

2684-3319

Differentiation Patterns in Higher Plants

edited by

KRYSTYNA M. URBANSKA

*Geobotanical Department
Swiss Federal Institute of Technology
Zurich, Switzerland*

1987



ACADEMIC PRESS

Harcourt Brace Jovanovich, Publishers
London • Orlando • San Diego • New York
Austin • Boston • Sydney • Tokyo • Toronto

Contents

Contributors	v
Foreword	vii
Preface	ix

Part I Introduction

Introductory remarks <i>Krystyna M. Urbanska</i>	3
---	---

Part II Differentiation Levels

1 Genome differentiation in higher plants <i>William F. Grant</i>	9
2 Pollen differentiation patterns and male function <i>R. Bruce Knox</i>	33
3 Gene flow and distribution of genetic variation in plant populations <i>James L. Hamrick</i>	53
4 Ecological variation and the maintenance of plant diversity <i>Fakhri A. Bazzaz and Sonia E. Sultan</i>	69
5 Complex patterns of genetic differentiation and phenotypic plasticity versus an outmoded ecotype terminology <i>James A. Quinn</i>	95
6 Hybridization and the plant species <i>Clive A. Stace</i>	115

Part III Differentiation in Diverse Biological Systems

7	Genetic structure and diversity patterns in adjacent populations: <i>Arrhenatherum elatius</i> (L.) Beauv. <i>Philippe Vernet, Alexis Ducoussو, Daniel Petit and Myriam Valero</i>	131
8	Demographic differentiation and life-history evolution in temperate woodland plants <i>Schoichi Kawano, Takenori Takada, Shuichi Nakayama and Akira Hiratsuka</i>	153
9	Plant evolution and speciation on oceanic islands <i>Daniel J. Crawford, Richard Witkus and Tod F. Stuessy</i>	183
10	Eco-geographical differentiation in some aquatic plants: the Lemnaceae <i>Elias Landolt</i>	201
11	Vegetative growth and genetic mobility in some aquatic weeds <i>Christopher D. K. Cook</i>	217
12	Differentiation trends in tropical woody Angiosperms <i>Friedrich Ehrendorfer</i>	227
13	Breeding systems in the vascular flora of Arctic North America <i>David F. Murray</i>	239
	Index	263