

Lightning Talk

# Understanding Monarch Butterfly and Wind Energy Interactions

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# Wind Energy

## Pros

- Clean energy
- Renewable
- Low operating cost
- Small footprint
- Supports economic growth

## Cons

- High up-front cost
- Noise
- Visual
- Direct impacts to volant species



# Estimating Fatality Rates for Birds and Bats

- Searcher Efficiency: Probability the searcher detected the carcass
- Carcass Persistence: Average probability a carcass remained available to be found during the search interval
- Area Correction: Adjustment for the area searched



# Fatality Rate Calculation for Monarch Butterfly

- ✓ Searcher Efficiency
- ✓ Area Correction
- Carcass Persistence:
  - What happens to carcasses when they land?
  - Does wind affect the location of carcasses?
  - Are carcasses found coming from other areas?
- Background Mortality



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