

# Een stille crisis in het Vlaamse luchtruim







**habitatverlies**



**vervuiling**



**infrastructuur**





**transparantie**

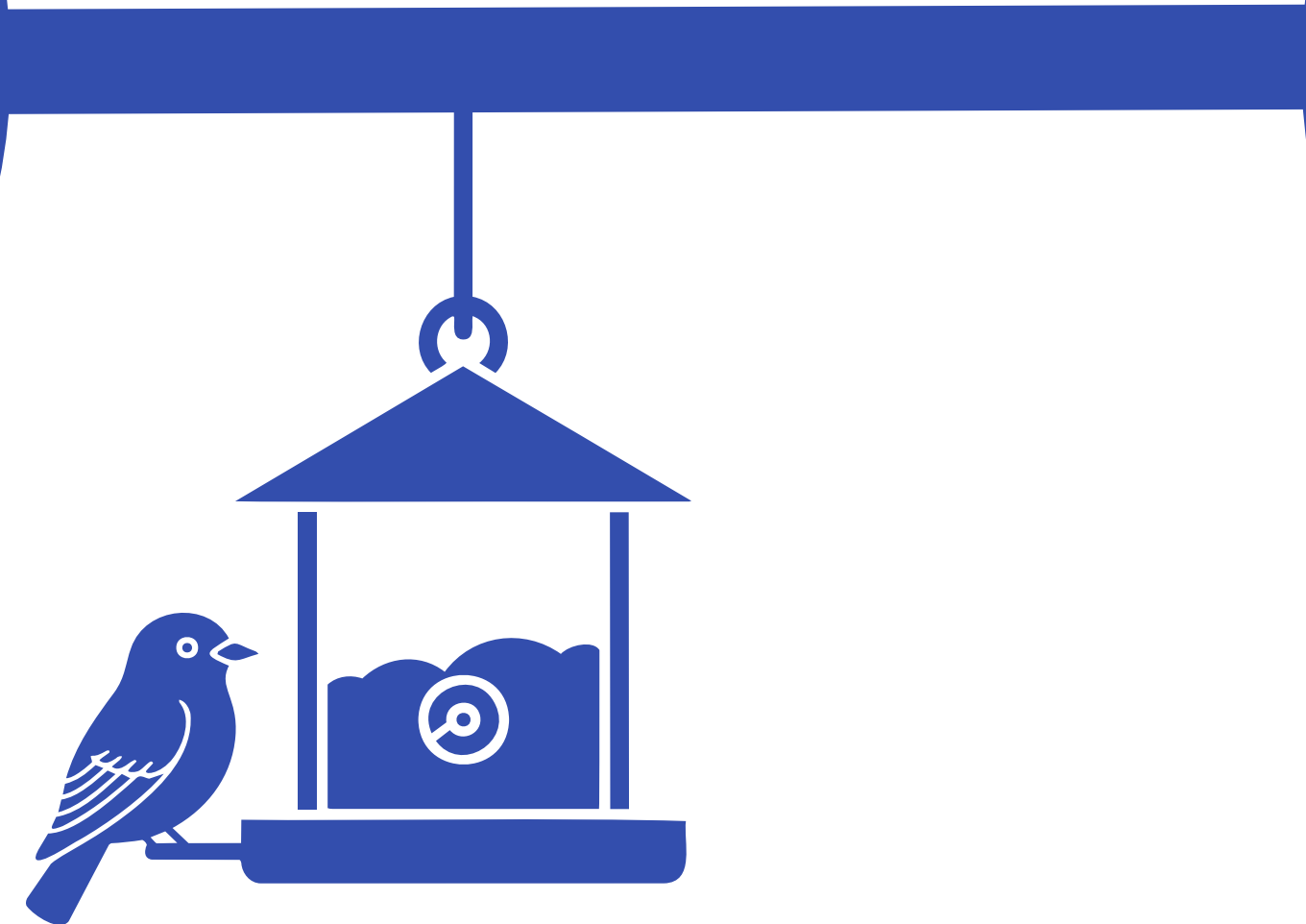


**reflectie**

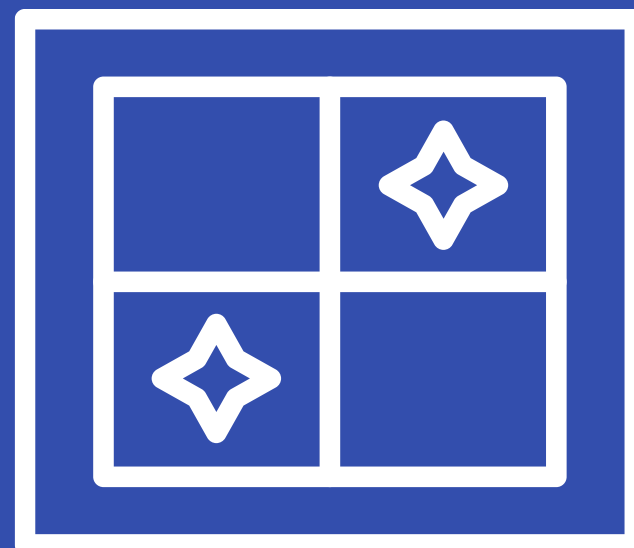




- dichte begroeiing
- voederhuisjes



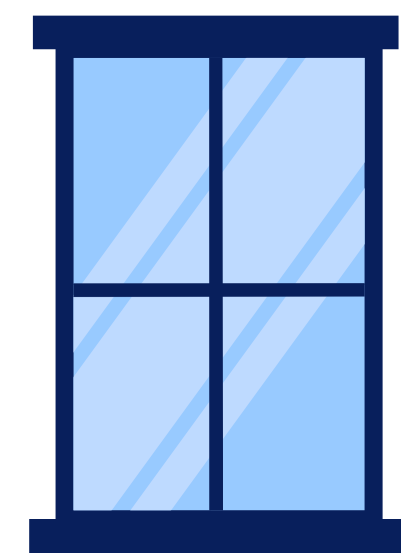
2



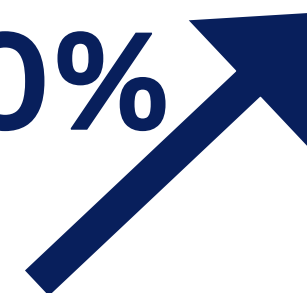
gebouw



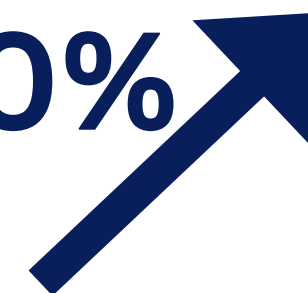
- transparantie
- reflectie
- oppervlakte



