

TABLE OF CONTENTS

Preface	
ALEC M. PRIDGEON	IX
Acknowledgments	X
Molecular phylogenetics of <i>Mormolyca</i> (Orchidaceae: Maxillariinae) based on combined molecular data sets	
RAFAEL ARÉVALO and KENNETH M. CAMERON	1
Orchids without borders: studying the hotspot of Costa Rica and Panama	
DIEGO BOGARÍN, FRANCO PUPULIN, CLOTILDE ARROCHA and JORGE WARNER	13
Conservation status and strategies for the preservation of orchids in the Soconusco region of southeast Mexico	
ANNE DAMON	27
Orchids and eMonocot – assembling research resources and facilitating collaborative taxonomy online	
LAUREN M. GARDINER, RUTH BONE and NIAMH M. KILGALLEN	33
La pesadilla de Lindley — la biología sexual de <i>Catasetum</i> y <i>Cycnoches</i>	
GÜNTER GERLACH	39
Long-term hurricane effects on populations of two epiphytic orchid species from Guanahacabibes Peninsula, Cuba	
ERNESTO MÚJICA, JOSEP RAVENTÓS, ELAINE GONZÁLEZ and ANDREU BONET	47
Tropical orchid mycorrhizae: potential application in tropical orchid conservation, commercialization, and beyond	
JOEL TUPAC OTERO, ANA TERESA MOSQUERA and NICOLA S. FLANAGAN	57
Pollination of slipper orchids (Cypripedioideae): a review	
ROBERT W. PEMBERTON	65
Toward a global orchid taxonomic network	
FRANCO PUPULIN	75
Orchid conservation: the next ten years	
PHILIP T. SEATON, HUGH W. PRITCHARD, D. M. PUSPITANINGTYAS and T. R. MARKS	93
Diversidad de orquídeas de las diferentes formaciones vegetales de los Andes Peruanos	
DELSY TRUJILLO	103

continues

SEM and phylogenetic analysis of naturalized and cultivated *Epidendrum* in Hawaii

INGELIA P. WHITE, MICHAEL F. FAY, BRAD W. PORTER and KIMBERLEY CHINEN 113

***Tulasnella irregularis* (Basidiomycota: Tulasnellaceae) from roots of *Encyclia tampensis* (Lindl.) Small in south Florida, and confirmation of its mycorrhizal significance through symbiotic seed germination**

LAWRENCE W. ZETTLER, LAURA L. COREY, ALISHIA L. JACKS, LUKE T. GRUENDER and ALYSSA M. LOPEZ 119

POSTERS

SYSTEMATICS

Diversidad y filogenia de *Lepanthes* en Puerto Rico: ¿especiación o inmigración?

PAUL BAYMAN GUPTA 131

Development of a novel gene silencing method for orchids

R. FRAZER, A. SCHULTE, B. POMAHACOVA, R. VAN VUGT and B. GRAVENDEEL 131

Diversidad de orquídeas de los bosques altos de la Serranía de los Paraguas, Chocó Biogeográfico, Colombia

DUVAN A. GARCÍA-RAMÍREZ and J. SANTIAGO GARCÍA-REVELO 132

Taxonomy, molecular phylogenetics, reproductive isolation, and niche differentiation of the *Specklinia endotrachys* species complex (Orchidaceae: Pleurothallidinae)

ADAM P. KARREMANS, FRANCO PUPULIN and BARBARA GRAVENDEEL 132

Morphological and phylogenetic characterization of the diversity of the genus *Vanilla* in the Colombian Pacific region

FRANCISCO HERNANDO MOLINEROS-HURTADO, R. T. GONZÁLEZ-MINA, J. T. OTERO and N. S. FLANAGAN 133

Evolución de rasgos florales y vegetativos en el género *Gavilea* (Orchidaceae)

