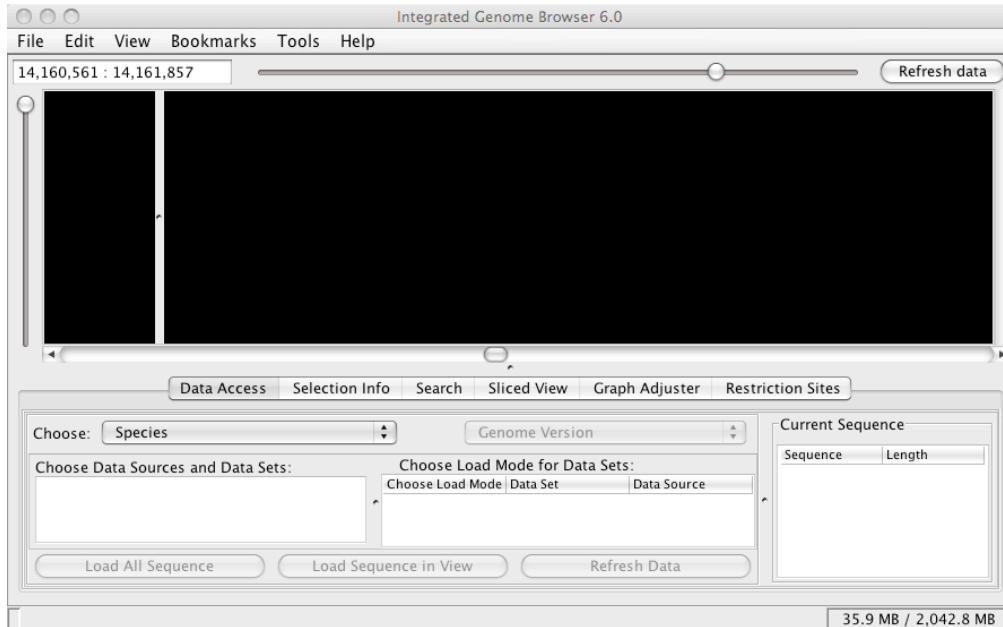


To help you check your program output for Project One, use [Integrated Genome Browser](#).

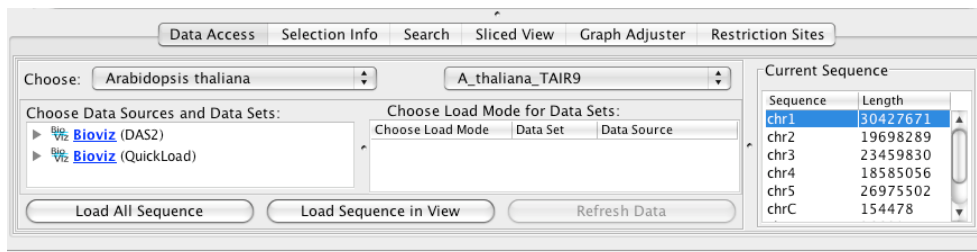
How to view TAIR9 protein-coding gene models in IGB.

1. **Launch IGB.** Visit [the IGB Java Web Start Launch Page](#) and click the button labeled **Start with Java Web Start**. IGB should then download onto your computer. (Answer "yes" to the security questions.) When IGB launches for the very first time, you should see something that looks like:



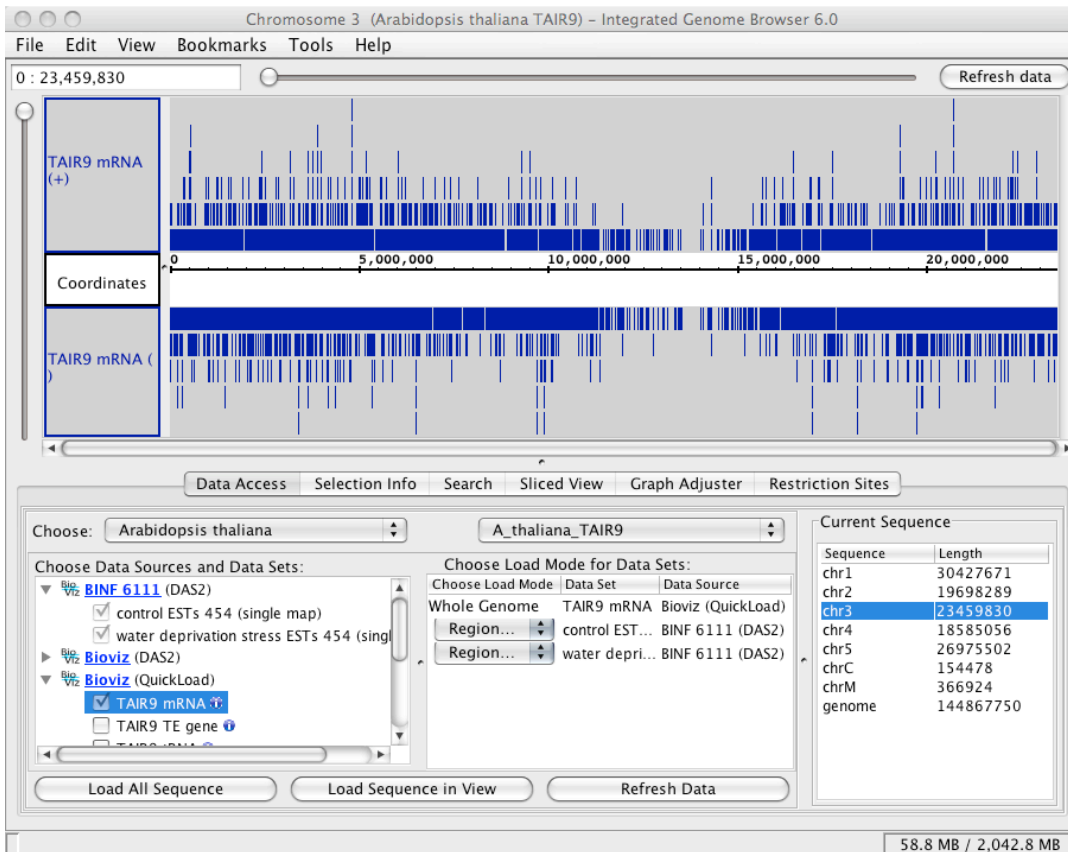
What you see when you launch IGB for the first time eve. **Data Access** tab is selected by default.

2. **Choose TAIR9 genome.** In the **Data Access** tab and then choose species ***Arabidopsis thaliana*** and genome version **A_thaliana_TAIR9**. The Data Access tab should now show Data Sources and the Current Sequence should be set to chr1, the default. (To change it, just click the sequence you want in the Current Sequence section.)



