



Known Avian Risk Modeling and Management at Van Nuys Airport, California

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Los Angeles World Airports | Hollywood Burbank Airport



Bird strikes

Economic damage and new approaches

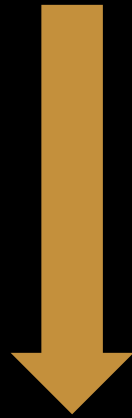
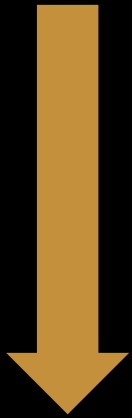
What is KAR?

- A way to quantify wildlife strike risk

What is wildlife strike risk?

- A way to combine the probability of a strike occurring with the impact that would result of that strike (e.g., damage cost, airplane downtime, etc.)

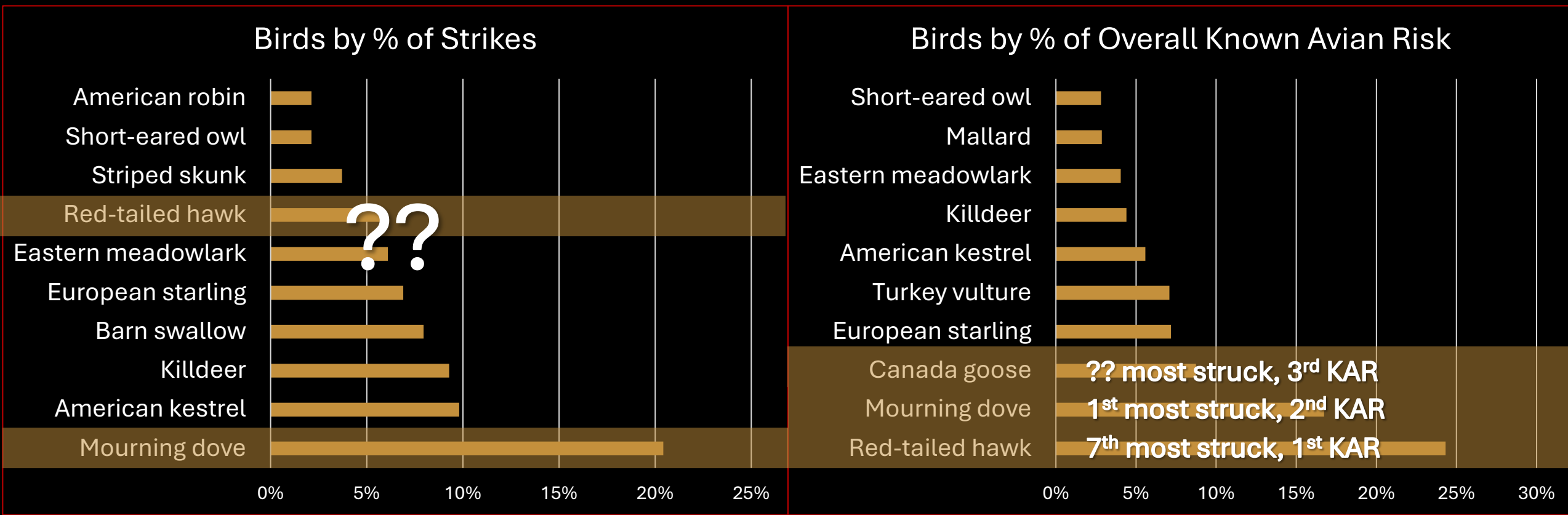
$$\text{Risk} = \text{Probability (of an event occurring)} \times \text{Impact or Severity (if said event occurs)}$$



$$\text{KAR} = \text{Number of Strikes (with each species)} \times \text{Relative Hazard Score (RHS for each species)}$$

Why use KAR instead of just strikes?

- Helps prioritize higher risk species over species that are just struck more often





