

Evaluation of wild bird surveillance in Europe

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Introduction

The government asked us:

To evaluate the passive surveillance programme for HPAI detection in wild birds in the Netherlands.

The questionnaire was only a part of the evaluation.

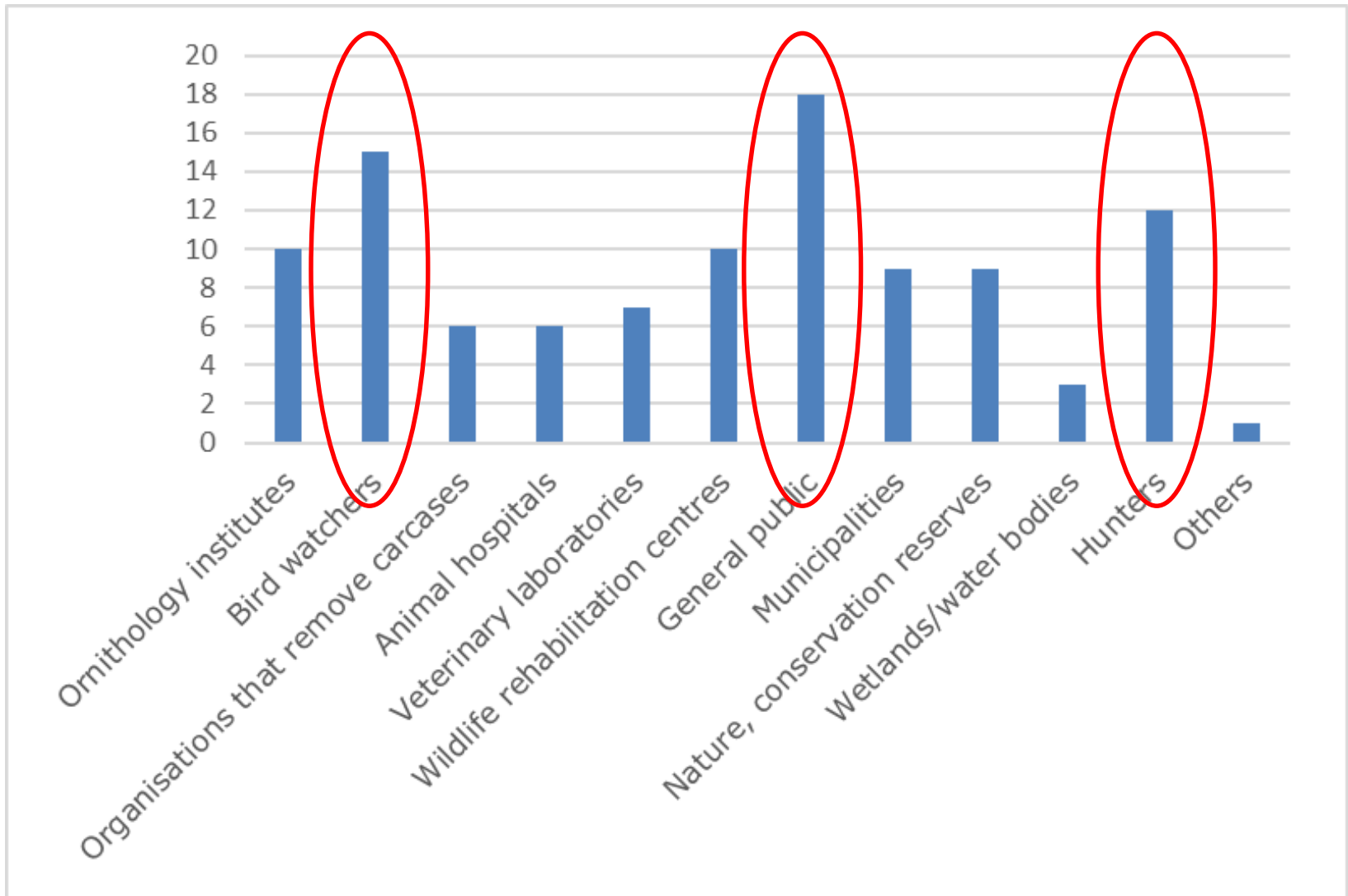
Today I will present:

