ECOLOGY:

When Fire Ants Move In, Others Leave

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For Amy Arnett, getting a Ph.D. in biology has also meant learning to be a road warrior. Beginning in May 1997, she and Christy Royer, an undergraduate assistant, covered some 2000 hot, dusty

down to four in Florida, Gotelli and Arnett report. "These changes correlate very strongly with the presence and absence of fire ants," points out Lloyd Morrison, an entomologist at the U.S. Department of Agriculture's Agricultural Research Service Center in Gainesville, Florida. (North Carolina is the northernmost range of the red imported fire ant.)

Gotelli and Arnett can't tell from their survey whether the missing species are locally extinct or just very rare. But the drop in biodiversity could represent a significant loss for these areas, notes Ross, because of the critical role ants play in recycling nutrients and other biological material. Although the red imported fire ants are voracious feeders, they may not redistribute nutrients in the same way that a variety of other ants--each with its own particular habits--would, Gotelli explains. What's more, the steadily declining number of ant species found below the northern limit of the red fire ant suggests that habitats don't recover their biodiversity with time.