MARÍA ISABEL MUJICA and FERNANDA PÉREZ 133

Atlas of orchids of the state of Santa Catarina

MARCELO VIEIRA NASCIMENTO 134

Orchidaceae of Campeche Island, Florianópolis, Santa Catarina

MARCELO VIEIRA NASCIMENTO 134

TABLE OF CONTENTS

<i>Cattleya labiata</i> Lindl. and its varieties - a reflection	
MARCELO VIEIRA NASCIMENTO	135
Novelties in Orchidaceae for the Colombian flora	
OSCAR ALEJANDRO PÉREZ-ESCOBAR, PEDRO ORTIZ VALDIVIESO, EDICSON PARRA-SÁNCHEZ, CRISTIAN RINCÓN-USECHE and LIZETH KATHERINE RODRÍGUEZ	135
Anotaciones sobre la composición de la comunidad de orquídeas en la Reserva Natural Bosque de Yotoco (Valle del Cauca, Colombia)	
NHORA HELENA OSPINA-CALDERÓN, GINA ARROYO-GARCÍA and J. TUPAC OTERO	136
Checklist and illustrated guide to the Cauca River Valley's orchids and the Andean foothills (southwestern Colombia)	
G. A. REINA-RODRÍGUEZ, N. H. OSPINA-CALDERÓN, ALEJANDRO CASTAÑO, IGNASI SORIANO and J. TUPAC OTERO	136
The orchid flora of Chorogo Wildlife Reserve, Puerto Armuelles, Chiriquí, Panamá	
ZULEIKA SERRACÍN-HERNÁNDEZ, RAFAEL RINCÓN, EYVAR RODRÍGUEZ-QUIEL and DIEGO BOGARÍN	137
What delimitation for <i>Stelis</i> should be used?	
RODOLFO SOLANO and GERARDO SALAZAR	137
A newly recognized clade of <i>Pleurothallis</i> with Mesoamerican distribution	
M. WILSON, F. PUPULIN, F. L. ARCHILA-MORALES, A. DAMON and R. SOLANO-GOMEZ	138
A preliminary phylogenetic analysis of <i>Pleurothallis sensu lato</i> based upon nuclear and plastid sequences	
M. WILSON, C. BELLE, A. DANG, P. HANNAN, L. KELLOGG, C. KENYON, H. LOW, A. MOCHIZUKI, A. NGUYEN, N. SHEADE, L. SHAN, A. SHUM, T. STAYTON, C. VOLZ, B. VOSBURGH, H. WELLMAN and M. WOOLLEY	139
<i>ECOLOGY</i>	
Patrones de distribución vertical y horizontal de la epífita endémica <i>Prosthechea</i> aff. <i>karwinskii</i> (Orchidaceae) en Michoacán, México	
LAURA L. CEDILLO, CARLOS GÓMEZ-ALONSO and IRENE ÁVILA-DÍAZ	140
Horizontal and vertical distributional patterns of epiphytic Orchidaceae in a cloud forest in Colombia	
MARCELA CUARTAS-DOMÍNGUEZ	140

Reproductive biology of <i>Masdevallia coccinea</i> and <i>Masdevallia ignea</i> in Guasca (Cundinamarca: Colombia) MÓNICA ADRIANA CUERVO MARTÍNEZ, RODRIGO BUSTOS SINGER and MARIA ARGENIS GÓMEZ BONILLA	141
Identificación de bacterias endófitas asociadas a raíces de <i>Cattleya quadricolor</i> Lindl. LUZ ÁNGELA GUERRERO, JISSEL PÉREZ-QUIROGA, MARÍA ALEJANDRA QUINTERO, ALBERTO ROJAS-TRIVIÑO & J. TUPAC OTERO	141
Mycorrhizal and endophytic fungal communities associated with roots of <i>Pseudorchis albida</i> (Orchidaceae) PETR KOHOUT, TAMARA MALINOVÁ, MELANIE ROY, MARTIN VOHNÍK and JANA JERSÁKOVÁ	142
The genus <i>Neottia</i>, an early step in shift from autotrophy to mycoheterotrophy in orchids? TAMARA MALINOVÁ, MILAN KOTILÍNEK, JANA JERSÁKOVÁ, FRANCOIS-XAVIER JOLY and MARC-ANDRÉ SELOSSE	143
Endophytic fungi associated with natural populations of <i>Vanilla</i> species in south-west Colombia ANA TERESA MOSQUERA-ESPINOSA, J. TUPAC OTERO and NICOLA S. FLANAGAN	143
Hongos micorrízicos de orquídeas en poblaciones naturales en los departamentos del Valle del Cauca y Antioquia, Colombia ANA TERESA MOSQUERA-ESPINOSA, PAUL BAYMAN and J. TUPAC OTERO	144
Selección de rasgos florales en <i>Rodriguezia granadensis</i> (Lindl.) Rchb.f. (Orchidaceae): estudio de la eficacia biológica en una especie polimórfica NHORA HELENA OSPINA-CALDERÓN, J. TUPAC OTERO and R. L. TREMBLAY	144
Distribution patterns of <i>Cuitlauzina pendula</i> La Llave & Lex (Orchidaceae) over its phorophytes at the ‘Barranca de Cupatitzio’ National Park, in Uruapan, Michoacán, México VERÓNICA A. PÉREZ-DECELIS, CARLOS GÓMEZ-ALONSO and IRENE ÁVILA-DÍAZ	145
Mating system and reproductive success of <i>Cuitlauzina pendula</i> La Llave & Lex (Orchidaceae) at the National Park ‘Barranca del Cupatitzio’ of Uruapan, Michoacán, México VERÓNICA A. PÉREZ-DECELIS and IRENE ÁVILA-DÍAZ	146

