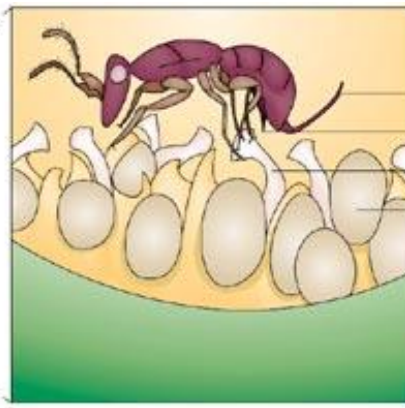
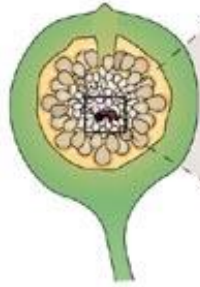


Vespas e figos



Cross-section through a receptive fig



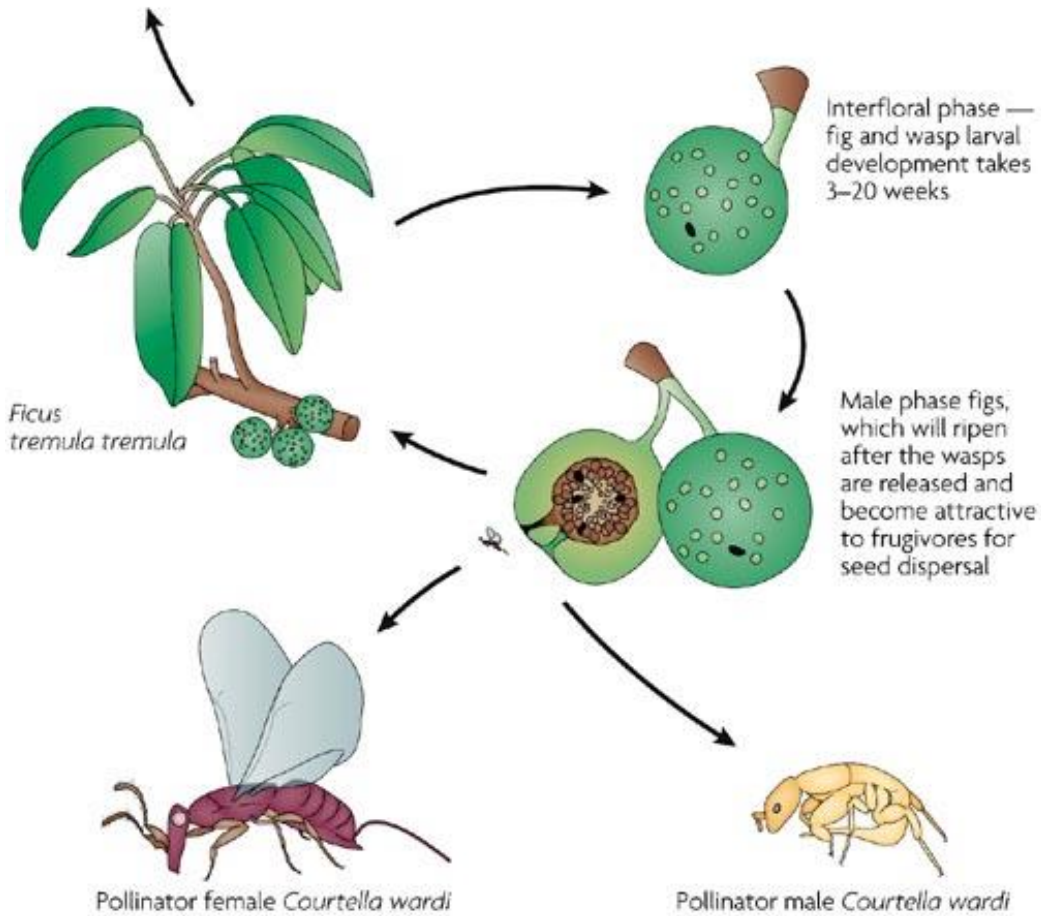
Ovipositor sheaths

