



# Urban biodiversity



- Landscape ecology in urban areas
- Important habitats and species in the city
- Challenges
- New thinking / possibilities

Anders Thylén, BioFokus, 25.01.17



# Urban biodiversity



## BioFokus

- Non-profit foundation
- Consultant – biodiversity, applied ecology / management tools, nature conservation
- 15 employees – all biologists

# «Bluegreen» infrastructure – landscape ecology





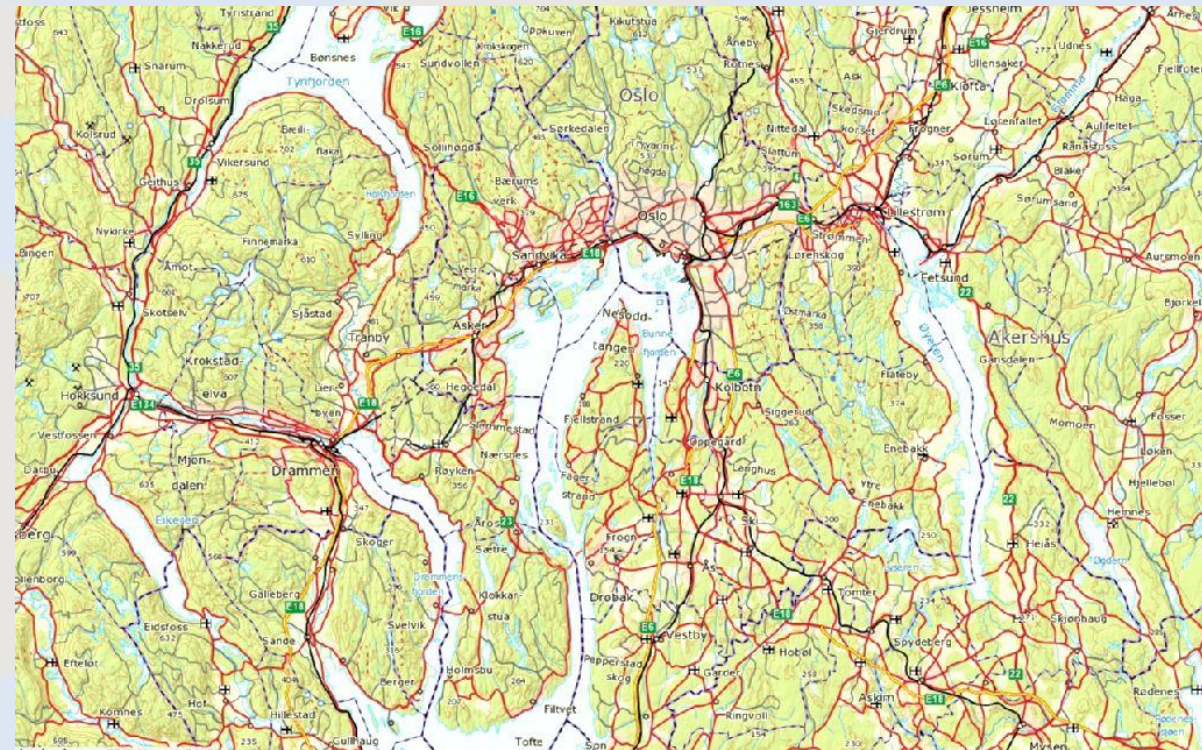
- Natural resources

- Climate
- Water
- Rich soils
- Variation

- History

- Small-scale agriculture
- Parks, green areas
- Remnants of nature

= Rich in biodiversity





# Urban biodiversity



## Naturbase

**NATURBASE KART**

MILJØ-DIREKTORATET

Operative kartlag

- (M) Arter av nasjonal forsværstelse
- (M) Utvalgte naturtyper
- (M) Verneområder
- (M) Verneplan for vassdrag (ØVPE)
- (M) Naturtyper
- Korallrev (Havforskningsinstituttet)
- Hvitbette kulturlandskap
- (M) Friluftskvomsråder
- Kartlagte fruktallvomsråder
- Inngreiptrike naturområder
- (M) Kulturminder (RA)
- (M) MBS og skogbruksplan (Skog og og...
- (M) Arealressurser NS (Skog og og...
- Biogeografiske regioner
- (M) Eieendomsinformasjon
- (M) Fylke- og kommuneavgrensning (SK)