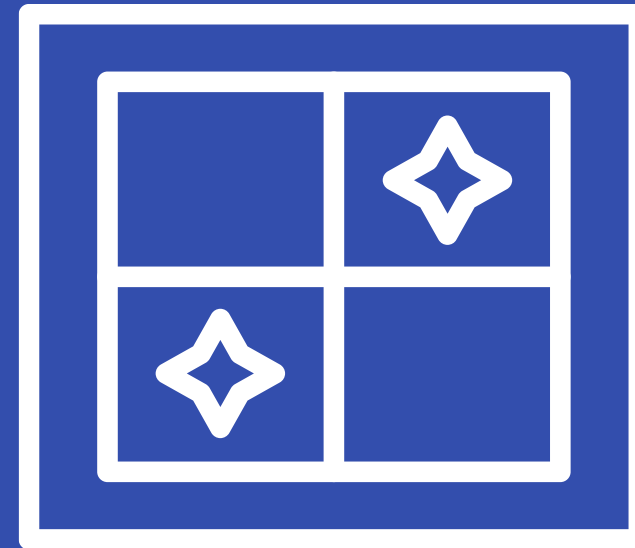
10%



20%



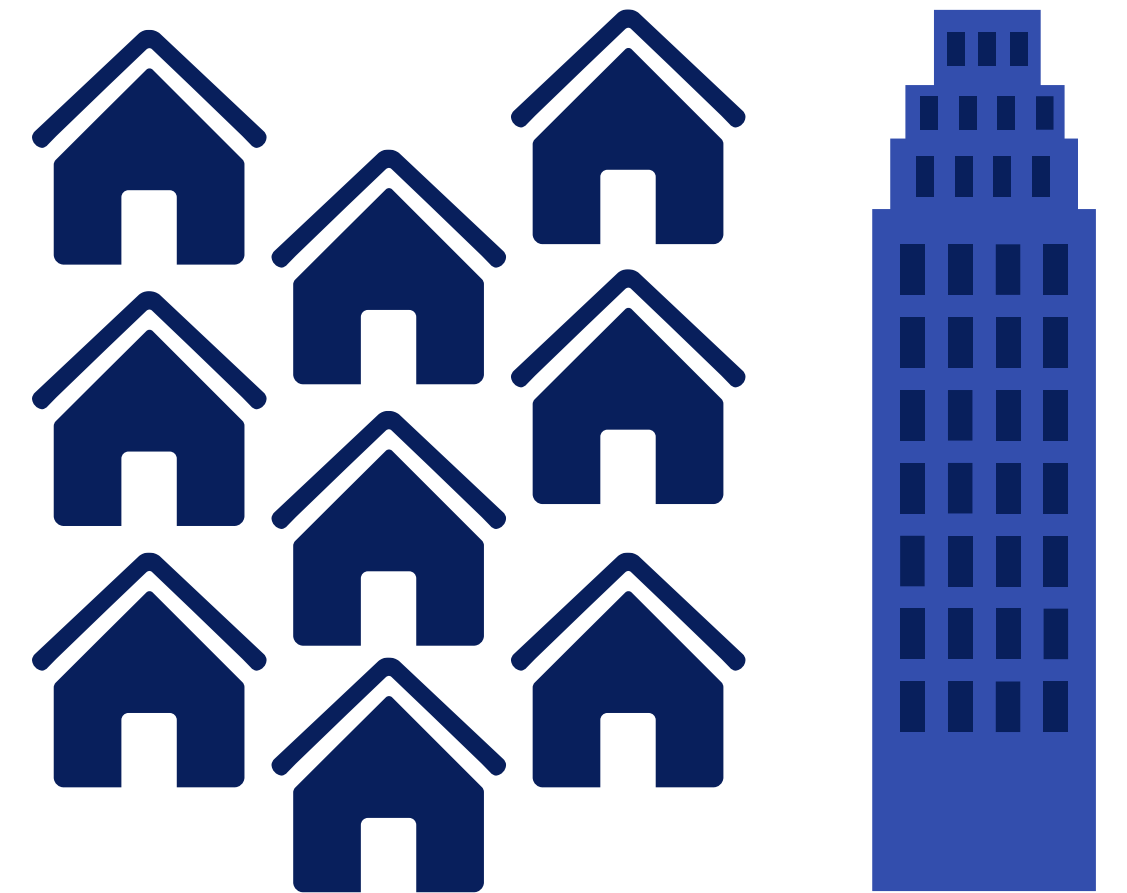
2



gebouw



- transparantie
- reflectie
- oppervlakte
- woonhuizen én hoogbouw



3



**vogel**

- 70% trekvogels
- nachttrekkers
- foerageerhoogte
- gedrag



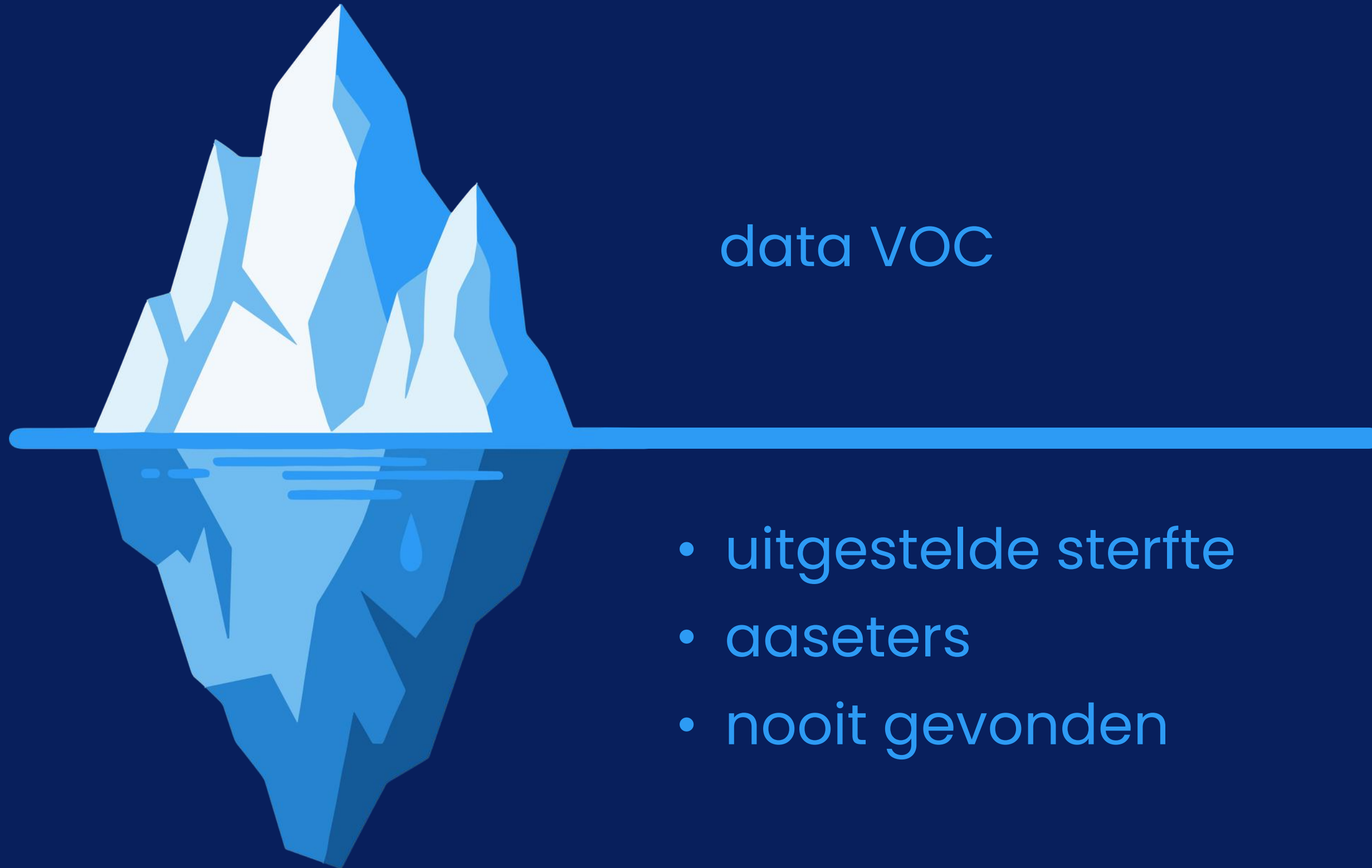


2014-2024:

