seaborn.pairplot

`seaborn.` **`pairplot`** (***data*, *hue=None*, *hue_order=None*, *palette=None*, *vars=None*, *x_vars=None*, *y_vars=None*, *kind='scatter'*, *diag_kind='hist'*, *markers=None*, *size=2.5*, *aspect=1*, *dropna=True*, *plot_kws=None*, *diag_kws=None*, *grid_kws=None***)

Plot pairwise relationships in a dataset.

By default, this function will create a grid of Axes such that each variable in `data` will by shared in the y-axis across a single row and in the x-axis across a single column. The diagonal Axes are treated differently, drawing a plot to show the univariate distribution of the data for the variable in that column.

It is also possible to show a subset of variables or plot different variables on the rows and columns.

This is a high-level interface for **`PairGrid`** (seaborn.PairGrid.html#seaborn.PairGrid) that is intended to make it easy to draw a few common styles. You should use :class`PairGrid` directly if you need more flexibility.

Parameters:

data : DataFrame

> Tidy (long-form) dataframe where each column is a variable and each row is an observation.

hue : string (variable name), optional

> Variable in `data` to map plot aspects to different colors.

hue_order : list of strings

> Order for the levels of the hue variable in the palette

palette : dict or seaborn color palette

> Set of colors for mapping the `hue` variable. If a dict, keys should be values in the `hue` variable.

vars : list of variable names, optional

> Variables within `data` to use, otherwise use every column with a numeric datatype.

{x, y}_vars : lists of variable names, optional

> Variables within `data` to use separately for the rows and columns of the figure; i.e. to make a non-square plot.

kind : {‘scatter’, ‘reg’}, optional

> Kind of plot for the non-identity relationships.

diag_kind : {'hist', 'kde'}, optional

> Kind of plot for the diagonal subplots.

markers : single matplotlib marker code or list, optional

> Either the marker to use for all datapoints or a list of markers with a length the same as the number of levels in the hue variable so that differently colored points will also have different scatterplot markers.

size : scalar, optional

> Height (in inches) of each facet.

aspect : scalar, optional

> Aspect * size gives the width (in inches) of each facet.

dropna : boolean, optional

> Drop missing values from the data before plotting.

{plot, diag, grid}_kws : dicts, optional

> Dictionaries of keyword arguments.

Returns: **grid** : PairGrid

> Returns the underlying `PairGrid` instance for further tweaking.

See also

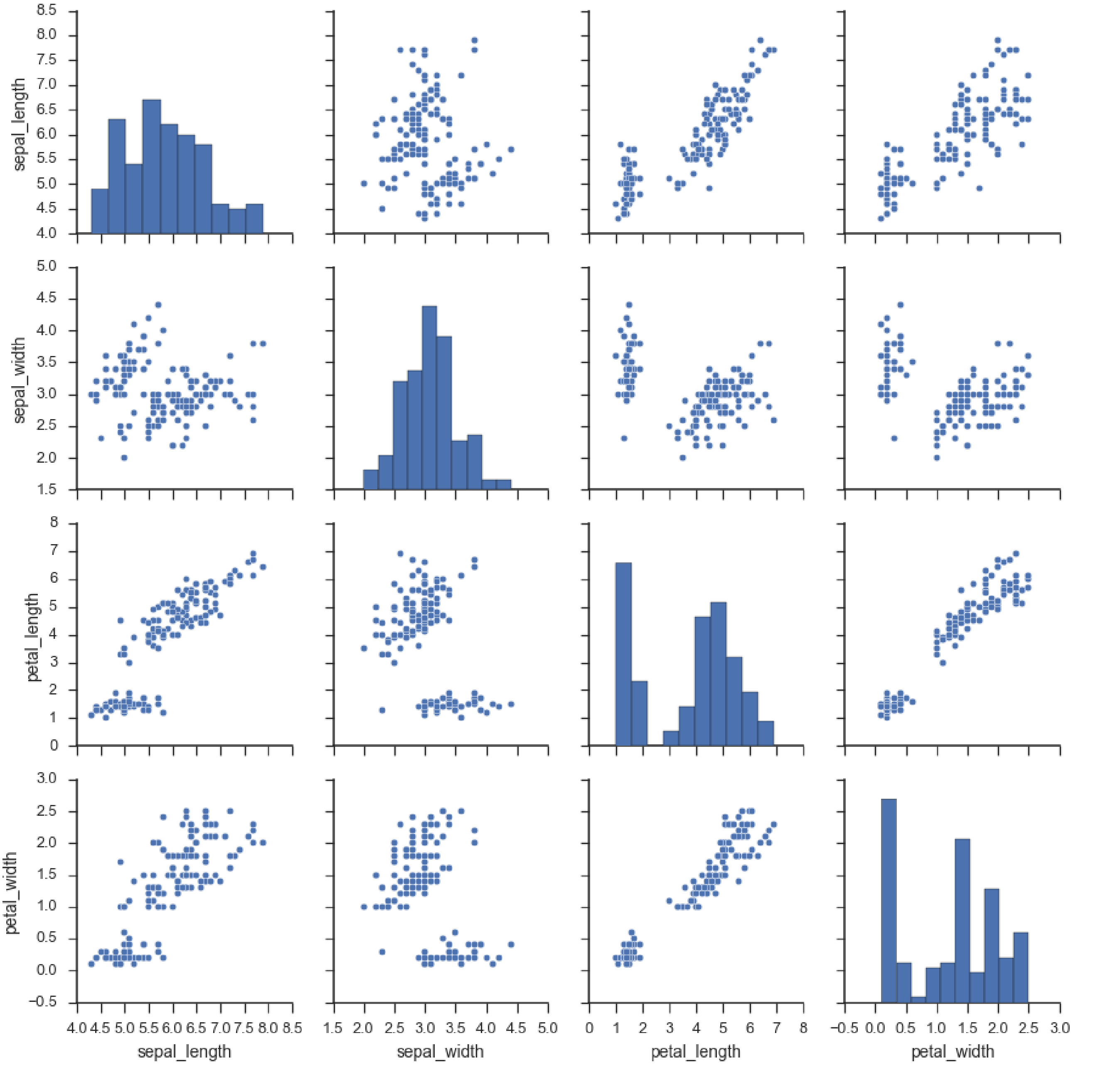
`PairGrid` (seaborn.PairGrid.html#seaborn.PairGrid)

