

CONTENTS

| | | |
|-----------|---|----------------|
| 1 | Introduction to Plant DNA Barcoding | 1-14 |
| | M.A. Ali, A.K. Pandey, G. Gyulai, S.H. Park, C. Lee, S.Y. Kim and J. Lee | |
| 2 | Molecular Markers for Plant DNA barcoding | 15-36 |
| | M.R. Enan | |
| 3 | Nuclear Sequences in Plant Phylogenetics | 37-52 |
| | M.A. Ali, A.K. Pandey, F.M.A. Al-Hemaid, J. Lee, B. Pandit, S.Y. Kim , G. Gyulai and M.O. Rahman | |
| 4 | Nuclear and Organelle Specific PCR Markers | 53-78 |
| | A.M. Alzohairy, G. Gyulai, H. Ohm, Z. Szabó, S.M. Ragheb, M.A. Ali, H. Elsayw and A. Bahieldin | |
| 5 | Maturase K Gene in Plant DNA Barcoding and Phylogenetics | 79-90 |
| | P. Kar, A. Goyal and A. Sen | |
| 6 | Retrotransposon-Based Plant DNA Barcoding | 91-106 |
| | A.M. Alzohairy, G. Gyulai, M.M. Mostafa, S. Edris, J.S.M. Sabir, R.K. Jansen, Z. Tóth and A. Bahieldin | |
| 7 | Isoenzymes as Molecular Markers | 107-120 |
| | G. Jahnke | |
| 8 | Applications of Plant DNA barcoding | 121-142 |
| | M.A. Ali, G. Gyulai, A.K. Pandey, A. Arshi and S.K. Pandey | |
| 9 | Thermocycling in Systematics | 143-154 |
| | A. Alam | |
| 10 | DNA Sequencing | 155-170 |
| | A. Alam | |

- 11 **Plant DNA Barcoding and Molecular Phylogeny** 171-200
M.A. Ali, A.K. Pandey, G. Gyulai, J. Lee and
F.M.A. Al-Hemaid
- 12 **Plant DNA Barcoding Methodology: DNA Extraction
- Sequencing** 201-216
H.A. Khan, A.S. Alhomida, S. Alrokayan, M.S. Ola and
M. Rusop
- 13 ***In Silico* Approach for Phylogenetic Analysis** 217-226
A. Bhattacharjee
- 14 **Life History Barcoding of *Daucus carota*** 227-240
O. Toldi, S. Sorvari, K. Tóth-Lencsés, L. Kovács,
A. Kerekes, Á. Mendel, Zs. Tóth and G. Gyulai
- 15 **Cloning and Microsatellite Barcoding of Black
Locust** 241-254
G. Gyulai, T. Demku and L. Waters Jr
- 16 **Genetic Diversity Assessment of *Caralluma
adscendens*** 255-267
M.R. Naik, Y.L. Krishnamurthy and S. Karuppusamy
- 17 **Barcoding of Transgenes in GM Plants** 269-278
A. Bittsánszky, G. Gyulai, R.P. Malone, I. Bock,
L.Y. Murenets, M. Czakó, T. Kömives and
H. Rennenberg
- 18 **Molecular Barcoding of Sex-Linked DNA Markers of
Dioecious Plants** 279-298
G. Gyulai, B. Kerti and M.A. Ali
