



# UPDATE ON THE ADAPTIVE HARVEST MANAGEMENT MECHANISMS FOR TURTLE DOVE

*NADEG, 27-28 April 2021  
DG ENV.D3*

# Background

2018: “International Single Species Action for the Conservation of the European Turtle-dove 2018-2028”

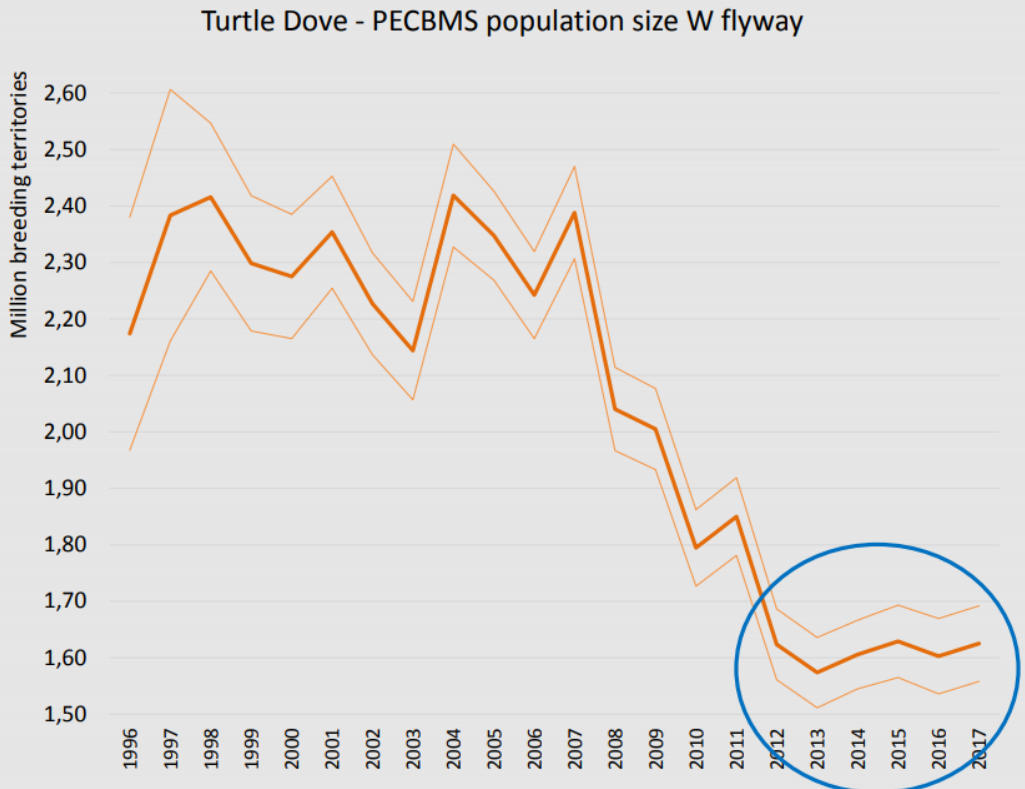
2019-ongoing: contract on AHMM

- 2 preparatory workshops for W F and C/E F in June 2020
- 2 workshops for W F in October 2020 and March 2021
- 1 workshop for C/E F in November 2020 *and May 2021*

# Flyways, population model and objectives

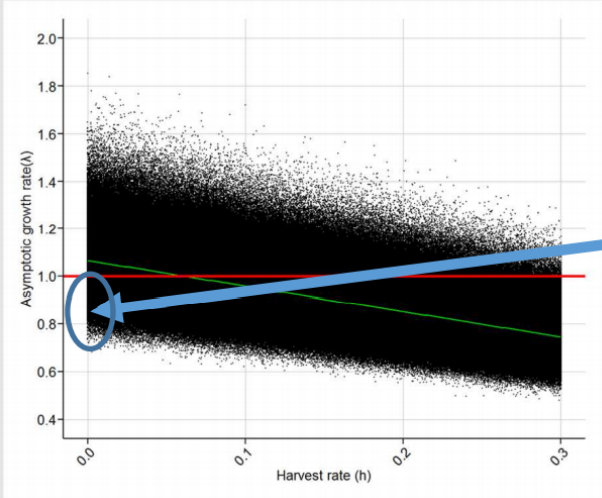
- Delineation of the two main flyways: ***agreement in both flyways***
- Population model for each of the two flyways: *Integrative Population Model*
  - *WF: good data is available → model results reliable*
  - *C/E F: very old/insufficient data is available → model cannot be used to make decisions*
- Population objectives : ***halt the population decline and preparing for recovery***
  - Flyway PECBMS 10-year trend  $\geq 1$  (for the WF, the latest 10-year trend slope 2008-2017 is 0.9728 ( $\pm 0.0044$  SE))
  - median growth rate  $\lambda \geq 1$  (for the WF, the model estimated a median  $\lambda = 0.919$  (0.749 - 1.177))
  - Range = 2018

