

















© lubomir hlasek









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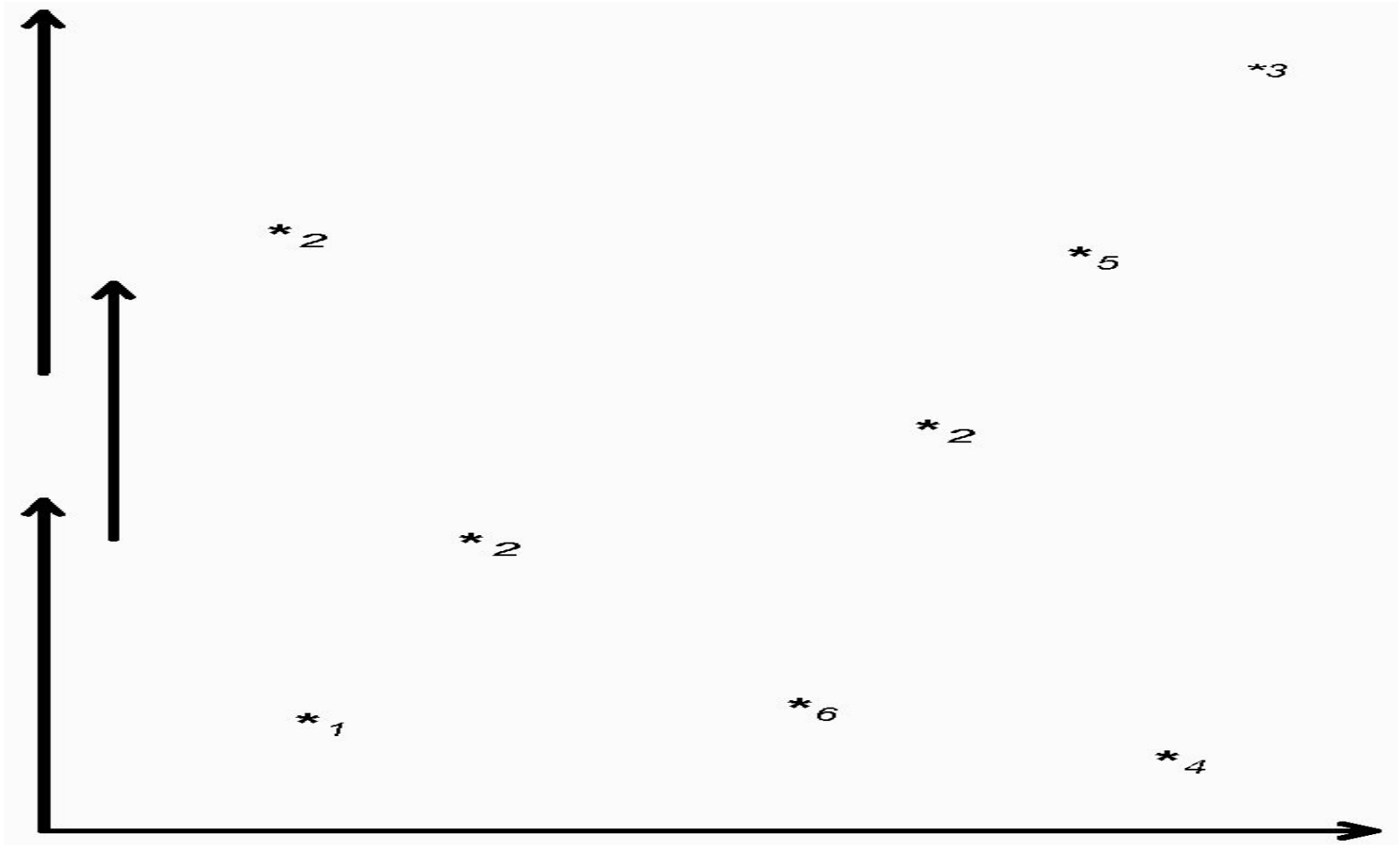