>

20.000

# onderschatting



data VOC

- uitgestelde sterfte
- aaseters
- nooit gevonden



**seizoenspatronen**

**soortspecifieke  
kwetsbaarheid**

**overlevingskansen**

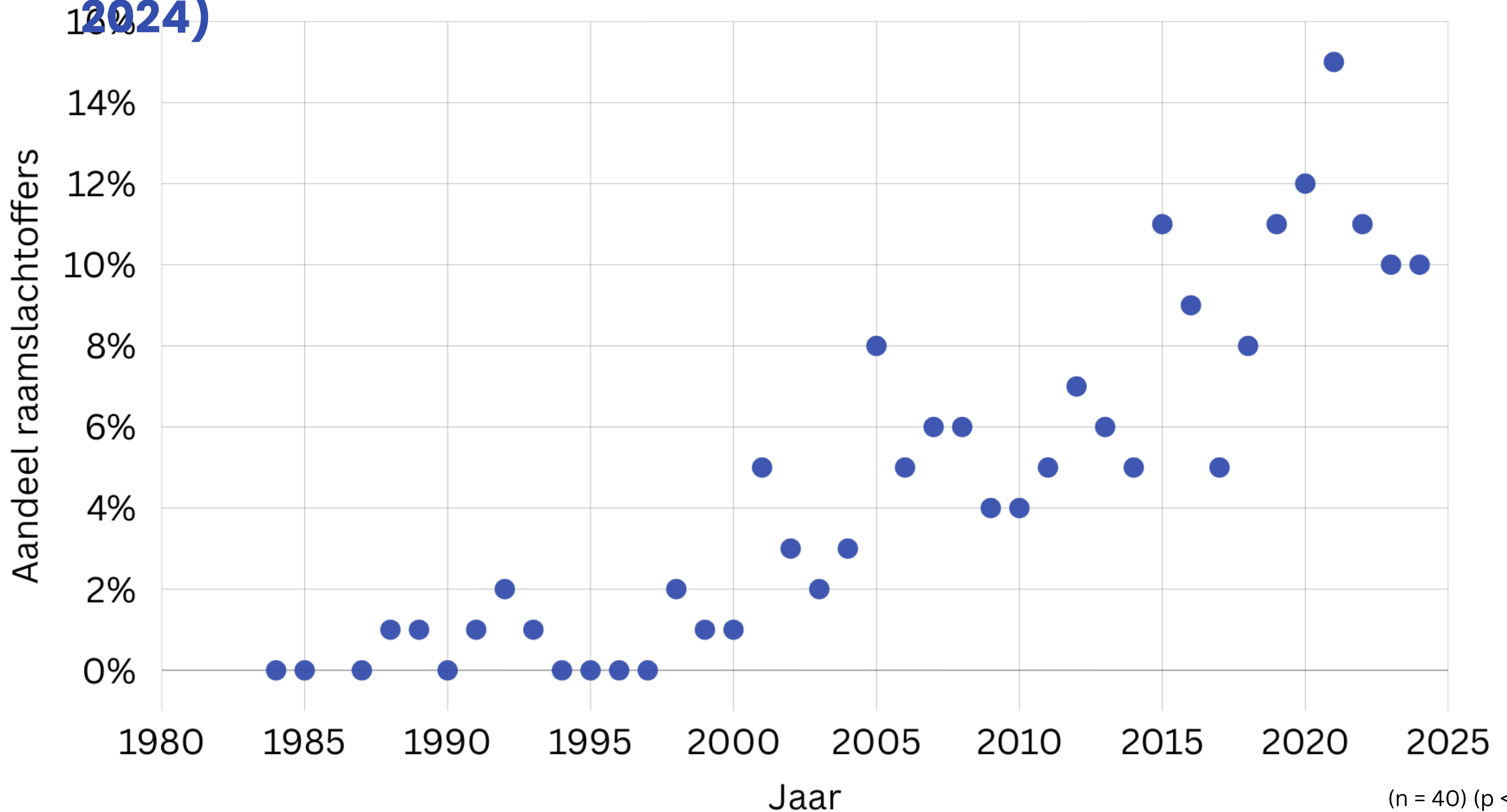
- archieven VOC Oostende
- 40 jaar opvangdata: 1984–2024
- **3.804** raamslachtoffers
- **135** soorten

Welke trends in **opnames** en **overlevingskansen** bij raamslachtoffers?

Internationale patronen bevestigd?



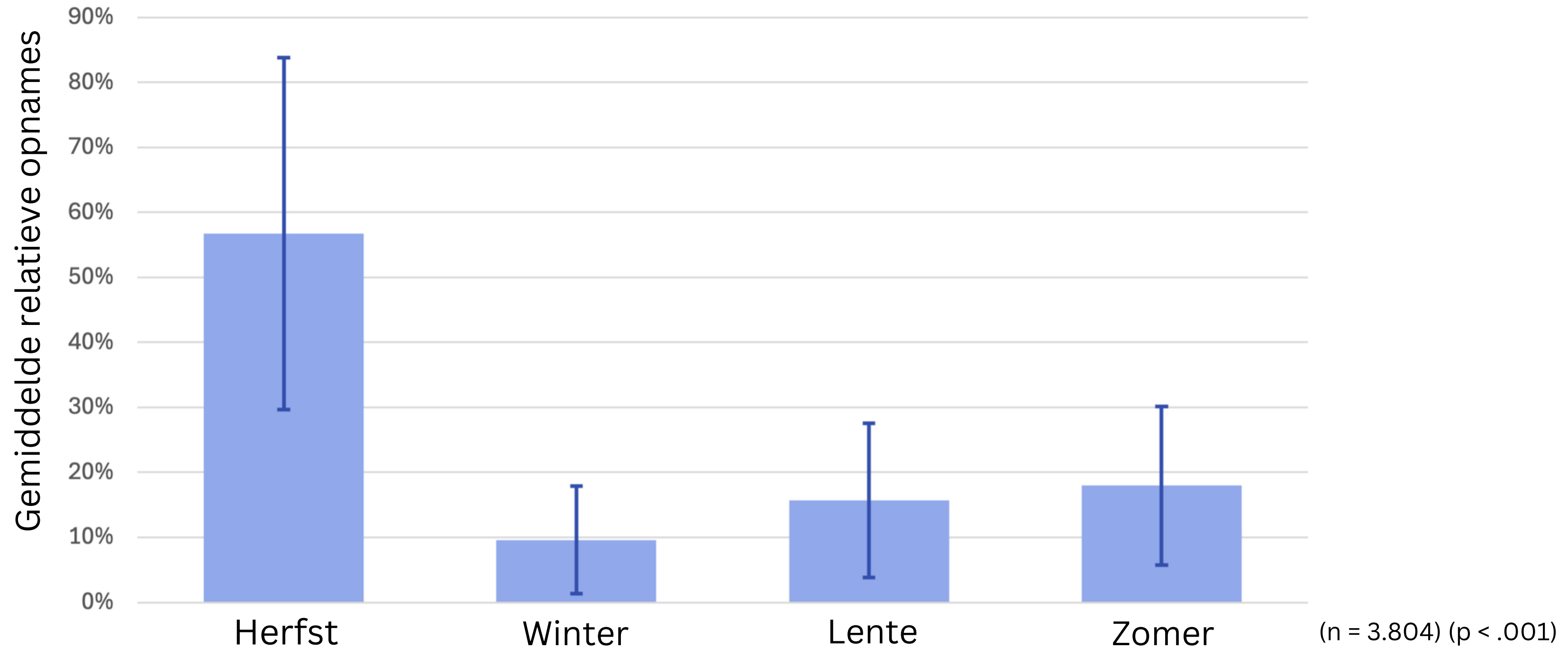
# Aandeel raamslachtoffers opgenomen per jaar (1984-2024)



(n = 40) (p < .001)