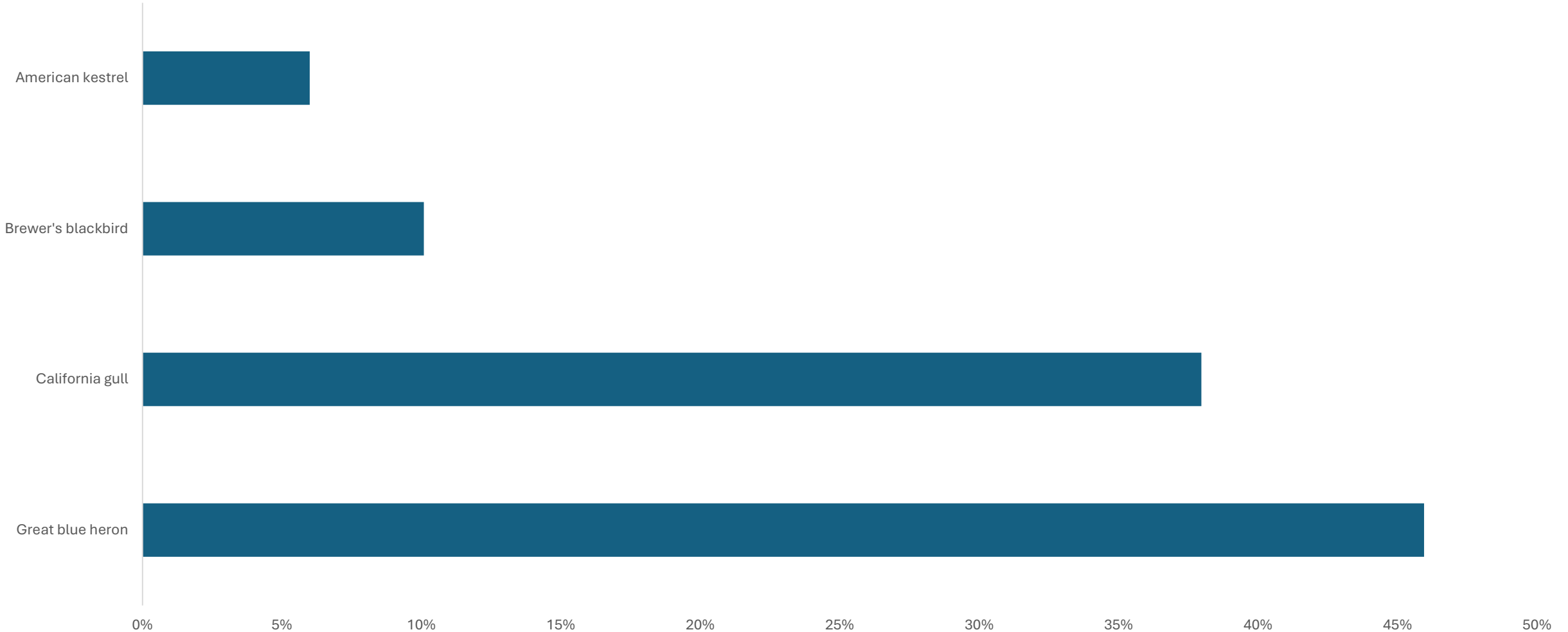
AOB 2024

Roman Nava-Landeros
Wildlife Biologist, USDA
Moffett Federal Airfield



KAR – Moffett Federal Airfield 2015-2024

Percent of Overall Known Avian Risk





EUROPEAN STARLING	2452
NORTHERN SHOVELER	1133
AMERICAN COOT	759
AMERICAN CLIFF SWALLOW	728
WESTERN MEADOWLARK	623

LAWA

LOS ANGELES WORLD AIRPORTS

LAX

LAWA

LOS ANGELES WORLD AIRPORTS

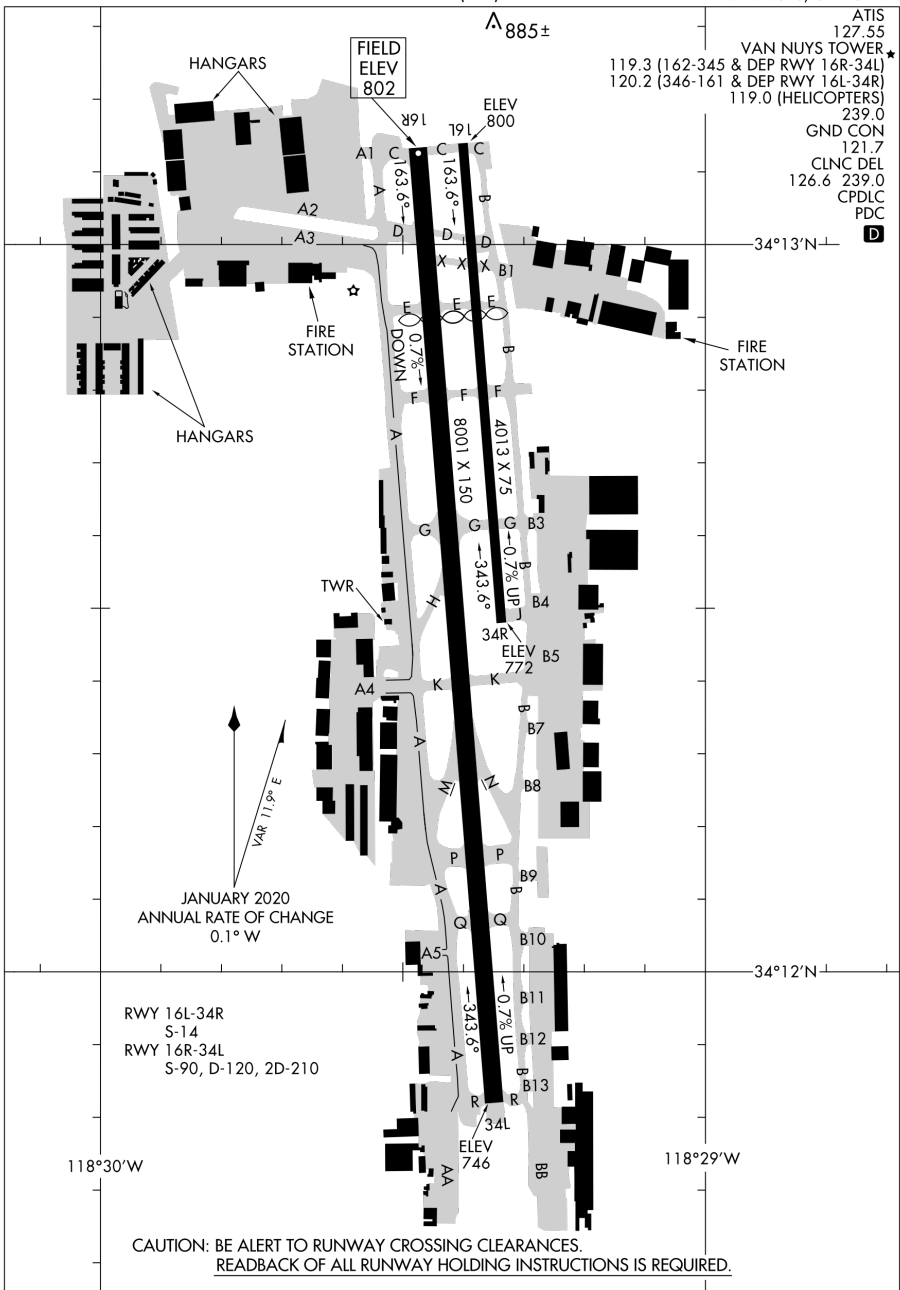
VNY

VAN NUYS AIRPORT

AIRPORT DIAGRAM

AL-552 (FAA)

