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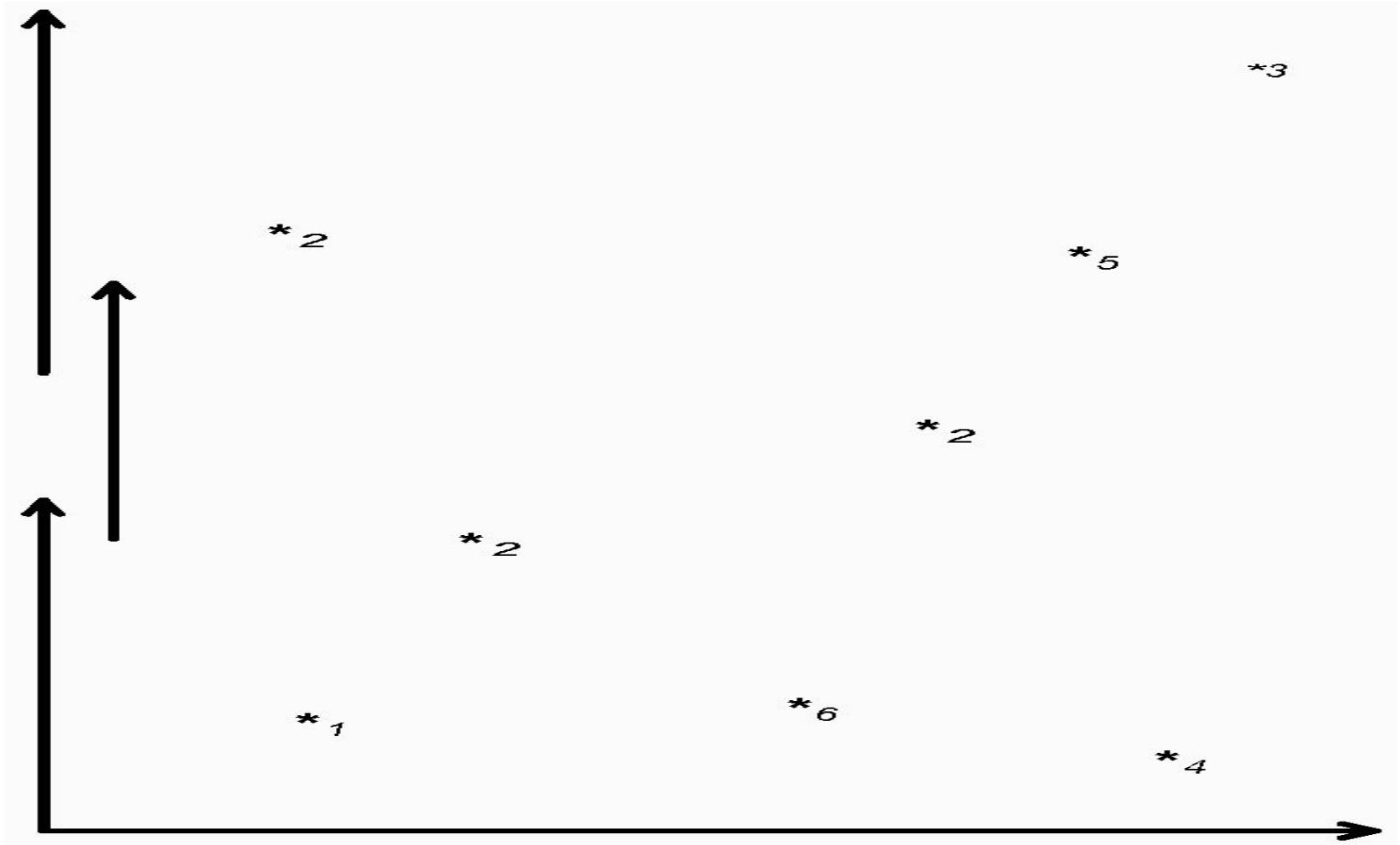


