

# 2 STEP GUIDE: WHY DID THE MAMMAL CROSS THE ROAD?

FAUNAL GROUPS:

+18



COMPLETE CROSSINGS

13%

MAMMALS SEEN MOST OFTEN:

Micromammals (56%)



RUNNER UPS:

Red squirrels, marmots, weasels, and mink



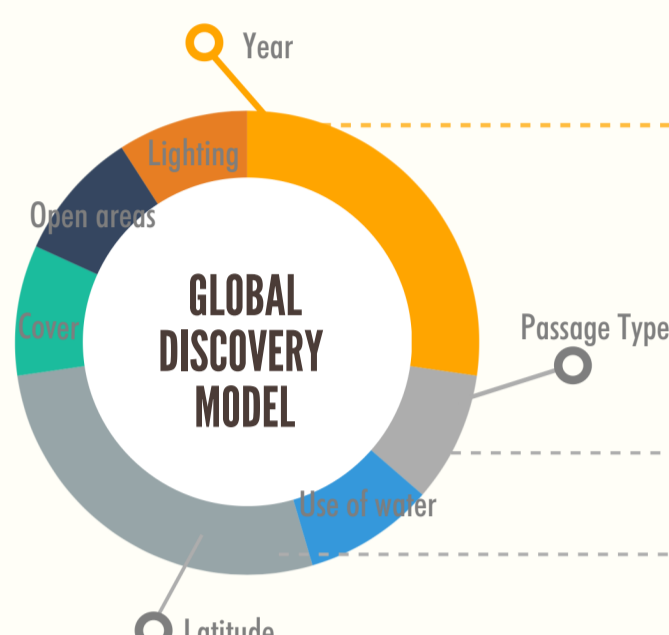
227,720 photos taken

Highest number of visits and crossings in pipe culverts



## DISCOVERING PASSAGES

STEP 1



VISITS DECREASED OVER TIME

- MICROMAMMALS
- MINK
- WEASELS
- RED SQUIRRELS

VISITS VARIED BY PASSAGE TYPE

- MICROMAMMALS
- RED SQUIRRELS

VISITS LOWER FURTHER NORTH

- MARMOTS

Lots of government funding from the Quebec Ministry of Transportation

## USING PASSAGES

2 STEP

PASSAGE TYPE

Passage type only affected marmots, with pipe culverts being used the most frequently

SPECIES FUNCTIONAL TRAITS

Not an important factor in the global model

OPENNESS

The easier it is to see the other side, the more animals cross

DISTANCE TO COVER

Not an important factor in the global model, nor for the top 5 species observed

SEGMENTATION

When a passage is broken into two pieces, the less likely it is for an animal to cross the road

## WHAT'S GOING ON?!

Decrease in discoveries may reflect regional trends in abundances

POPULATION CYCLES

Ranked low as a factor that affected passage discovery and use. Not the only factor at play.

PASSAGE TYPE

Could exaggerate differences in passage preferences observed.

ENVIRONMENTAL GRADIENT

Venturing into the open increases predation risk, open passages allow animal to survey environment.

OPENNESS

Decrease in use when animals cannot find the second segment.

SEGMENTED PASSAGES

Possibly used as foraging habitat.

ALTERNATIVE USE

## CHALLENGES

ASSUMED EQUAL DETECTION

UNABLE TO ACCOUNT FOR DENSITY OF CULVERTS

COULD NOT RELIABLY ASSESS WILDLIFE ABUNDANCES

OBTAINING FUNDING FOR LONG-TERM PROJECTS

MORE NEED FOR PUBLIC INTEREST AND SUPPORT

## ADVICE



FOR TRANSPORTATION AGENCIES

THINK OPEN & CONNECTED



FOR FUNDING AGENCIES

LOOK TO THE FUTURE: STUDIES NEED TO BE LONG-TERM



FOR RESEARCHERS

ASK NEW QUESTIONS: HOW DOES BEHAVIOUR FIT IN?



FOR EVERYONE

VARIETY IS THE SPICE OF LIFE

FOR MORE INFO, READ: FACTORS INFLUENCING THE DISCOVERY AND USE OF WILDLIFE PASSAGES FOR SMALL FAUNA

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