## Rusty Blackbird: Options for Monitoring



## Monitoring on the Breeding Grounds

#### potentially very costly

- combine with surveys of other boreal species
- use existing programs
- citizen science
- standardize methods for local/regional projects

### Monitoring Options: existing programs

- BBS
- Migration Monitoring
- Marsh Monitoring Programs
- Waterfowl Pair Surveys
- Aerial Surveys
- Breeding Bird Atlas Projects
- Checklist Programs



# Migration Monitoring

Data from bird banding stations:

- numbers of banded birds
- daily estimated totals
- visible migration



## Canadian Migration Monitoring Network



Études d'Oiseaux Canada





## Canadian Migration Monitoring Network

- 22 banding stations
- very few Rusty Blackbirds banded
- potential to use daily estimated totals and visible migration

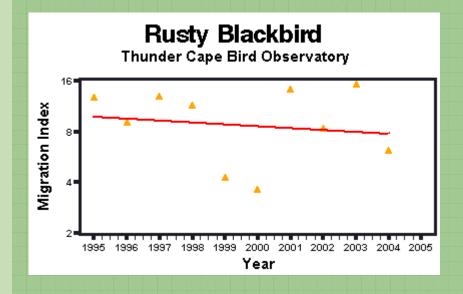


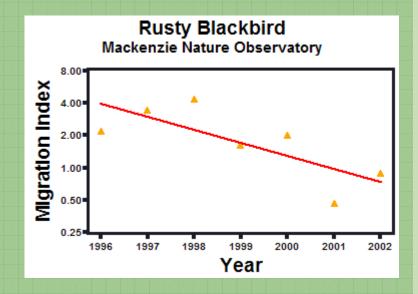
#### CMMN: trends in estimated totals



# Bird Population Indices







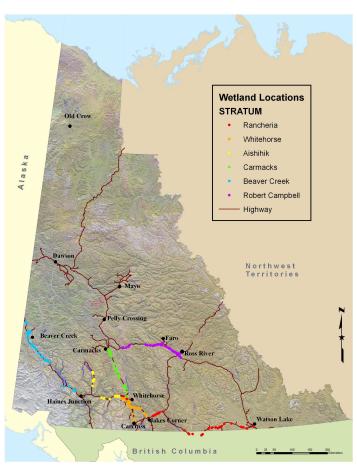
# Marsh Monitoring

- e.g. Great Lakes Marsh Monitoring Program
  - semicircular "stations" at wetlands, point-count style survey with broadcast of sound recordings
  - birds and amphibians, survey in evening
  - designed for "secretive marsh birds"
  - ongoing since 1994

## Waterfowl Pair Surveys

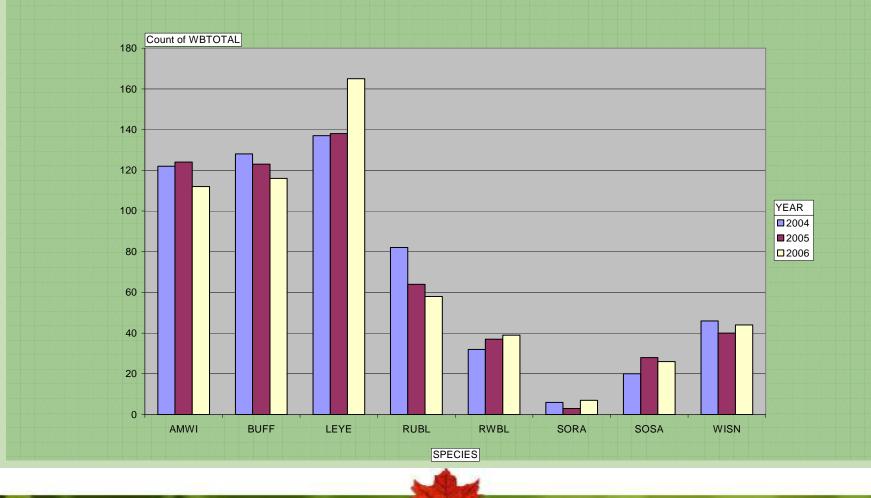
- Ground-based, road access
- In Yukon and B.C., 5 weekly visits (late April to early June)
- the survey units are small wetlands or parts of larger wetlands
- surveys conducted at all times of day

## Yukon Waterfowl Pair Survey



- waterfowl survey since '91
- Rusty Blackbird added '04
- 250 wetlands surveyed
- Rusty Blackbirds occur in about 25%

# Yukon Waterfowl Pair Survey





- aerial surveys for waterfowl or shorebirds
- can be used where Rusty is the only blackbird

• ....CO<sub>2</sub>....?

