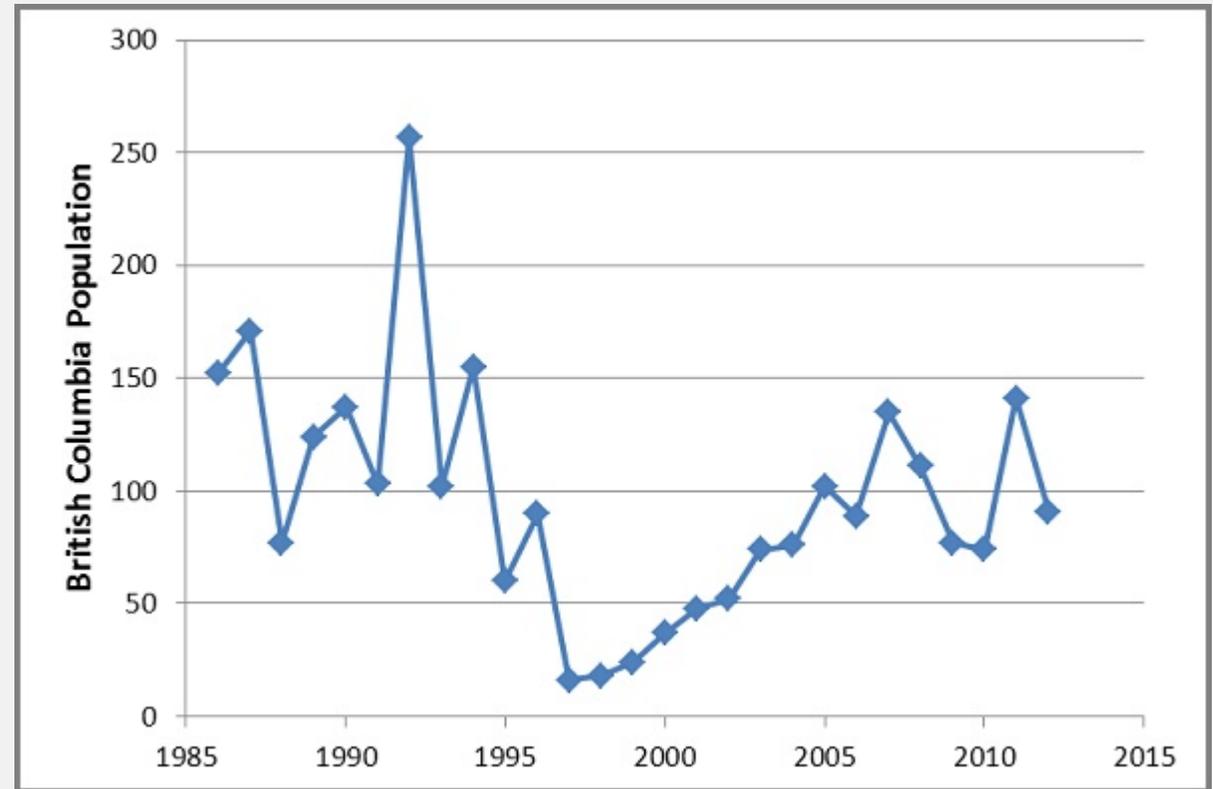


# Long-term monitoring

An essential component of airport  
wildlife management programs

- Gary F. Searing, Bird Strike Association of Canada
- Pierre Molina, Falcon Environmental Services Inc.

## Counting is for the birds



# Long-term monitoring

Why doesn't everyone do it?

It's easy!



# Long-term monitoring

Why doesn't everyone do it?

We teach  
our kids to  
do it!

## How Many Are There?

Add together the little birds  
and write down how many there are!



# Long-term monitoring

Why doesn't everyone do it?

In fact, many people do it!



# Long-term monitoring

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Why doesn't everyone do it?