Ovipositor

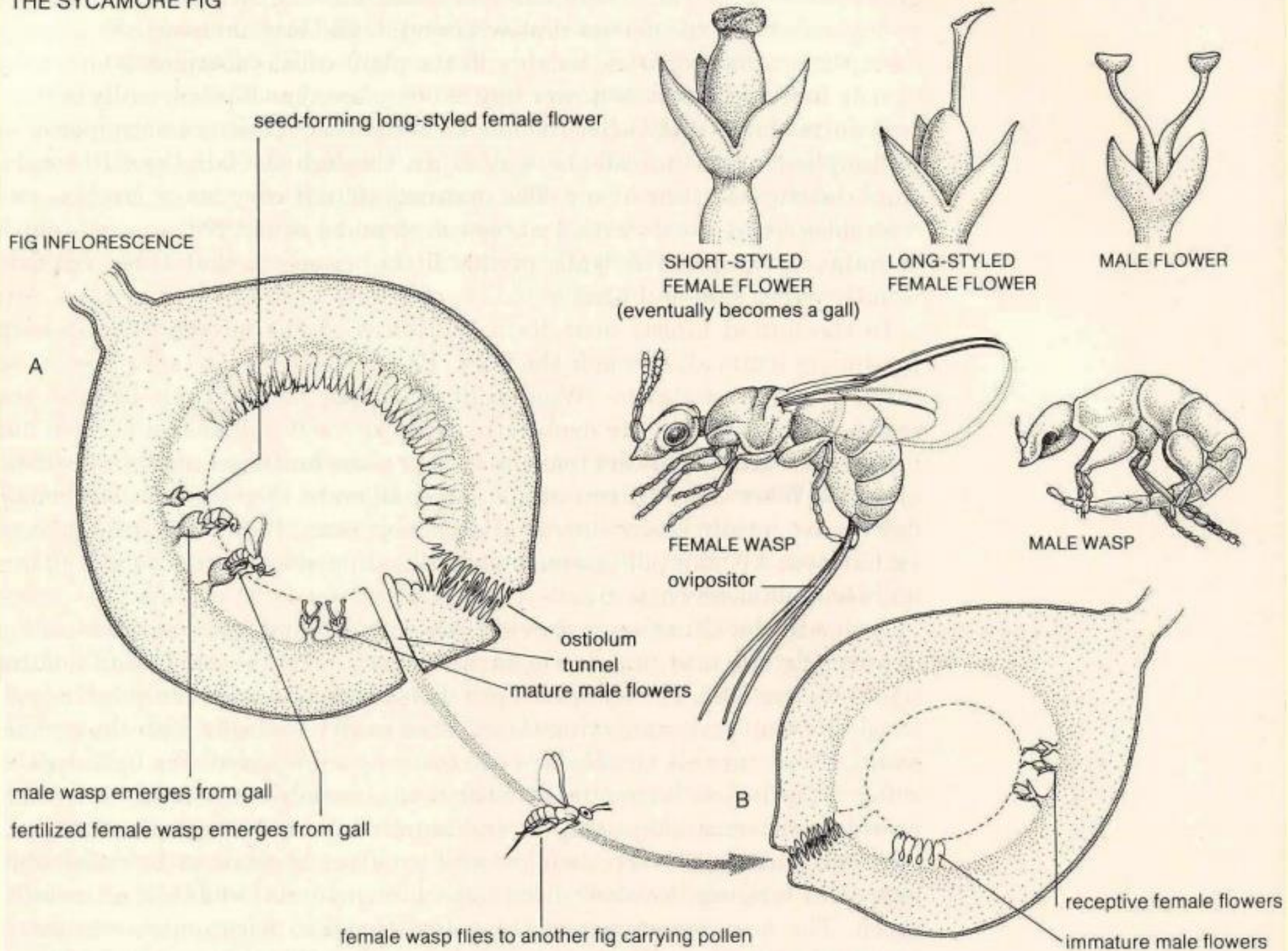
Style

Ovule

Pollinator ovipositing down style of floret inside fig and simultaneously placing pollen on the stigmas with her forelegs



