Breeding islands to meet conservation goals for colonial waterbirds

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Antwerp Harbour – SPA Schorren en polders van de Beneden-Schelde

- Deurganckdok: permanent and temporal nature compensation: 2001
- Antwerp harbour strategical planning: accepted 2013 (Natura 2000 & Sigma goals combined)

→ important northern cluster in Prosper- and Doelpolder: tidal
→ western and southern nature areas: freshwater
Deurganckdok: permanent and temporal nature compensation: 2001
Antwerp harbour strategical planning 2013
Antwerp Harbour – SPA Schorren en polders van de Beneden-Schelde

- Conservation goals for colonial waterbirds:
  - Pied Avocet: 350-450
  - Mediterranean Gull: 30-40
  - Black-headed Gull: 3380-3402
  - Common Tern: 208

- Reference: a large area of filled landhabitat with ideal mixture of shallow water, mud- and sandflats with pioneer-vegetation

- But ... reference numbers came from a period with low abundance to absence of several predators
Main land: mudflats-shallow water-pioneer
Main land: sandflat & water
Island: surrounded by deep water (↔ 20 m)

Black-headed & Mediterranean Gull colonies
Island: pile of branches in deep water

Spoonbill colony at Verrebroek
Predation – Predator avoidance

- Red Fox and Stone Marten colonised Northern part of Flanders quite recently (after 2005)
- Large open landscapes have lower densities of predators
- The wetter, the better!
- Colonial waterbirds are highly vulnerable to (mammalian) predation ↔ meadow birds
- Colonial waterbirds are easily attracted to new breeding habitat: islands!
Nest predation of 5 meadow birds in Western Europe
(Roodbergen et al., 2012)
Challenge?

- Design new areas to meet conservation goals

- ... in a era with ‘normal’ predator abundance/presence

- ... in a smaller, more fragmentated landscape

- Try to cope with predator avoidance and increased nest predation

→ create islands for colonial waterbirds
Prosperpolder Noord: current situation
Prosperpolder Noord: managed realignment
Prosperpolder-Zuid
Doelpolder – tidal part
Proposition

- Estuaries are the natural environment of many species of colonial waterbirds.

- Colonial waterbirds by nature choose islands to nest.

- Land reclamation, economic development, rising waterlevels ... dramatically changed estuaries making suitable breeding islands scarce nowadays.

- Creating islands is necessary to secure the biodiversity of estuaries ... as in a natural environment.
Swan Islands, Karkinit Bay, Ukraine
70,000 breeding pairs of 20+ species