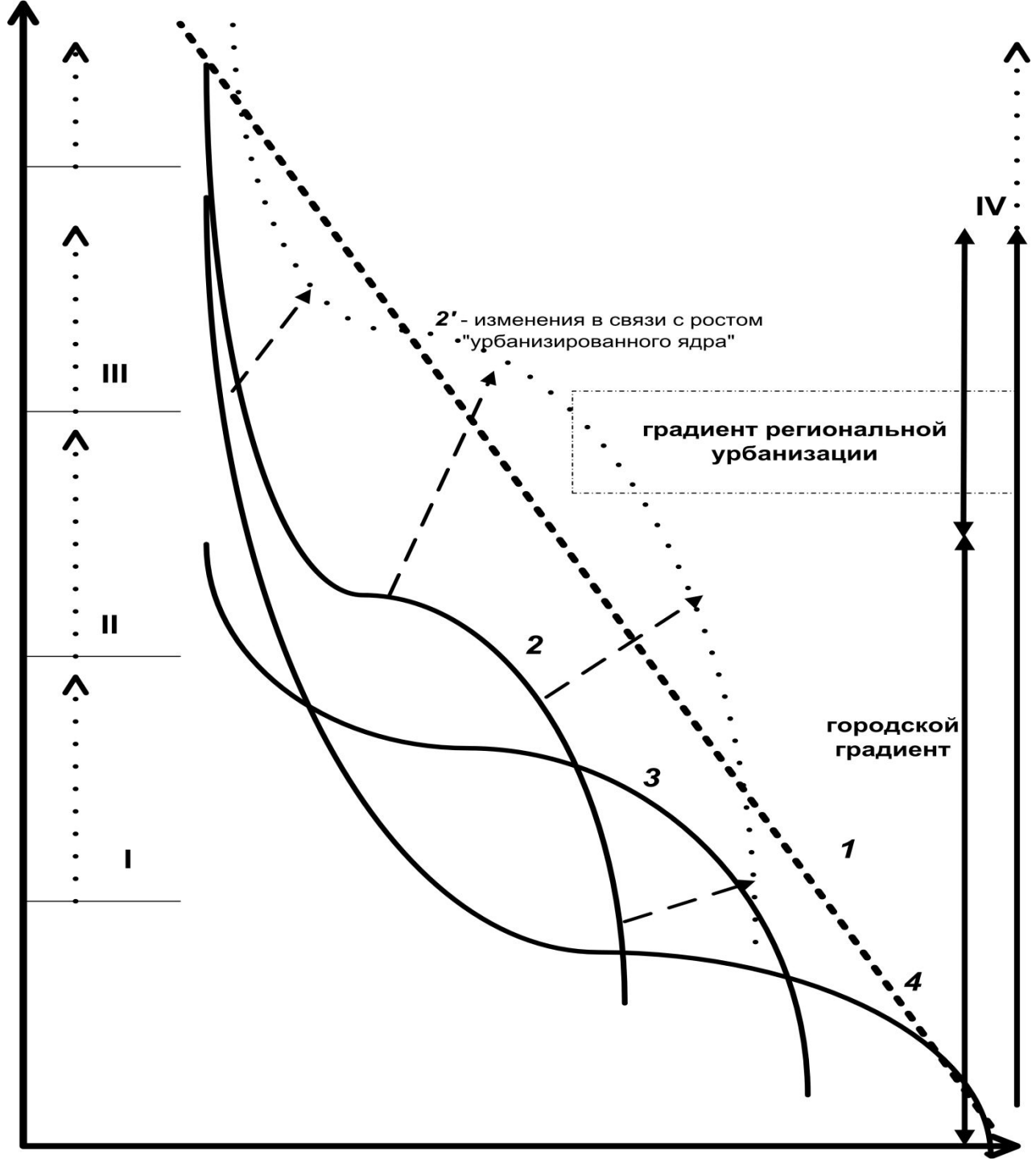




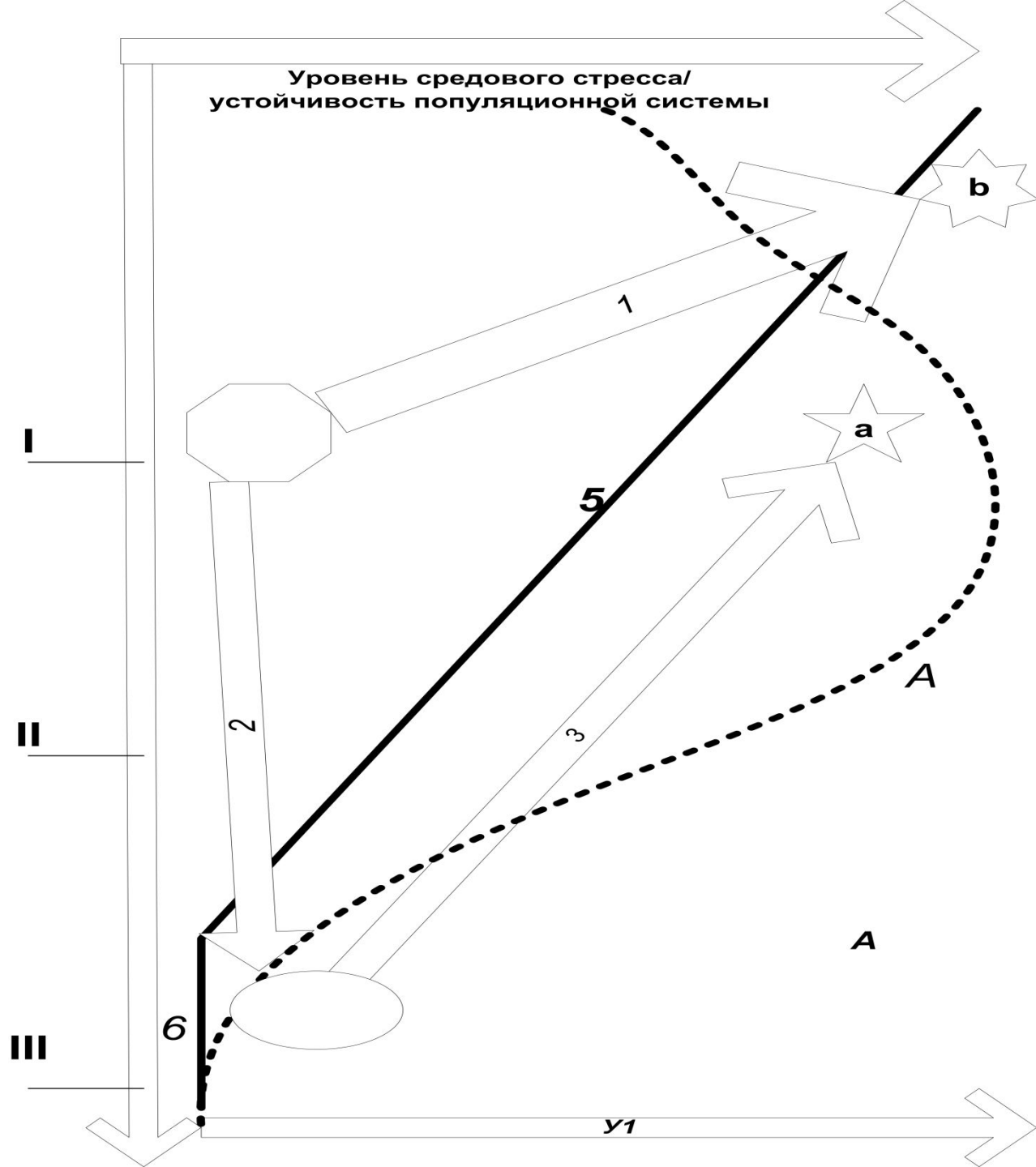
## Место городских местообитаний среди других вариантов “островного ландшафта”.