THE SYCAMORE FIG



Tree 6

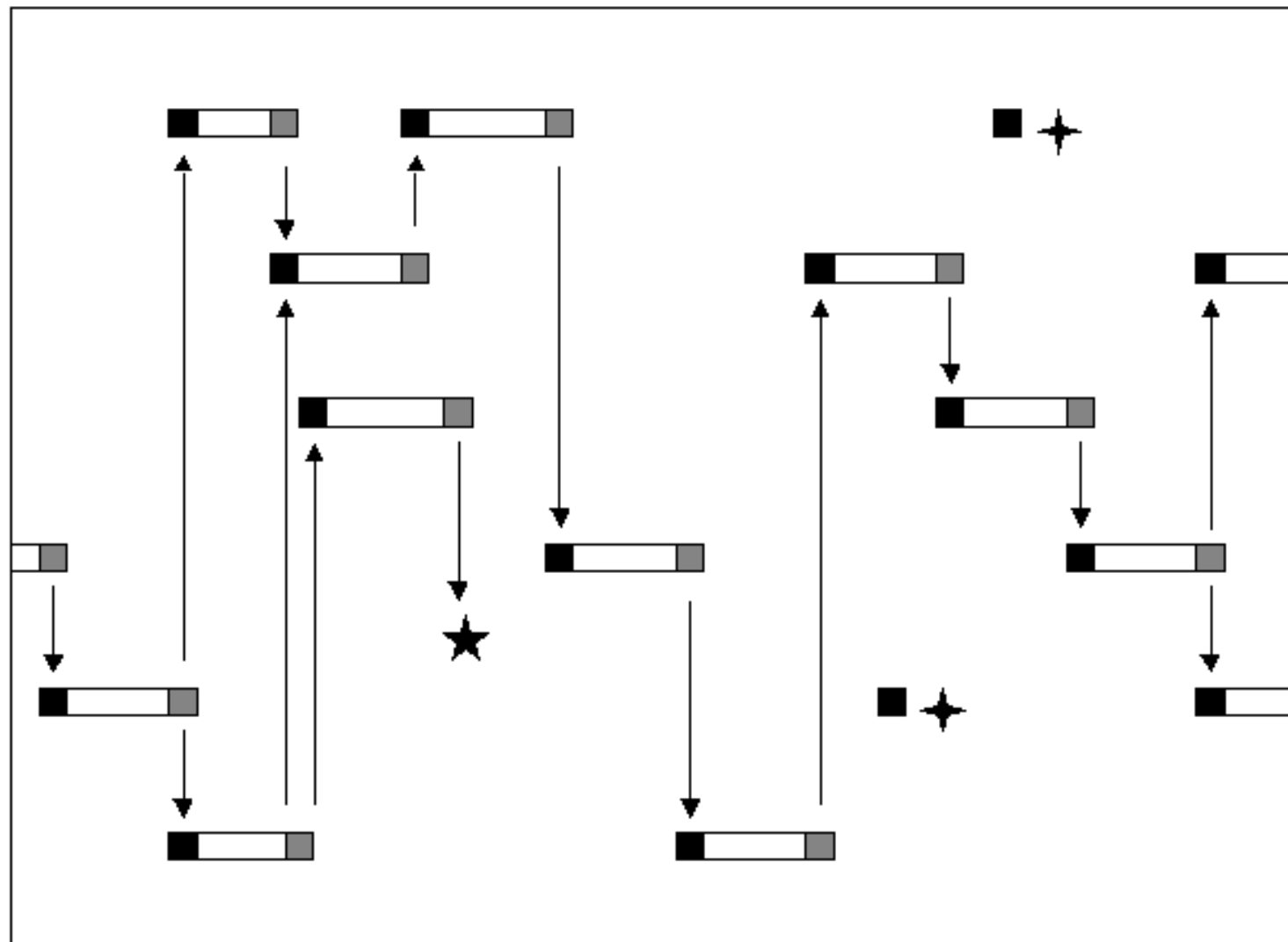
Tree 5

Tree 4

Tree 3

Tree 2

Tree 1



January

Time



December

■ Female phase

■ Male phase

★ Wasp extinction

□ Fig & wasp development

→ Wasp transfer

✦ Fig abortion



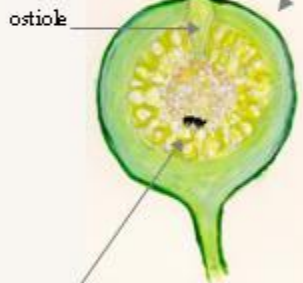


- <https://www.youtube.com/watch?v=arpEEssFUBQ>
- <https://www.youtube.com/watch?v=kctIFkVaZQs>
- <https://www.youtube.com/watch?v=9DQTjvu3Vc>

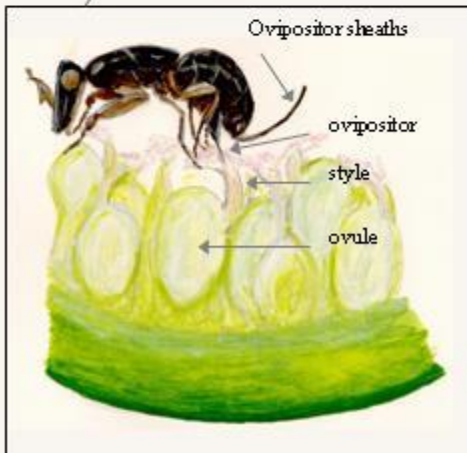


Ficus tremula tremula with female phase figs receptive for pollination and oviposition.

