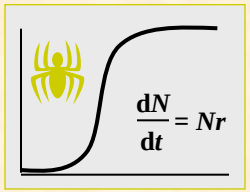



# Population Ecology of Animals

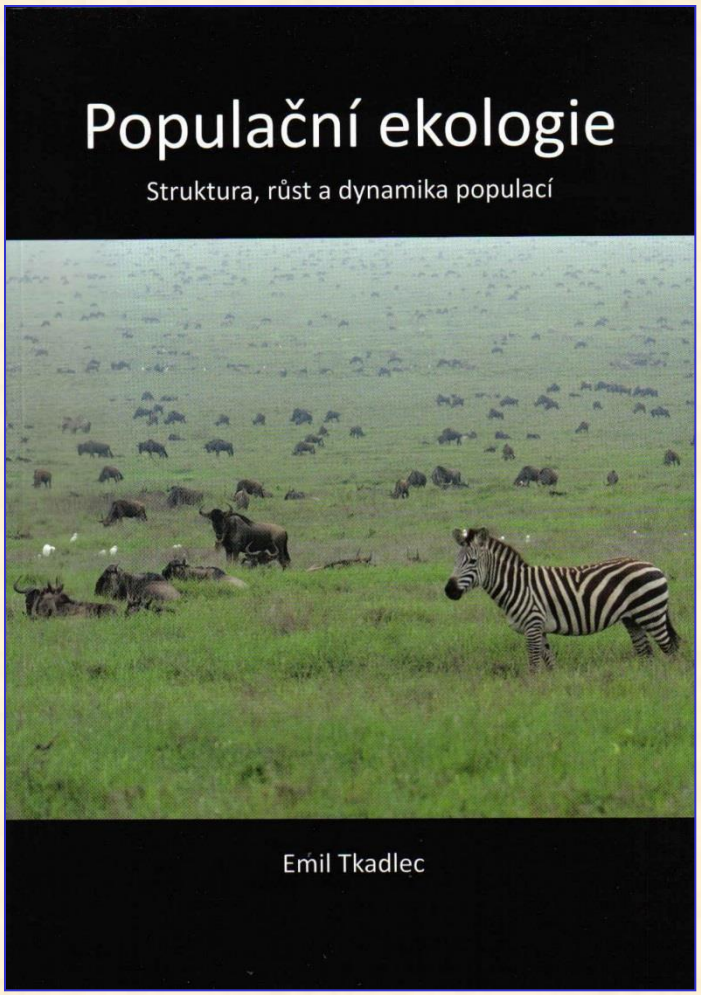
*"Populační ekologie živočichů"*

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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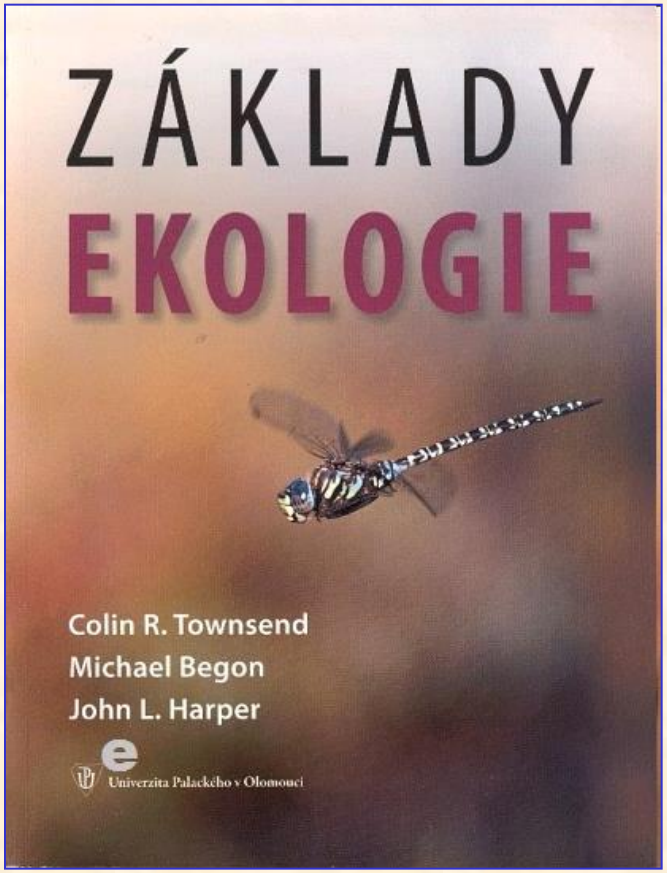
# Literature

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# Literature


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# Presentations

| No. | Topics | Date |
|---|---|---|
| 1.<br>2. | Adaptation, fitness, phenotypic plasticity, r/K selection<br>Abundance and cycles | 27.9. |
| 3. | Geographic variability (temperature, physiological time) | 4.10. |
| 4. | Intraspecific competition, Cooperation, Allee effect | 11.10. |
| 5. | Management of endangered species, Regulation of pests | 18.10. |
| 6. | Dispersal, movement, dormancy, navigation, and migration | 25.10. |
| 7. | Interspecific competition, competitive exclusion principle, apparent competition | 1.11. |
| 8. | Niche and coexistence (storage effect, heteromyopy, resource partitioning) | 8.11. |
| 9. | Amensalism, comensalism, mutualism | 15.11. |
| 10. | Defence against predators (crypsis, mimicry) | 22.11. |
| 11. | True predators, parasitoids, and host manipulation | 29.11. |
| 12. | Herbivores, Parasites and pathogens | 6.12. |

# Projects

1. Functional response – in the laboratory

# Projects

2. Demography – in the laboratory

# Projects

3. Population dynamics – in the laboratory

# Projects

4. Spatial distribution – in the field

# Homework

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


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