



Supplemental Figure 1. Stills from a 120 fps video (Supplemental Video 2) showing the oscillation of a dart in flight—oscillation results from transverse wave vibrations as a result of compression and launch, while the shaft may spin rapidly to align its spine (weak side) with the alternating direction of flex: (a) starts with red fletch on top, purple on bottom; (b) shaft spins clockwise, red fletch to bottom, yellow to top; (c) continues clockwise, purple to top, red to bottom; (d) shaft spins clockwise again; (e) red back to top, purple to bottom; (f) shaft begins to spin counter-clockwise; (g) purple to bottom, yellow and red to top; (h) shaft spins clockwise, yellow to top, red to bottom.