REPLY TO ADDICOTT

Well, if the members of an aphid clone are as genetically heterogeneous as the members of an ordinary, obligatorily outcrossing organism's population, then I retract my emphasis that there is something special and interesting about the evolutionary biology of the units of selection in an aphid population. However, Addicott's comments do not lead me to think that 10 million aphids in a field are anywhere near as unrelated as are the 1,000 ladybird beetles feeding on them. Of course, there can be selection that favors one aphid clone over another, and a mutant may arise in a clone that is favored, thereby leading to two clones where there was one. A somatic mutation may also generate a tree with a genetically heterogeneous crown, but this event is hardly the kind of natural history around which tree population ecology is structured. In aphids, even with genetic heterogeneity within the clone, the clone is still the unit of selection, and the behavior of the members of the clone can be highly "altruistic" without there having been any kin selection (as in intercell interactions within an organism). An aphid "evolutionary individual" is a way to sneak a camel into a greenhouse. I still maintain

that we know next to nothing of the population biology of aphid evolutionary individuals (clones).

D. H. JANZEN

DEPARTMENT OF BIOLOGY
UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA, PENNSYLVANIA 19104

Submitted September 22, 1978; Accepted October 10, 1978