

Study Questions and Guide
Hunter & Gibbs Ch. 13 – Managing Populations
Conservation Biology
Spring 2009

1. What are the pros and cons of feeding, providing water, providing additional habitat, and providing additional ecological interactions to wild populations?

2. The section on overexploitation of species (starts p. 288) is perhaps one of the most important in the book. Study this carefully and think about where you stand on it – especially in regard to property rights. Try to put yourself in the place of people with different points of view or economic interests. We are certain to discuss this section and closely related ones in class and if you are connected with conservation at all, you should have plenty to say. Terms – be sure that you understand what **additive and compensatory mortality** are – in detail. Also notice that indirect threats must be taken into account – indirect threats are especially insidious because we either do not consider them or because, as with exploitation, a conflict of interest is involved.

3. Not all threats to endangered populations are anthropogenic. Please know the types of natural threats to endangered populations in detail and also some of the steps commonly taken to reduce these threats.

4. Please study the "**manipulations**" section of the chapter closely and be familiar with the most common types of manipulations, their rationales, costs and benefits (obviously the latter vary with specific case but know some examples). Know the following terms: **translocation, double clutching** (not with a car!), **cross-fostering, and head-starting**.

5. Go back and review the concept of heterozygosity (H) and especially its within and among population components for a species. Relate this concept to manipulations designed to maintain genetic diversity of a population. Remind yourself as to why this is important.

6. What are **exotic alleles**? Why are they a problem if gene flow is a normal occurrence within a species? Hint – think about where gene migration typically occurs (near or far populations) and about the difference between typical demes in healthy sized populations and threatened ones.

7. The black robin case from New Zealand shows how difficult it can be to reverse a species' decline. Please familiarize yourself with the example and think about whether you think this is the best way to extend conservation effort – or when this sort of thing should be done.

Once again, the discussion questions at the end of the chapter are excellent and deserve some review; we will probably discuss some of them in class.

As usual, terms that you should know are given above in bold.