Lightning Talk

Rearing Monarchs: Higher Survival in Larval Stages Compensates for Lower Migration Success

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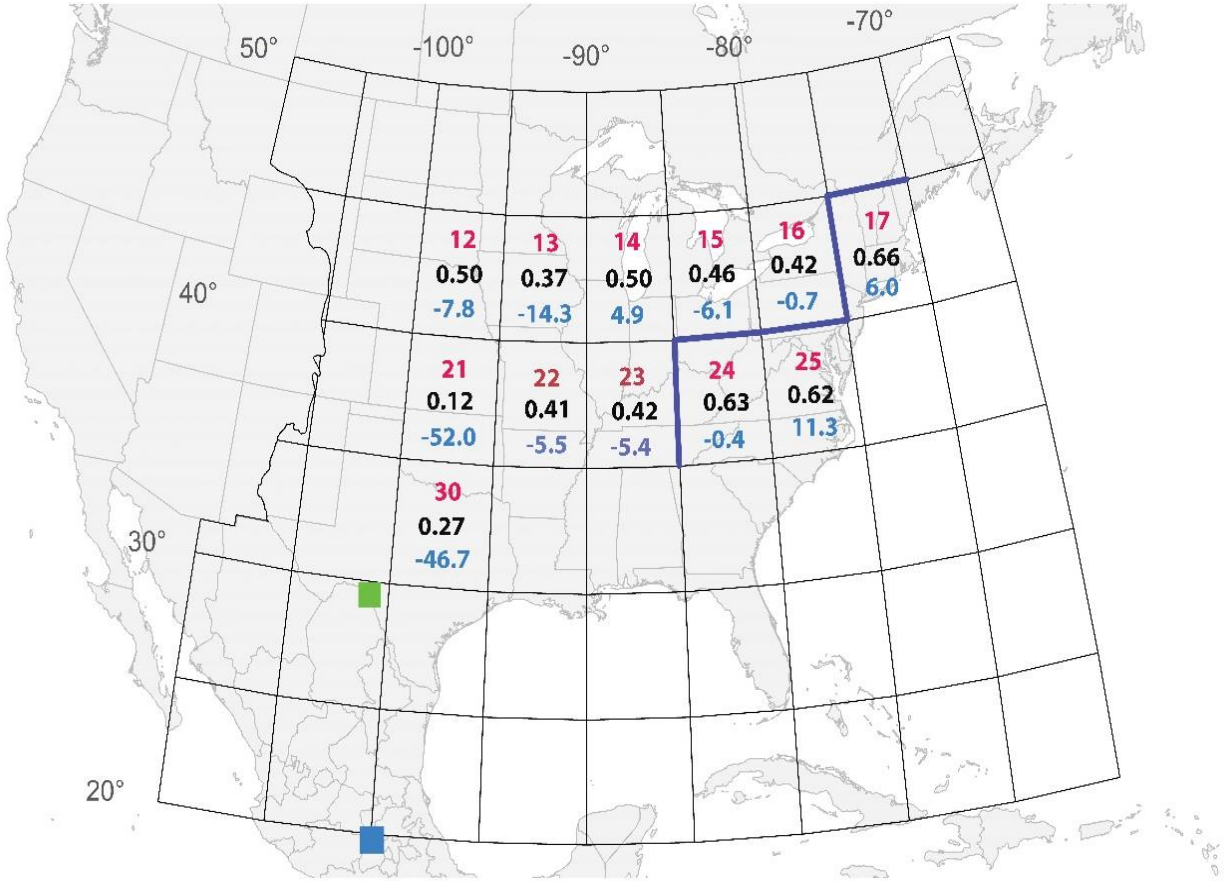
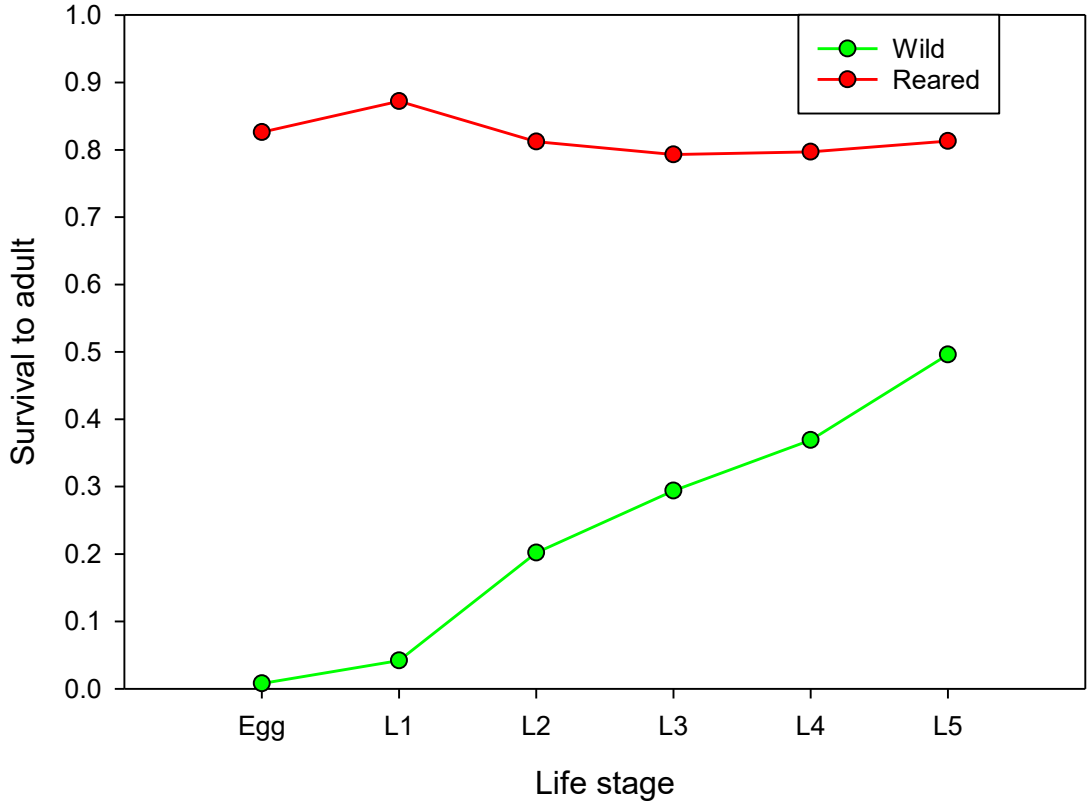
