

## Practice Exercise: Contingency Table Analysis

### **Question 1:**

A study was conducted to examine the association between mode of dispersal and reproductive strategy among plants after exposure to fire. Therefore, 131 species of plants were studied and the researchers then classified each species according to its mode of dispersal (via ants or via vertebrates) and its reproductive mechanism (seed only, vegetative only, seed + vegetative). Based on these data, are the dispersal and reproductive strategies of fire-tolerant plants independent ecological strategies?

### **Question 1 Data:**

Reproductive Mechanism	Dispersal Mechanism	
	Ant	Vertebrate
Seed only	25	6
Vegetative only	11	32
Seed + Vegetative	36	21

### **Answer Question 1: 3 x 2 Contingency Table analysis**

Chi-square value = 24.803; df = 2; P < 0.0005

Conclusion: strategies are not independent