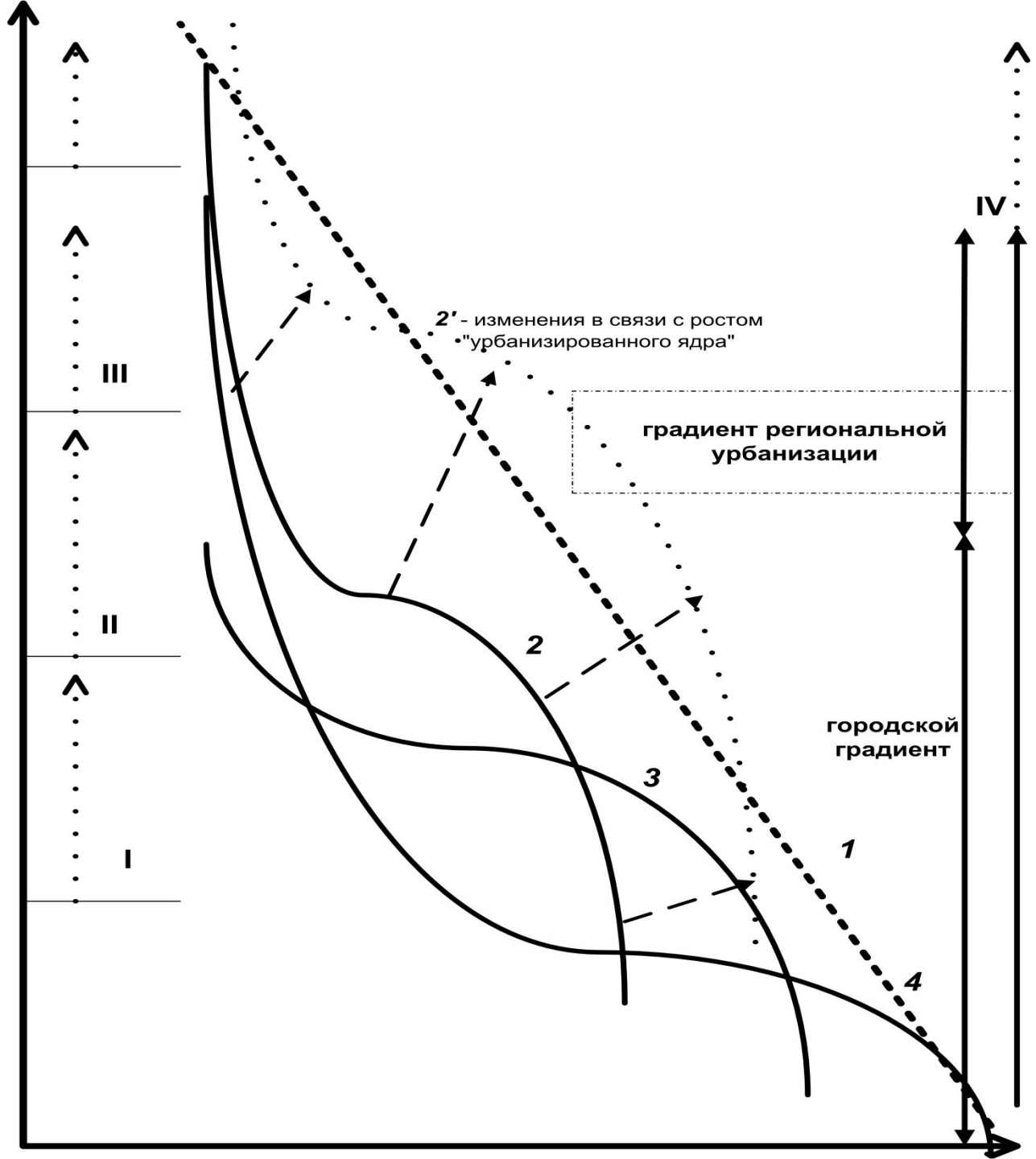


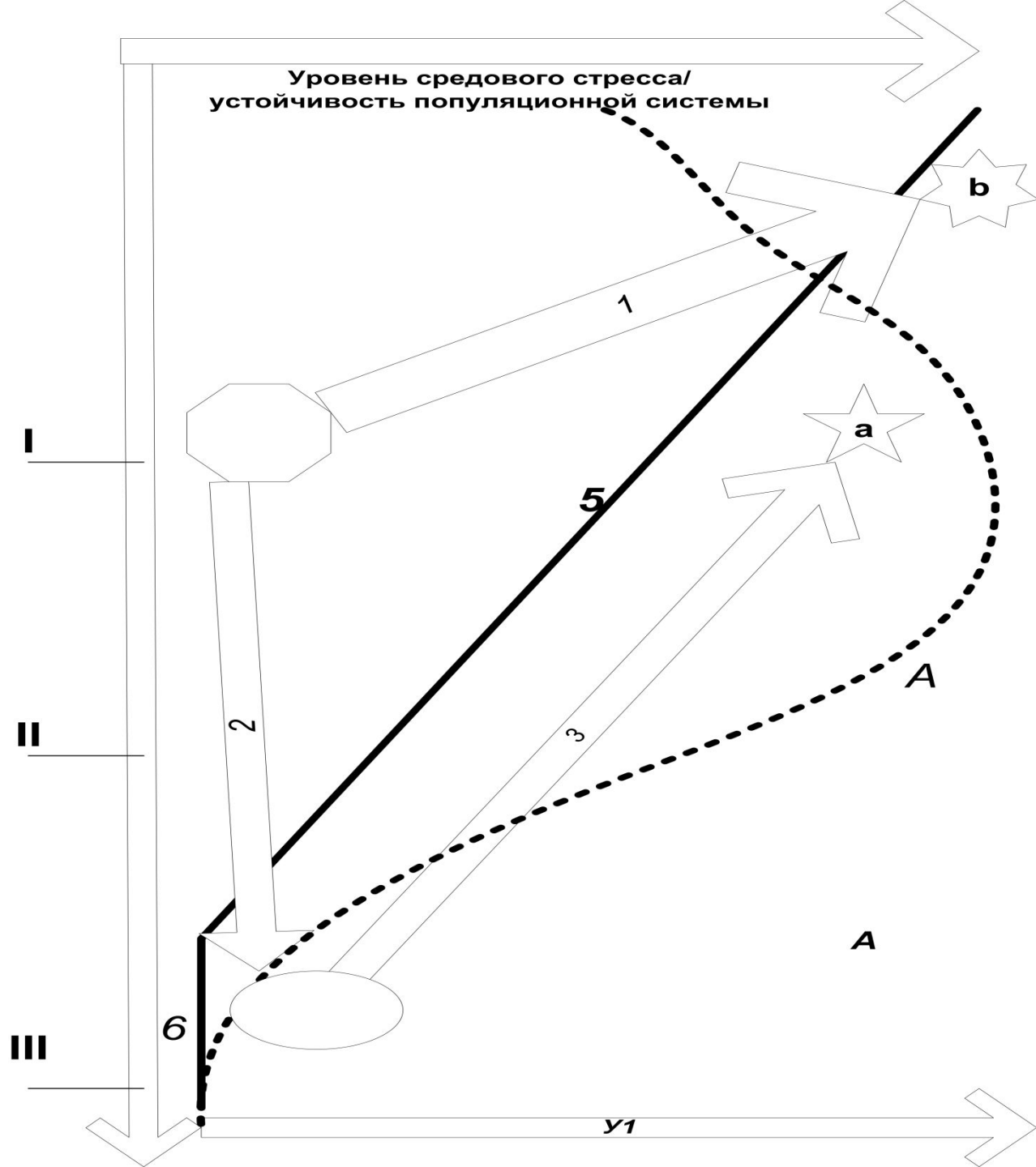


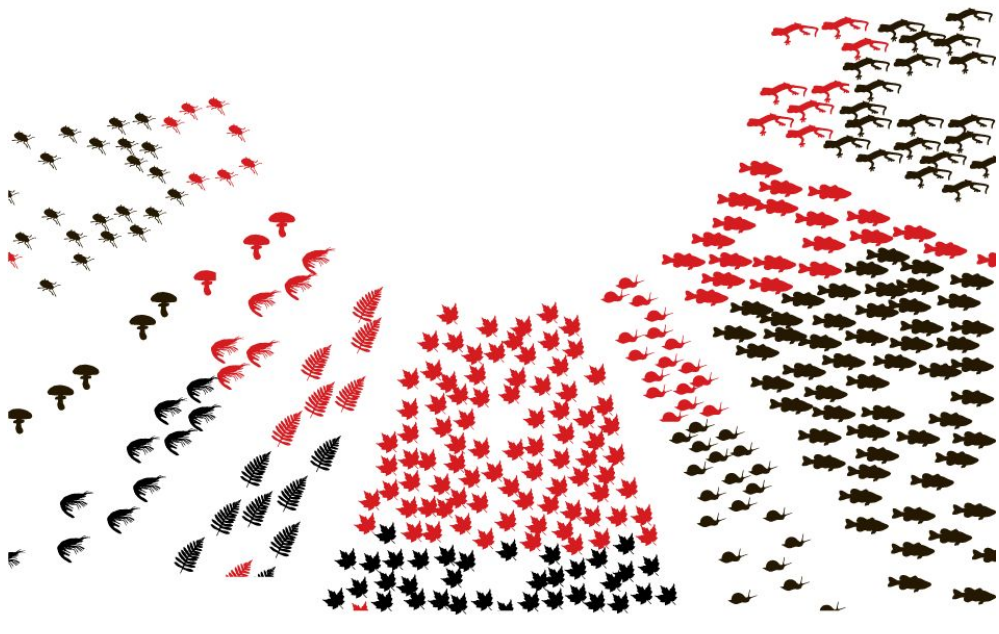
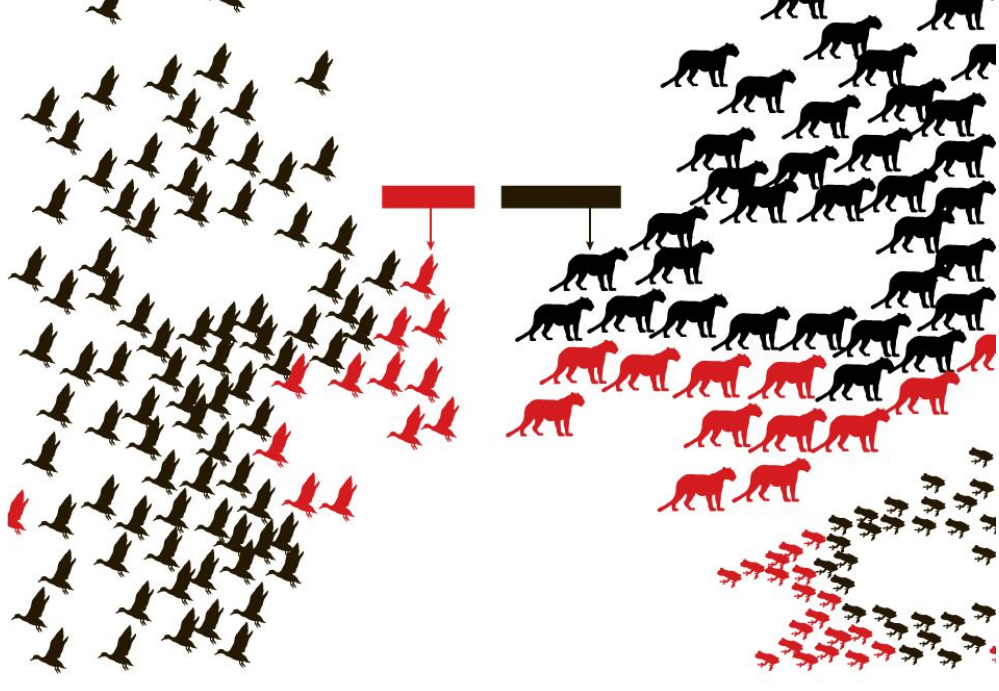
## Место городских местообитаний среди других вариантов “островного ландшафта”.

- 1 – лесные микрофрагменты в зоне лесостепи), 2 – участки старовозрастных еловых (2а), “старых мелколиственных” (2б), и широколиственных лесов (2в) в урбанизированных регионах,  
3 – “острова” природных территорий в структуре урбандошфта,  
4 – краевые популяции видов, переживших длительный период роста численности и быстрого расширения ареала,  
5а – фрагментация участков южнотаёжных лесов автодорожной сетью