VAN NUYS (VNY)
VAN NUYS, CALIFORNIA

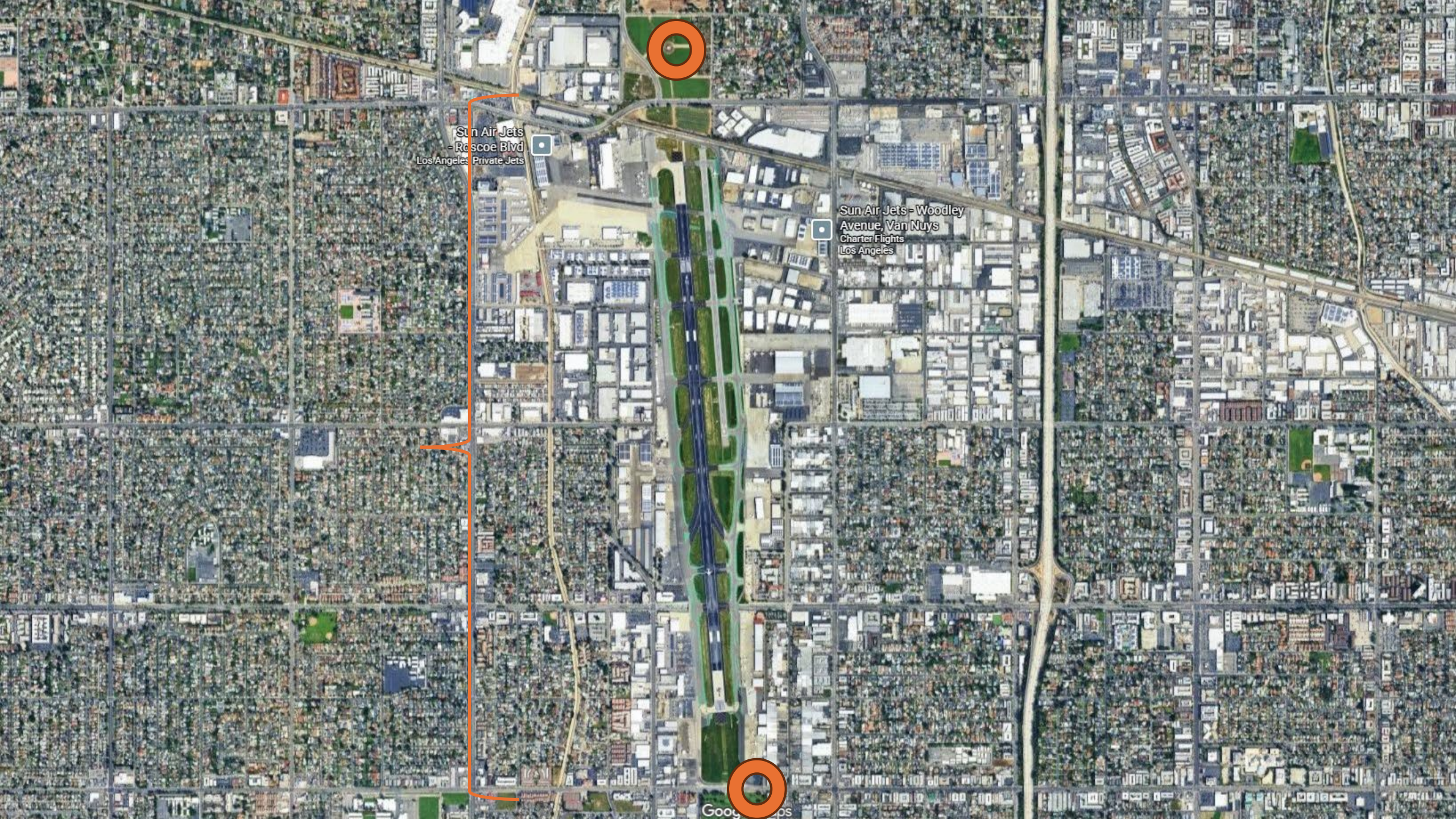


SW-3, 30 DEC 2021 to 27 JAN 2022

SW-3, 30 DEC 2021 to 27 JAN 2022

AIRPORT DIAGRAM

VAN NUYS, CALIFORNIA
VAN NUYS (VNY)



