

# LESSON PLAN: Invader Track Down

## Objectives:

1. **Students will** identify ways in which marine pests have invaded Port Phillip Bay.
2. **Students will** list several species of marine pests that are a local problem.
3. **Students will** research the origin of one species of marine pests.
4. **Students will** compare the features of the pest's native habitat with the features of Port Phillip Bay.

## Materials:

- Marine Pests video
- "Marine Pests Video Questions"
- World Map
- Markers/colored pencils
- Access to Parks Victoria's Marine Pests in Victoria: A Quick Reference Guide either printed or online at <https://parkweb.vic.gov.au/park-management/environment/weeds-and-pests/marine-pests>
- Computers with internet access.

## Instructions:

1. Show students the video titled "**Marine Pests.**"
2. During the video, students may complete the companion worksheet "**Marine Pests Video Questions.**"
3. Students should form groups of 2-4 to work cooperatively.
4. Each group should choose a different marine pest from the following choices:
  - Northern Pacific Sea Star, *Asterias amurensis*
  - Wakame, *Undaria pinnatifida*
  - Pacific Oyster, *Crassostrea gigas*
  - Green Shore Crab, *Carcinus maenus*
  - European Fan Worm, *Sabella spallanzanii*
  - New Zealand Screw Shell, *Maoricolpus roseus*
  - Aquarium Caulerpa, *Caulerpa taxifolia*
  - Red Algae, *Grateloupia turuturu*
  - Asian Date Mussel, *Musculista senhousia*
  - Cord Grass, *Spartina anglica* and *Spartina x townsendii* sp
5. Each group should locate Port Phillip Bay on the World Map and draw a symbol indicating the presence of the marine pest they have chosen.
6. Using the internet, find the origin of the marine pest.
7. Locate the marine pest's native homeland on the map, again using a symbol identify its location. If there is a large region that the pest originated from, students may color in the region.
8. On the map, highlight a possible route the marine pest traveled from its homeland to Port Phillip Bay.
9. Research the possible ways in which the marine pest was introduced to the bay.
10. Research the similarities between the marine pest's native land and Port Phillip Bay. What abiotic factors (nonliving features) are similar? What features of Port Phillip Bay make it so habitable for the marine pest?
11. Research which limiting factors are present in the pest's native habitat that might be missing in Port Phillip Bay. Why does the absence of the limiting factor(s) allow the marine pest to be so successful in Port Phillip Bay?
12. If time allows, students can present their maps and research to the class.

**Time:** 45 minutes

## Summary:

After watching the Marine Pests video, students will work in groups to research the origin of a Port Phillip Bay marine pest.

## Level:

Middle School,  
High School

