Translating Visual Aids to Text

SSA Reports benefit greatly from the inclusion of visual aids such as maps, tables, and figures. These visual elements break up dense text, keep the document in plain language, and are generally understood easily by Report readers. However, the mere inclusion of a visual aid does not exonerate writers from their obligation to interpret or analyze information for their readers.

We understand that as the scientist who has created the map, the table, or the figure, you may see its meaning as self-evident. You may also be part of a team who is so close to the data that explaining its presentation in the form of a visual aid borders on the insulting. When preparing to write about visual aids, we encourage writers to revisit your audiences (see Table 1) and remember that the people who ultimately read the SSA Report do not spend the same amount of time with it as you.

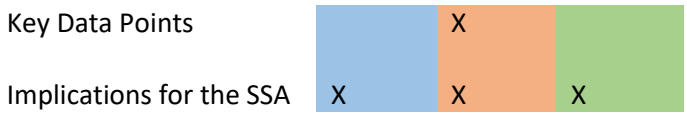
It also helps to realize that, just as people learn differently, so do people read, interpret, and process information differently. For some readers, the graphic presentation of data comes naturally; for others, visual aids can be confusing, even overwhelming.

And in a worst-case scenario, your reader can actually misinterpret information presented graphically. For example, you provide a chart that shows lines trending upward. Your reader sees an increasing tendency and believes that the species is benefitting, but, in actuality, the line represents increasing temperatures, and the result is disastrous for the species.

For all of these reasons, we encourage SSA Report writers to provide written narratives in combination with visual aids. Here, we discuss how to do so with maps, tables, and figures. Our discussion is summarized in Table 1.

Table 1. Narrative Talking Points for Maps, Tables, and Figures

	Maps	Tables	Figures
Methodology	X	X	X
Comparison	X		
Spatial Description	X		X
Legend Explanation	X	X	X



- **Methodology:** Explain where your data came from, its dates, and how you manipulated it into its current form, being sure to name any software programs you used. Walk your reader through the team's thought process in putting information in this form. Tell the reader what information you were hoping to learn, capture, or convey by creating the map, table, or figure. Finally describe any assumptions you made when manipulating the data, especially assumptions regarding missing data or data that were incomparable, perhaps because of different survey protocols or differing time intervals.

- **Comparison:** Maps can usefully be described in terms of comparisons, particularly if you want to orient your reader to the geographic area, for example, by enlarging an inset. You can also use maps to show a temporal series, such as in historical vs. current conditions or current conditions vs. future projections. In your narrative, you want to highlight the similarities and differences between the maps thus presented.

- **Spatial Description:** Maps and figures can both be usefully described to the reader spatially. Simply pick a point on the visual aid (the top left corner is often a good starting position), and move through the visual from left to right or in a clockwise fashion telling the reader what they see.

- **Legend Explanation:** Explaining a map's legend, a figure's shapes and colors, or a table's rows and columns seems particularly redundant. Remember that the redundancy is intentional and that it helps people who process information in different ways. A simple statement such as the "light green area on the map represents X" can be very useful for some of your readers. Fortunately for you, this is the easiest part of the narrative to write.

  In the case of tables, explaining the legend means defining the columns and rows. Again, we realize this information is redundant because the reader can look at the table. But remember that people process information differently. You can always do so in summary form if you can group columns together. So, for example, you could say, "the first six columns represent all of the locations in X population."

- **Key Data Points:** Tables have highs and lows, and these draw the reader's attention even when they are not the focus of our analysis. People notice when averages are consistent and where the numbers look skewed. So when interesting or unusual numbers occur, explain what we think happened. This explanation may or may not be part of your implications for the SSA, but readers require it if they are to move past their own concerns and follow your logic chain.

- **Implications for the SSA:** We include visual aids in SSAs because they are part of our analysis, not because they look cool. The most important part of your narrative is your explanation of the visual aid's implications for the SSA. This explanation helps you complete the document's logic chain by showing how the information you compiled was interpreted to reach some conclusion about the species' viability, whether that be in terms of its ecology, its current condition, the factors influencing it, or its future condition.