

CHAPTER

1

TYPES OF DATA: QUALITATIVE AND QUANTITATIVE

Data Analysis Practice

Two different types of data can be collected during scientific investigations: qualitative data and quantitative data.

The following data were collected by scientists studying the feeding habits of the purple-throated carib hummingbird, *Eulampis jugularis*. This hummingbird is found on several Caribbean islands including Dominica and St. Lucia. It feeds on both nectar and insects. In this study, scientists observed the birds in two different locations on the island of Dominica. One area was a landscaped garden with red ginger and several species of *Heliconia*. The other was a forested area dominated by *Heliconia* (spp.). A summary of the data collected is listed below.

- The males of the species are larger than the females.
- The males' bills are shorter and less curved than those of the female.
- The hummingbirds in the landscaped garden spent 21% of the time feeding. Of that time, 20% was spent feeding on insects and 80% was spent feeding on nectar.
- The males get nectar from a species of *Heliconia* in which the flowers have shorter and less curved petals.
- The females get nectar from a species of *Heliconia* in which the flowers have longer and more curved petals.
- The hummingbirds in the forested area spent 23% of the time feeding. Of that time, 92% was spent feeding on insects and 8% was spent feeding on nectar.

1. Identify Which are the quantitative data in the example above? Explain.

2. Identify Which are the qualitative data in the example above? Explain.

3. Synthesize For each of the qualitative observations, give an example of how it could be transformed to quantitative data.