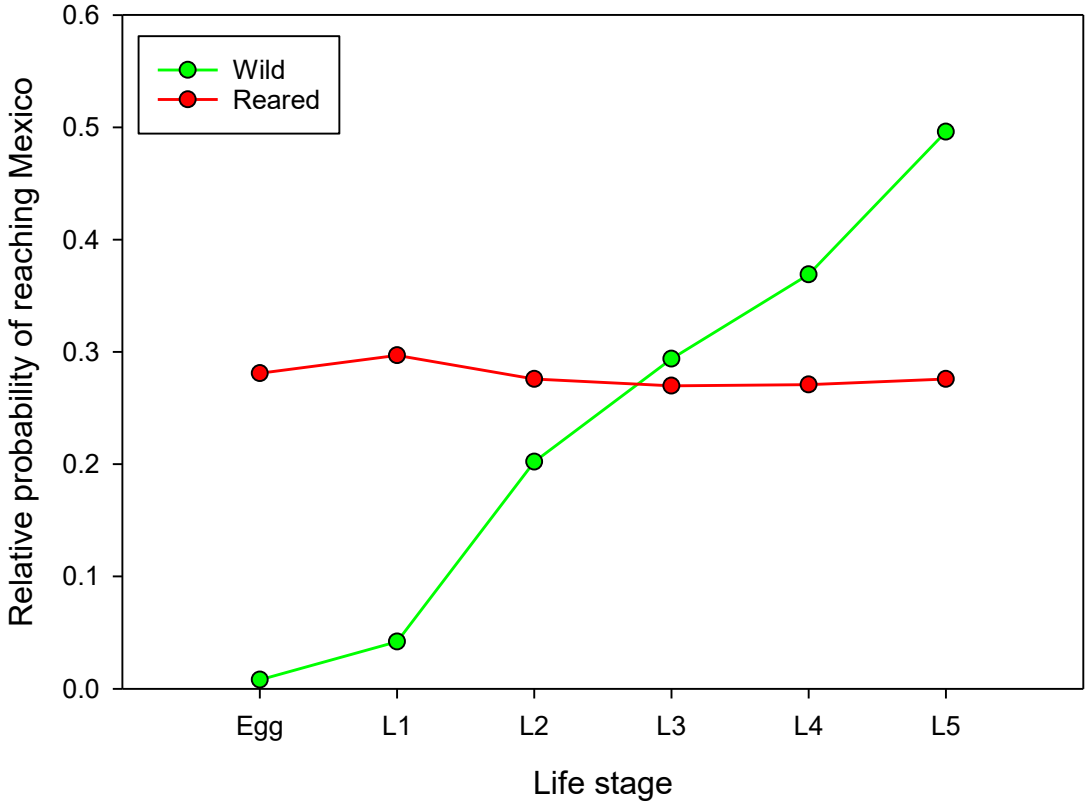
- Concerns about captive rearing:
  - Less fit
  - Infected with OE
  - Lacking migration cues
- Examination of tagging recoveries in Mexico show that migration success of reared butterflies is 50% that of wild butterflies