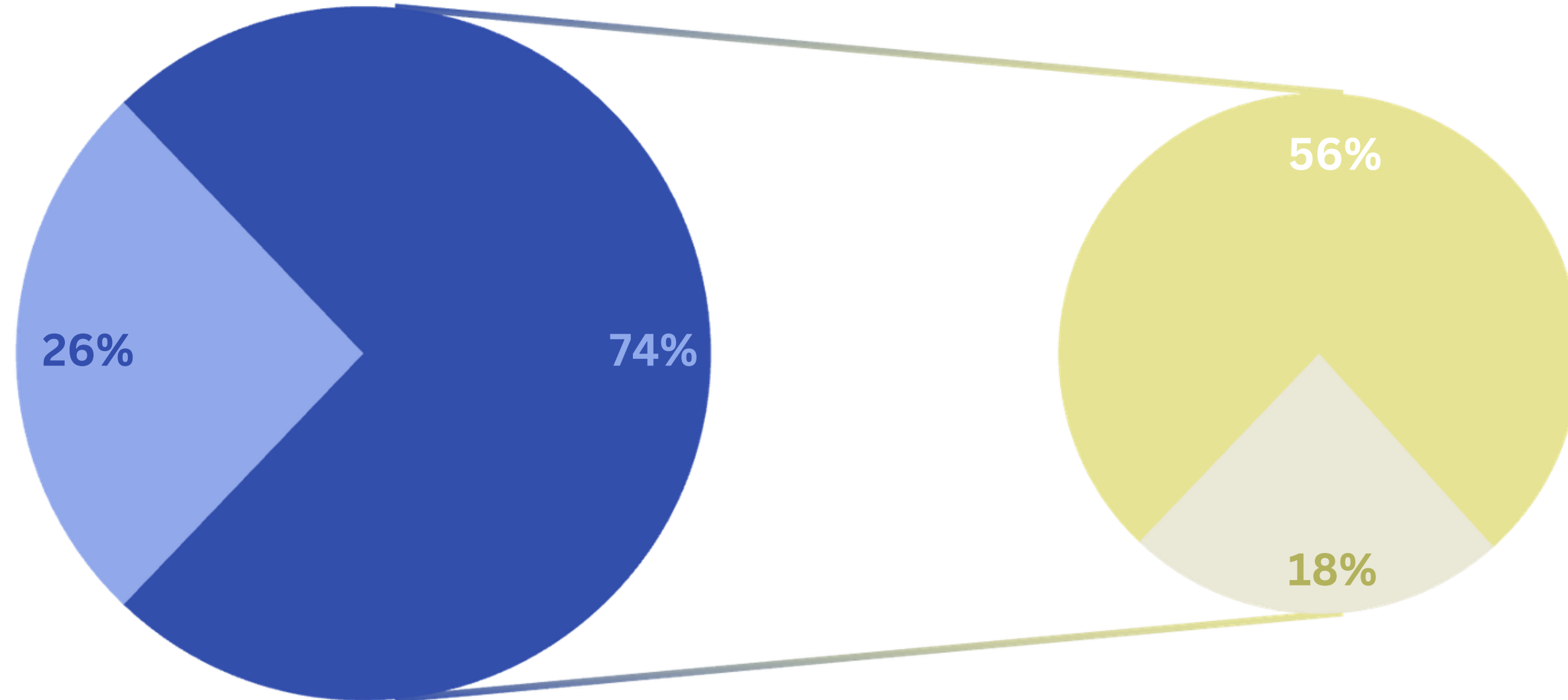
- herfstpiek

## Gemiddelde relatieve opnames per seizoen



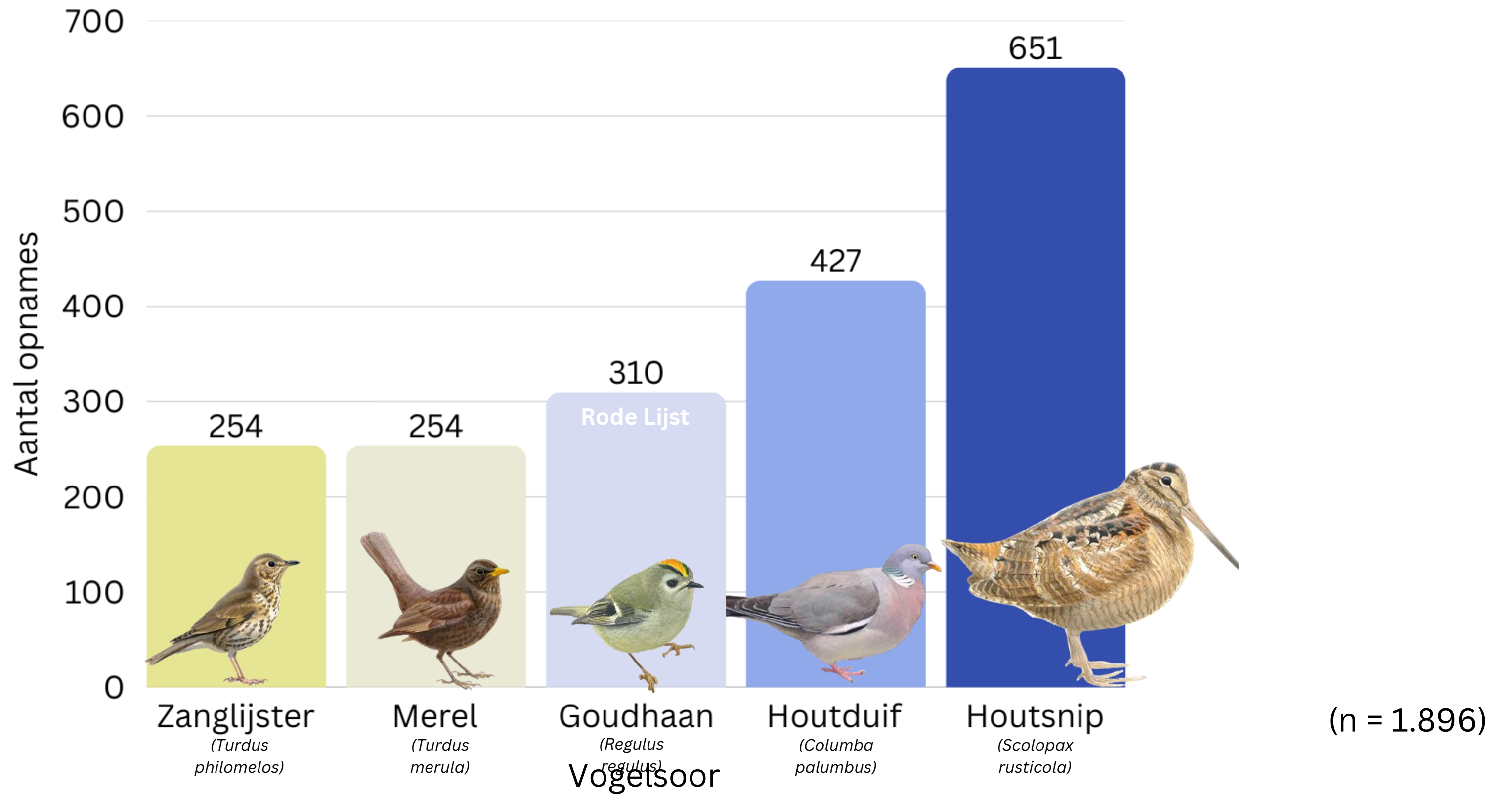
- migratiestatus

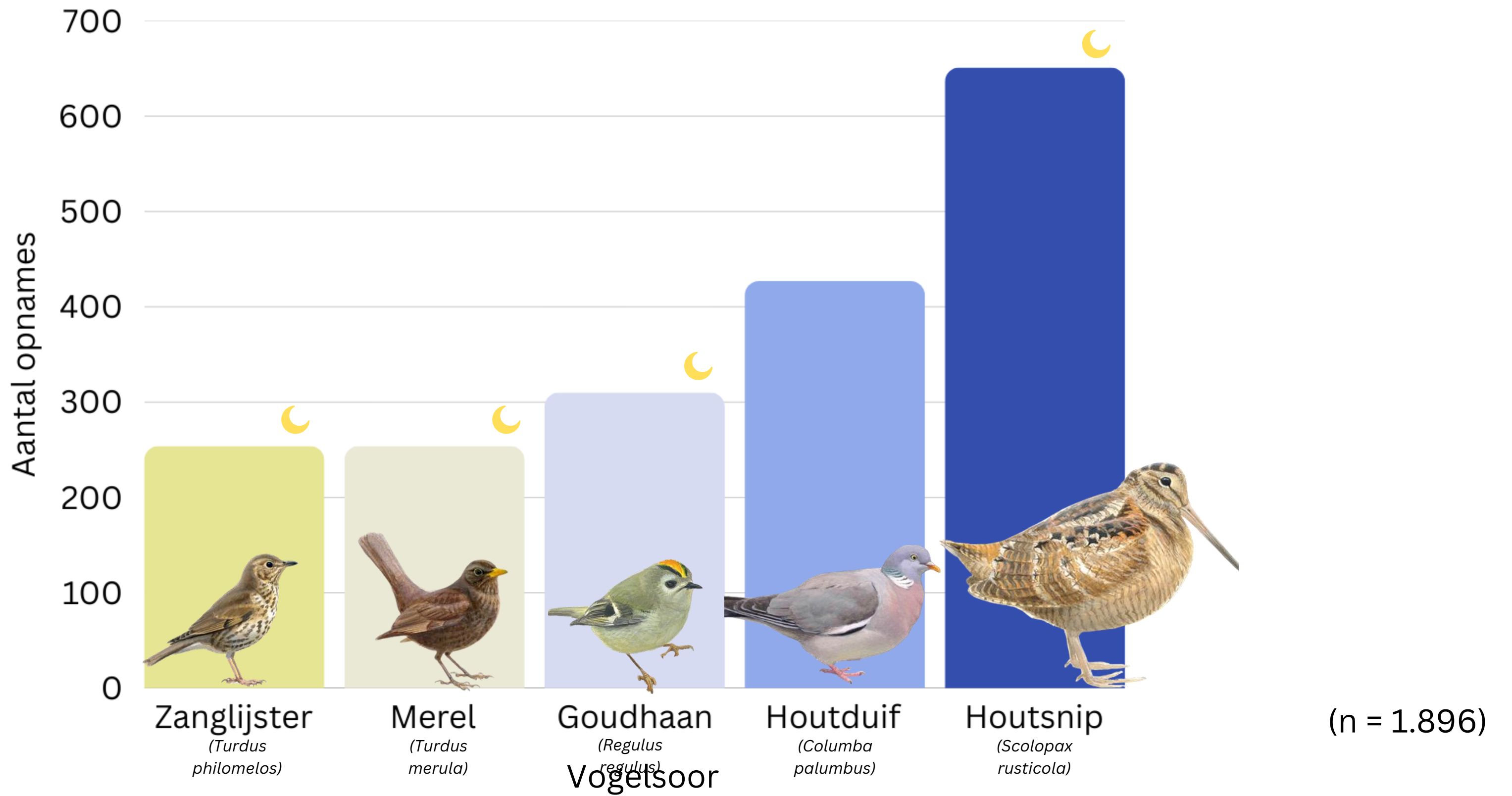
## Verdeling van opnames naar migratiestatus en trekgedrag