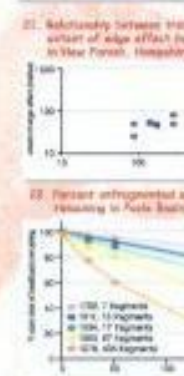
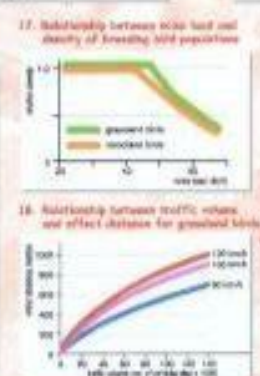
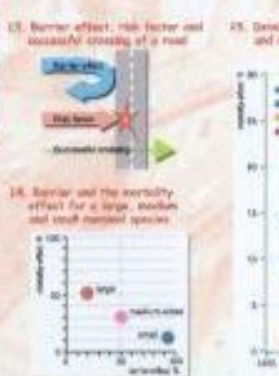
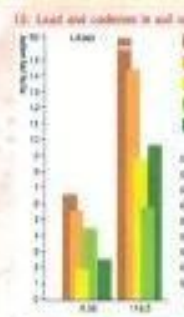
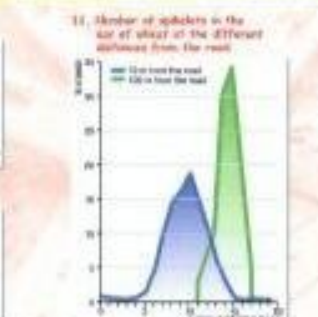
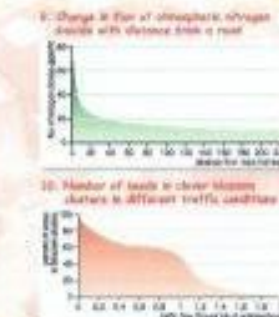
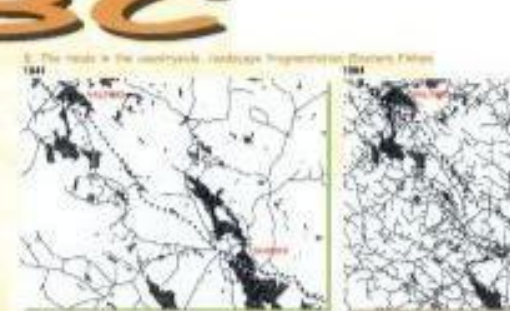
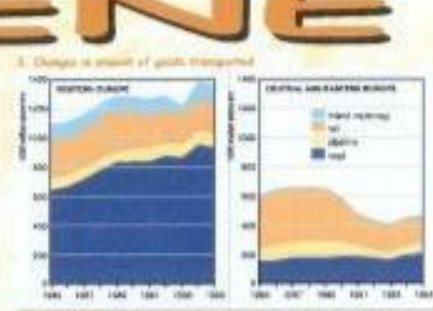
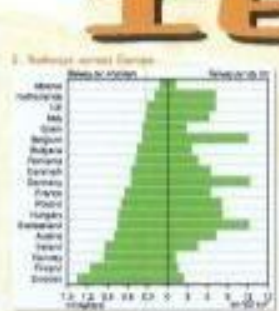
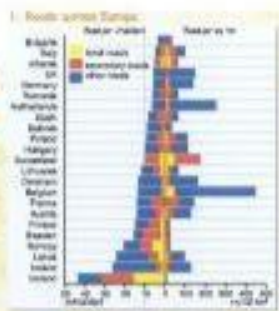


# IENE ABC

FACTS

PROBLEMS

SOLUTIONS



**24. Conditions affecting use of a passage**

Species group	General	Passage effects
Amphibians	Water needed in or at the entrance to the passage. Large water bodies with a suitable entrance passage will attract a higher number of animals. Shallow water is preferred.	Large water areas or embankments surrounding the passage. Steps or walls at the entrance to the passage.
Reptiles	Shade and cover are important. Suitable vegetation at the entrance.	Shade from sun or embankments surrounding the passage.
Small mammals	Shade from sun or embankments surrounding the passage. Large water areas or embankments surrounding the passage.	Walls at the entrance to the passage.
Large mammals	Large size. Good visibility of the path from the entrance.	Unobstructed path surface. Steps or walls at the entrance to the passage.
Carabid beetles	Shade from sun or embankments surrounding the passage. Large water areas or embankments surrounding the passage.	Walls surrounding the path surface.
Beaver	Large size. Good visibility of the path from the entrance.	Unobstructed path surface.
Ungulates	Large size. Good visibility of the path from the entrance. Suitable vegetation at the entrance.	Unobstructed path surface. Steps or walls at the entrance to the passage.

**25. The 100% principle**

- 100% of the project area is to be included in the assessment.
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**References on accordance with...**

... (References list) ...

The content of this publication is based on the results of the research project 'Effect of road traffic on biodiversity in agricultural landscapes' funded by the Danish Environmental Agency. The project was carried out by the Danish Environmental Agency and the Danish Environmental Research Institute (DMU).