Cross-section through a receptive fig.



ostiole



Ovipositor sheaths

ovipositor

style

ovule

Pollinator ovipositing down style of floret inside fig and simultaneously placing pollen on the stigmas with her fore legs. She loses her wings and most of her antennae when negotiating the ostiole.



Philococcus clairae – a galling non-pollinating fig wasp that enters the fig for oviposition at the same time as the pollinator.



Pollinator female *Courtella wardi*. On leaving the natal fig she homes in on volatiles released by receptive figs on other trees.

Cycle of the fig – fig wasp mutualism

Monoecious species

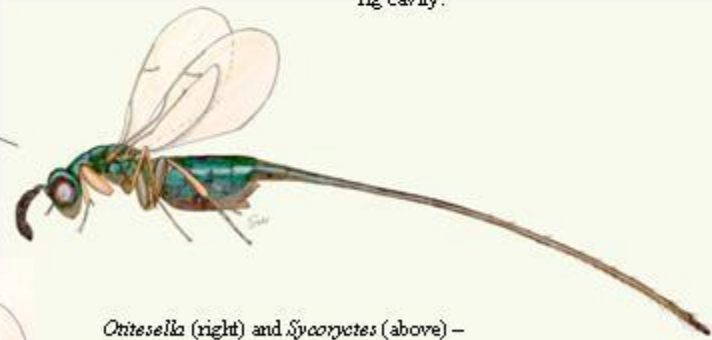


Male phase figs, which will ripen after release of wasps and become attractive to frugivores for seed dispersal.



Pollinator male *Courtella wardi*. After mating with females, males chew an exit hole through the fig wall, allowing pollen laden females to escape from the fig cavity.

Interfloral phase – fig and wasp larval development taking 3 – 20 weeks.

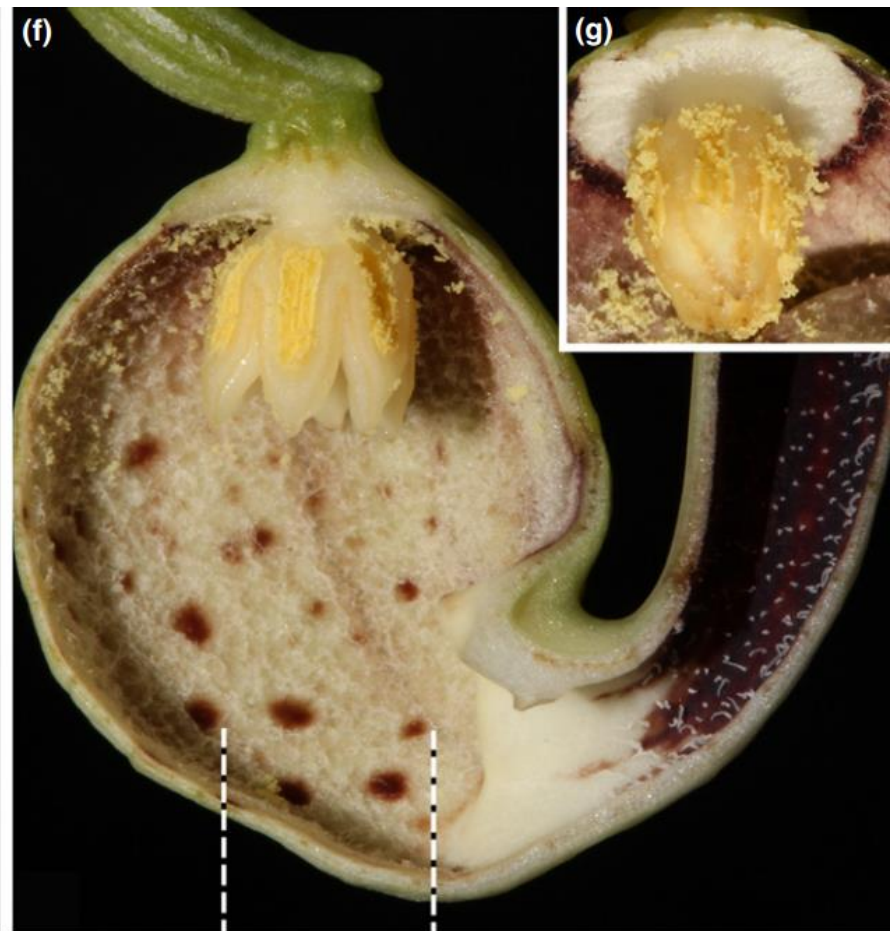


Ontesella (right) and *Sycoryctes* (above) – two non-pollinating fig wasps that oviposit through the fig wall during the interfloral phase. *Ontesella* species are gall formers and *Sycoryctes* species are parasitoids of galling fig wasps.