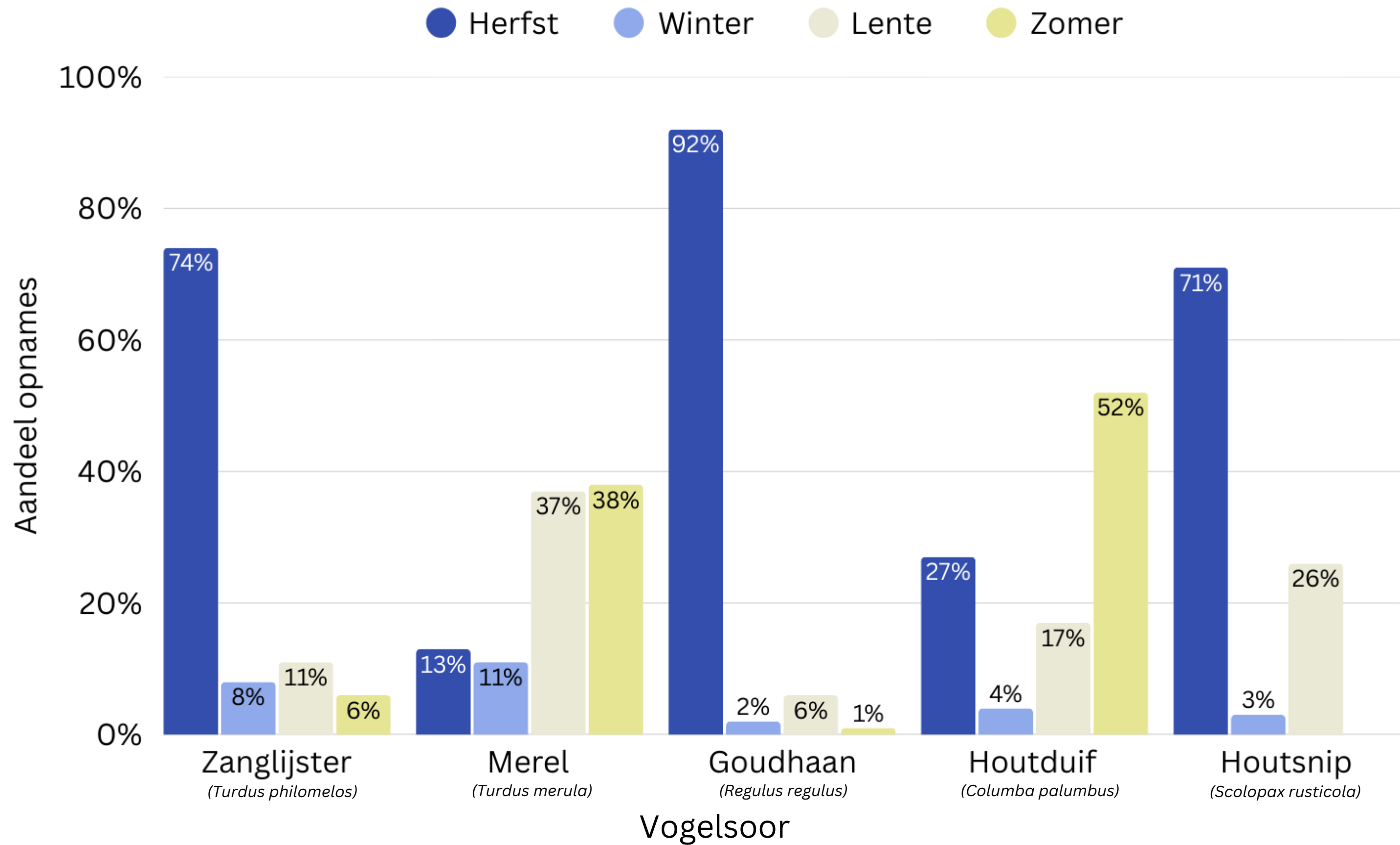


■ Standvogels ■ Trekvogels & deeltrekkers ■ Nachttrekkers ■ Dagtrekkers

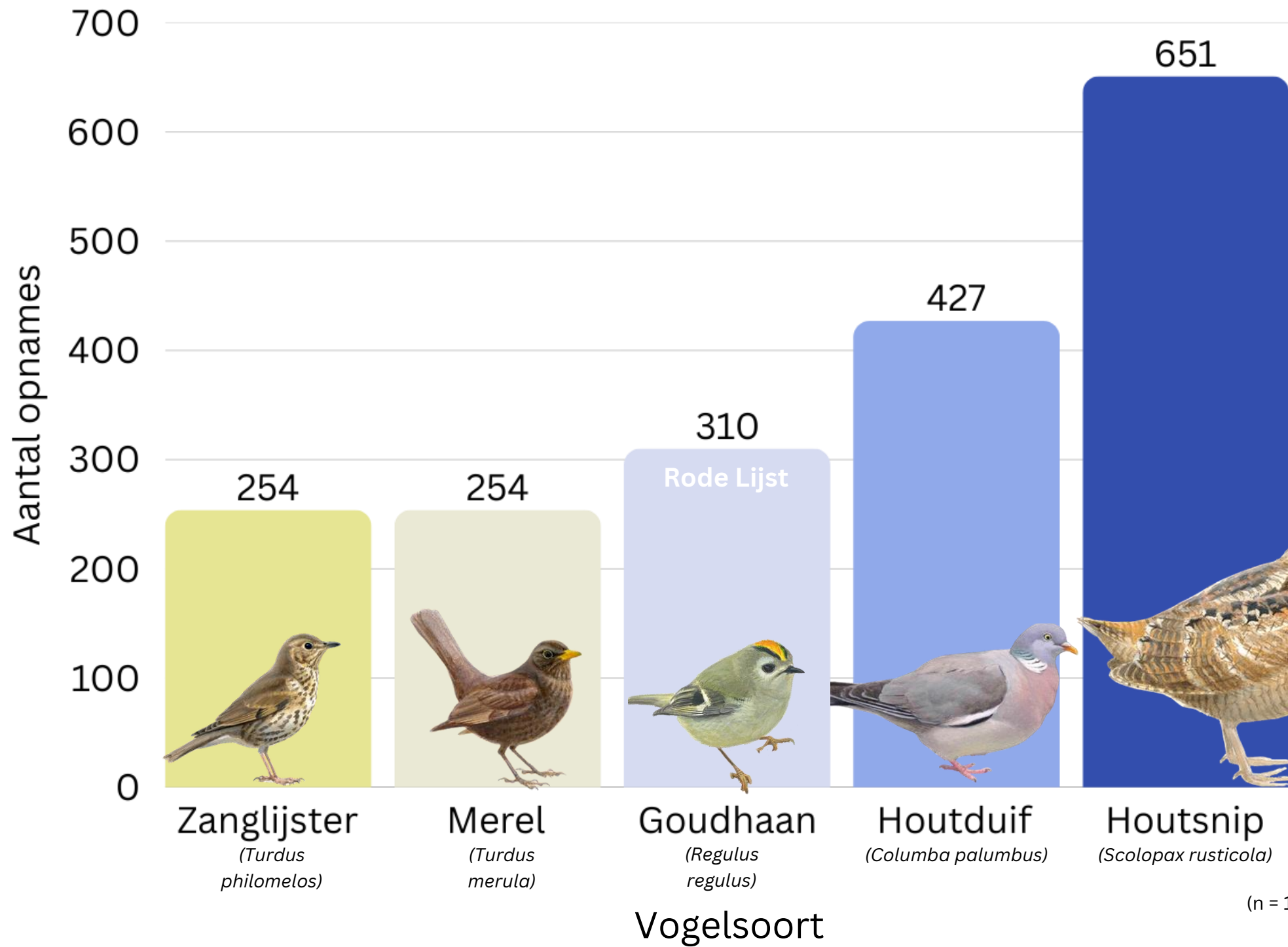
(n = 3.604)