Subplot grid for more flexible plotting of pairwise relationships.

Examples

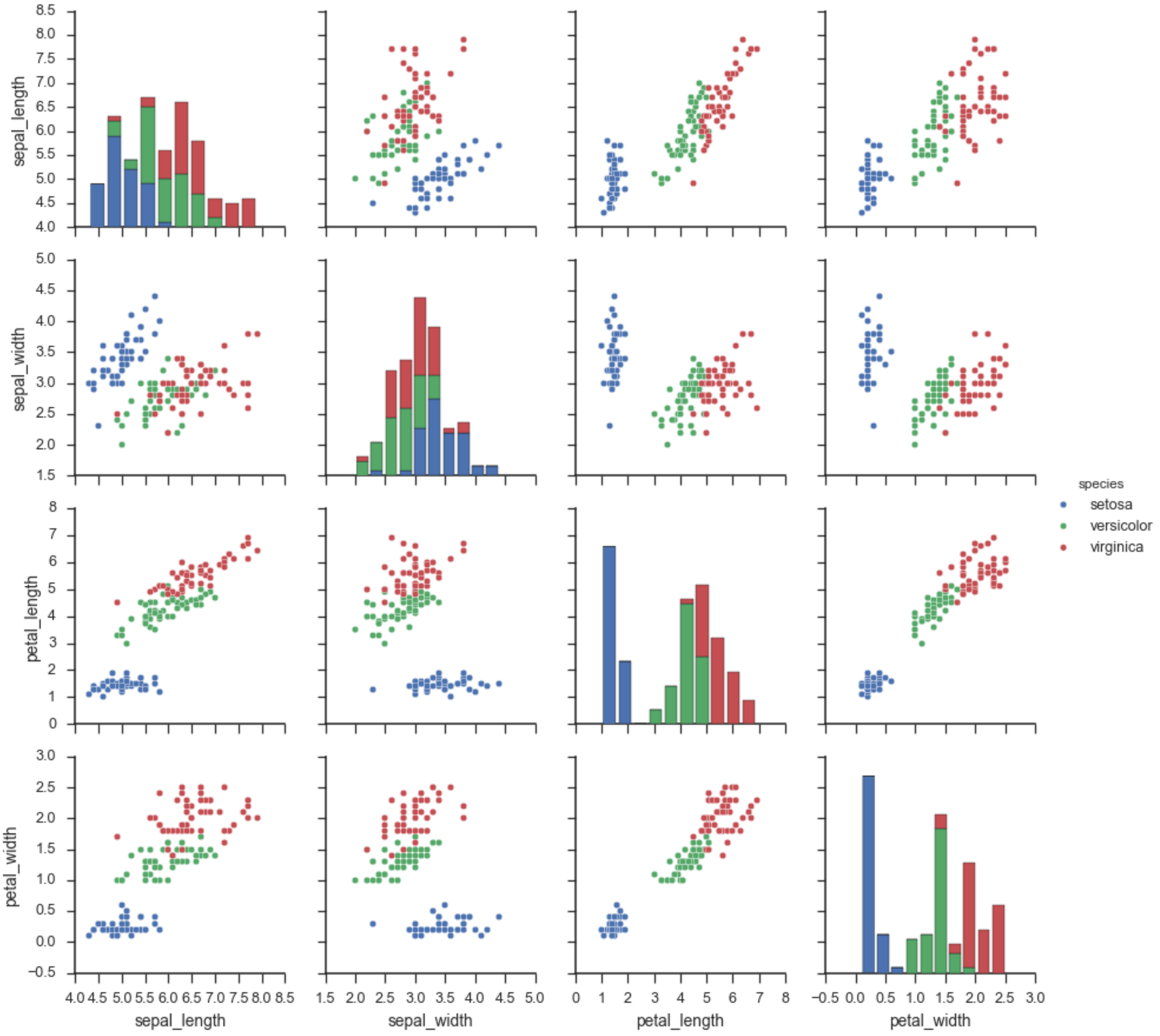
Draw scatterplots for joint relationships and histograms for univariate distributions:

```
>>> import seaborn as sns; sns.set(style="ticks", color_codes=True)
>>> iris = sns.load_dataset("iris")
>>> g = sns.pairplot(iris)
```



