# Coffee in the Classroom: Data Play

The data featured below has been excerpted from a review article in the *Quantitative Reviews of Coffee Biodiversity* in the journal Conservation Biology. The caption has been removed but basic information about the graph is provided here. In brief, the graph shows the standardized change in species richness of ants and birds from 5 different coffee-growing techniques as compared to the species richness in primary forest. The 5 different coffee-growing techniques are RC (rustic coffee), TP (traditional polyculture coffee), CP (commercial polyculture coffee), SM (shade monoculture coffee) and Sun (unshaded, sun-grown coffee).
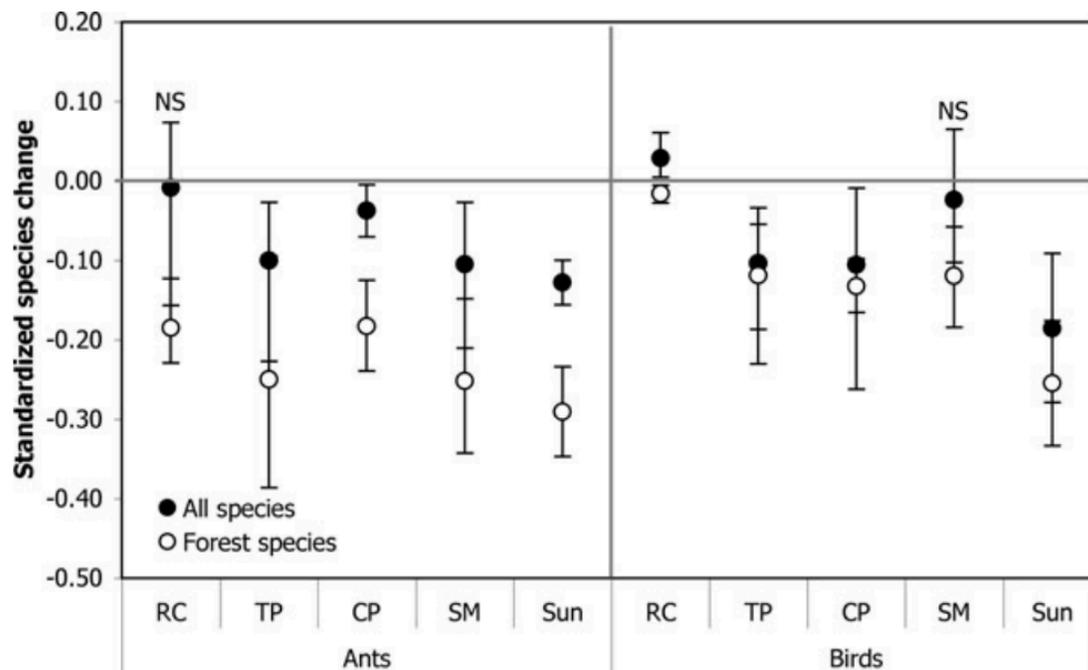
Have students employ the I2 strategy for analyzing data from BSCS. This strategy involves heavy annotations all over the graph so give your students ample room or sticky notes.

- **Identify**: What do you see? Students annotate what they see in the figure/data set. They can mark and describe at least three observations (Ex: all but one of the data points is a negative change; ants species richness change for rustic coffee was around 0, ant species richness for sun coffee was around -0.30)
- **Interpret**: What does the data mean or what "could" the data mean? Students annotate the trends they see occurring or compare/contrast data points to explain

similarities and differences. (Ex: more species of ants live on rustic coffee farms than in sun grown coffee farms.)
- **Caption**: Students use all of their observations and interpretations to write their own caption for the figure. This is written in complete sentences, in their own words, using what they see in the data and how they interpret it.

Have small groups share and discuss their findings, adjust their courses of thinking, and then come back together as a whole group to discuss what this data means and how it may **connect back to the phenomenal images** of the two types of coffee farming techniques.