

**Movie 1.** Side view of *Hofmannophila pseudospretella* captured at 1000 frames s<sup>-1</sup> and replayed at 10 frames s<sup>-1</sup>, as it jumped from the floor of the experimental chamber. This is a jump belonging to strategy one. See also Fig. 2.



**Movie 2.** Side view of *Crassa unitella* captured at 1000 frames  $s^{-1}$  and replayed at 10 frames  $s^{-1}$ , as it jumped from the floor of the experimental chamber. This is a jump belonging to strategy two. See also Fig. 4.



**Movie 3.** Side view of *Apamea lithoxylaea* captured at 1000 frames s<sup>-1</sup> and replayed at 10 frames s<sup>-1</sup>, as it jumped from the floor of the experimental chamber. This is a jump belonging to strategy three. See also Fig. 10.