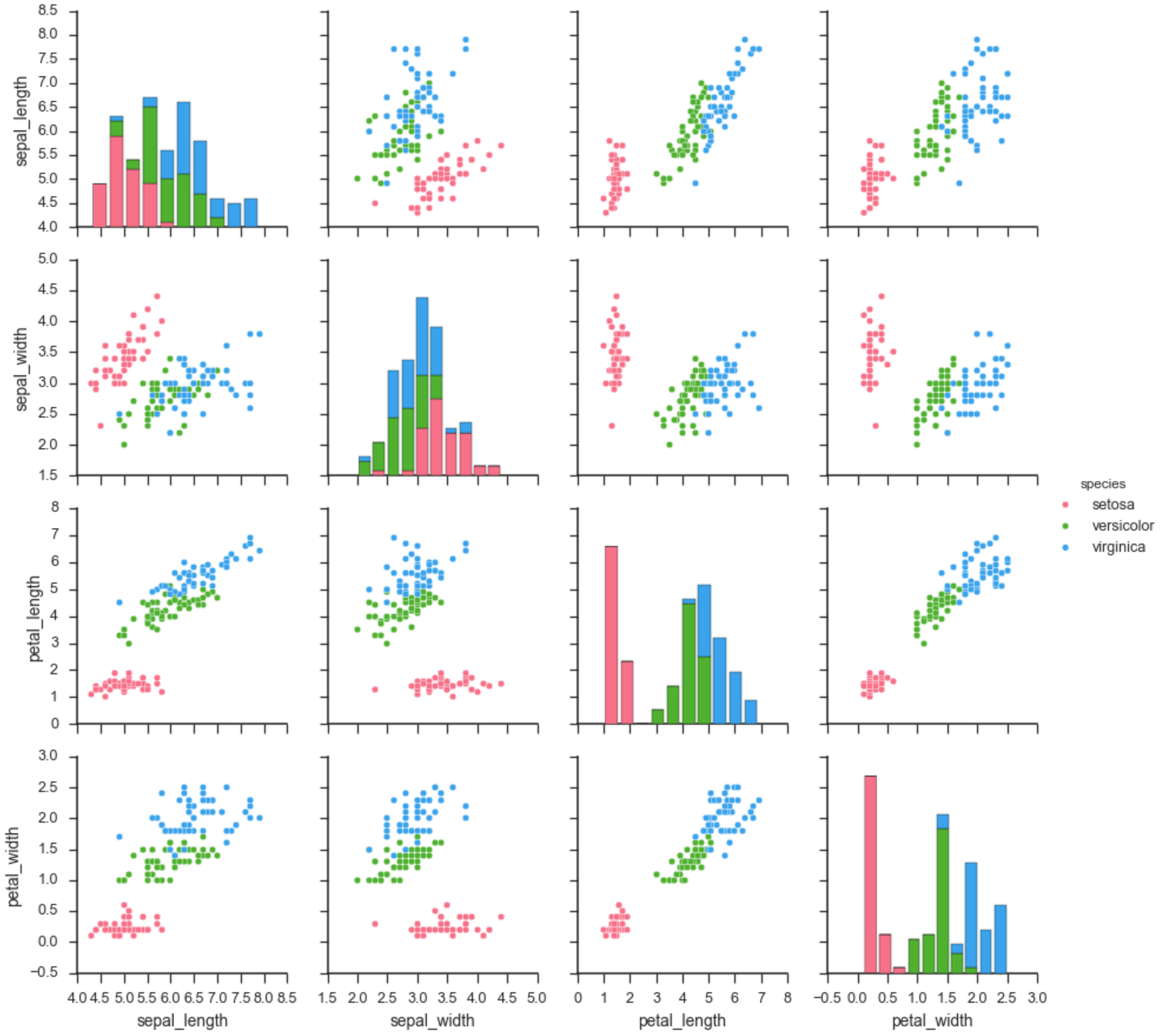
Show different levels of a categorical variable by the color of plot elements:

```
>>> g = sns.pairplot(iris, hue="species")
```