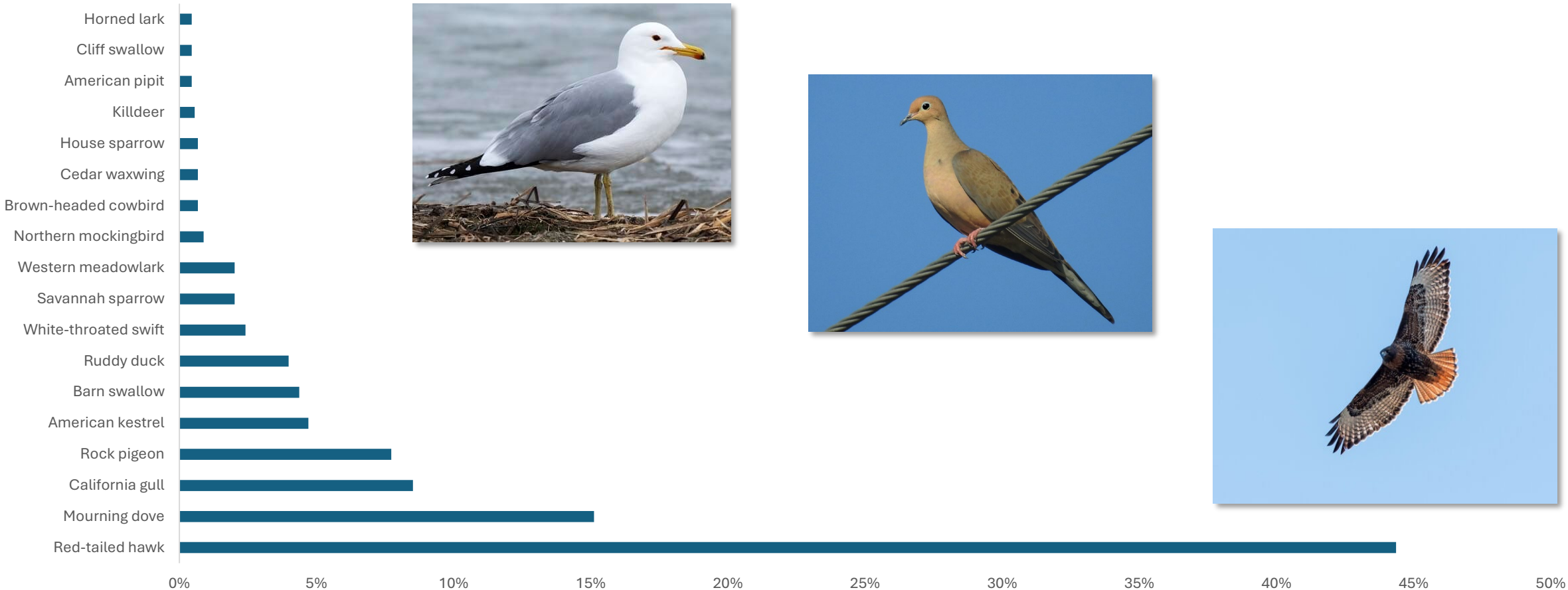
Sun Air Jets
- Rescoe Blvd
Los Angeles Private Jets