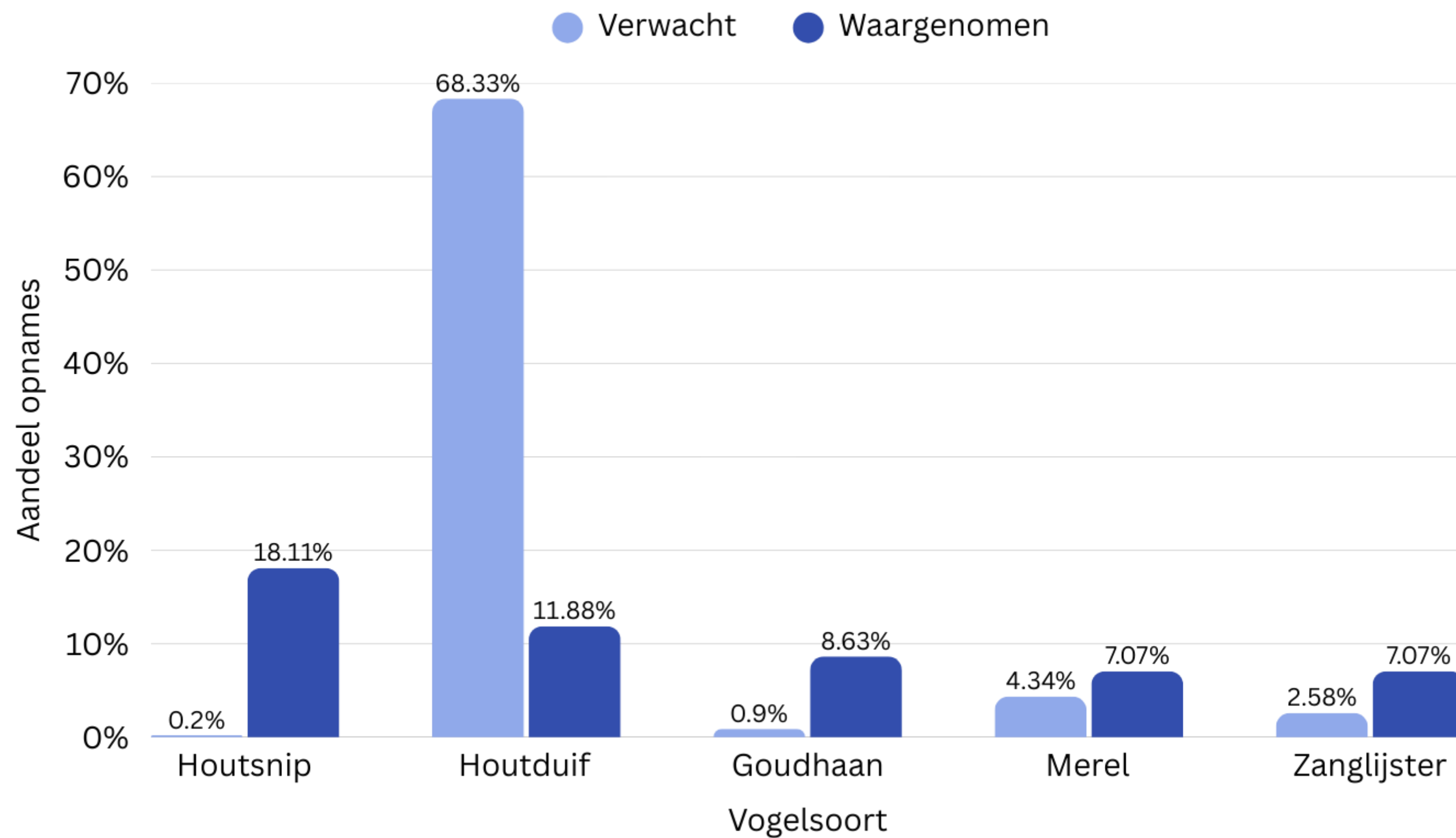


(n = 1.896)  
(p < .001)