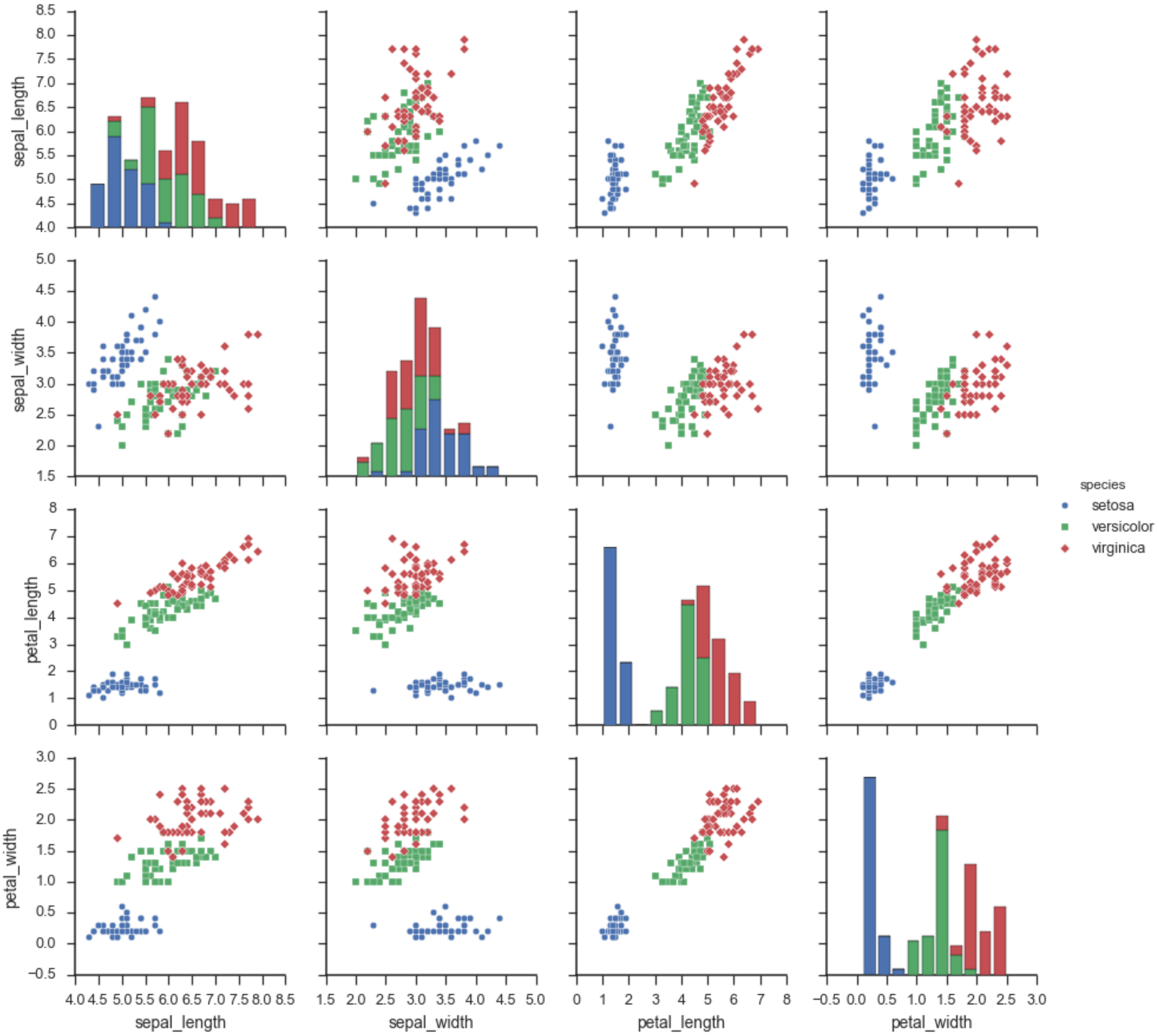
Use a different color palette:

```
>>> g = sns.pairplot(iris, hue="species", palette="husl")
```



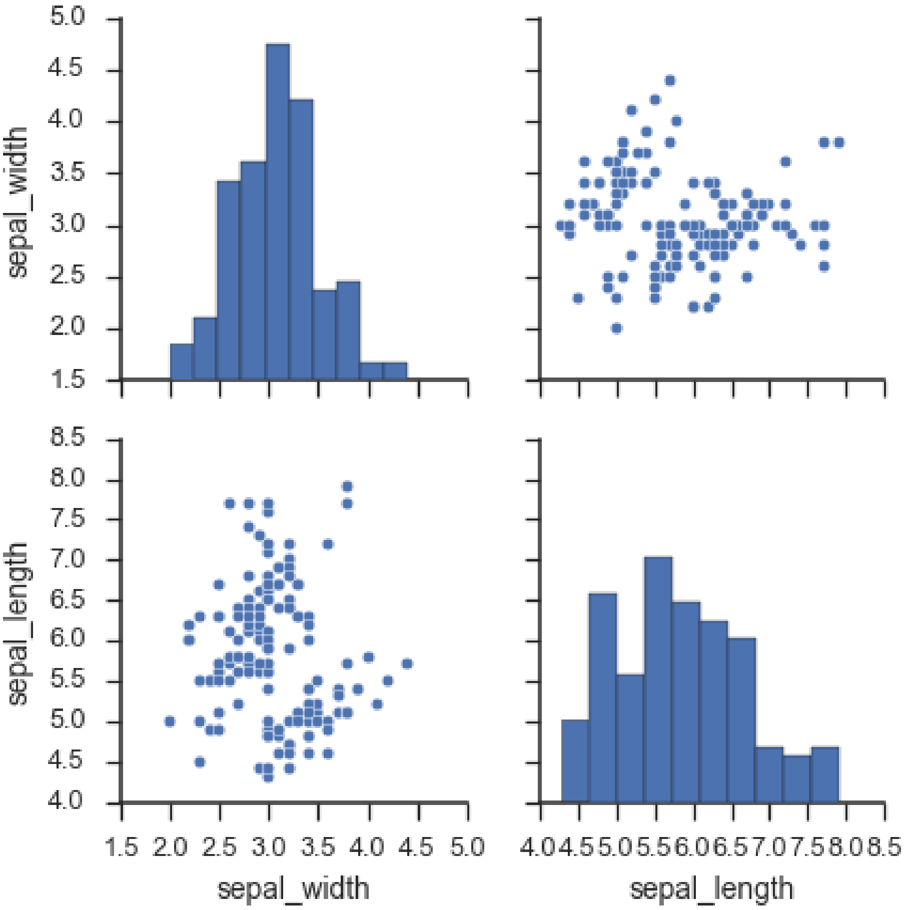
Use different markers for each level of the hue variable:

```
>>> g = sns.pairplot(iris, hue="species", markers=["o", "s", "D"])
```