- the results of the questionnaire
- data-analysis
- main conclusions

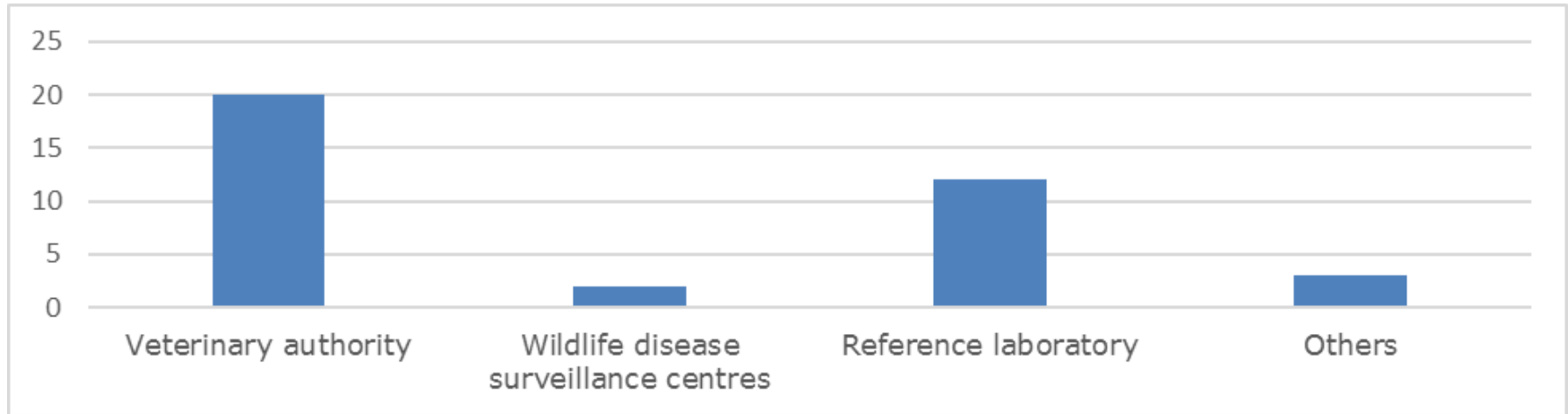
Questionnaire results

- 6 questions.
- Response of **21** countries.
- Results shown without the method of the Netherlands.

Reporting sources



Who receives those reports



Others includes: regional laboratories, call centre contact point and the national office for hunting and wild life.

Veterinary authorities and the reference laboratory receives most reports

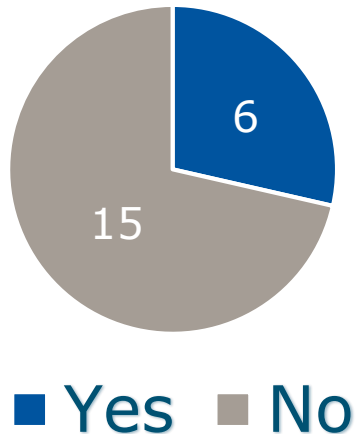
Criteria for HPAI suspicion and submission of samples

The Netherlands:

- Threshold for HPAI.
- When you find ≥ 3 dead water birds (ducks/geese/swans) or ≥ 20 dead “other bird” species at one place and one time it is recommended to **report and submit** the dead birds.
- Because then it is very likely to detect HPAI.