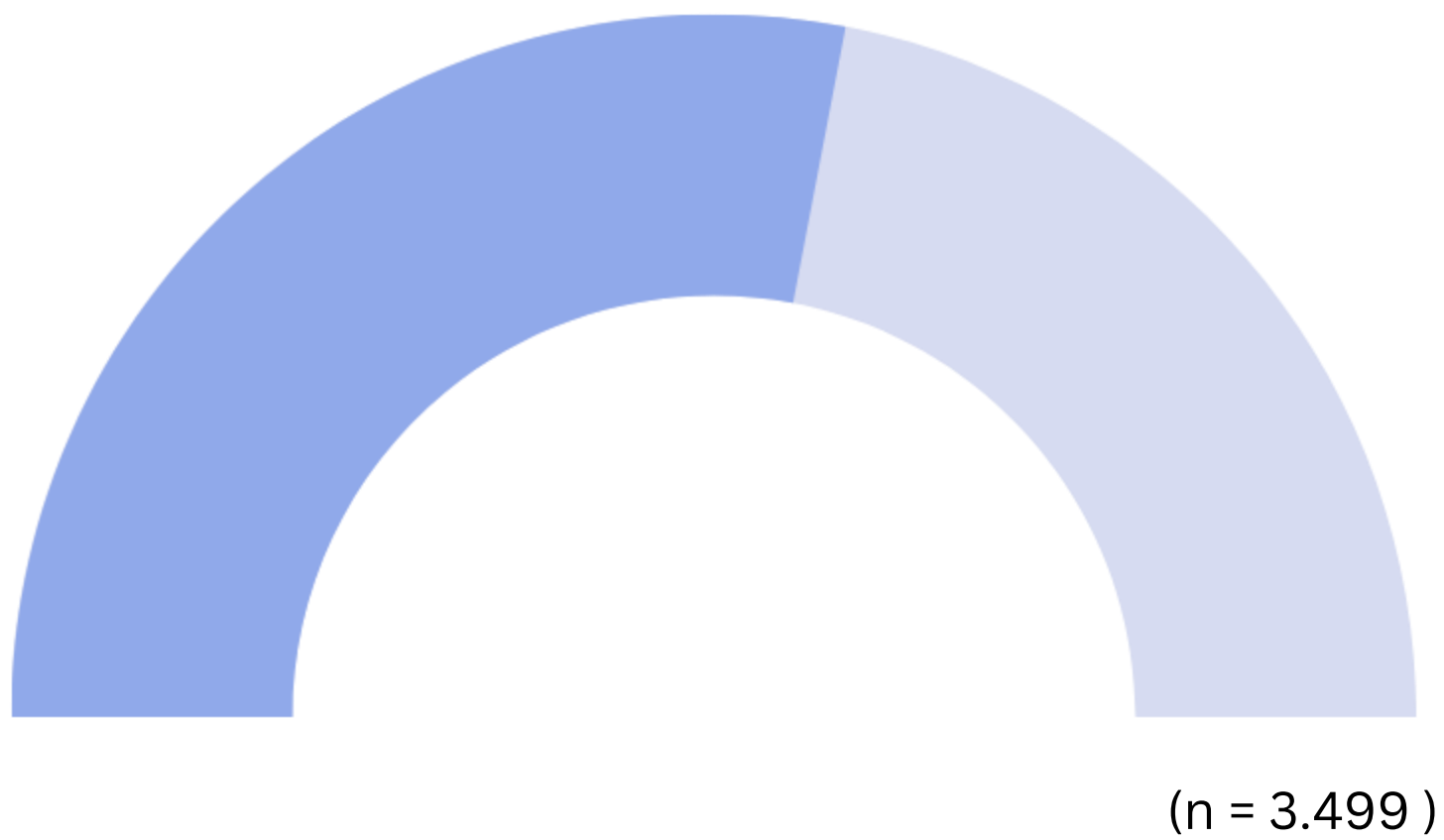
**kwetsbaar of talrijk?**

## Werkelijke en verwachte raamimpact-opnames per vogelsoort



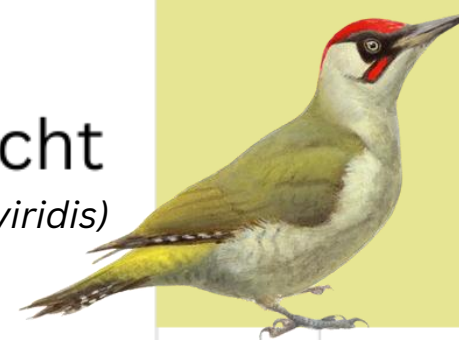


- 's nachts actief
- vliegt laag en snel
- bosrijke gebieden dicht bij bebouwing
- beperkt dieptezicht
- korte gedrongen vleugels



Vogelsoort

Groene Specht  
*(Picus viridis)*



33

Boerenzwaluw  
*(Hirundo rustica)*



30

Rode Lijst

Huismus  
*(Passer domesticus)*



28

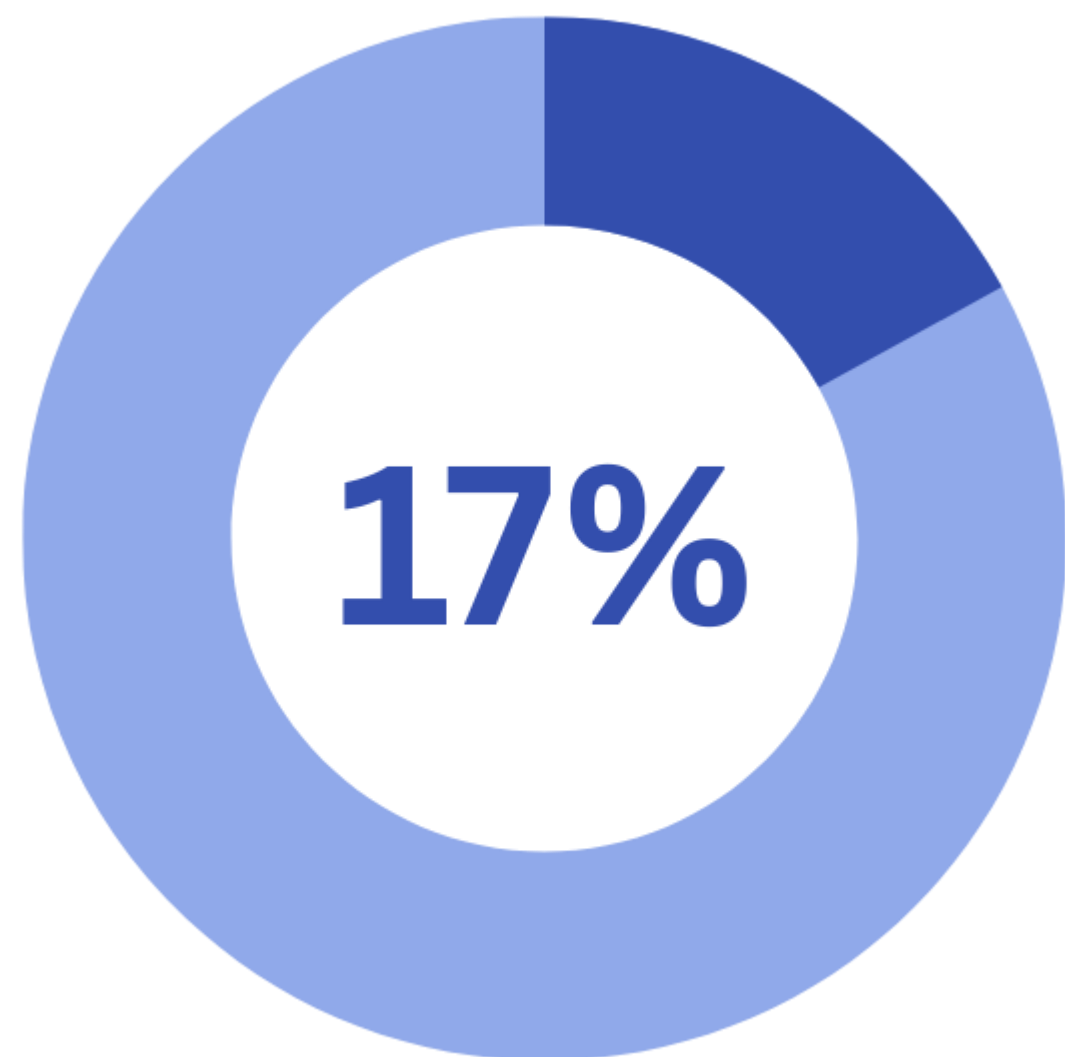
Rode Lijst

0 5 10 15 20 25 30 35

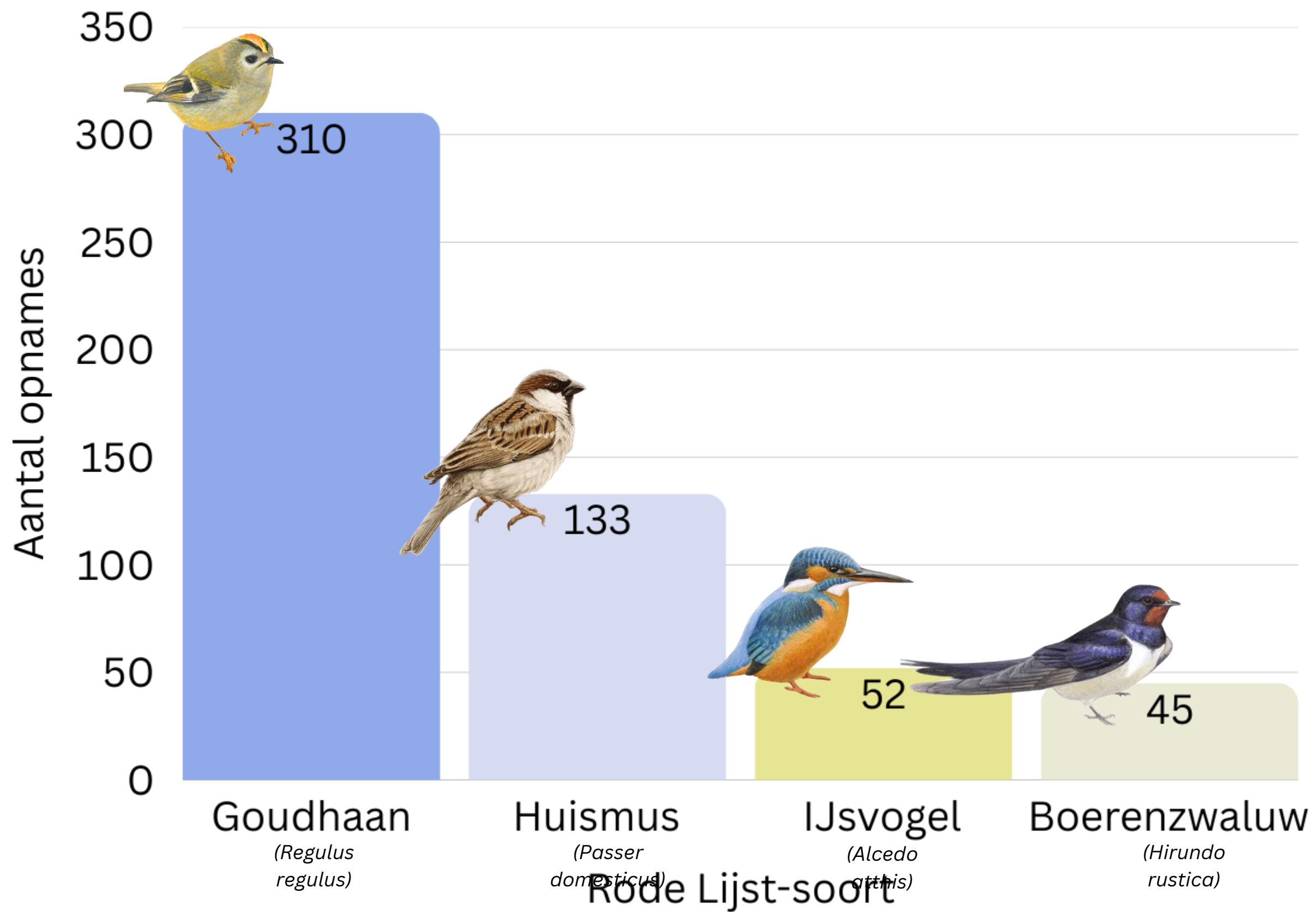
Release Rate (%)