Bakgrunnskart

- (M) Vei, grenser og stasjon (SK)
- Bakskart grønter (SK)
- Bakskart ferge (SK)
- Bakskart foto (SK)

## Artskart

**Artskart 1.6**

Start | Søk | Artstre | Kart | Objektinfo | Utvalgsstatistikk | Om tjenesten

Veg symbolisering:  Alle  Inklusjoner

**Legnforklaring**

**Redlistekategori**

- RE Regionalt utdadd
- VU Sårbar
- EN Sterkt truet
- CR Kritisk truet

**Fanntype:**

- Funnt med belegg
- Observasjon av arter

**Kilde:**

- Artsobservasjoner.no
- Miljøbase.no

Rovbase

**Koordinatpresisjon:**

Alle

Presisjon ikke oppgitt

**Kategorier:** Alle kategorier

Endre kategorier

**Tidsgrensning:** Ingen avgrensning

Endre tidsgrensning

**Geografisk utvalg:** Fra kommune

(?): Oslo

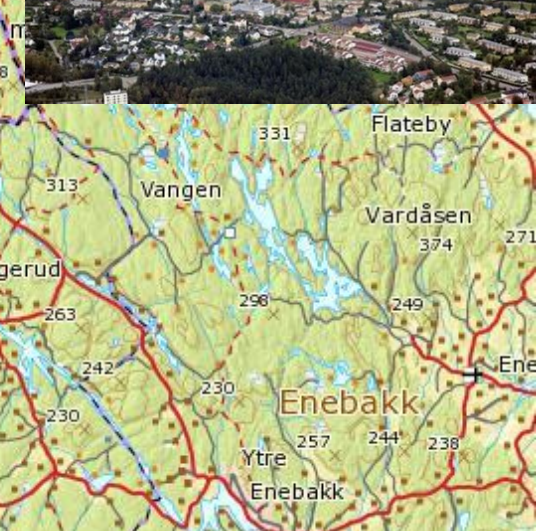
Endre geografisk utvalg

**Inklusjoner:** Fra inklusjoner(r):

Agder naturmuseum, Sjøkologisk Museum, U.S. BioFokus, Bioforsk, Ecofact, Ento Consulting, Faun Naturforvaltning AS, Havforskningsinstituttet, Helgeland Museum - Rana, JBlørdal, MFU, Miljøer, Miljøfaglig Utredning AS, Møltex, NUBT, Naturhistorisk

