93學年度國立成功大學 生物多樣性研究所 保育生物學
研究所招生考試

1. Define the following three characteristics of communities or ecosystems: Resistance, Persistence, and Resilience; and discuss their respective implications for conservation biology. (15%)

2. Why is the concept of meta-population important; and how it is related to conservation biology? (10%)

3. Describe the major contribution of the following scientists to the field of conservation biology: Aldo Leopold, Paul Ehrlich, Robert MacArthur (10%)

4. Why is a circular reserve better than a square or a rectangular reserve of the same surface area, given everything else is equal? (5%)

5. Discuss how habitat fragmentation can impact the survival of resident species? (10%)

(背面仍有題目,請繼續作答)

6. 請解釋甚麼是" genetic drift"， 以及 genetic drift 與小族群中 genetic diversity 高低的相關 (10%)

7. 試說明" Biological species concept"， 以及在保育上應用的困難 (10%)

8. 試說明 invasive species 對原生動植物 gene pool 的可能衝擊 (10%)

9. 試說明 migration 對族群遺傳結構的影響 (5%)

10. 那些演化因子會提高族群內的 heterozygotes? (5%)

11. 解釋名詞 (10%; 每題兩分)

甲、Hardy-Weinberg equilibrium

乙、Genetically modified organisms

丙、Reproductive barriers

丁、Allopatric speciation

戊、Introgression