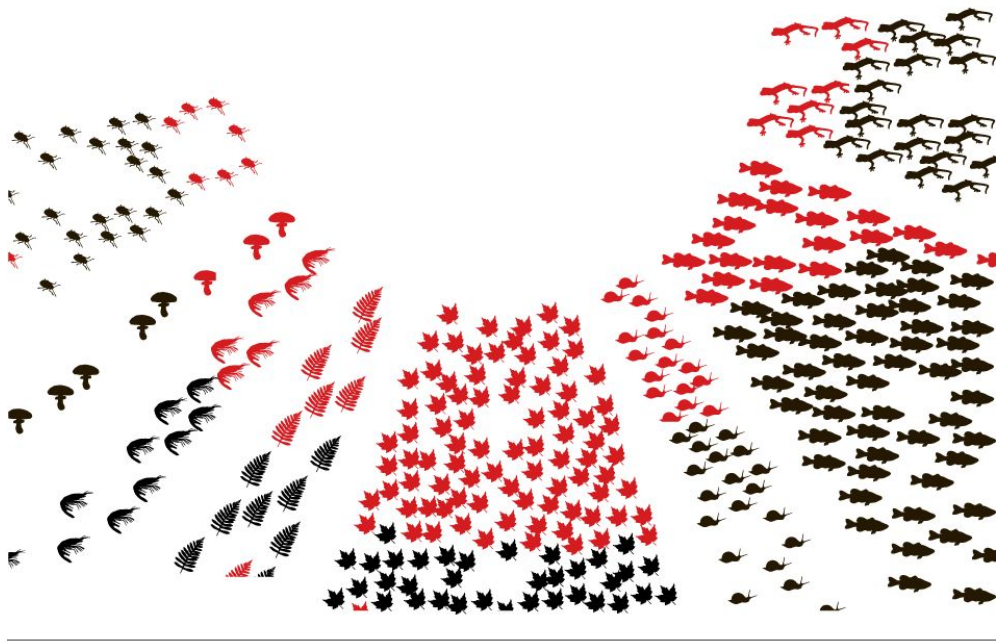
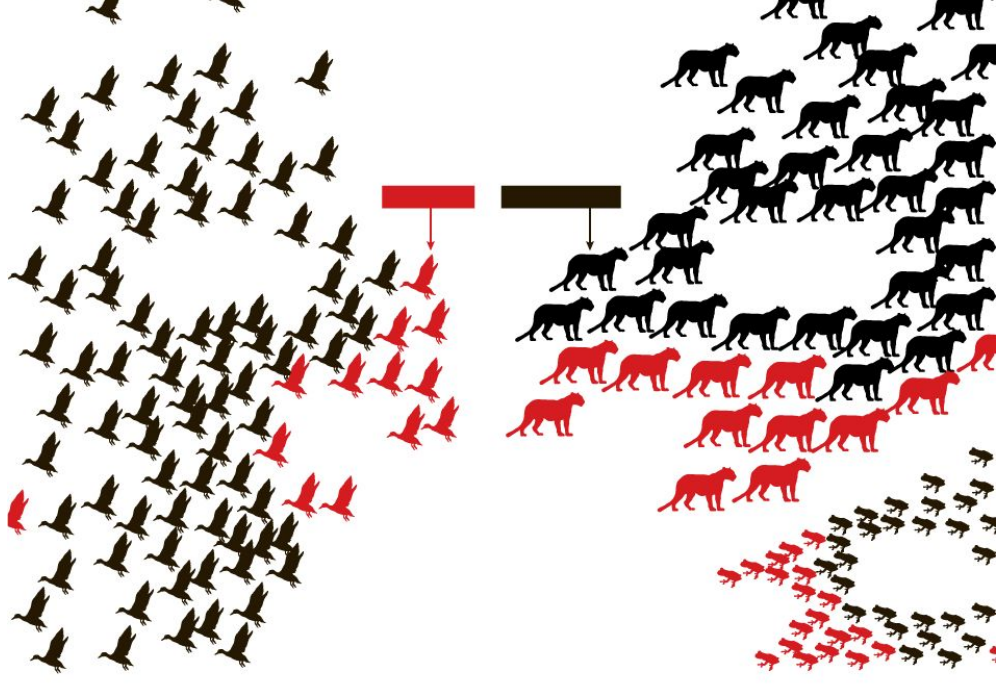
- 1 – лесные микрофрагменты в зоне лесостепи), 2 – участки старовозрастных еловых (2а), “старых мелколиственных” (2б), и широколиственных лесов (2в) в урбанизированных регионах,  
3 – “острова” природных территорий в структуре урбандошфта ,  
4 – краевые популяции видов, переживших длительный период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