Sun Air Jets - Woodley
Avenue, Van Nuys
Charter Flights
Los Angeles



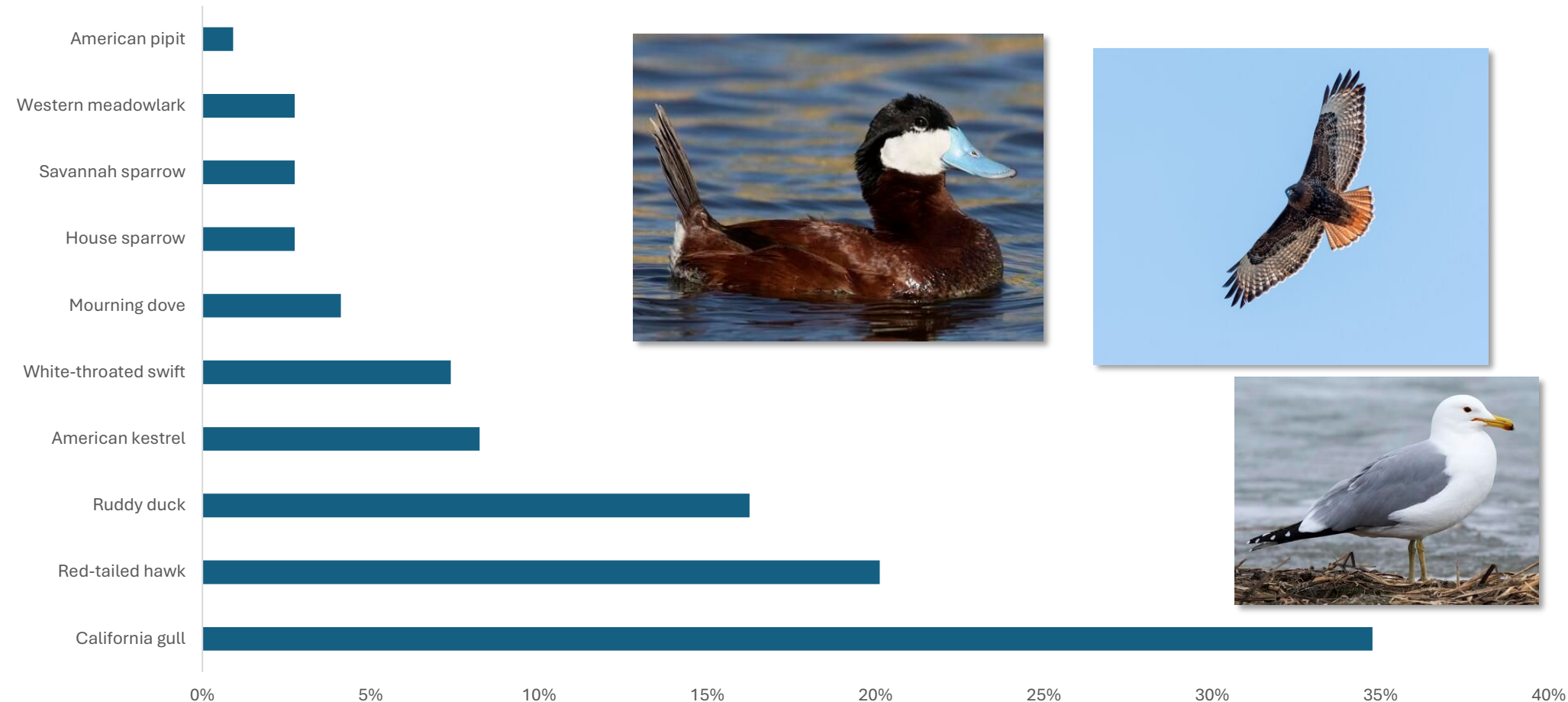
Avian Risk at VNY 2020-2025

Percent of Overall Known Avian Risk



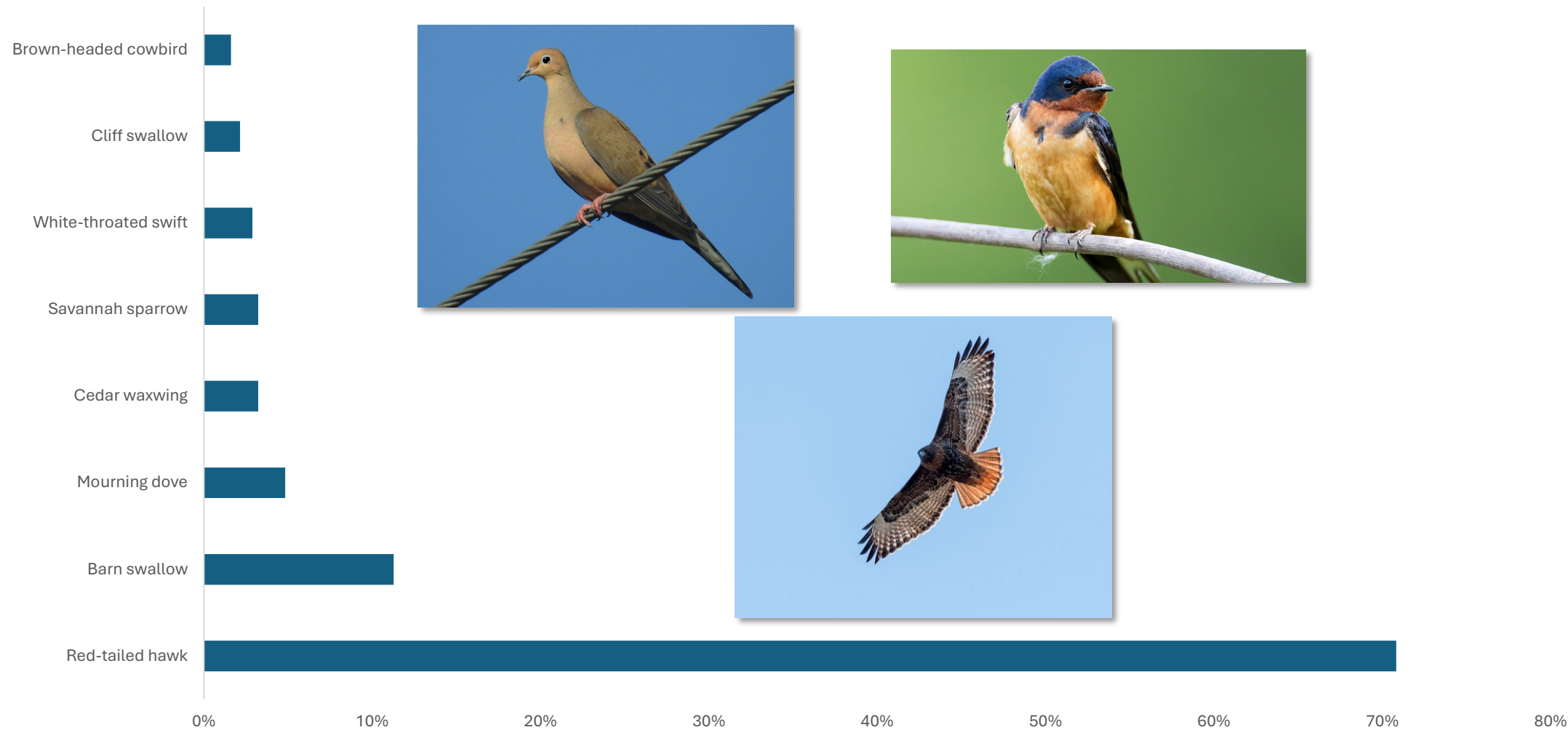
Avian Risk at VNY 2020-2025

Percent of Winter Known Avian Risk



Avian Risk at VNY 2020-2025

