*'s pedicel length data represents their mean length. This allows us to generate Table A1.

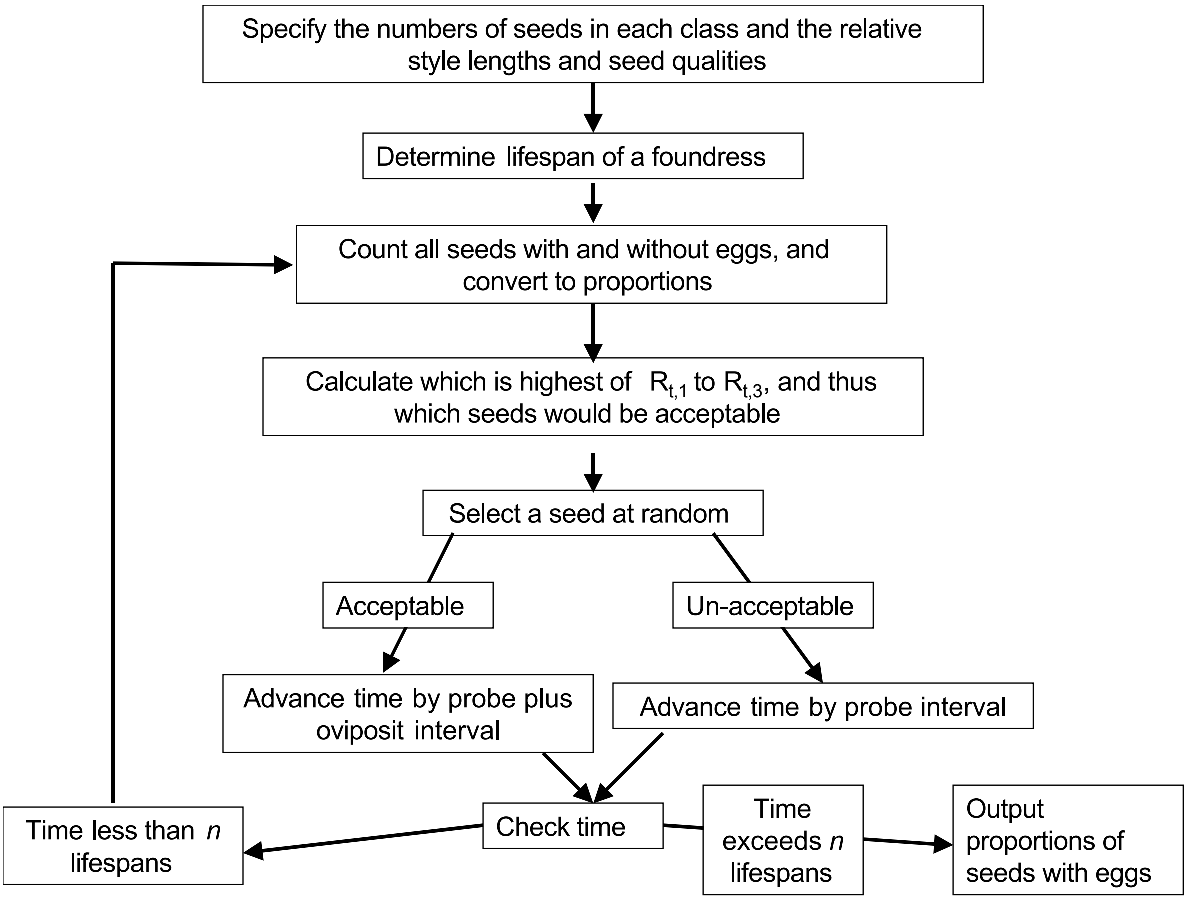
Table A1. Data on pedicel and style lengths in *Ficus microcarpa*. To map the Anstett (2001) data onto the Jousselin *et al.* (2001) data, we assume that pedicel lengths are consistently longer in the former by a fraction given by their corresponding means, i.e. 1.7/0.6 ≈ 2.8.

Ovule layer	Jousselin *et al.* (2001)			Anstett (2001)		
	Pedicel lengths (mm)	Proportion of ovules with eggs (% after *n* foundresses)		Average Pedicel (mm)	Average Style (mm)	Proportion (%)
		n = 1	*n* = 3			
Inner	< 0.4	74%	93	0.2	1.3	23
Middle	0.4 – 0.8	50	55	1.7	1.7	22
Outer	> 0.8	15	42	3.7	2.3	55
Average	0.6	36	57	1.7	1.8	100

Table A2. Data on style lengths in *Ficus maxima*, together with oviposition data by number of foundresses.

Ovule layer	Style lengths (mm)	Proportion of seeds with eggs (% after *n* foundress)						
		n = 1	2	3	4	5	6	7
Inner	≤ 0.69	0.24	0.21	0.25	0.58	0.52	0.90	0.86
Middle	0.69 – 1.04	0.14	0.16	0.13	0.49	0.42	0.73	0.75
Outer	> 1.04	0.03	0.02	0.00	0.14	0.14	0.16	0.00
Average	1.11	0.13	0.12	0.13	0.41	0.37	0.61	0.55

APPENDIX B. FLOW CHART



APPENDIX C: THE EFFECT OF OVIPOSITION MARKERS ON OVIPOSITION RATES

We have assumed foundresses must probe an ovule in order to detect the presence of a previously laid egg. However, it is possible that some wasp species could lay down markers whilst ovipositing. Our model does not split search time into time spent moving between styles and time spent probing them. If there are oviposition markers, then search time would be zero, irrespective of the proportion of seeds with eggs. Hence, in Eq. 5, all *p*-terms can be removed, leaving the rate of egg laying constant, $R_{t,1} = \bar{L} / L_1(1+k)$, and in Eq. (8), style categories (*i*) and (*iii*) can be omitted. If foundresses forage efficiently, and there is style length variation, public markers help later foundresses more than earlier foundresses, because, for later foundresses, more seeds already have eggs and thus pseudointerference is more costly. However, the effect of oviposition markers turns out to be minor (Fig. 5).