**Metadata for Project “Barrett.2021.CpalAdawBrains”**

All analyses were run in GraphPad Prism (and all figures were made in Prism also), as described in the methods section in Barrett et al. 2021 “Neuroanatomical differentiation associated with alternative reproductive tactics in male arid land bees, *Centris pallida* and *Amegilla dawsoni*” in Journal of Comparative Physiology A.

**1.** Tab “Head Wid.Body Mass” contains head widths (mm) for both *Centris pallida* and *Amegilla dawsoni* males, and wet body mass (g) for *Centris pallida* males. *Each row is a unique individual, within a species.*

HW = head width

LM = Large Male; SM = Small Male (see methods within Barrett et al. 2021, *Journal of Comparative Physiology A* for details about how large and small males were categorized for each species)

**2.** Tab “C.palRelBrainVol” contains *relative* brain region volumes (no units) for *C. pallida* males, where the relative volume is calculated by taking the volume of the target region and dividing it by the brain volume of the sum of the *rest* of the brain regions (e.g. relative optic lobe volume = [OL vol]/[Brain vol - OL vol]). *Each row is a unique individual.*

SM = small male

LM = large male

OL = optic lobe

AL = antennal lobe

CC = central complex

MB Col = Mushroom body collar

MB Lip = Mushroom body lip

BR + Ped = Mushroom body basal ring and peduncle

**3.** Tab “A.dawRelBrainVol” contains *relative* brain region volumes (no units) for *A. dawsoni* males. See #2 for how this is calculated and the acronyms in use on this spreadsheet. *Each row is a unique individual.*

**4.** Tab “C.palOLALvs.ROB” contains the brain volumes (mm3) of the Optic Lobe, Antennal Lobe, Total Brain Volume, and Brain Volume minus the OL or AL. *Each row is a unique individual of C. pallida.*

ROB-OL vol = Total brain volume minus optic lobe volume

OL vol = Optic lobe volume

ROB-AL vol = Total brain volume minus antennal lobe volume

AL vol = Antennal lobe volume

Total brain vol = Total brain volume

**5.** Tab “A.dawOLALvs.ROB” contains the brain volumes (mm3) of the Optic Lobe, Antennal Lobe, Total Brain Volume, and Brain Volume minus the OL or AL. *Each row is a unique individual of A. dawsoni.*

ROB-OL vol = Total brain volume minus optic lobe volume

OL vol = Optic lobe volume

ROB-AL vol = Total brain volume minus antennal lobe volume

AL vol = Antennal lobe volume

Total brain vol = Total brain volume