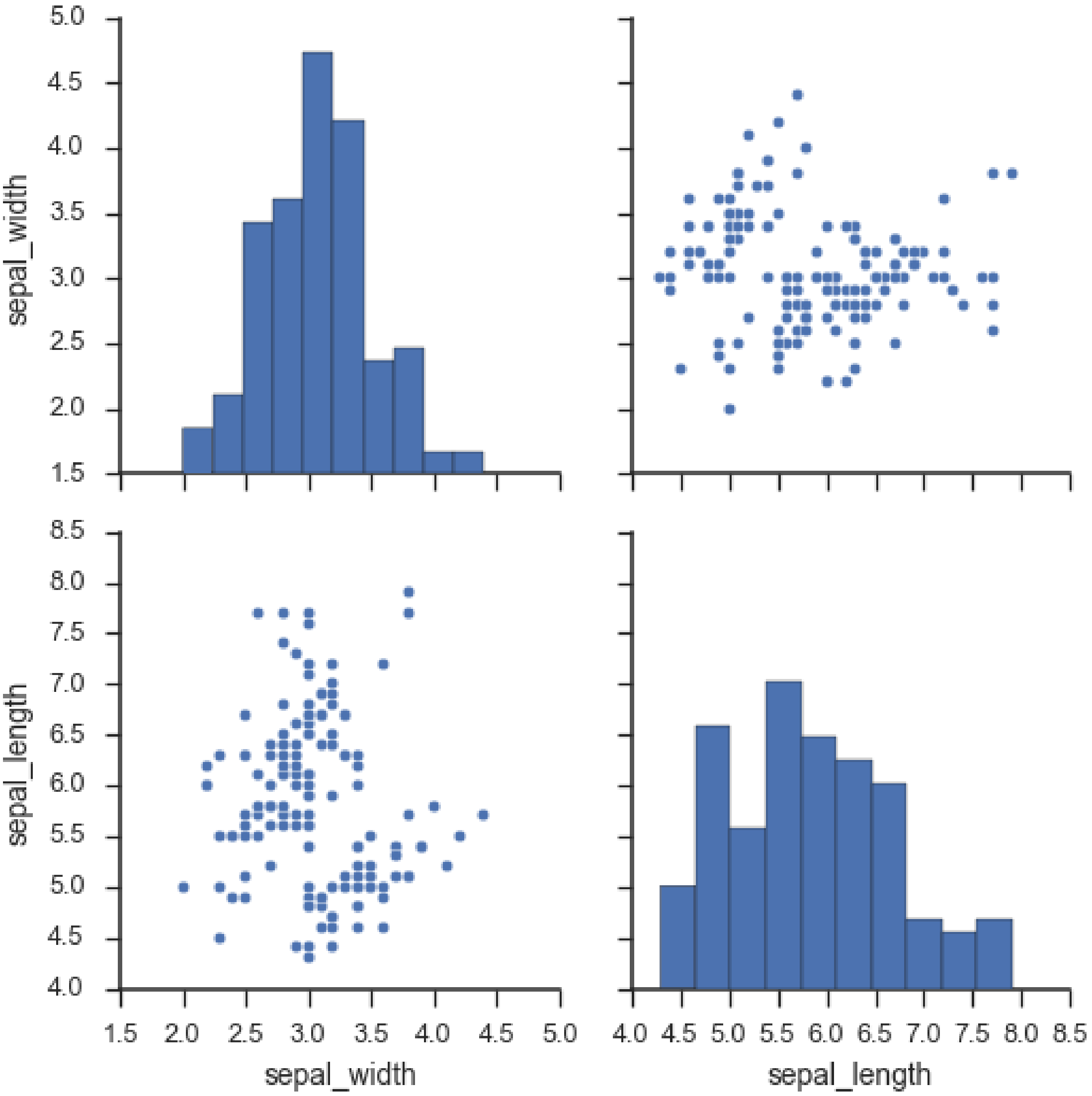
Plot a subset of variables:

```
>>> g = sns.pairplot(iris, vars=["sepal_width", "sepal_length"])
```