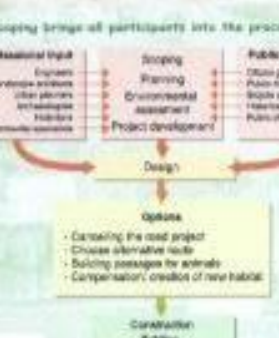
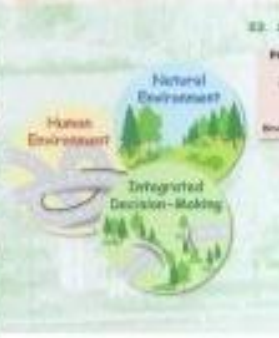
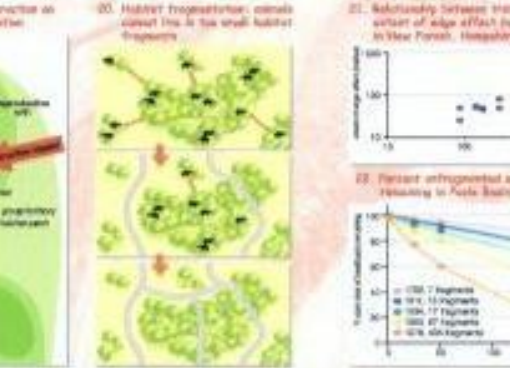
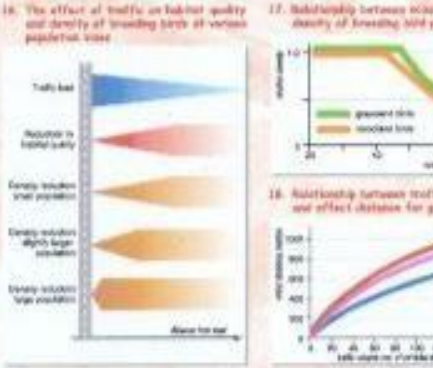
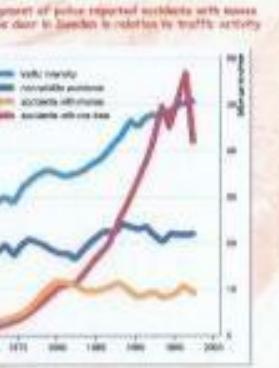
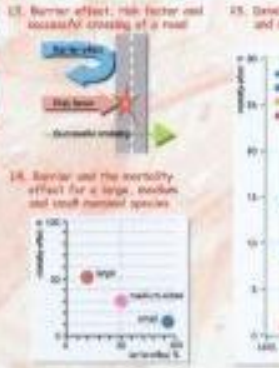
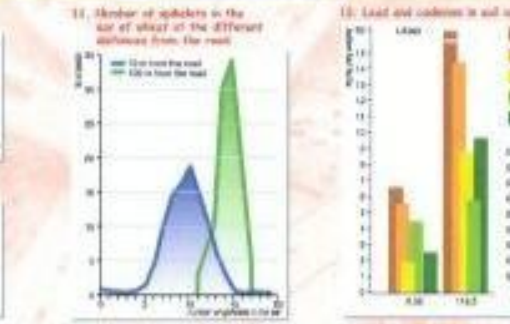
