

Contents

1	Fire Ecology and Insect Ecology	1
1.1	Introduction: A Perspective of Fires	1
1.2	Fire Regimes	4
1.3	Pyromes	7
1.4	Plant Responses to Fire	8
1.5	Mosaics	10
1.6	Refuges	15
1.7	Habitat	18
1.8	Integration	19
2	Insect Responses to Fires	21
2.1	Introduction	21
2.2	Impacts and Responses	23
2.3	Pyrophilous Insects	31
2.4	Recovery from Fire	35
2.5	The Variety of Studies	38
2.6	Interpreting the Outcomes	43
2.7	Focal Groups	50
3	Sampling and Study Techniques	59
3.1	Introduction	59
3.2	Methods	63
3.3	Problems with Rare Species	67
4	Ecological Impacts of Fire on Insects	71
4.1	Introduction	71
4.2	Gradients in Herbivory	75
4.3	Plant Vigour	75
4.4	Interpreting Change	78
4.5	Impacts on Freshwater Insects	80
4.6	Climate and Scale	85
4.7	Opportunism: Learning from Accidents	90

5	Fires and Insect Pest Management	95
5.1	Introduction	95
5.2	Forest Pests	97
5.3	Rangeland Pests	102
5.4	Saproxylic Insects	104
5.5	Invasive Ants	108
6	Fire in Threatened Species Conservation Management	111
6.1	Introduction	111
6.2	General Lessons from Examples	112
6.3	Species: Some Cases	115
7	Fire and Insect Assemblages	127
7.1	Introduction	127
7.2	Representative Assemblages	127
7.3	Changes and Comparisons	130
8	Fire as a Management Component	147
8.1	Introduction	147
8.2	Fire in Wider Management	149
8.3	Untangling Effects	157
8.4	Fire Retardants	161
8.5	Fire Suppression	162
9	Prospects	165
9.1	Introduction	165
9.2	Natural Disturbance?	167
9.3	Prospects for Protocols	178
	References	183
	Index	201



<http://www.springer.com/978-3-319-08095-6>

Insects, Fire and Conservation

New, T.R.

2014, XII, 208 p. 48 illus., Hardcover

ISBN: 978-3-319-08095-6