

DF's **SMvideo2_calusaSM** allows viewers to see that, during courtship stridulation, the forewings of *calusa* are in the closed position during the intervals between pulses—i.e., that the wing movement cycles [WMCs] are O-C-H-O-C-H-O-C-H-....

To reveal the details of the WMCs in DF's SMvideo1_calusa (the parent of the slowed-motion video), TW used VLC Media Player to do frame-by-frame analysis of the first 243 of its ca 336 in-focus frames. The procedure was to view each frame full screen on a 48cm monitor and to measure with a millimeter ruler the distance between the two forewings where the dorsal width of each was greatest. A black mark at the appropriate place on each forewing facilitated this measurement. (These marks are evident in Fig. 3B.) Because the VLC player did not number the frames or allow the user to go frame-by-frame in reverse, it was useful to denote frames with the wings in open position as waypoints for use in checking for errors in the sequence of measurements.

The following image of a spreadsheet records and graphs the measurements made. During the first 54 in-focus frames the WMCs were erratic but they then became more regular and continued so for the rest of the frames measured (and for the rest of the video). The two chief deviations measured subsequent to frame 54 were (1) two occasions when during the H position the wings were >5 mm more tightly closed than usual and (2) three occasions (out of 35 O-C- movements measured) when the wings were caught in the open position (i.e., 49mm or more) for more than one frame. The latter type of deviation may have been produced by the changing phase relations between the WMCs and the times that the camera captured the images for the frames that recorded an O-C-.