Percent of Spring Known Avian Risk



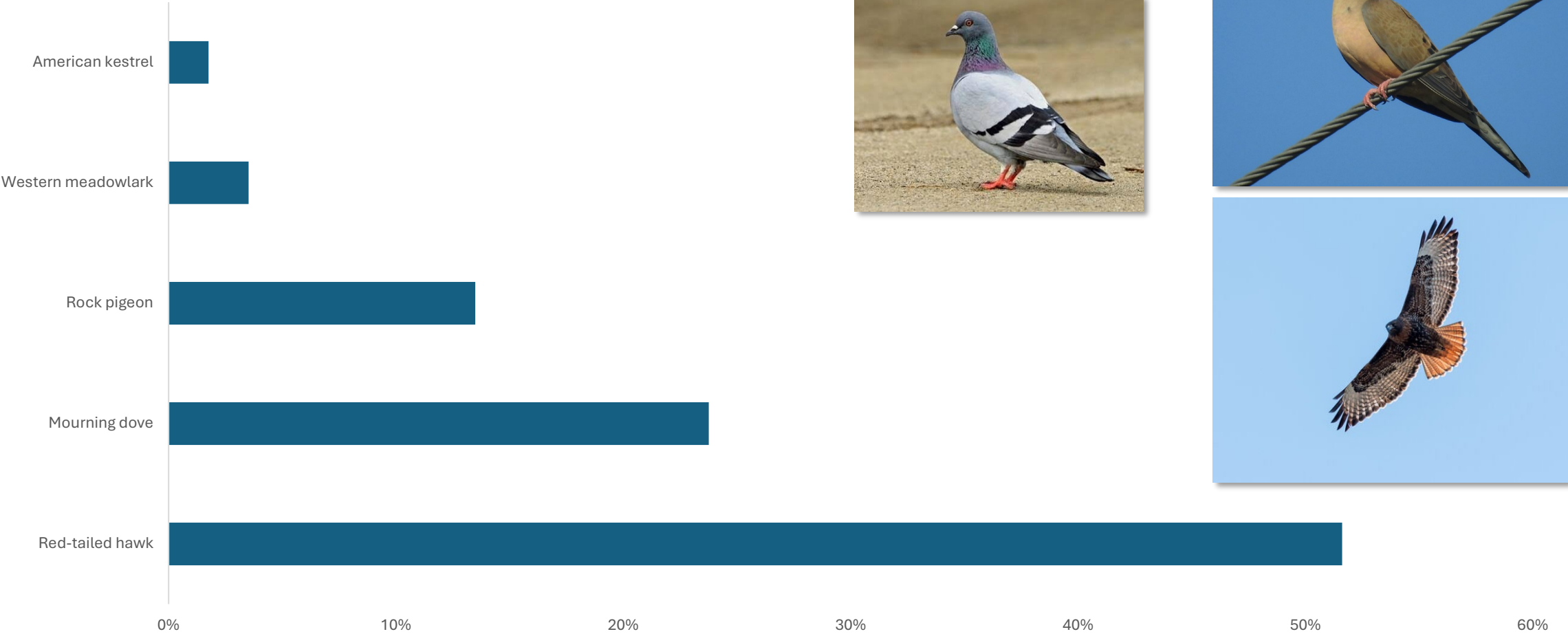
Avian Risk at VNY 2020-2025

Percent of Summer Known Avian Risk

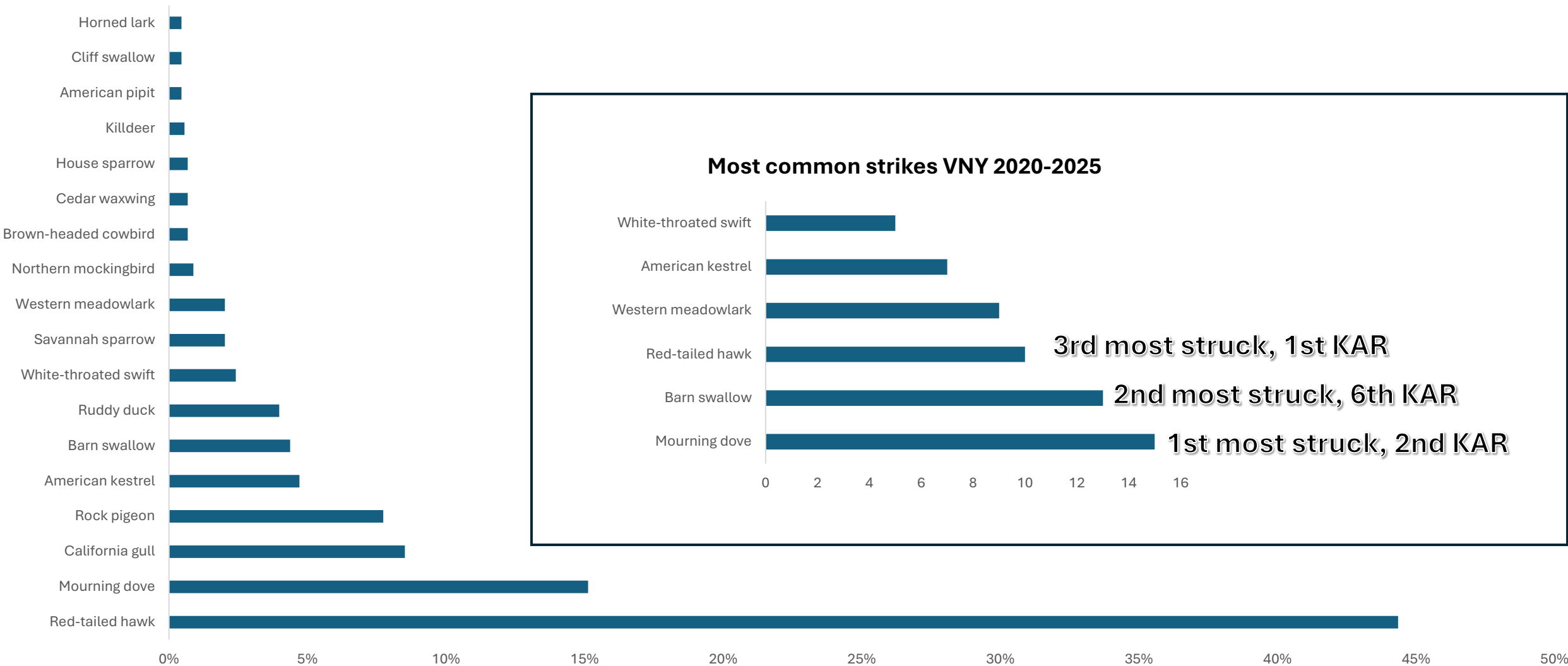


Avian Risk at VNY 2020-2025

Percent of Fall Known Avian Risk



Percent of Overall Known Avian Risk



KAR Model Results (VNY)

