1. Record Nr. UNINA9910458491303321

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| Titolo | Dynamic food webs [[electronic resource] ] : multispecies assemblages, ecosystem development, and environmental change / / [editors], Peter de Ruiter, Volkmar Wolters, John C. Moore |
| Pubbl/distr/stampa | Amsterdam ; ; Boston, : Academic Press, c2005 |
| ISBN | 1-280-63326-3<br>9786610633265<br>0-08-046094-1 |
| Descrizione fisica | 1 online resource (616 p.) |
| Collana | Theoretical ecology series |
| Altri autori (Persone) | De RuiterPeter Cornelis <1952-><br>WoltersVolkmar<br>MooreJohn C (John Christopher) |
| Disciplina | 577.16 |
| Soggetti | Food chains (Ecology)<br>Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references (p. 471-540) and index. |
| Nota di contenuto | front cover; copyright; table of contents; front matter; Contributors; body; 1.0 \| TRIBUTE; 1.1 \| DYNAMIC FOOD WEBS; 1.2 \| FOOD WEB SCIENCE: MOVING ON THE PATH FROM ABSTRACTION TO PREDICTION; 2.0 \| VARIATIONS IN COMMUNITY ARCHITECTURE AS STABILIZING MECHANISMS OF FOOD WEBS; 2.1 \| FROM FOOD WEBS TO ECOLOGICAL NETWORKS: LINKING NON-LINEAR TROPHIC INTERACTIONS WITH NUTRIENT COMPETITION; 2.2 \| FOOD WEB ARCHITECTURE AND ITS EFFECTS ON CONSUMER RESOURCE OSCILLATIONS IN EXPERIMENTAL POND ECOSYSTEMS; 2.3 \| FOOD WEB STRUCTURE: FROM SCALE INVARIANCE TO SCALE DEPENDENCE, AND BACK AGAIN? 2.4 \| THE ROLE OF SPACE, TIME, AND VARIABILITY IN FOOD WEB DYNAMICS 3.0 \| POPULATION DYNAMICS AND FOOD WEBS: DRIFTING AWAY FROM THE LOTKA-VOLTERRA PARADIGM; 3.1 \| MODELLING EVOLVING FOOD WEBS; 3.2 \| THE INFLUENCE OF INDIVIDUAL GROWTH AND DEVELOPMENT ON THE STRUCTURE OF ECOLOGICAL COMMUNITIES; 3.3 \| LINKING FLEXIBLE FOOD WEB STRUCTURE TO POPULATION STABILITY: A THEORETICAL CONSIDERATION ON |

ADAPTIVE FOOD WEBS; 3.4 | INDUCIBLE DEFENSES IN FOOD WEBS; 4.0 | WEARING ELTON'S WELLINGTONS: WHY BODY SIZE STILL MATTERS IN FOOD WEBS
4.1 | SPECIES' AVERAGE BODY MASS AND NUMERICAL ABUNDANCE IN A COMMUNITY FOOD WEB: STATISTICAL QUESTIONS IN ESTIMATING THE RELATIONSHIP 4.2 | BODY SIZE SCALINGS AND THE DYNAMICS OF ECOLOGICAL SYSTEMS; 4.3 | BODY SIZE, INTERACTION STRENGTH, AND FOOD WEB DYNAMICS; 4.4 | BODY SIZE DETERMINANTS OF THE STRUCTURE AND DYNAMICS OF ECOLOGICAL NETWORKS: SCALING FROM THE INDIVIDUAL TO THE ECOSYSTEM; 5.0 | UNDERSTANDING THE MUTUAL RELATIONSHIPS BETWEEN THE DYNAMICS OF FOOD WEBS, RESOURCES, AND NUTRIENTS; 5.1 | VARIABILITY IN SOIL FOOD WEB STRUCTURE ACROSS TIME AND SPACE
5.2 | FUNCTIONAL ROLES OF LEAF LITTER DETRITUS IN TERRESTRIAL FOOD WEBS 5.3 | STABILITY AND INTERACTION STRENGTH WITHIN SOIL FOOD WEBS OF A EUROPEAN FOREST TRANSECT: THE IMPACT OF N DEPOSITION; 5.4 | DIFFERENTIAL EFFECTS OF CONSUMERS ON C, N, AND P DYNAMICS: INSIGHTS FROM LONG-TERM RESEARCH; 5.5 | MEASURING THE ABILITY OF FOOD TO FUEL WORK IN ECOSYSTEMS; 5.6 | TOWARDS A NEW GENERATION OF DYNAMICAL SOIL DECOMPOSER FOOD WEB MODELS; 6.0 | FOOD WEBS, BIODIVERSITY, AND ECOSYSTEM FUNCTIONING; 6.1 | FOOD WEBS AND THE RELATIONSHIP BETWEEN BIODIVERSITY AND ECOSYSTEM FUNCTIONING
6.2 | BIODIVERSITY, FOOD WEB STRUCTURE, AND THE PARTITIONING OF BIOMASS WITHIN AND AMONG TROPHIC LEVELS 6.3 | TROPHIC POSITION, BIOTIC CONTEXT, AND ABIOTIC FACTORS DETERMINE SPECIES CONTRIBUTIONS TO ECOSYSTEM FUNCTIONING; 6.4 | DOES BIOLOGICAL COMPLEXITY RELATE TO FUNCTIONAL ATTRIBUTES OF SOIL FOOD WEBS?; 6.5 | DIVERSITY, PRODUCTIVITY, AND INVASIBILITY RELATIONSHIPS IN ROCK POOL FOOD WEBS; 6.6 | MEASURING THE FUNCTIONAL DIVERSITY OF FOOD WEBS; 7.0 | TRACING PERTURBATION EFFECTS IN FOOD WEBS: THE POTENTIAL AND LIMITATION OF EXPERIMENTAL APPROACHES
7.1 | INSIGHT INTO POLLUTION EFFECTS IN COMPLEX RIVERINE HABITATS: A ROLE FOR FOOD WEB EXPERIMENTS

Sommario/riassunto

Dynamic Food Webs challenges us to rethink what factors may determine ecological and evolutionary pathways of food web development. It touches upon the intriguing idea that trophic interactions drive patterns and dynamics at different levels of biological organization: dynamics in species composition, dynamics in population life-history parameters and abundances, and dynamics in individual growth, size and behavior. These dynamics are shown to be strongly interrelated governing food web structure and stability and the role of populations and communities play in ecosystem functioning.