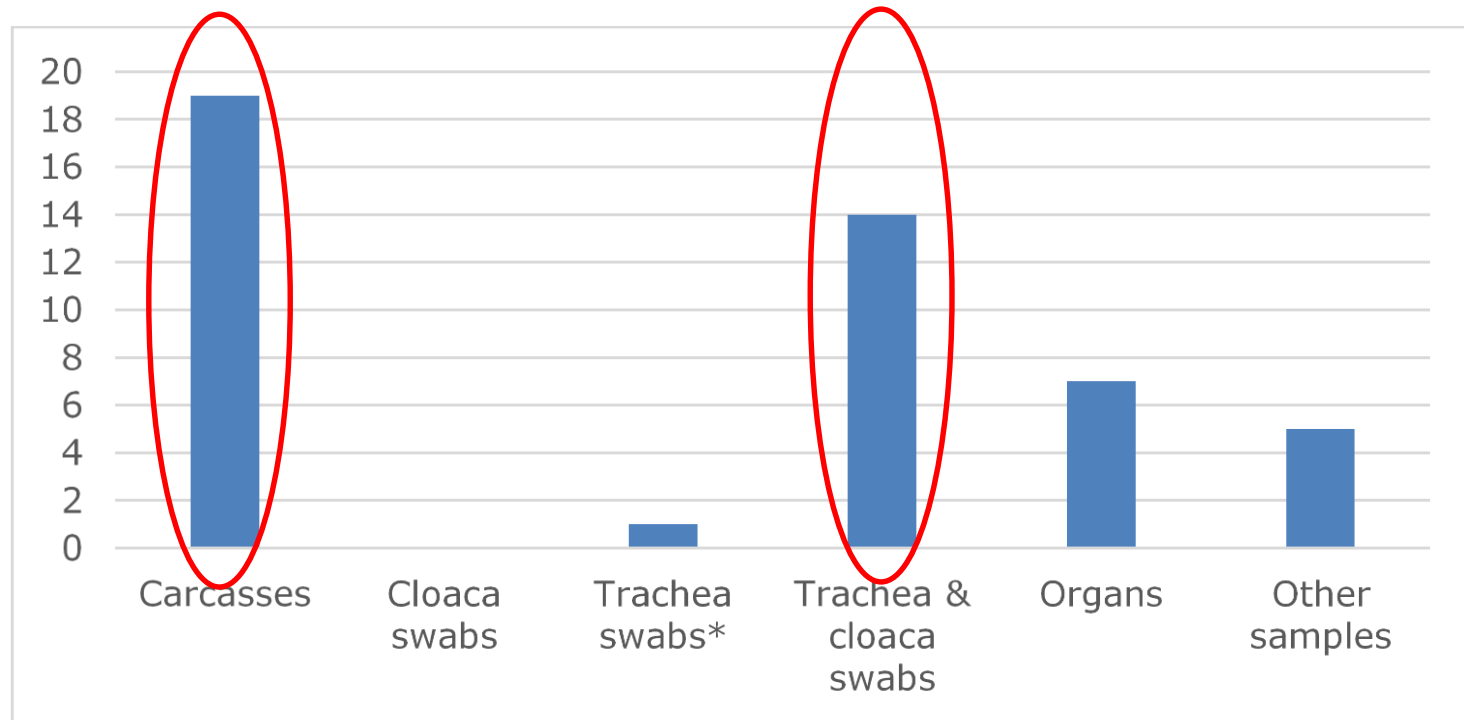
Thresholds in other countries

Threshold



- Same thresholds as the Netherlands.
- Varied according to the risk level that is continuously reviewed, i.e. in the winter of 2017/2018 the threshold was set as 1 bird of a target species (defined following EFSA) and ≥ 5 of other species at the same location/time.
- Suspicion: ≥ 5 birds from the same species/location. However, also single dead birds will be tested.
- Suspicion: 1-3 birds from the same species/location.
- Before spring '18 > 1 water bird/predator; after spring '18 ≥ 1 water bird/predator.

Type of samples

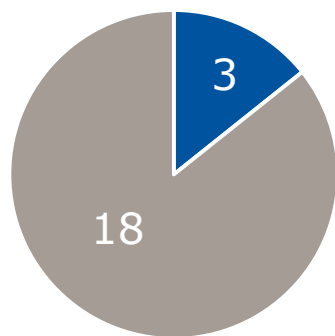


*Trachea/oropharyngeal swabs; Other includes faeces and sediment

Overall, general public send carcasses. When regional laboratories receive carcasses, they will take swabs and send this to the reference laboratories.

Existence of **active surveillance** programmes searching for **dead** wild birds

Active surveillance system dead birds

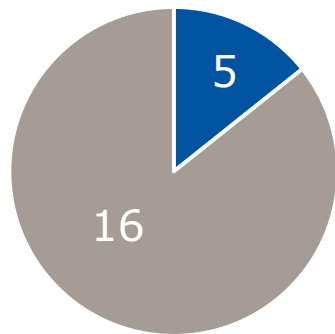


■ Yes ■ No

- 2 countries carried out surveillance every year, regardless of whether HPAI infections were detected in neighbouring countries.
- All 3 countries search at locations where wild birds first arrive during migration or areas with a big amount of wild birds.
- The chosen area of surveillance was regardless of the presence of poultry farms in the neighbourhood.