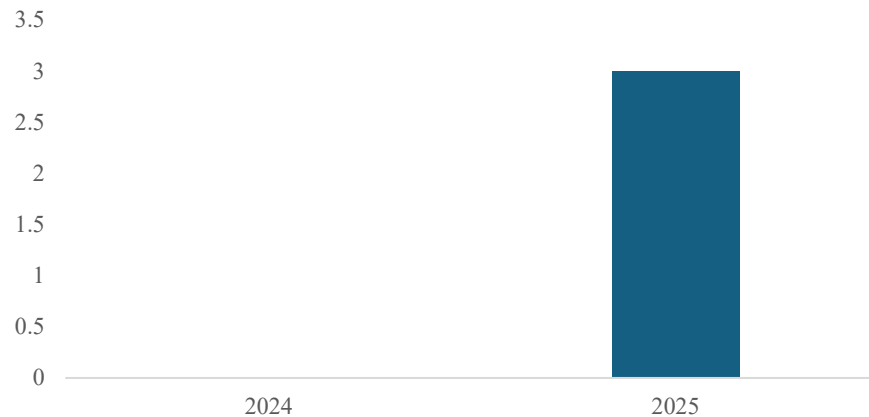
RTHA identified as the riskiest species

Raptors identified as the riskiest guild

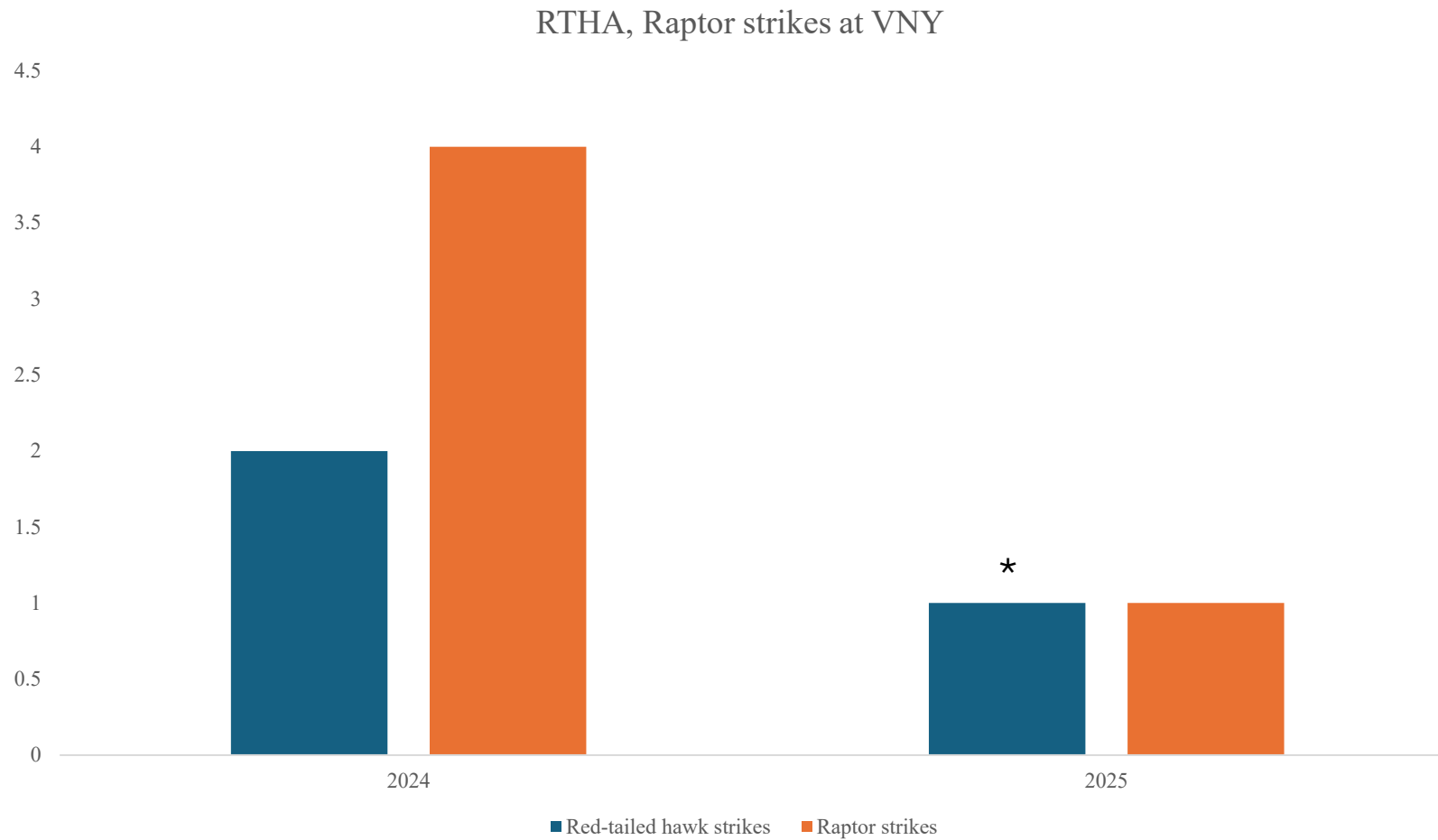
What changes did we make?

