Questions on Campbell & Schlarbaum (2002).

Chapters 1,2,4, and Appendix

April 19, 2007

1. Why was the Gypsy Moth imported into the U.S.? How does it negatively affect the tree?

2. What are some specific examples of ways that economic burdens associated with preventing bioinvasion can be shifted from government agencies (taxes) to industries and consumers that facilitate importation of exotic species?

3. Regarding tenets 1 and 2 in chapter 4, what happens when a certain demand for importation is high enough that parties benefiting from the trade are willing to pay the cost of mitigating bioinvasion risks (keeping in mind that the cost of risks are likely not comparable to that of the impacts of the actual invasion)?

4. How does a plant normally defend against pests? I understand the concept behind a plant producing toxins, etc., but does a plant have any more of an 'immune system' than that? Can environmental factors (e.g. pollution) impede a plant Rs ability to defend against potential pathogens?

5. Please describe what a 'pathway sterilization approach' and a 'species-by-species identification and interdiction procedure' are in reference to prevention of exotic species

introductions. (pg 54)

6. How does one go about screening plants for disease? In animals/humans one can use numerous serological tests, etc. to detect pathogen presence/infection. Is there any way, outside of just direct visualization, to detect disease in a plant?

7. Is there any available criteria to differentiate between hitherto unknown pests and to selectively distinguish the pests that could potentially pose problems?

8. If a pest is very destructive in South America,is it going to exhibit the same adverse effects in Europe & North America and vice-versa? In other words,is the pathogenic potential of a pest influenced by geographical variations or is it independent of demographical constraints?

9. Considering the high entry and establishment potential of many of these pests, can eradication attempts aimed at any such pest species, like Asian gypsy moth/ Woodwasp be 100% successful?

10. Are they any policies in the US to prevent the spread of pathogens from the US to other countries?

11. What are other countries doing to prevent the spread of pests destructive to their forests?

12. On page 61 the authors suggest that the importation of whole plants and portions of plants should be prohibited. Should the transportation across state lines from states where the pest is endemic also be prohibited?

13. Is it possible to plant hosts that are more desirable to the pests in a effort to draw them to that area, and then be able to deal with the pest more efficiently?

14. By breeding resistance into host plants, does that change the ecosystem at all by changing the host for other pests that are native to the area?

15. Looking at maps of the distribution of Sudden Oak Death it looks like there are two big clusters in the San Mateo/Santa Cruz counties area and in the Marin/Napa counties areas. Is it known where the pathogen first appeared? Are these clusters just due to higher surveillance in these areas, or is there a strong active surveillance?

16. Why is the importation of wood dramatically increasing?

17. What has been the outcome from the WTO addressing acricultural trade issues..."due to be completed within 3 years."? p 56.

18. In calculating damage, how is the value of a tree determined?

19. According to the article, despite its extensive natural forests and plantation, the United States is the world Rs largest importer of forest products. Can give the reason.

20. In the article, imports of railroad ties fluctuate from year to year. Is there any reason why there is a fluctuation.

21. According to the article, exotic pest introduction via solid wood packaging is a serious threat due to the rising volume of imports of SWPM. The risk is highest for crates, intermediate for dunnage and lowest for pallets. Could you please give the reason.

22. Why couldn't the US require shippers to sterilize solid wood packaging materials (SWPM) prior to shipping, and fine suppliers when pests were found? This would obviously be costly to consumers, but wouldn't it be a viable alternative to phasing out all SWPM brought into the US (and also provide a financial incentive for shippers to switch to non-wood packaging)?

23. What do you think the response of the American public would be to your proposed restrictions on plant imports? It seems like a WONDERFUL idea to me, given the potential invasiveness of non-native plants themselves (e.g., phragmites, purple loosetrife, autumn olive) and the potential for them to transport pests and disease. Do you feel that the American public would understand if an educational campaign accompanied restrictions? How do you think that the switch to native species and more restricted exotic cultivars would realistically affect the horticulutral industry?

24. Which pest is the "pine beetle" that we hear so much about in TN? How was this pest likely introduced, and how long has it been in the US?

25. There is a disagreement if the term invasive species is exactly synonymous with introduced species. Which one would be more related with the 'exotic insects' term that you use in your paper?

26. Why does the State of Hawaii have different regulatory policies than the rest of the U.S.?

27. Could an invasive species alter the niche of a native species in its own ecosystem?

28. What are the details of the 'pathway sterilization approach' and what effects might this approach have on the environment?

29. A Three part question

    (a) Do you believe that the 'proposed changes' will be adopted?

    (b) What stage are such policy-making deliberations currently at?

    (c) What is the likelihood that safegaurds can be installed prior to 'economically and ecologically devastating consequences'?

30. Are there any data that indicate that SWPM are more costly than other packing materials? For example, would it be feasible to change form SWPM to a reusable plastic or some other less harmful organic product?