Existence of **active surveillance** programmes searching for **living** wild birds

Active surveillance system living birds



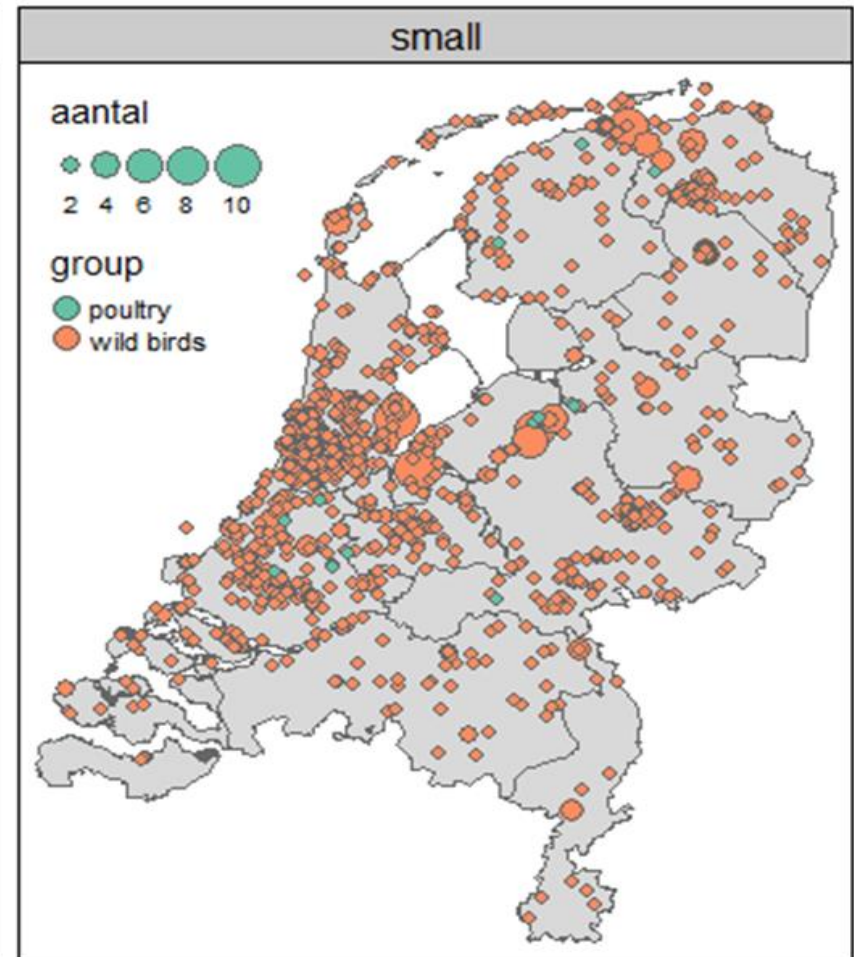
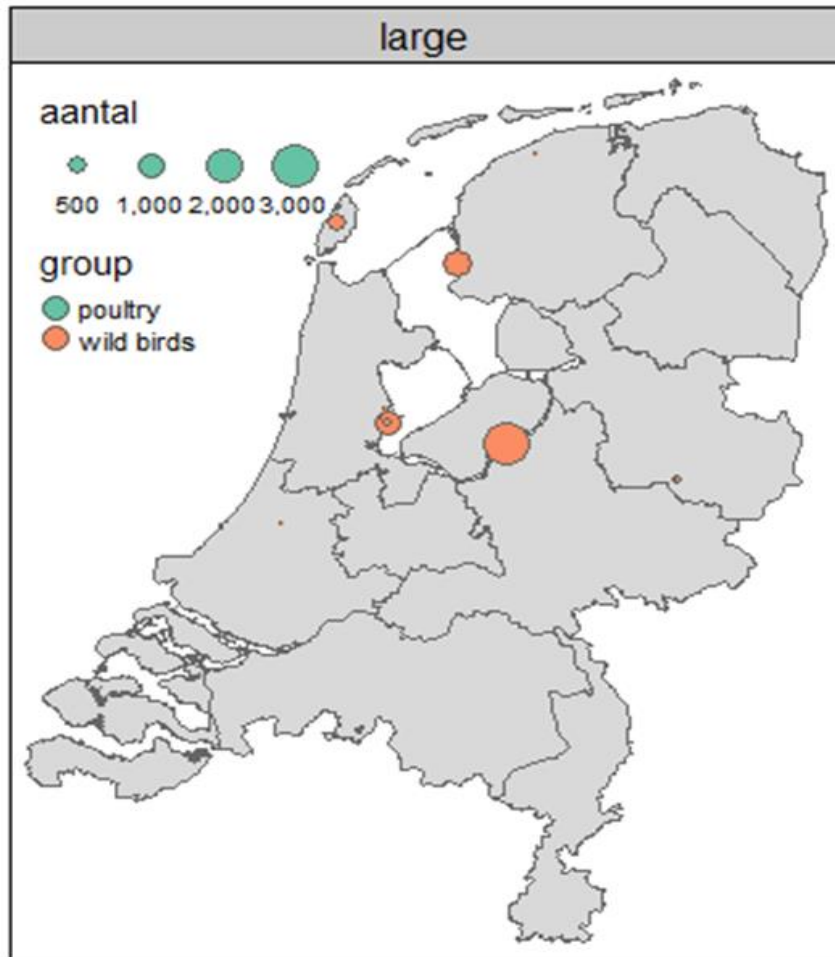
■ Yes ■ No

- Sampling is performed most often during ringing activities and hunting within risk species and areas.
- Two countries indicated to sample in areas with a high density of poultry farms.