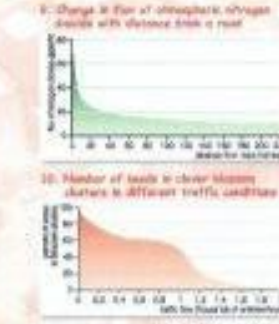
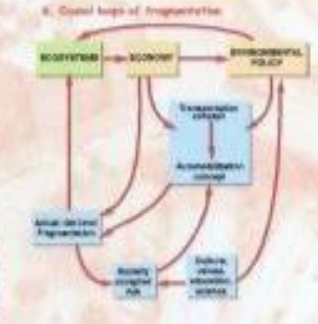
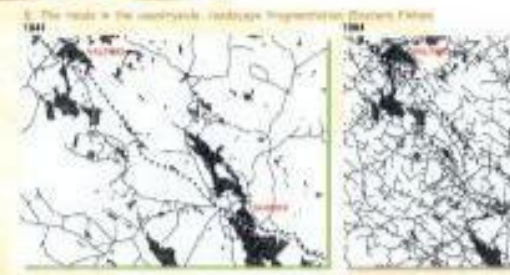
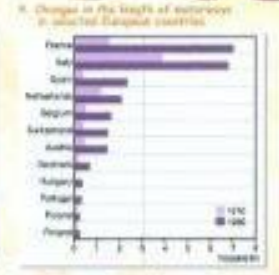
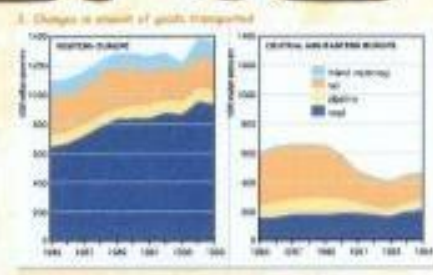
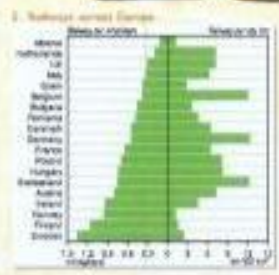
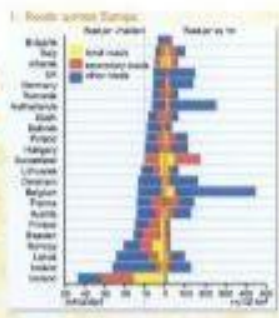


