Extended outline Ecology 2 – Ecological Theory and Application – 2022

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| **Week** | **Date** | **Topic** | **Important points** |
| 1 | 25.4 | Course intro | Syllabus notes, how this course will work, getting started, course objectives, how exams will be populated, what is theory? How does it influence our daily lives? Introduce take home case study |
| 1 | 27.4 | HOLIDAY – KING’S DAY | |
| 1 | 29.4 | Competition | Discussion, case study |
| 2 | 2.5 | Facilitation | Introducing the Lotka Volterra competition model, going through the parameters, showing how to use it in R, practice in R with changing parameters |
| 2 | 4.5 | Facilitation | Facilitation – changing alpha in the models. The implication of facilitation for conservation. Recorded Guest Lecture – Sasha Wright |
| 2 | 6.5 | Facilitation | Field trip, facilitation in sandy soils |
| 3 | 9.5 | Environmental conditions | How the environment can change ecological dynamics. Changing resource levels and environmental conditions to the model – Duygu and Mariet |
| 3 | 11.5 | Environmental conditions | Introducing the case-study – Duygu and Mariet |
| 3 | 13.5 | Environmental conditions | Case study – Duygu and Mariet |
| 4 | 16.5 | Populations to meta-populations | Introducing the “meta” concept. Adding immigration and emigration to our models. Group activity on the implications of connected populations |
| 4 | 18.5 | Populations to meta-populations | Field trip – Oostvardersplassen |
| 4 | 20.5 | Populations to meta-populations | Case study analysis – consequences of connectivity |
| 5 | 23.5 | Communities to meta-communities | Differences between a population and a community. What does connection mean for a community? |
| 5 | 25.5 | Communities to meta-communities | Guest lecture – Merel (or Emma), applying meta-community theory to restoration  Restoration activity – if you build it, they will come, mid-course evaluation |
| 5 | 27.5 | HOLIDAY – Ascension Day | |
| 6 | 30.5 | Scaling up | Comparing climate models with the models we’ve worked with. Climate model activity |
| 6 | 2.6 | Scaling up | Panel discussion from theory to policy, student reflection |
| 6 | 4.6 | Scaling up | Connecting to biodiversity, looking in our own back yards |
| 7 | 6.6 | HOLIDAY – Pinksterdag (whatever this is) | |
| 7 | 8.6 | Project | Introducing the project, group discussions on questions, making research plan |
| 7 | 10.6 | Project | Data collection |
| 8 | 13.6 | Project | Data collection |
| 8 | 15.6 | Project | Intro to data analysis with R, data analysis |
| 8 | 17.6 | Project | Developing science communication about findings |
| 9 | 20.6 | Project | Peer review |
| 9 | 22.6 | Project | Revise |
| 9 | 24.6 | Projects | Present |
| 10 | 27.6 | Exam | Exam review – bring all your questions |
| 10 | 29.6 | Exam | Study day! |
| 10 | 1.7 | Exam | Final exam |