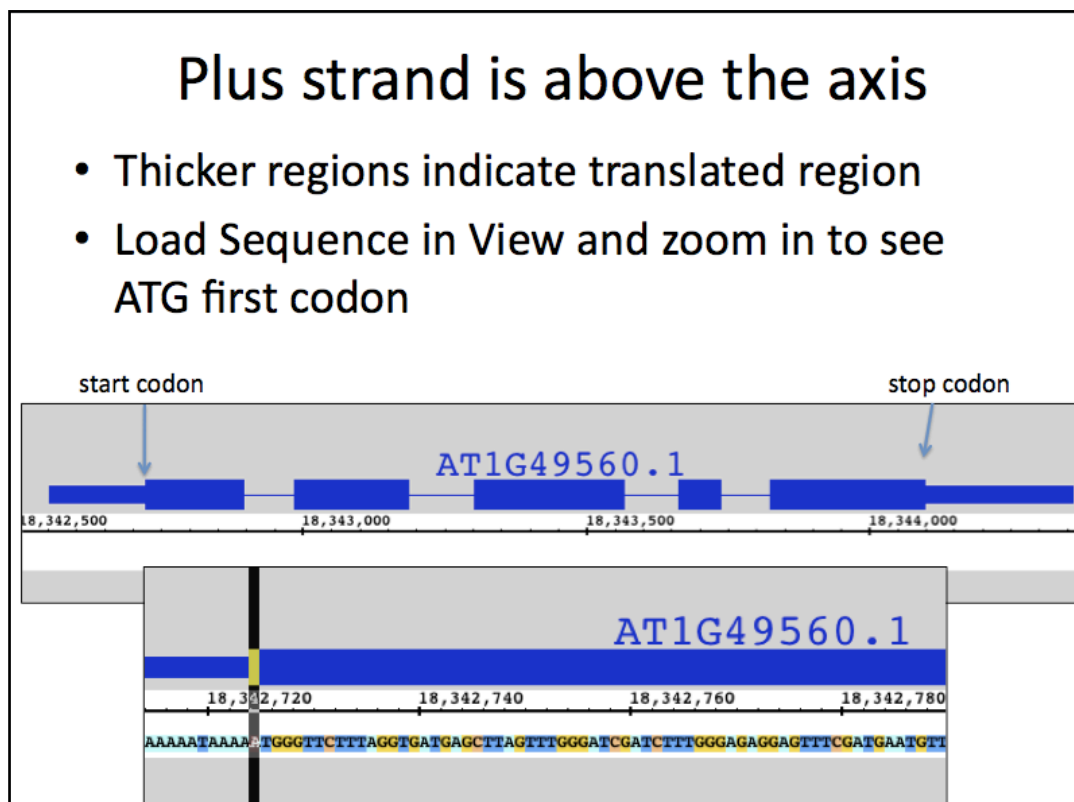
What the **Data Access** tab shows after you pick *Arabidopsis thaliana* (species) and a genome version (A_thaliana_TAIR9).

3. **Load the TAIR9 mRNA gene models file.** Open the **Bioviz (Quickload)** data source and choose **TAIR9 mRNA** (the second item.) **Important:** When the **TAIR9 mRNA** data set appears in the middle section, Choose **Load Mode** as **Whole Genome**. The gene models should then load from the server.



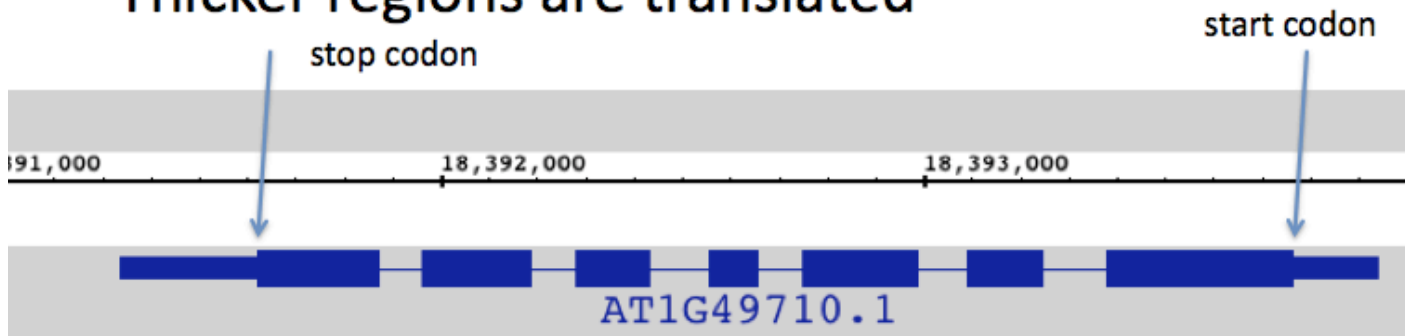
Your color scheme may be different than what appears above, but here's what you will see after setting up the Data Sources. To change your color scheme, control-click a track label and choose **Change...** to change color settings.

- Search for a gene model.** To search for a gene (for example, **AT1G36320.1**) click the **Search** tab and enter the gene AGI code in the textbox and click **Search**. If the gene you requested has already been loaded (via the TAIR 9 mRNA data set), then a row show appear with the gene name, location, etc. Double-click the row to zoom to the gene.



Minus strand is below the axis

- Thicker regions are translated



Note that the orientation of genes on the minus strand is different – 5 prime is right and 3 prime is left. On the plus strand, 5 prime is left and three prime is right.