

Figure S1: Conventional photopolarimetry of the stomatopod, *Gonodactylaceus falcatus*, shown in Figure 3. The left pane (I) shows the relative (linear) intensity of the light. To the right is the degree of linear polarization (DoLP) and a colour scale where black is linearly unpolarized light and white is 50% linearly polarized light. Next is the angle of linear polarization (AoLP) (notice the circular colour scale at the top right corner). Last to the right is the degree of circular polarization (DoCP) with a colour scale where red is 50% left hand circularly polarized light, black is circularly unpolarized light, and green is 100% right hand circularly polarized light. Note how hard it is to appreciate the ellipticity of the polarization and its location on the body of the animal.



Figure S2: Photopolarimetry of a linearly polarized reflection from the glossy leaves of a fern (*Asplenium nidus*). The linear polarization here is coded with green's complimentary colour, magenta. Although this specimen was photographed during a windy day, the polarization patterns on its leaves are still clear.

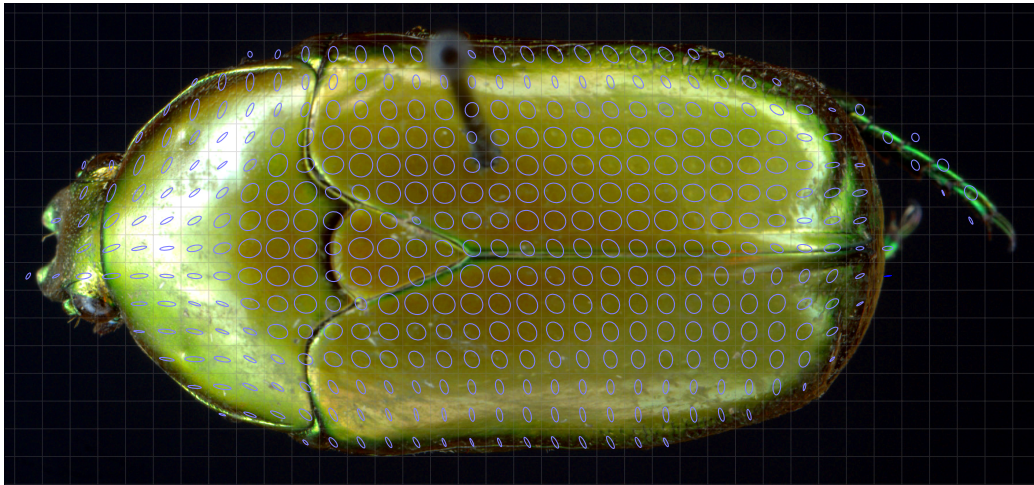


Figure S3: Photopolarimetry of the circularly polarized scarab beetle *Hemipharis insularis*. Here, almost all the polarization reflected from the beetle is left hand circularly polarized and is coded with purple. Notice the radial symmetry of elliptically polarized light on the body of the beetle.