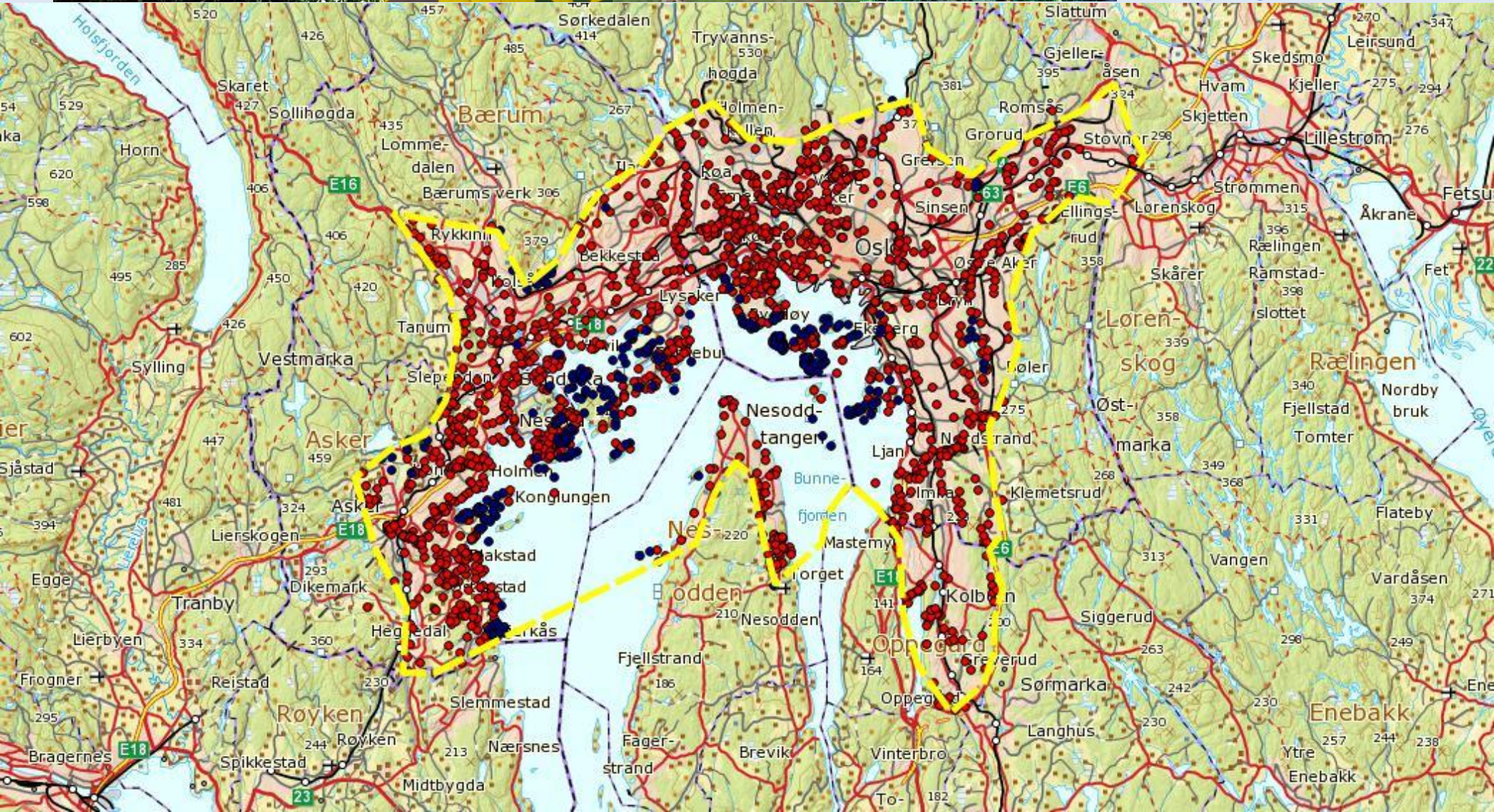


# Important habitats in urban «Oslo»





# Important habitats in urban «Oslo»





# Habitats in urban areas







# Habitats in urban areas



Forests – often in context with streams or steep slopes



Rhodotus palmatus (EN)