# Fragmentation

## IMPACT ON THE ECOSYSTEMS

High level of fluctuating asymmetry of both leaves near the highway

High level of fluctuating asymmetry of leaflet morphology

High level of fluctuating asymmetry of leaflet morphology

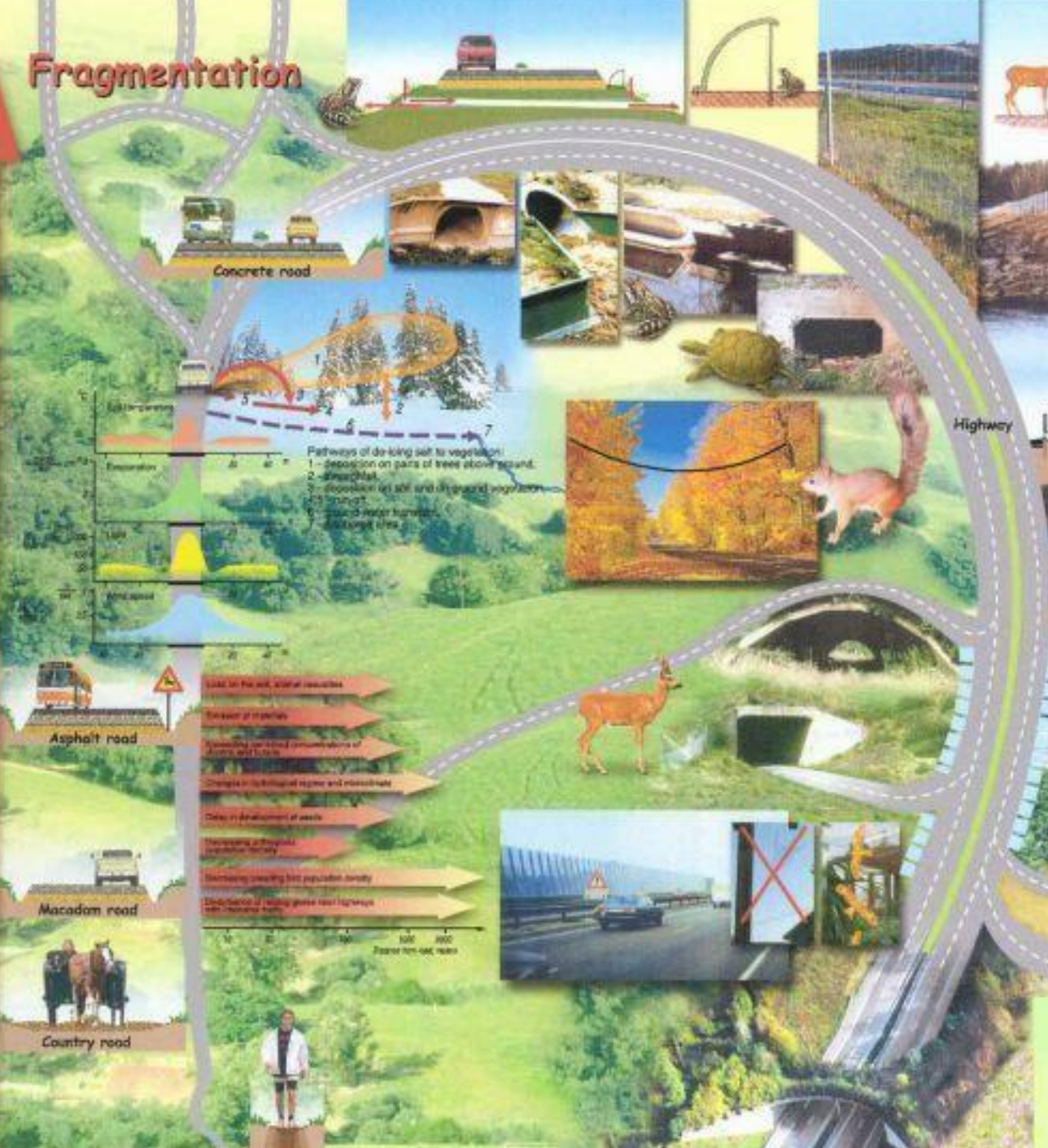
High level of fluctuating asymmetry of leaflet morphology

High level of fluctuating asymmetry of leaflet morphology

High level of fluctuating asymmetry of leaflet morphology

High level of fluctuating asymmetry of leaflet morphology

High level of fluctuating asymmetry of leaflet morphology



Concrete road

Asphalt road

Macadam road

Country road

- Loss of the soil, natural resources
- Exposure of materials
- Increased material concentrations of salts and acids
- Changes in hydrological regime and microclimate
- Delay in development of seeds
- Increasing of physical landscape heterogeneity
- Increasing existing bird population density
- Disruption of nesting places near highways

Pathways of de-lignin salt to vegetation:

- 1 - deposition on parts of trees above ground.
- 2 - throughfall.
- 3 - deposition of soil and on ground vegetation.
- 4 - through.
- 5 - through.
- 6 - ground-water transport.
- 7 - additional sites.

# Defragmentation

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