Prioritized lethal take and relocation of RTHA

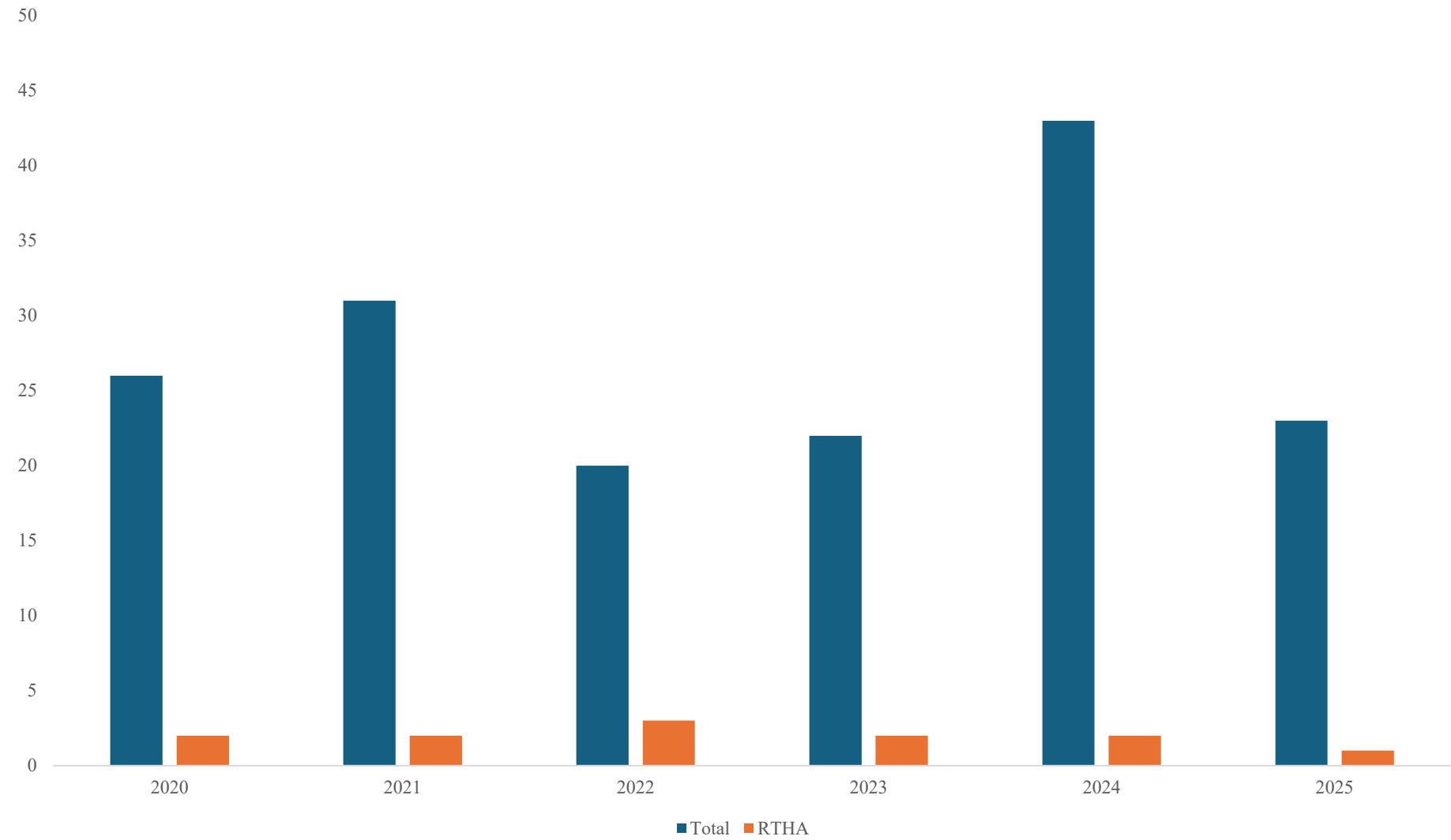
VNY RTHA take, 2024 to 2025



2025 Results vs 2024



Total strikes vs RTHA



2026 status...?

strikes with RTHA

0

2 euthanized

4 relocated

Future directions

Maintain current management strategies prioritizing RTHA

Gopher mitigation plan

Applicability to other airports (BUR)





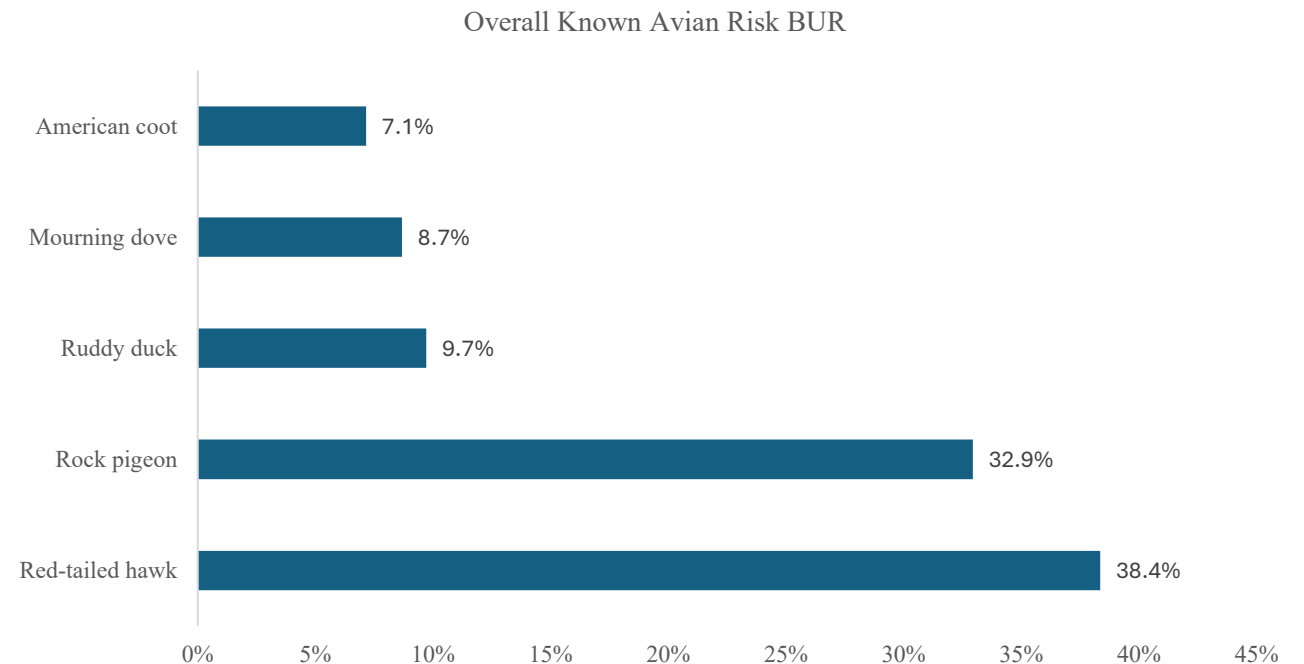
**Hollywood
Burbank**
Airport



Conclusions

KAR is a useful baseline in properties with limited survey data

Needs robust strike reporting and data



Acknowledgements

USDA WS AWHP

USDA WS NWRC

USDA WS CA D6



The University of Georgia



LAWA

LOS ANGELES WORLD AIRPORTS

LAX

VNY

VAN NUYS AIRPORT

LAWA OPS

Questions?