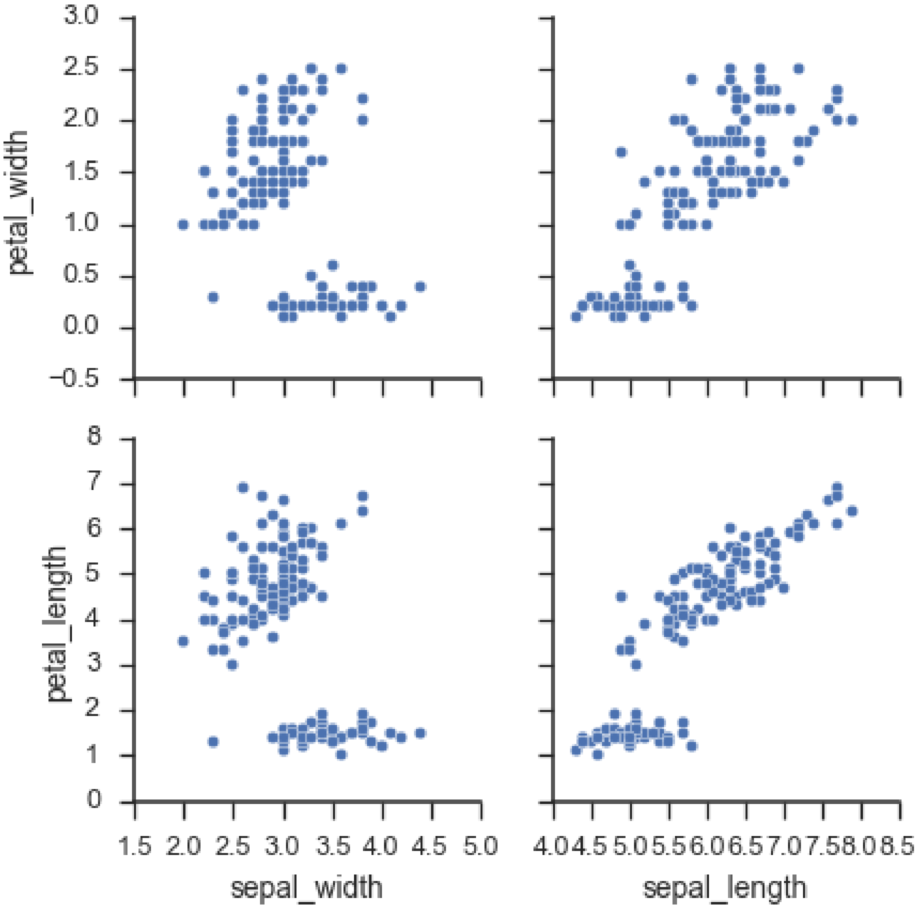
Draw larger plots:

```
>>> g = sns.pairplot(iris, size=3,
...                  vars=["sepal_width", "sepal_length"])
```



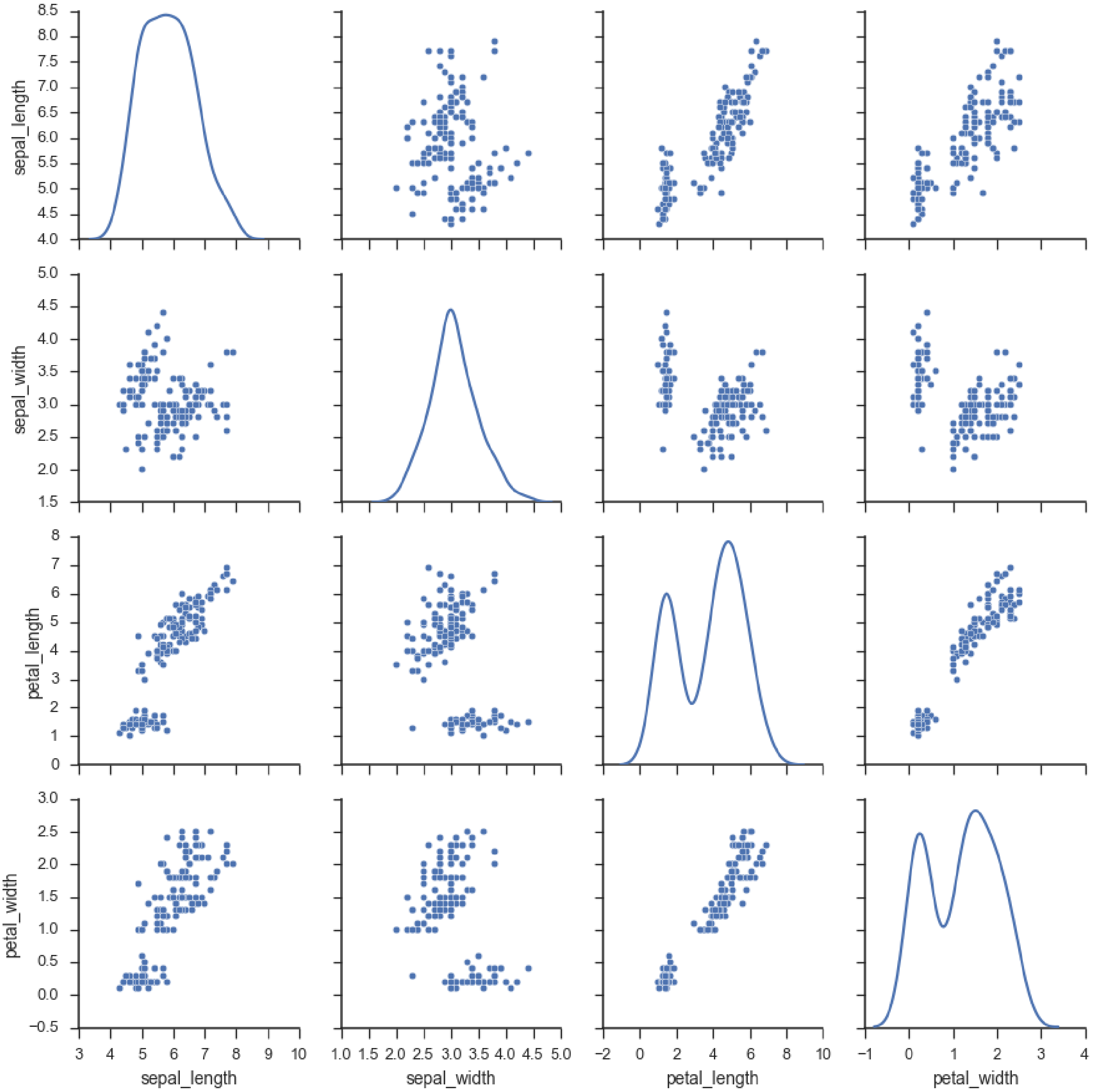
Plot different variables in the rows and columns:

```
>>> g = sns.pairplot(iris,
...                  x_vars=["sepal_width", "sepal_length"],
...                  y_vars=["petal_width", "petal_length"])
```