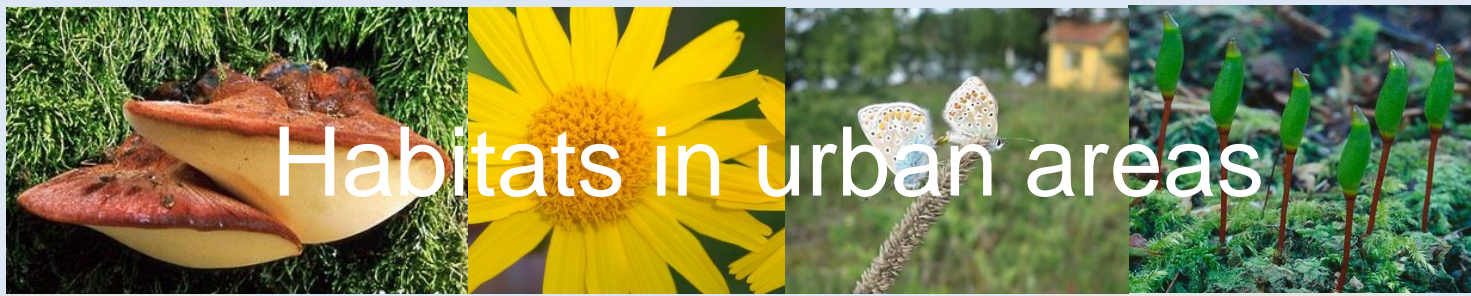


# Habitats in urban areas



Ponds, streams, freshwater  
- birds, fish, amphibians etc





# Habitats in urban areas



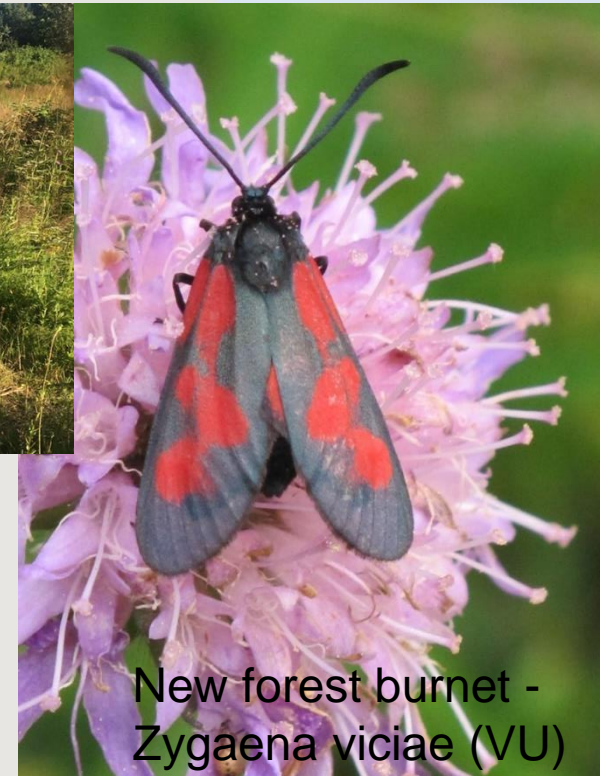
Meadows and cultural landscapes



Secondary habitat: Prinsdal, Oslo east  
Old shooting range  
Meadow with fantastic insect diversity



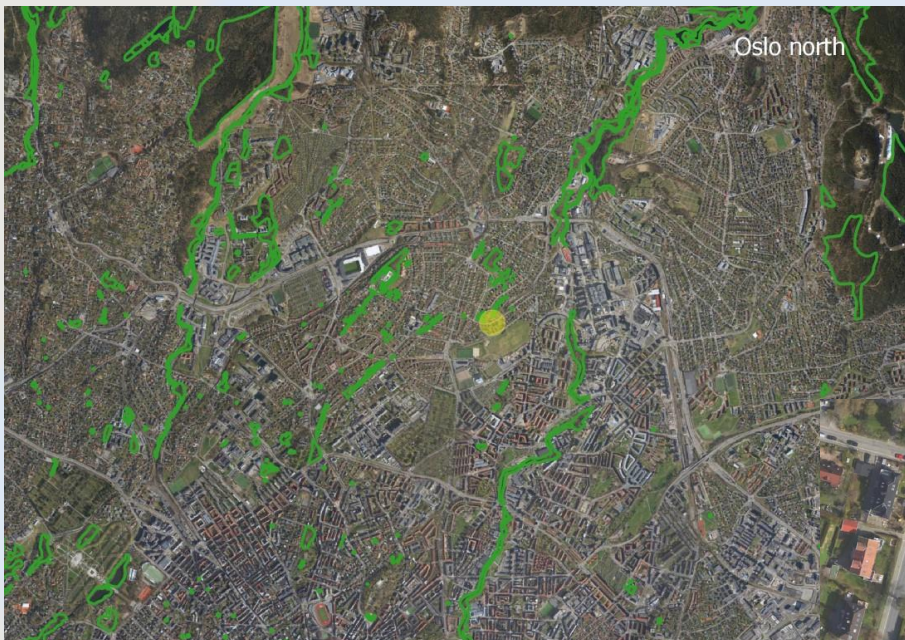
Old hay meadow – Gaustad, Oslo west



New forest burnet -  
*Zygaena viciae* (VU)



**BIO**  
**FOKUS**





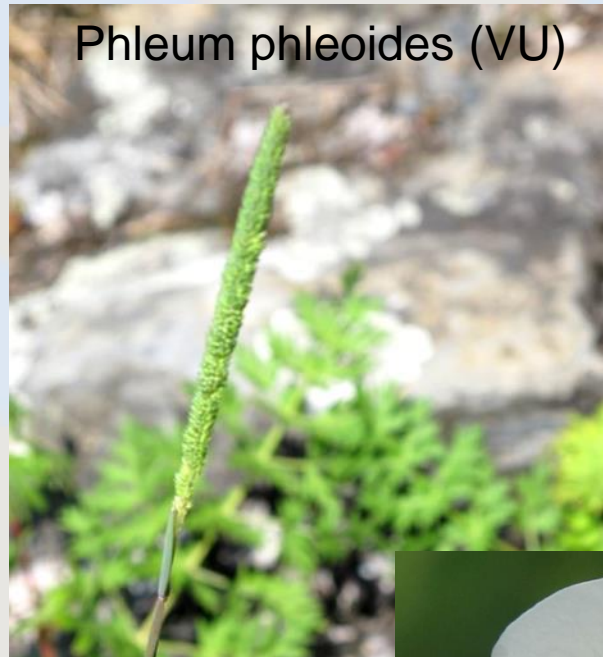
# Habitats in urban areas



Tåsen, Oslo



*Phleum phleoides* (VU)