# IENE ABC

FACTS

PROBLEMS

SOLUTIONS



Species group	Effect	Notes
Amphibians	Water needed as part of the entrance to the passage	Large mammals are not attracted to the passage
Birds	Large mammals are not attracted to the passage	Large mammals are not attracted to the passage
Small mammals	Water needed as part of the entrance to the passage	Large mammals are not attracted to the passage
Large mammals	Large mammals are not attracted to the passage	Large mammals are not attracted to the passage
Carabid beetles	Water needed as part of the entrance to the passage	Large mammals are not attracted to the passage
Snails	Water needed as part of the entrance to the passage	Large mammals are not attracted to the passage
Ungulates	Large mammals are not attracted to the passage	Large mammals are not attracted to the passage



**References**

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# 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

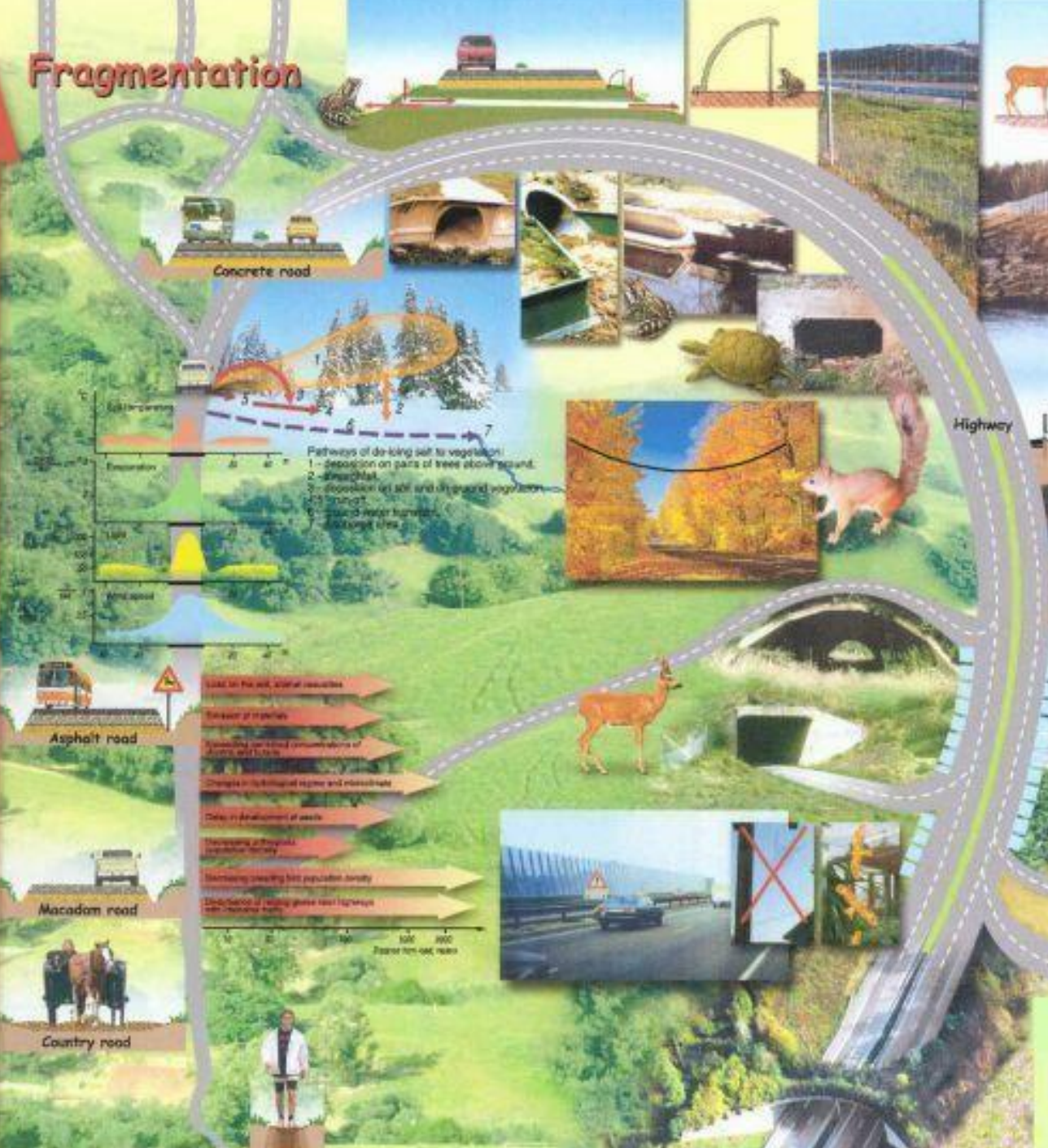
High level of fluctuating asymmetry of leaflet morphology

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 acids and toxins
- Changes in hydrological regime and microclimate
- Delay in development of seeds
- Increasing of physical landscape heterogeneity
- Increasing of vegetation fire population density
- Disruption of nesting places near highways

0 100 200 300  
Forest Semi-forest Road

Trail

Highway

# Defragmentation

www.iene.