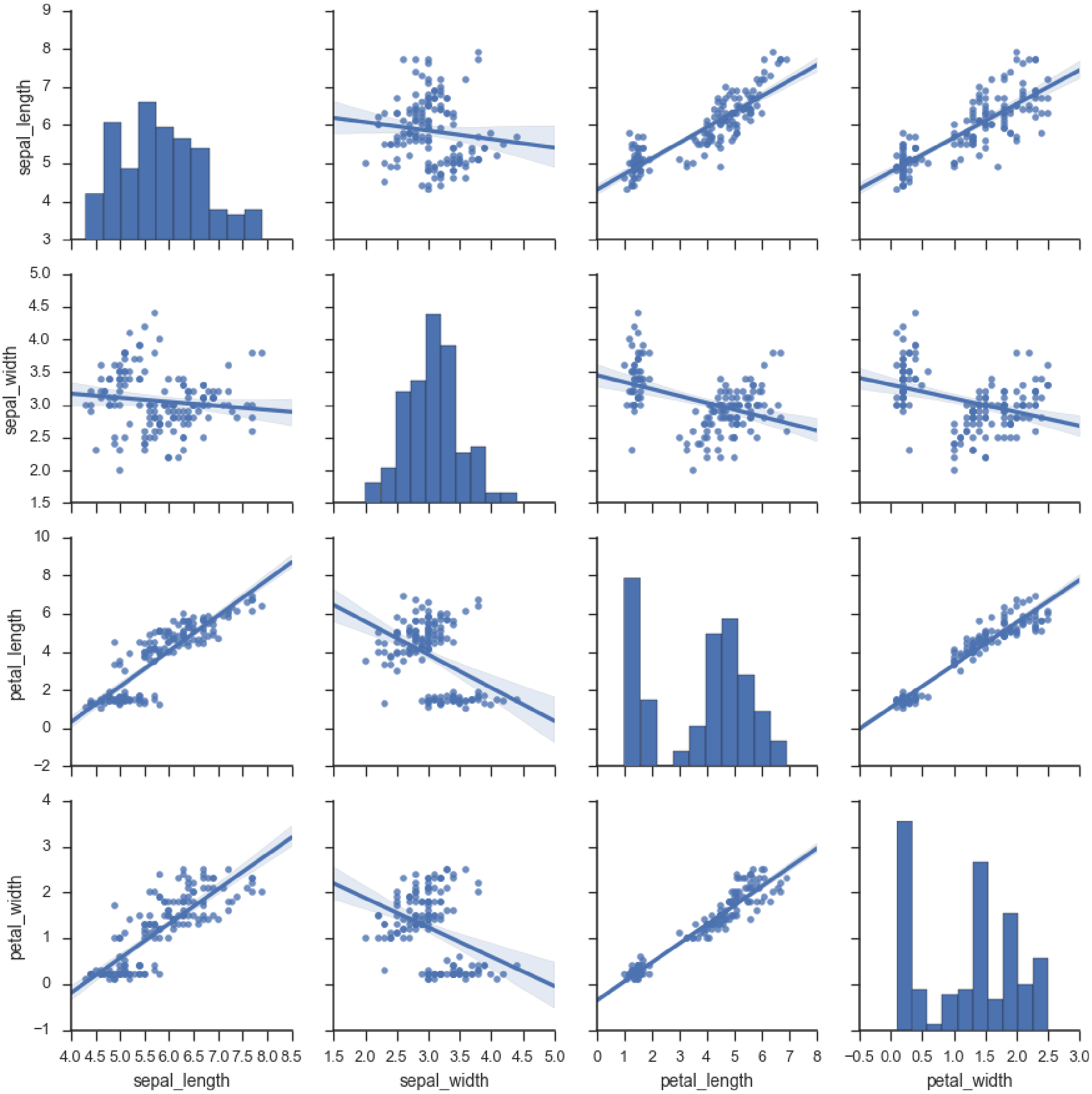
Use kernel density estimates for univariate plots:

```
>>> g = sns.pairplot(iris, diag_kind="kde")
```