Calcareous rocks  
and grasslands  
Warm rocky slopes

Kragerø



*Drymocallis rupestris* (CR)



# Habitats in urban areas

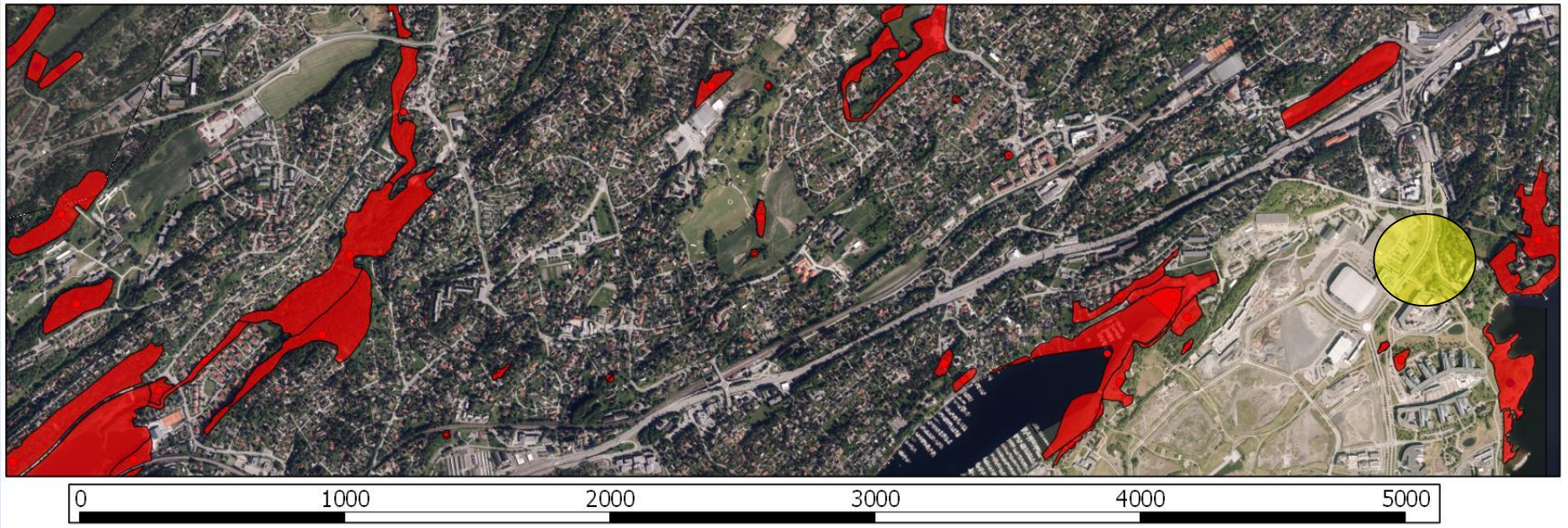
Parks, large trees



*Spongipellis spumea* (EN)