# Western Flyway



Data source: PECBMS (2021)

## MODEL RESULTS : Effect of variations in harvest rate on population growth



- No hunting ( $h = 0$ ) would lead to  $\lambda = 1.052$  [0.858 - 1.338]
- 32% of iterations with no hunting led to  $\lambda < 1$  (decline)
- This model does not take into account environmental stochasticity

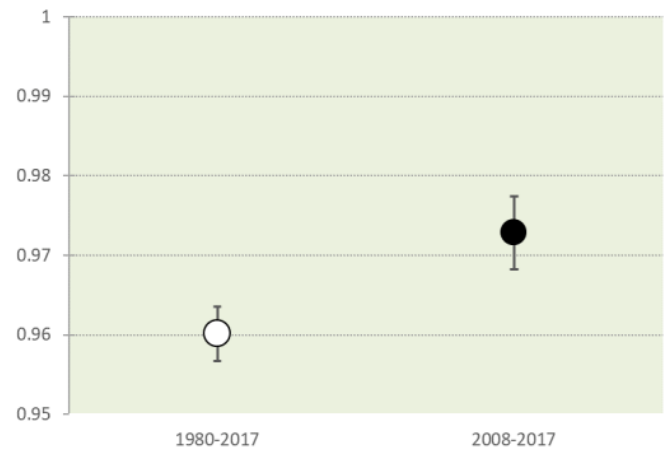


Fig. 2. PECBMS western flyway multiplicative trend slopes for the period 1980-2017 (white dot) and for the last 10-year period 2008-2017 (black dot), with their standard error. Both indicators have values below 1, corresponding to a population in decline.

# Management scenarios

- *W F: 32% risk of population decline even in the absence of hunting → **zero-harvest is the recommended option (probably up to 2024)***
  - Conditions to allow any off-take in the future:
    1. a statistically significant increase of the PECBMS annual population index for at least two consecutive years (Can be assessed from 2024-2025)
    2. a significant increase of the survival (population growth rate estimated by the model above 1 with a risk lower than 15%) (Can be assessed from 2024)
    3. credible systems in place at national/regional level to monitor and enforce compliance with any agreed hunting quotas
- *C/E F: Possible management scenarios will be proposed and discussed at the next workshop*

# Habitat related issues + monitoring

- Habitat-related topics:
  - On-going habitat management measures and good practices: ***very limited measures targeting turtle dove in place***
  - Possible mechanisms to integrate habitat management with hunting opportunities: ***No conclusion were drawn - need to further develop this.***
- Monitoring : ***population size, survival data, fecundity data, hunting data (bags, hunting pressure, age structure of bags) + effective enforcement mechanism***

# Governance proposed for the WF

- ***Scientific advisory group → sub-group of NADEG → NADEG → MSs authorities take decisions***
- Yearly cycle starting from 2021
  - Take stock of progress in terms of monitoring, habitat management, establishment of national/regional regulatory mechanisms, etc.
  - Agree on an allocation system for quotas
  - Updated data, model predictions, PECBMS updated indices, etc.

# Questions

1. Do NADEG members agree with the recommended management scenario for the western flyway (zero-take) for 2021 and until the population shows signs of recovery?
2. Do NADEG members agree with the proposed conditions to revisit the zero-take option for the western flyway in future?
3. Do NADEG members agree with the proposed governance system?
4. What measures Member States envisage to improve and restore the habitat of the Turtle Dove across its EU flyway taking into account their PAFs, their RDPs and the upcoming Strategic CAP Plans?



Thank you!