

INTRODUCING PREDATOR CONTROL FOR WADER CONSERVATION IN ESTONIA: OUTCOMES AND LESSONS LEARNED



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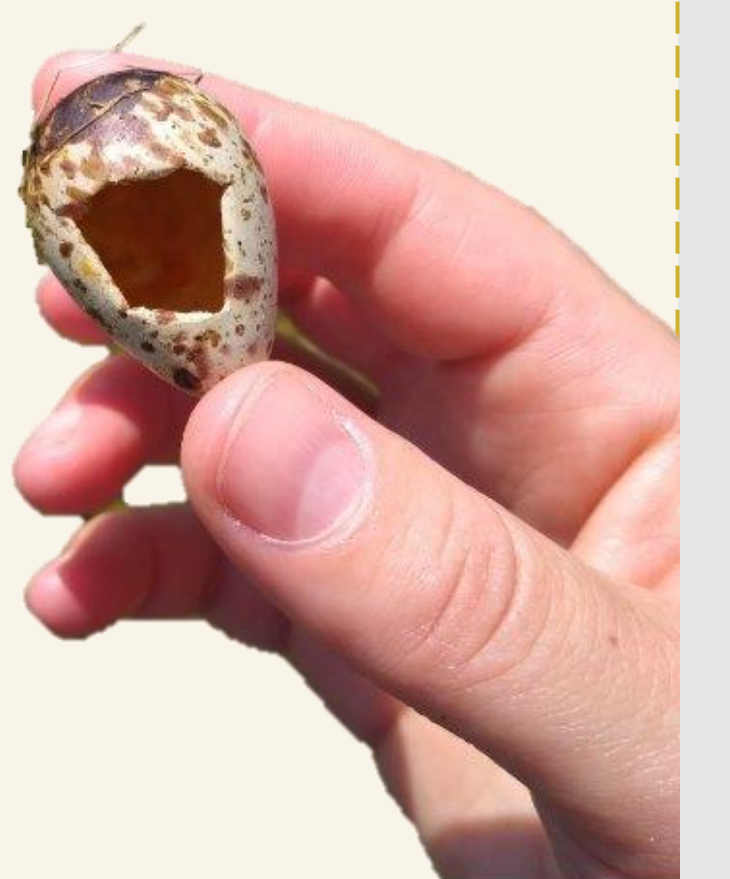
INTRODUCTION

- Wader breeding success critically low on Estonian coastal meadows
- >80% of nests depredated, mostly by mesopredators
- Immediate action needed for conservation of **Southern Dunlin**
- Lethal predator control for wader conservation carried out for the first time in Estonia
- Pilot project in 2022-2024



OBJECTIVES

- Assess the effect of predator control on
 - (1) nest survival of waders
 - (2) number of breeding wader pairs
- Identify key problems and make future conservation suggestions based on the pilot project