## For a long time!



# Why monitor?

**Assess Risk**



Risk

Strike Sensitivity X Damage Probability = Bird Hazard Index

Bird Hazard Index X Survey Results = Risk Index

# Why monitor?

## Assess Strikes

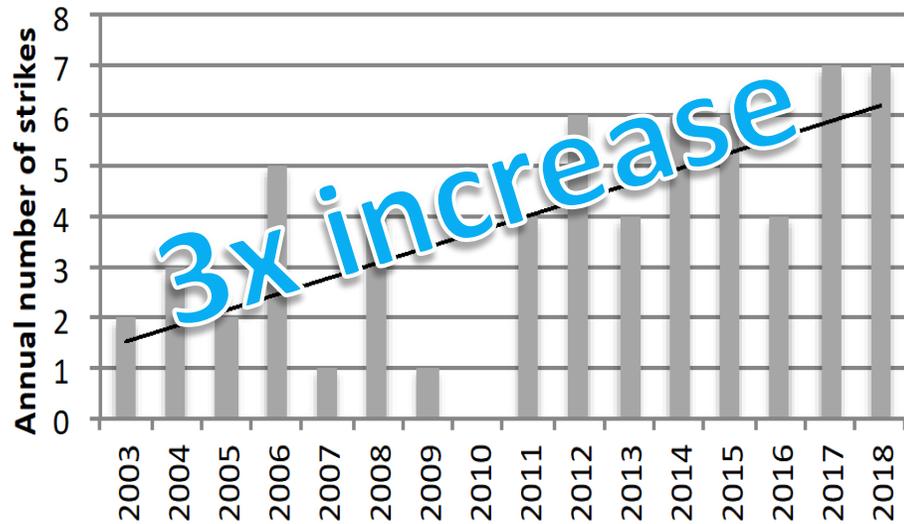


Risk

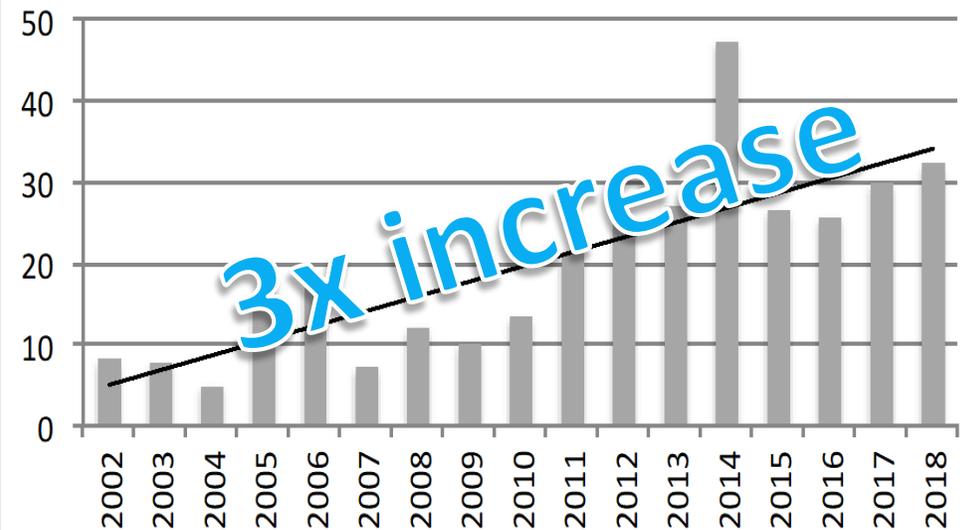


Strikes

### Great Blue Heron Strikes



### Great Blue Herons Airside Abundance Index



# Why monitor?