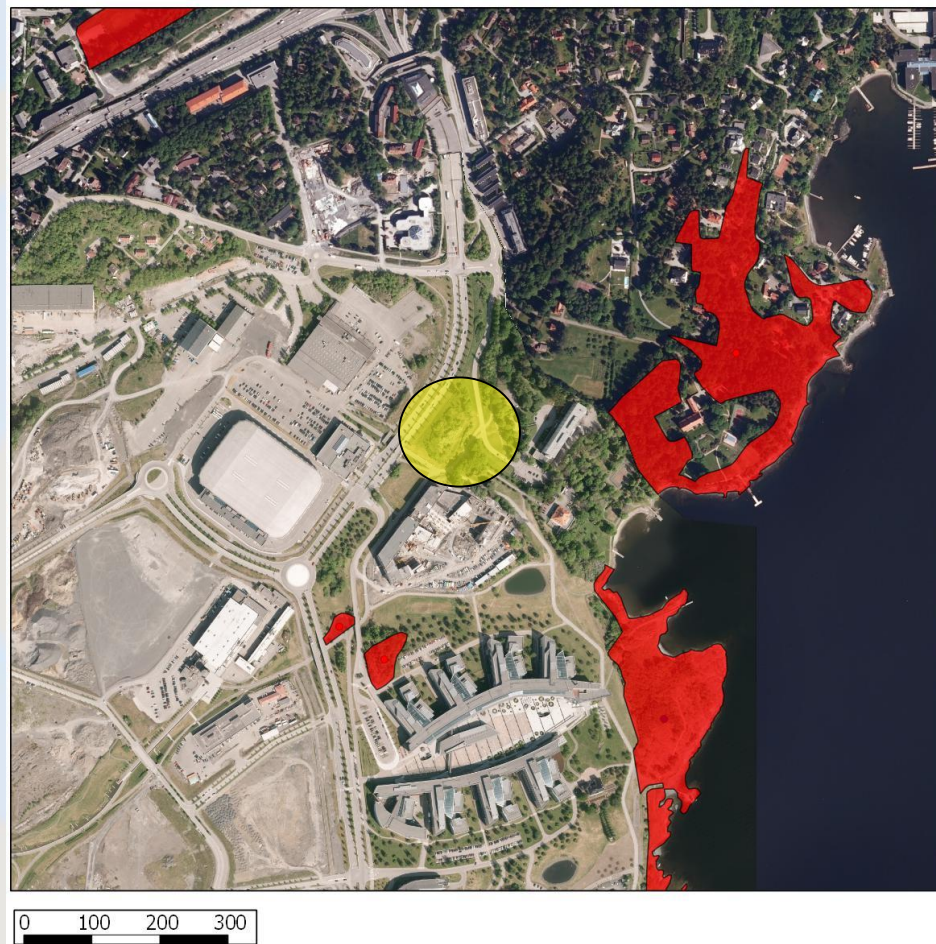


# Nature under pressure





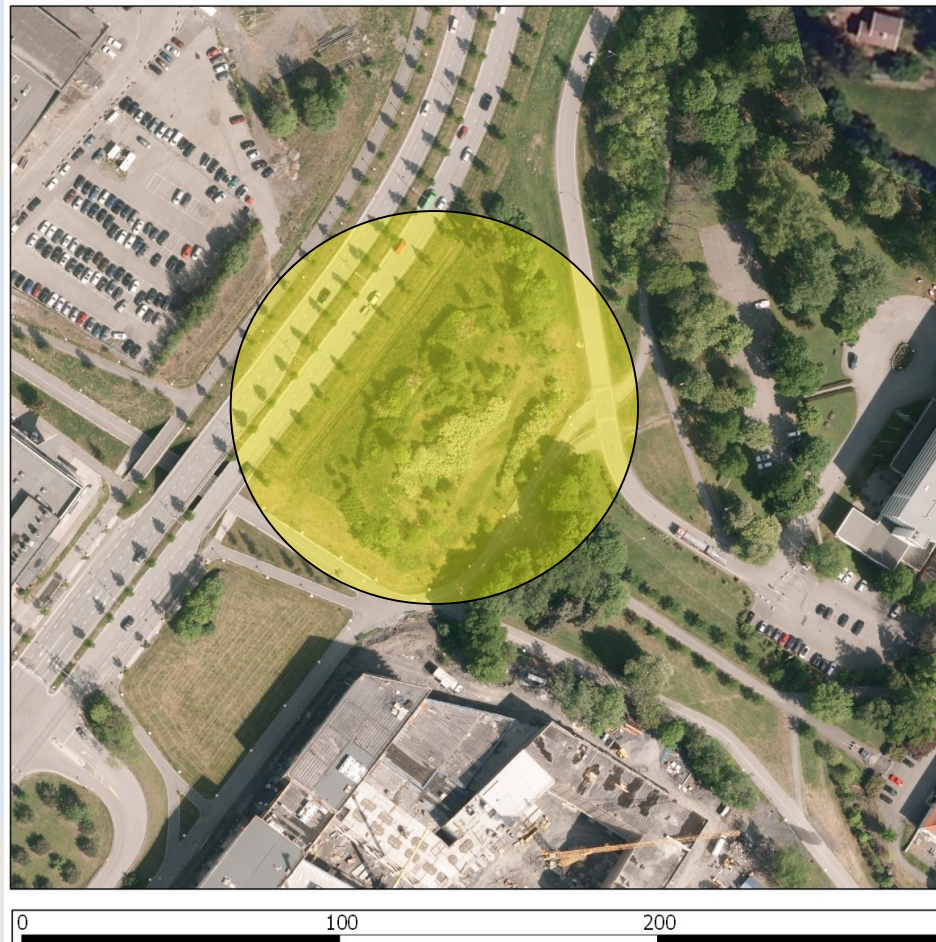
# Habitats in urban areas







# Habitats in urban areas





# Habitats in urban areas



0 25 50 75 meter



# Habitats in urban areas



Meadow with *Dracocephalum ruyschiana* (northern dragonhead) - VU



# Small remnant habitats



Frogner, Oslo  
*Viola hirta* (hairy violet) - EN



# Birds in urban areas



Many common species, but  
some now RL:  
Swallows/Martins and swifts  
(some NT)

Peregrine falcon  
Black redstart (NT)



Photo: Kristian Henriksen



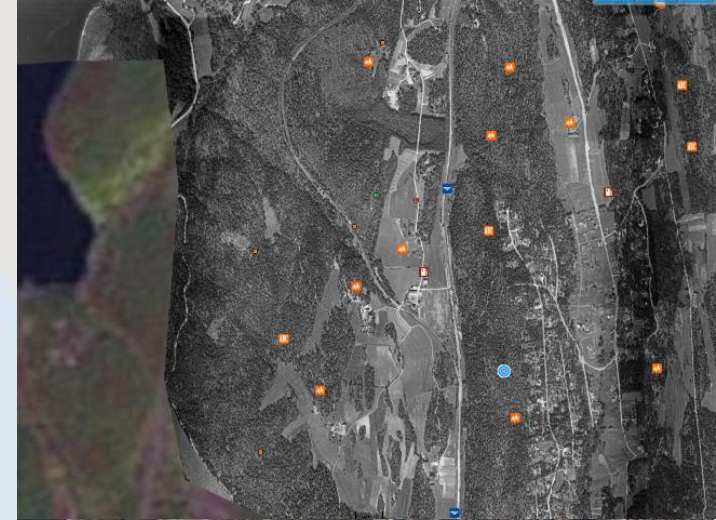
Photo: Simon Rix

Secondary habitats: Buildings instead of cliffs



## Conflicts

- Tiny remnants of nature
- More dense area use / habitat loss
- Fragmentation
- Secondary effects
  - Clear-cutting, arrange/organize nature
  - Wear and tear
  - Alien species

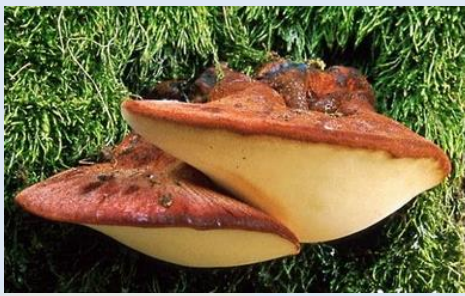


# Conserving / developing nature in urban areas



- Integrate nature in all planning and urban development
  - Important habitats and sites for (red-listed) species
  - Connective structures (streams, rivers)
  - Green areas
- Map structures of “everyday nature”
  - Green areas, trees etc
- Plan for biodiversity in green areas
  - Integrate nature structures and habitats
  - Develop from “the best of what is left”
- No net loss!





- Recreate habitats
  - Reopen streams
  - Wetlands / ponds
- Active management
  - Management plans
  - Improve habitats
- Also small-scale
  - Insect hotels
  - Lawn or meadow?







# Urban biodiversity



## Summary

- Many important habitats and structures in urban areas
  - Often small
- Integrate early in planning
  - Plan green areas first and houses afterwards?
- Preserve and develop green structures
  - Natural and green areas in general
  - Connectivity
  - Develop from “the best of what’s left”

Much more efficient to preserve than to recreate!