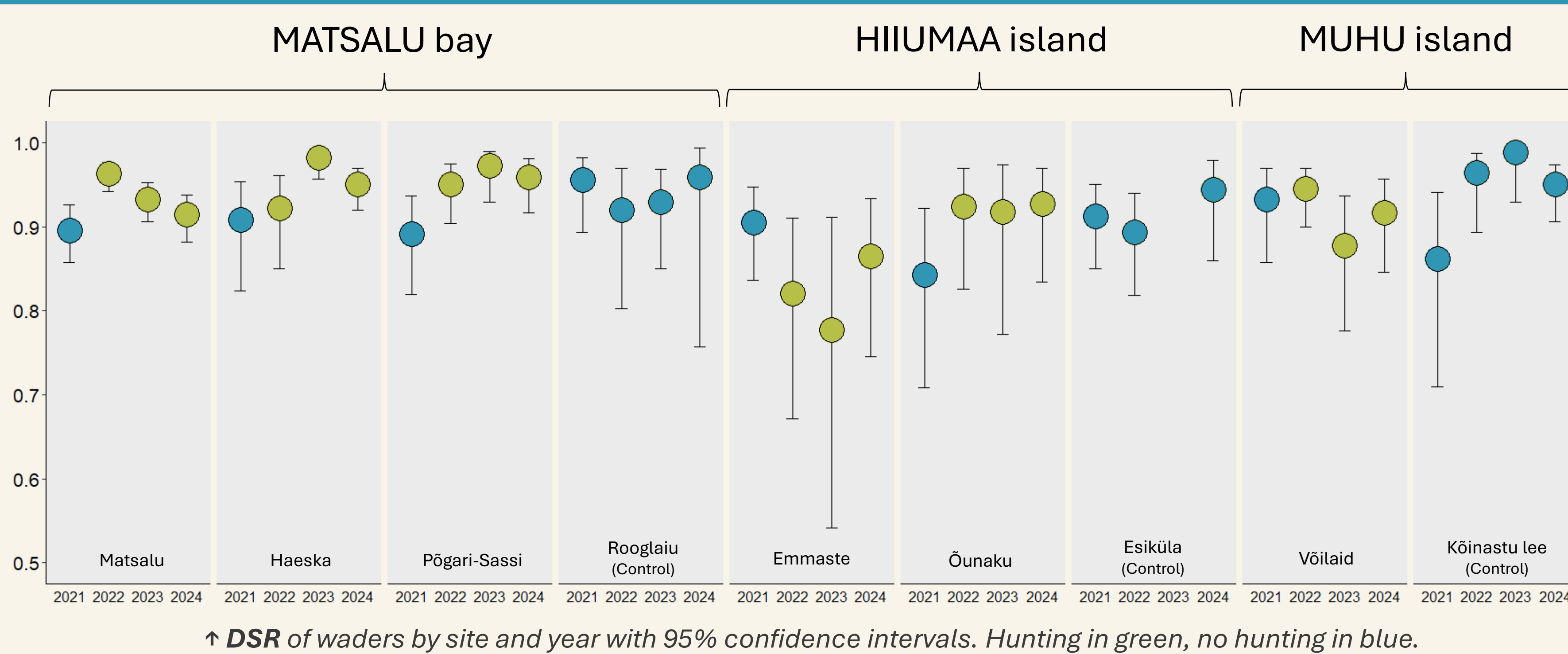
METHODS

- MONITORING**
- Before-After-Control-Impact design
 - All sites monitored in 2021 and during experiment years 2022-2024
 - Each site visited weekly; 5-6 times total per season
 - Territory mapping carried out once per season
 - Daily nest survival rates (DSR) calculated using MARK through the R interface
- HUNTING**
- Estonian Hunters Association contacted local hunters to hunt mesopredators
 - Hunters not compensated directly, (1000€ per season paid to local association)
 - Three species targeted: **Red Fox, Golden Jackal, Raccoon Dog**

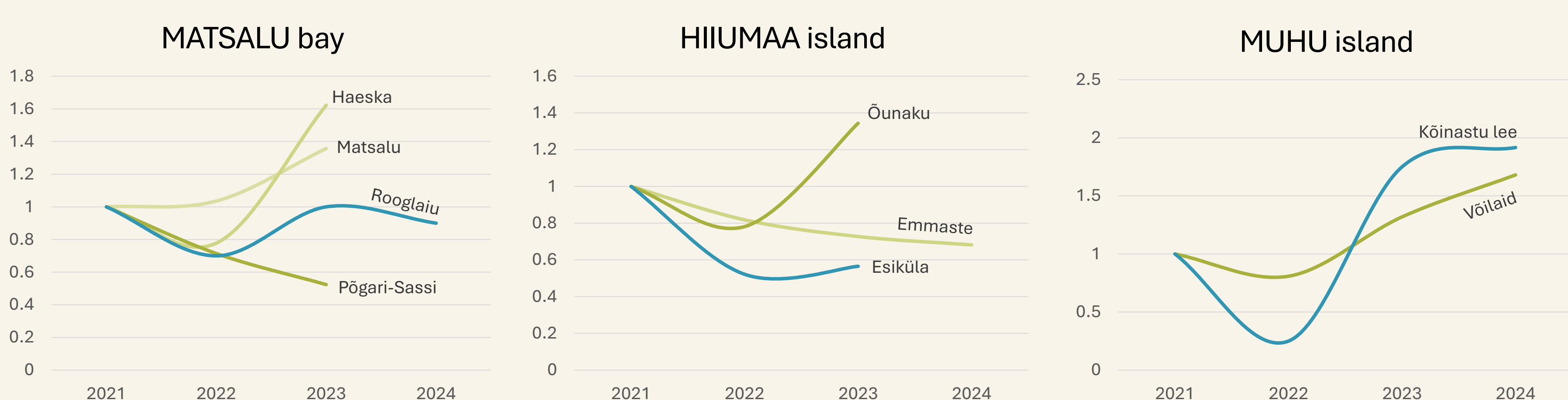
● hunting 2022-2024
● control site



RESULTS



↑ DSR of waders by site and year with 95% confidence intervals. Hunting in green, no hunting in blue.



↑ Number of wader territories by site and year compared to pre-hunting level (2021=1). Hunting sites in green, control sites in blue.

CONCLUSIONS & FUTURE SUGGESTIONS

- **Overall nest survival results positive in the Matsalu bay region, inconsistent results on islands**
- Difficult to draw conclusions based on breeding bird counts
- Breeding waders are depleted on some sites, thus it's difficult to get sufficient sample sizes
- **Better compensation for hunters**
- Prolonged hunting season into April (incl. special permits for protected areas)
- Special emphasis on removing fox dens in and around meadows
- Concentrate on species that have been confirmed to predate nests
- Direct contact between hunters and surveyors to operatively target problematic foxes