## Assess Strikes

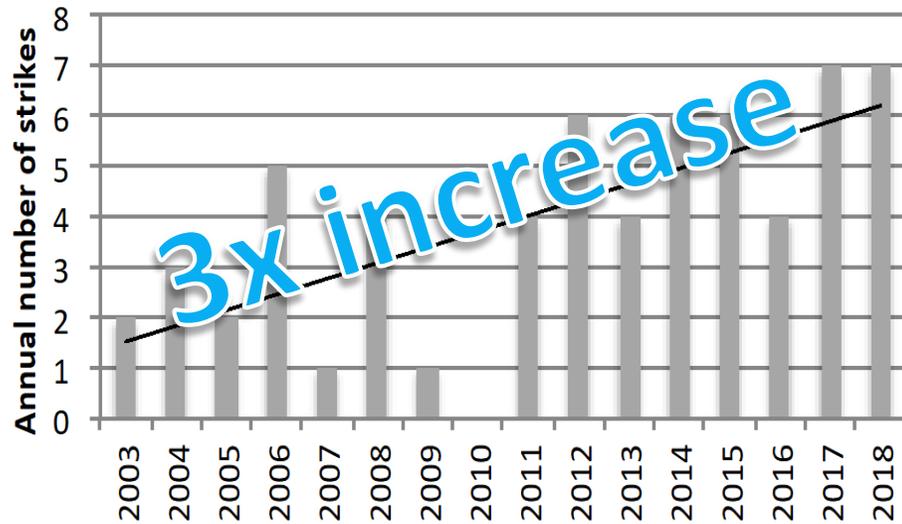


Risk

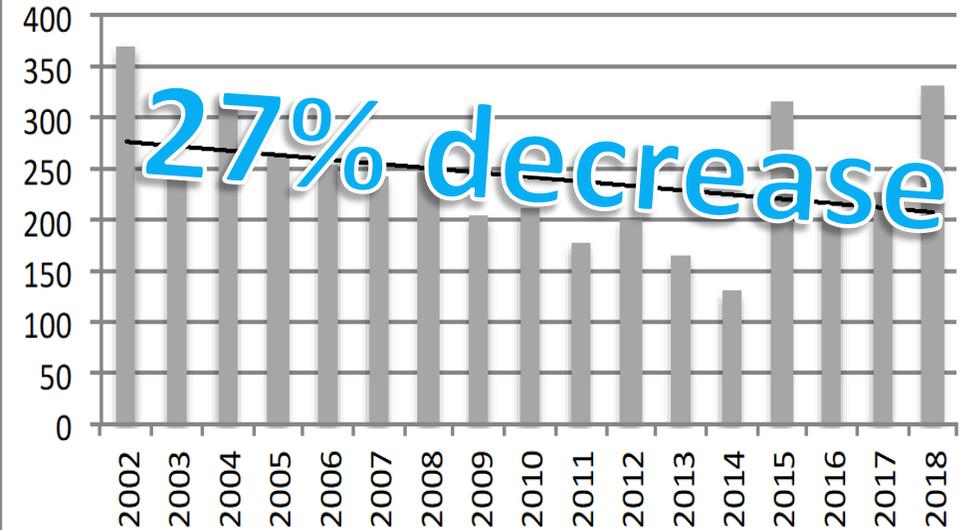


Strikes

### Great Blue Heron Strikes



### Great Blue Herons Abundance Index



# Why monitor?

## Proactive Planning



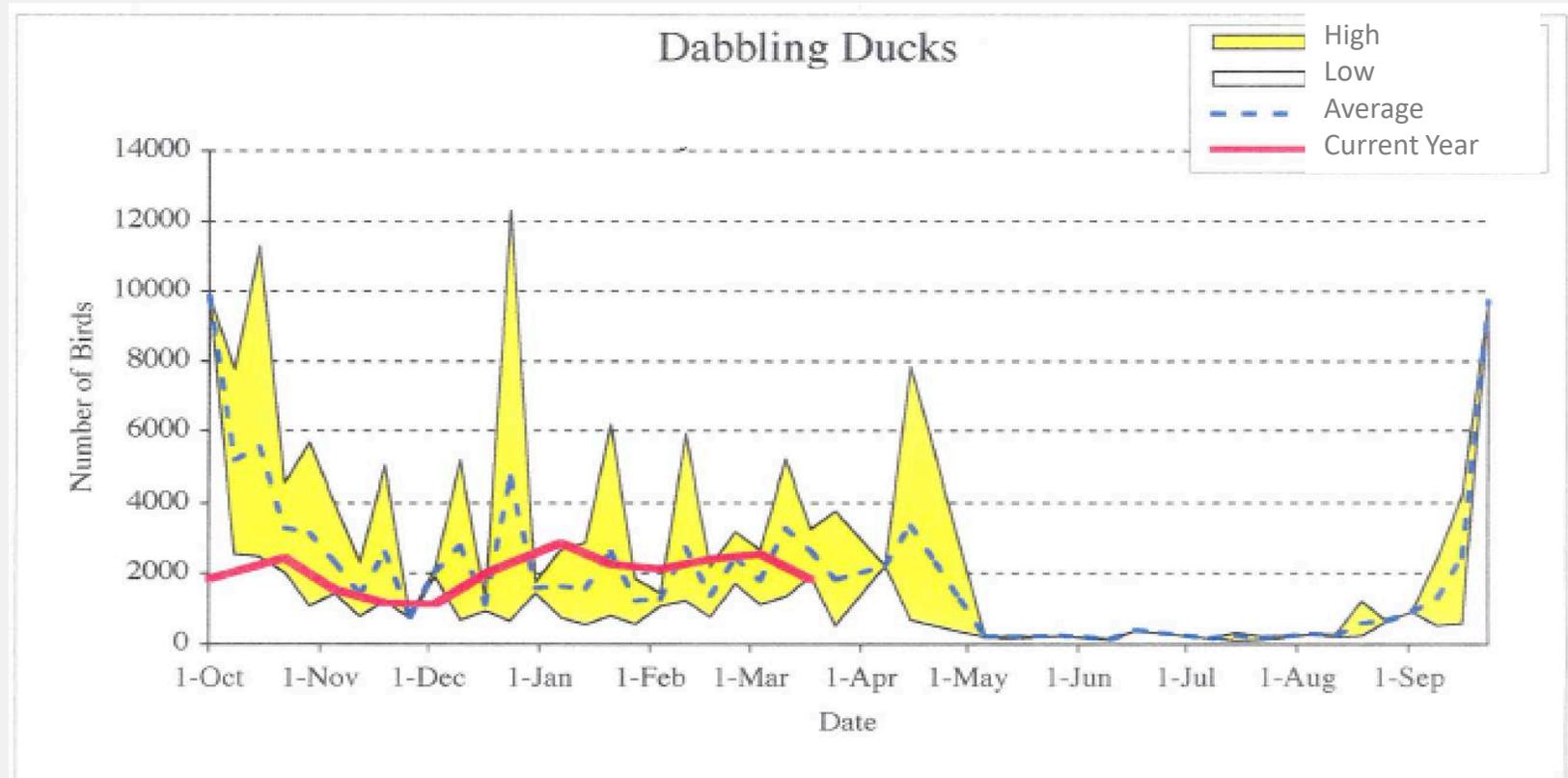
Risk



Strikes



Planning