Data-analysis

- Data of the dead wild bird reports from 2010-2018.
- Only reports with cause of dead 'unknown' or 'sick'.

Data overview: reports 2010-2018



≥10 birds one location/time

<10 birds one location/time

Data-analysis threshold

Method	Amount of possible suspicions	False positive signals	Specificity (%)	Profit: amount extra detections (/1000 submissions)
3 water birds and 20 other species at 1 location (current scenario)	15	2	99.8	Reference
2 water birds and 20 other species at 1 location	18	4	99.6	1 - 2

Conclusion

- The results of the questionnaire learned us that
 - There are differences between countries.
 - Differences are caused by practical implementations.
 - However, overall there are no very big differences.
- Changing the threshold gives not much profit in earlier detecting of HPAI.
- Overall, the evaluation learned us that the current surveillance system is accurate enough for an early detection of HPAI in wild birds.

Acknowledgement:

All of YOU!!!!

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Jolianne Rijks



Julia Stahl
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Question 1

1) Which are your reporting sources of mortality in wild birds? Please select all those that apply, or list them if the options are not provided.

- Ornithology institutes/centres
- Bird watchers (volunteers, hobby organizations)
- Organisations that remove carcasses
- Animal hospitals
- Veterinary laboratories
- Wildlife rehabilitation centres
- General public
- Municipalities
- Nature, conservation reserves (parks, forests, protected areas)
- Wetlands/water bodies
- Hunters
- Others (please list them)

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Question 2

2) Who receives the reports of observed dead wildbirds? Please select all those that apply, or list them if the options are not provided.

- Veterinary authority
- Wildlife disease surveillance centres
- Reference laboratory
- Others (please list them)

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Question 3

- 3) What are the thresholds (if any) for submitting dead birds for testing for avian influenza in your country? For example, in the Netherlands 3 or more waterbirds (*ducks/geese/swans*), and 20 or more "other bird" species found death at one place will raise HPAI suspicion.

YES/NO

If YES, which are these thresholds?

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Question 4

4) Is there any monitoring programme in your country that actively searches for dead wild birds for HPAI testing? Eg. regular patrols by designated staff.

YES/NO

If YES, how is this executed? Please select all those that apply, or list them if the options are not provided.

- Executed only when HPAI virus infections were detected in neighbour countries
- Executed yearly regardless of whether HPAI infections were detected in neighbour countries.
- Targeted to known sites (high risk areas) where migratory wild birds are abundant, regardless of presence of poultry farms in the vicinity
- Targeted to sites where migratory water birds first arrive, timed to their arrival period, regardless of presence of poultry farms in the vicinity.
- Targeted to sites with abundant wild birds located in the vicinity of poultry farms.
- Surveillance is targeted only to listed high risk species.
- Sampling of hunted wild birds (hunters submit samples to laboratories).
- Other active surveillance activities (please describe)

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Question 5

5) What kind of samples are taken and submitted to the competent authority/reference laboratory?
Please select all those that apply, or list them if the options are not provided.

- Carcasses
- Only cloaca Swabs; Only trachea/oropharyngeal swabs; Both
- Organs
- Other samples (faeces, sediment)

Please specify (give examples) under which circumstances each type of sample is taken.

Eg: Hunters submit swabs

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Question 6

6) In the absence of mortality in wild birds in your country, but HPAI has been reported in a neighbouring country. Is there any monitoring programme that actively samples live wild birds?

YES/NO

If YES, how is this executed? Please select all those that apply, or list them if the options are not provided.

- Targeted to known sites (high risk areas) where migratory wild birds are abundant, regardless of presence of poultry farms in the vicinity
- Targeted to sites where migratory water birds first arrive, timed to their arrival period, regardless of presence of poultry farms in the vicinity.
- Targeted to sites with abundant wild birds located in the vicinity of poultry farms.
- Sampling is targeted only to listed high risk species.
- Sampling is done during ringing activities
- Sampling of hunted wild birds (hunters submit samples to laboratories).
- Other active surveillance activities (please describe)

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