SC.7.E.6.6 Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

**Enemy release hypothesis**
Species have accumulated many enemies in their native habitat such as predators, parasites, diseases that limit their population from getting too large. When they are introduced to a new habitat they escape all their natural enemies. Because they have escaped their enemies in this new area, they can focus their energy on growth and reproduction rather than defense from enemies.

Today we are going to explore the enemy release hypothesis by comparing two trees that are very similar. One is a native to south Florida, called Wild Tamarind. The second is an exotic to south Florida brought over from southern tropical Asia called “Woman’s tongue.”

Both trees reproduce through seed pods that do not split open. The bruchid beetle is a predator of seed pods.

When it preys on a seed pod it leaves a hole in the outer layer of the pod. We are going to test the enemy release hypothesis by counting how many holes there are in both the Wild Tamarind and Women’s Tongue pods. Circle the bruchid beetle predation holes in the picture below.
**Hypothesis:**
Which tree species do you think will have more Bruchid Beetle holes?

**Methods**
Count the number of damaged PODS (not the number of holes) and record them in the table below.

**Results**

<table>
<thead>
<tr>
<th>Tree</th>
<th># of damaged pods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild Tamarind (NATIVE)</td>
<td></td>
</tr>
<tr>
<td>Woman’s Tongue (EXOTIC)</td>
<td></td>
</tr>
</tbody>
</table>

Graph your data below:

**Discussion**
Does your data support the Enemy Release Hypothesis? Why or why not?

What other species are invasive in South Florida? Do they escape natural enemies?

What kind of effect do exotic species have on natural ecosystems?