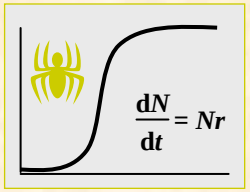


Population ecology of animals

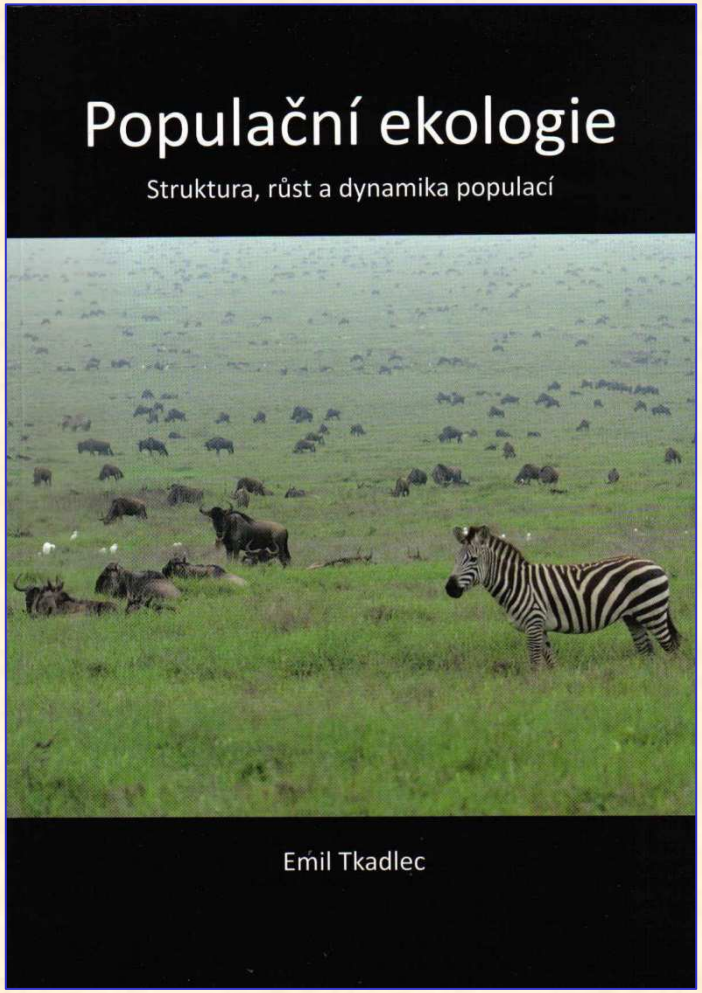
"Populační ekologie živočichů"

Stano Pekár

Content

- Population ecology (Resources, Conditions, Models)
- Population growth (Population censuses)
- Population structure (Stage/Age life-tables, k-factor analysis)
- Temperature models (Degree-days)
- Intraspecific competition (Harvesting, Allee effect)
- Spatial ecology (Distribution, Dispersal, Metapopulations)
- Interspecific competition (Mutualism)
- Predation (Functional and numerical responses)
- Predation models (Host-pathogen/parasite, Prey-predator, Host-parasitoid, Plant-herbivore)

Literature



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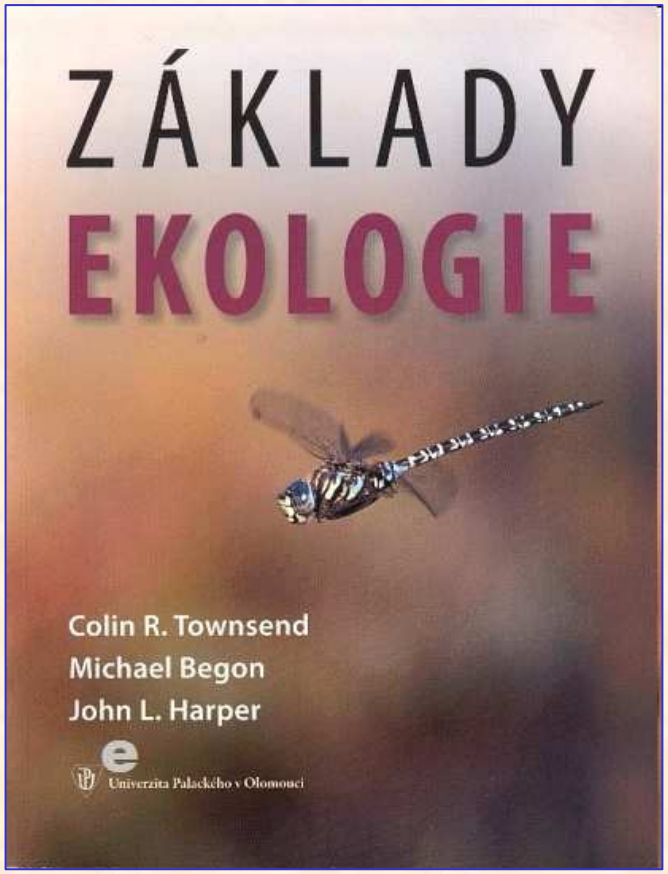
Literature



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Presentations

No.	Topics	Date
1.	Adaptation, fitness and phenotypic plasticity	29.9.
2.	Abundance and cycles	29.9.
3.	Evolution of sex, sex determination	6.10.
4.	Sex ratio	6.10.
5.	r- and K- selection	13.10.
6.	Geographic variability (temperature, physiological time)	13.10.
7.	Intraspecific competition	20.10.
8.	Management of endangered species	20.10.
9.	Regulation of pests, Sustainable harvesting	3.11.
10.	Cooperation, Allee effect	3.11.
11.	Dispersal and movement	10.11.
12.	Dormancy, navigation, and migration	10.11.
13.	Interspecific competition, competitive exclusion principle, apparent competition	24.11.
14.	Niche and coexistence (storage effect, heteromyopy, resource partitioning)	24.11.
15.	Amensalism, comensalism, mutualism	1.12.
16.	Defence against predators (crypsis, mimicry)	1.12.
17.	True predators, parasitoids, and host manipulation	
18.	Herbivores, Parasites and pathogens	

Projects

1. Demographic study – laboratory, *Tenebrio* beetles
2. Population growth – laboratory, *Acarus* mites
3. Trophic niche – field/laboratory, spiders
4. Spatial distribution – field (Hády), coccinellid beetles
5. Population size – field, *Porcelio* woodlice

Homework

Study chapters 1 & 2 and the description of a selected project

Pekár S. & Kintrová K. 2013. **Populační ekologie živočichů v příkladech**. MU Brno.