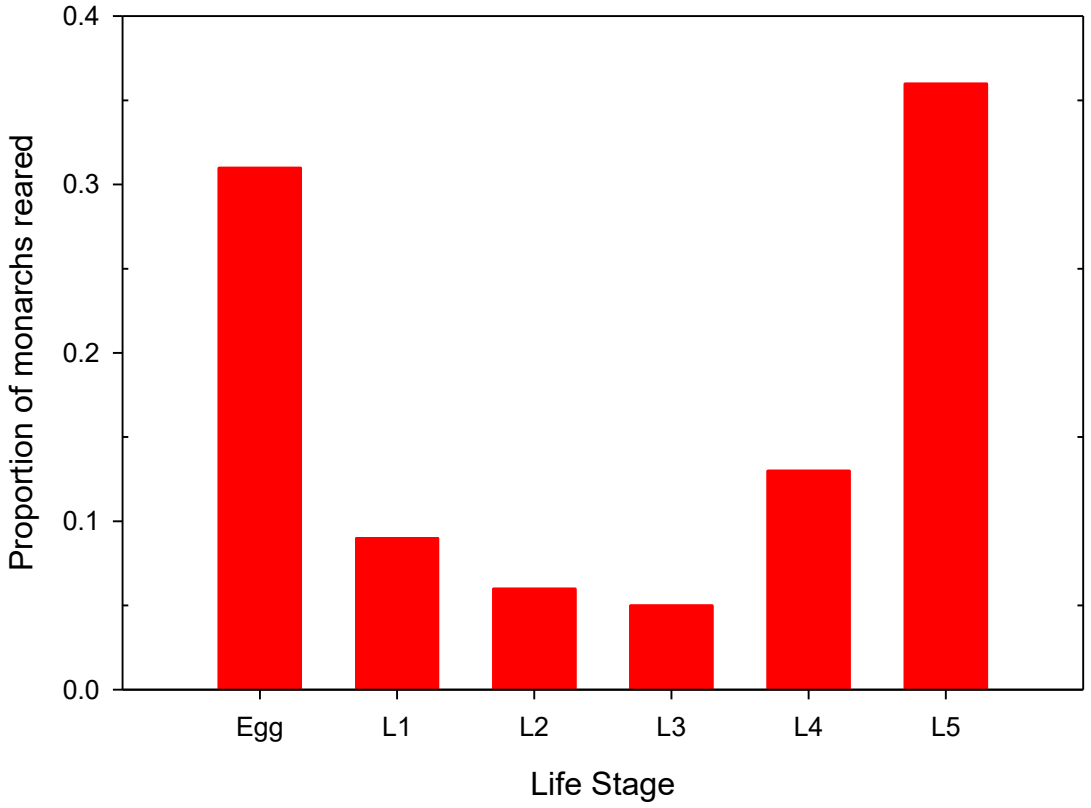


- Probability of monarch reaching Mexico = survival to adult X migration success





- Impact on the monarch population depends on the proportion of reared monarchs brought in at each stage
- Average survival if left in the wild: 0.26; Average survival when reared: 0.82
- Average probability of reaching Mexico: wild 0.26, reared 0.41; 1.6 times higher for reared butterflies



- How many butterflies could be added to the population by rearing?
- If 500,000 monarchs were brought in for rearing, there would be 280,000 more butterflies than would have been produced in the wild.
- How does this compare to the size of the migratory population?
- In an average year we estimate the size of the migratory population to be 300 million individuals.
- Rearing would only add <0.1% to the migratory population and <0.05 % to the overwintering population