# Why monitor?

## Proactive Planning



Risk

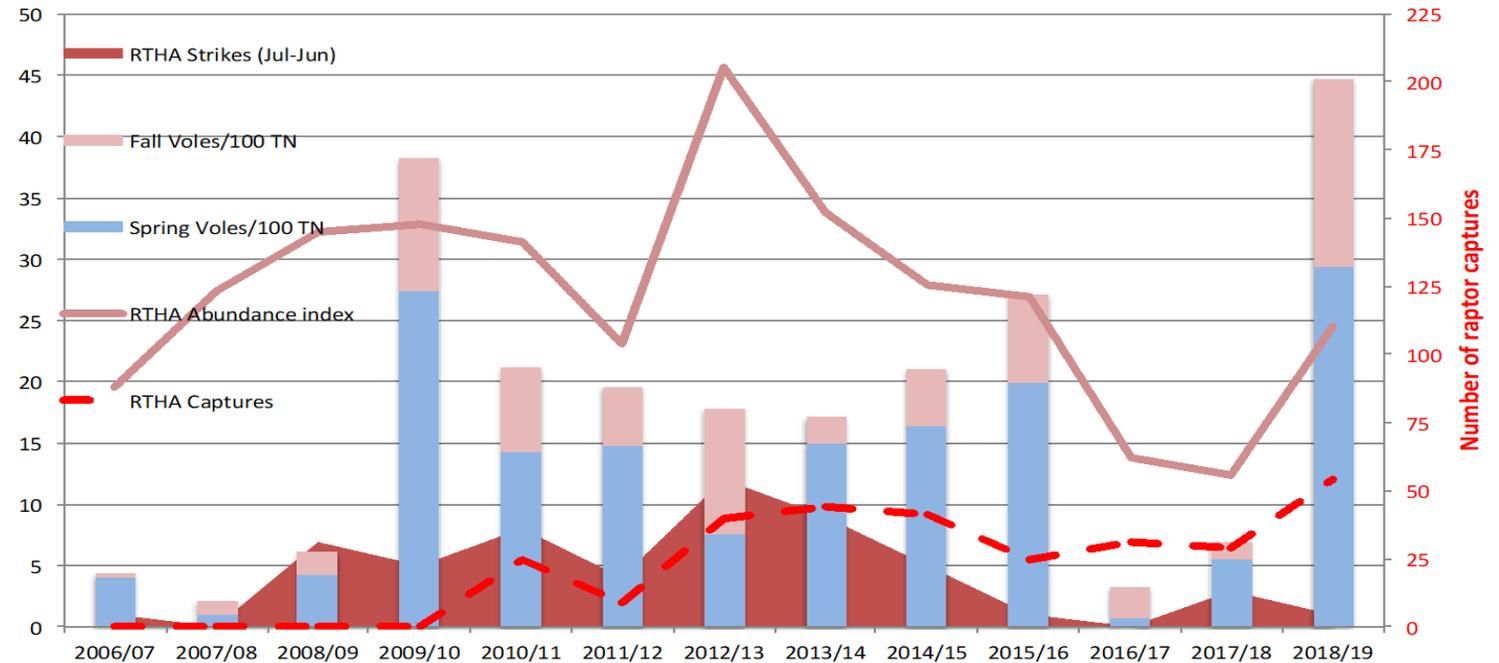


Strikes



Planning

### Annual Vole Populations and Raptor Strikes at YVR





01



able Birds

# 02

- Abundance & Distribution
  - Control Activities
    - Habitat/Airport Changes
      - Nest Removal/Egg Addling
      - Wildlife Culls
    - Animal Capture/Translocation
  - Aircraft Movements