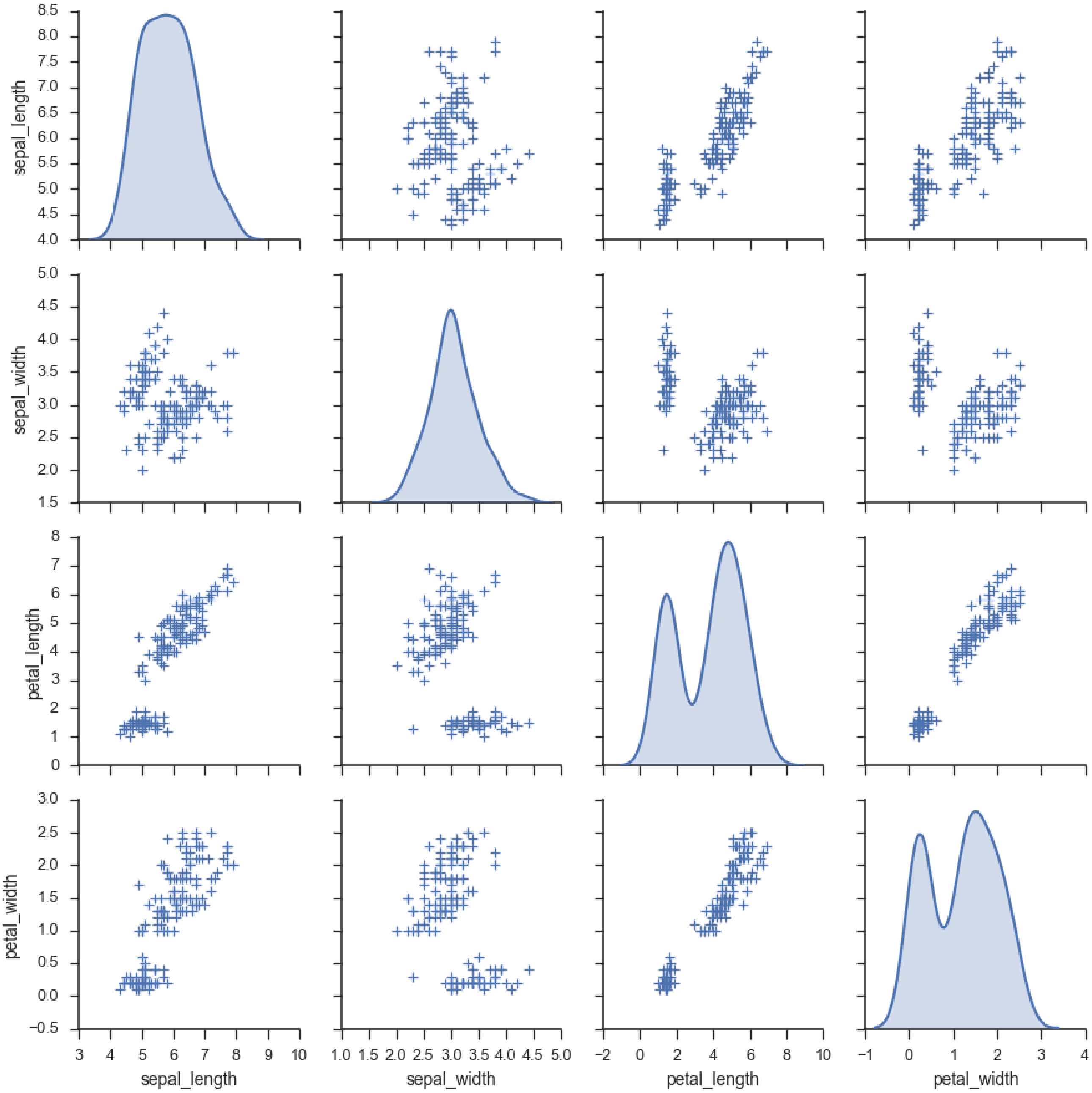
Fit linear regression models to the scatter plots:

```
>>> g = sns.pairplot(iris, kind="reg")
```



Pass keyword arguments down to the underlying functions (it may be easier to use **`PairGrid`** (seaborn.PairGrid.html#seaborn.PairGrid) directly):

```
>>> g = sns.pairplot(iris, diag_kind="kde", markers="+",
...                  plot_kws=dict(s=50, edgecolor="b", linewidth=1),
...                  diag_kws=dict(shade=True))
```



Source (../_sources/generated/seaborn.pairplot.txt) Back to top

Created using Sphinx (http://sphinx-doc.org/) 1.3.3.