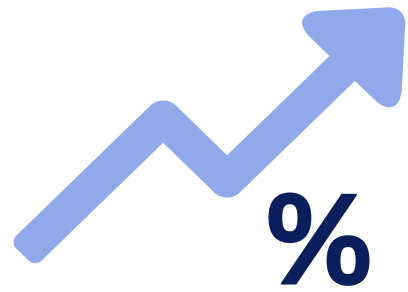
(n = 3.313)

- 24 soorten

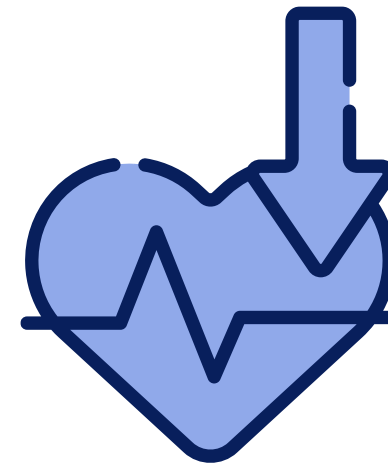


(n = 3.804)





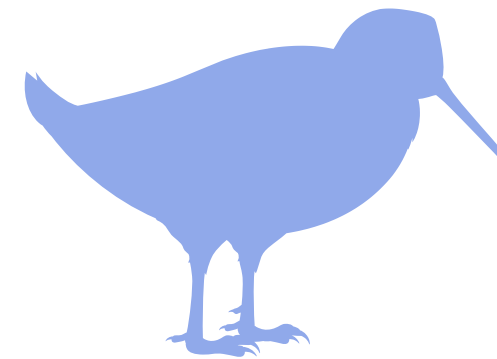
stijgende aantallen



lage  
overlevingskansen



sterke  
herfstpiek



houtsnip



nachttrekker  
s



rode lijst-soorten

## raammarkeringen

UV-markeringen

externe barrières

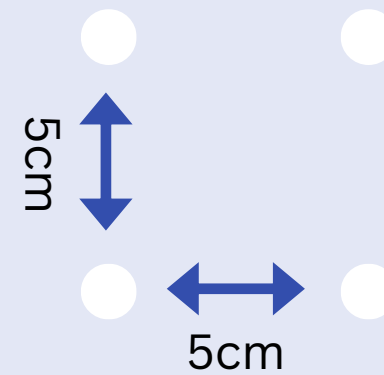
verlichting

voederhuisjes

architectuur

## raammarkeringen met dicht patroon

- Folies
- 5x5 regel



raammarkeringen

**UV-markeringen**

externe barrières

verlichting

voederhuisjes

architectuur

## UV-markeringen

- bird pen
- UV-folies



raammarkeringen

UV-markeringen

**externe barrières**

verlichting

voederhuisjes

architectuur

## externe visuele barrières

- insectenramen
- lamellen
- DIY-alternatieven



raammarkeringen

UV-markeringen

externe barrières

**verlichting**

voederhuisjes

architectuur

## aangepaste verlichting tijdens trekperiodes



raammarkeringen

UV-markeringen

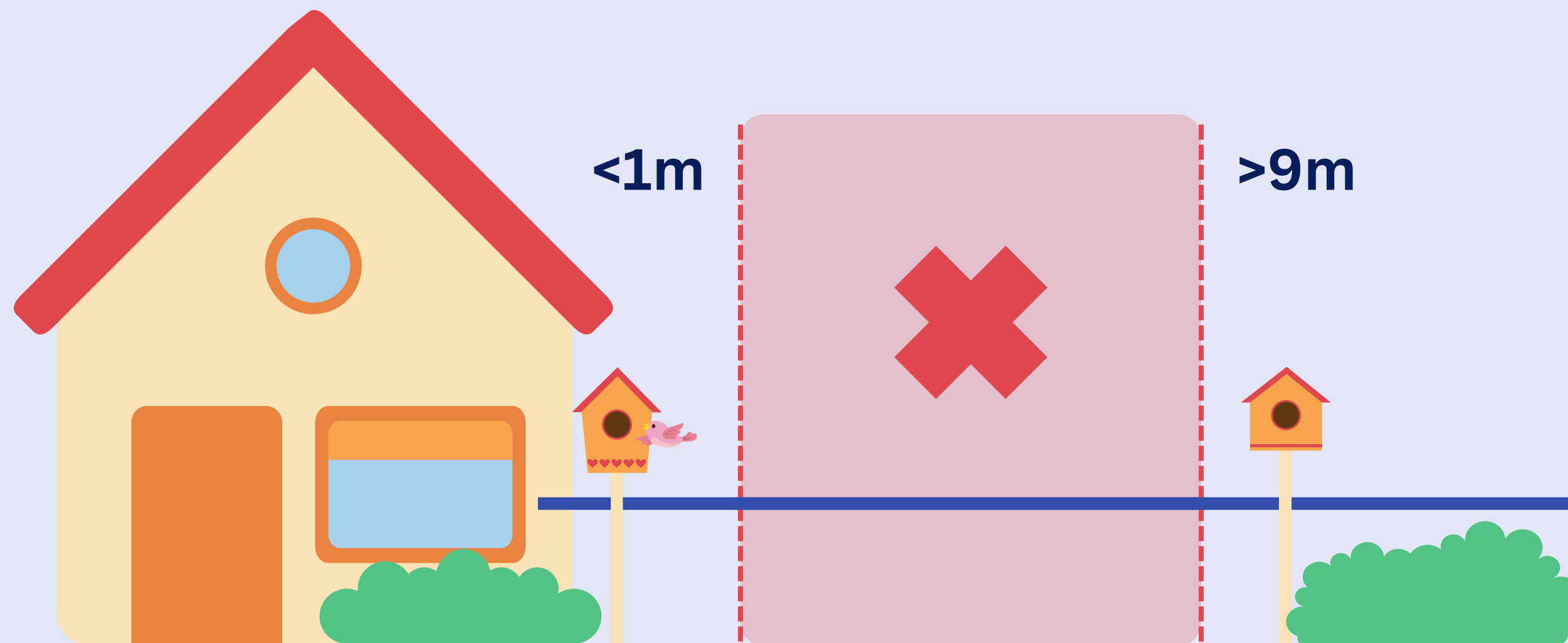
externe barrières

verlichting

**voederhuisjes**

architectuur

## doordachte plaatsing van voederhuisjes



raammarkeringen

UV-markeringen

externe barrières

verlichting

voederhuisjes

**architectuur**

## ecologisch bewuste architectuur & vogelvriendelijk glas

- vanaf ontwerpfase
- keramische frits/ ets patronen
- zuurgeëtste patronen



# Bronvermelding

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<https://doi.org/10.1126/science.aaw1313>

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**scriptie downloaden:**



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