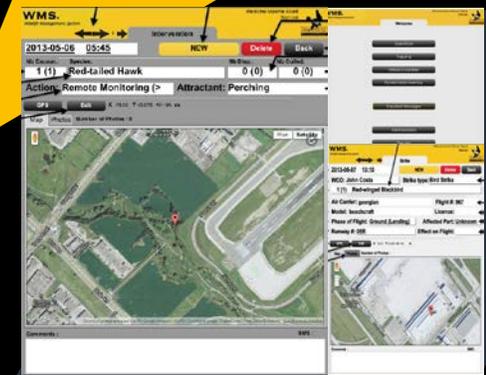
03



Standardization



Change



Robust Data



**Modified Patrols**



**Frequency to  
suit budget**



**Volunteers**

**04**

**Costs**

# 05

## Design

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05

Design

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Storage

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# 05

**Design**

**Storage**

**Analysis**

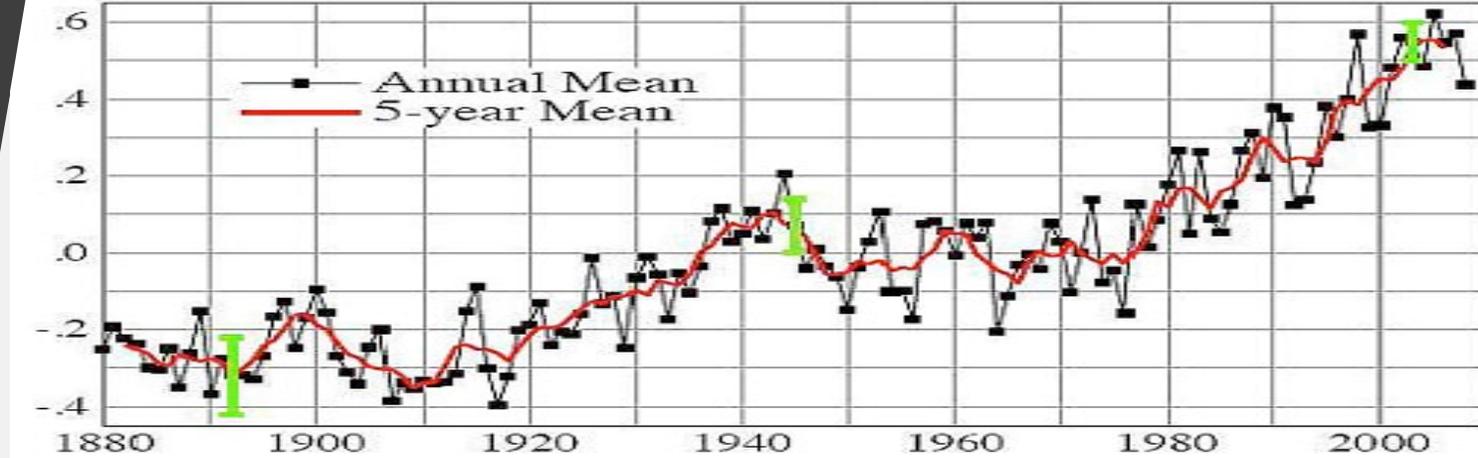
<b>Current Month</b>	<b>May 2011</b>	<b>May 2010</b>	<b>Highest May 2001-2010</b>	<b>Average May 2001-2010</b>
Number of Strikes	23	9	23	10
Number of Animals Struck	27	9	27	11
Mean Weight of Bird Strikes (grams)	387	647	1738	774
Total Weight of Bird Strikes (grams)	8898	5810	19965	7227
Mean Birds Monitored	1533	975	14297	2401
Animals Killed	86	149	149	53
Animals Controlled	10519	20486	21369	15047

<b>Year-to-date</b>	<b>May 2011</b>	<b>May 2010</b>	<b>Highest May 2001-2010</b>	<b>Average May 2001-2010</b>
Number of Strikes	80	59	80	47
Number of Animals Struck	168	215	302	110
Mean Weight of Bird Strikes (grams)	1040	1155	1738	1242
Total Weight of Bird Strikes (grams)	83183	68154	95601	59555
Mean Birds Monitored	20990	34011	45558	31000
Animals Killed	230	1153	1153	363
Animals Controlled	225320	295563	891621	544462

# Long-term monitoring

An essential component of airport  
wildlife management programs

## Start Now!



## Think Long Term...