TABLE OF CONTENTS

Identificación de bacterias endófitas asociadas a raíces de <i>Vanilla</i> spp. (Orchidaceae)	
ALEJANDRO RECALDE, ALBERTO ROJAS-TRIVIÑO, JOEL TUPAC OTERO and NICOLA S. FLANAGAN	146
<i>Ceratobasidium</i> lineages associated with two epiphytic orchids in Colombia	
RAFAEL BORGES DA SILVA VALADARES, ELKE JURANDY BRAN NOGUEIRA CARDOSO and JOEL TUPAC OTERO	147
 <i>CONSERVATION SCIENCE</i> 	
Un método sencillo para sembrar orquídeas de semillas sin condiciones asépticas	
PAUL BAYMAN GUPTA	148
Influencias de tres niveles de agua de coco en la germinación <i>in vitro</i> de <i>Rhynchosstele bictoniensis</i> (Bateman) Soto Arenas & Salazar, en medio de cultivo Knudson C	
VINCENZO BERTOLINI, ANNE DAMON, JAVIER VALLE MORA and ANGEL ROJAS VELÁZQUEZ NATANAEL	148
Research Group in Orchids, Ecology and Plant Systematics: an inter-institutional initiative for plant conservation and sustainable use in south-west Colombia	
NICOLA S. FLANAGAN, A. T. MOSQUERA-ESPINOSA, R. T. GONZÁLEZ, F. H. MOLINEROS-HURTADO, N. H. OSPINA-CALDERÓN, M. CUARTAS-DOMÍNGUEZ, P. A. SILVERSTONE-SOPKIN, G. REINA, M. C. DIEZ, R. OSPINA-TORRES, J. D. ACKERMAN, P. BAYMAN and J. T. OTERO	149
Orchids of the cloud forests of Dapa (Valle del Cauca, Colombia): research and conservation of forest treasures	
TERRY LYNN GARTELMAN-GONZALEZ, OSCAR ALEJANDRO PÉREZ-ESCOBAR and EDICSON PARRA-SÁNCHEZ	149
Distribution pattern, conservation status, and traditional therapeutic uses of orchids with particular reference to Solan district, Himachal Pradesh, India	
K. C. MAHANT, PROMILA PATHAK and KUMAR SHARMA VINAY	150
Orchid legislation in Santa Catarina, Brasil	
MARCELO VIEIRA NASCIMENTO	151

Avances para la conservación de <i>Masdevallia caudata</i> Lindl. (Pleurothallidinae: Orchidaceae) en Bogotá D. C. y su área de influencia	
JUAN CAMILO ORDOÑEZ-BLANCO	151
Orquideas de los bosques de niebla del suroccidente de Colombia y oportunidades para su conservación	
JORGE OREJUELA-GARTNER	152
Medicinal orchids of India and conservation measures for their sustainable management	
PATHAK PROMILA	152
Plan de manejo para la conservación de <i>Cattleya quadricolor</i> Lindl. en el Valle del Cauca, Colombia	
GUILLERMO ALBERTO REINA-RODRÍGUEZ and N. H. OSPINA-CALDERÓN	153
Characterization of <i>Brassolaeliocattleya</i> Raye Holmes ‘Mendenhall’ – putatively transformed for resistance to <i>Cymbidium</i> mosaic virus	
NYAN STILLWELL, HEATHER McCAFFERTY, YUN J. ZHU and INGELIA WHITE	153
Pestiferous scale insects on native epiphytic orchids in south Florida: a new threat posed by exotic species	
LAWRENCE W. ZETTLER, JENNIFER A. ZETTLER, LARRY W. RICHARDSON, HALEIGH A. RAY, JOHN P. McCORMICK, ANDREW L. STICE and IAN STOCKS	154