Aristolochia e moscas





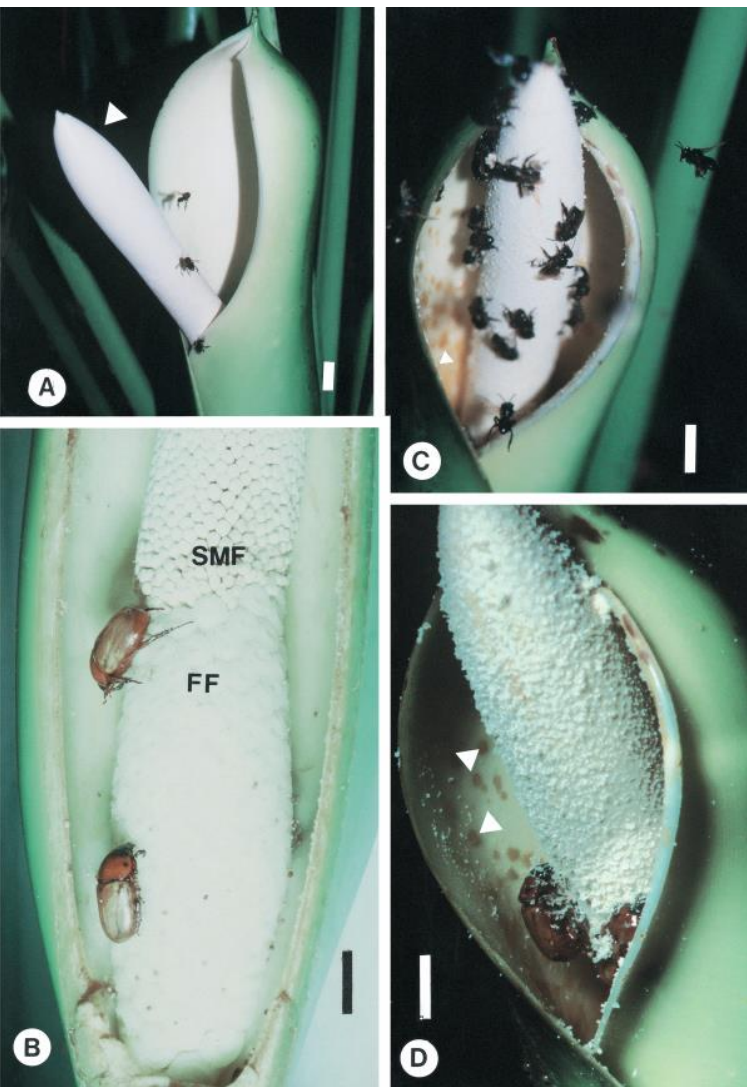


Fig. 4 The 2-d-event flowering process of *Philodendron solimoense* (bars = 1 cm). *A*, First day, afternoon. Spathe is wide open, and the white spadix (arrowhead) is extremely curved. At this time, the spathe is internally white. Few stingless bees (*Trigona* spp.) are attracted to the male portion of the spadix. *B*, First day, evening. Basal part of the spathe was removed, showing the inferior portion of the inflorescence. *Cyclocephala colasi* beetles remain hidden in the protected floral chamber. They feed on the stigmatic secretions of female flowers (*FF*) and on sterile male flowers (*SMF*) situated just above the female zone (*FF*). *C*, Second day, afternoon. A brownish resin (arrowhead) covers the inner surface of the spathe. Numerous *Trigona* bees collect mucilage and some pollen until nightfall. *D*, Second day, evening. Anther releases massive pollen chains. Emerging *C. colasi* are covered by resin (arrowheads) that stuck large amounts of pollen on their cuticles.

Beetle pollination of *Philodendron solimoense*
 (Araceae) in French Guiana Author(s): Marc Gibernau,
 Denis Barabé, Philippe Cerdan and Alain Dejean
 Source: International Journal of Plant Sciences, Vol.
 160, No. 6 (November 1999), pp. 1135-1143