

THE ROYAL BOTANIC GARDEN
EDINBURGH

EDINBURGH
JOURNAL
OF
BOTANY

General Index to Volume 48
1991–1992

EDINBURGH : HMSO

Publication Dates:

Number 1, pp. 1–132
 Number 2, pp. 133–282
 Number 3, pp. 283–402

30 April 1991
 9 September 1991
 10 January 1992

CONTENTS OF VOLUME 48
 1991–1992

Towards a revision of <i>Paraboea</i> (Gesneriaceae): Xu Zhaoran & B. L. Burt	1
Notes relating to the Flora of Bhutan: XVI. <i>Cromopanax lobatus</i> , a new genus and species in Bhutan. A. J. C. Grierson	19
Notes relating to the Flora of Bhutan: XVII. Zingiberaceae. R. M. Smith	23
Ten new species from Anatolia and two new records for the Flora of Turkey. H. Sümbül	27
New taxa and transfers in Indian Umbelliferae. P. K. Mukerjee & L. Constance	41
New taxa in <i>Tanacetum</i> (Anthemideae) from Pakistan. R. Khan	45
New names in <i>Thesium</i> (Santalaceae) from the Flora Zambesiaca area. O. M. Hilliard	53
The generic position of C. B. Clarke's species of <i>Paracaryum</i> (Boraginaceae). R. R. Mill	55
<i>Pleuranthodium</i> replaces the illegitimate <i>Psychanthus</i> (Zingiberaceae). R. M. Smith	63
<i>Alpinia smithiae</i> (Zingiberaceae): a new species from South India. M. Sabu & Jose K. Mangaly	69
A floristic analysis of the Gramineae of Brazil's Distrito Federal and a list of the species occurring in the area. Tarciso S. Filgueiras	73
Ecology, reproductive biology and hybridization in <i>Gaultheria</i> L. David J. Middleton	81
Poisonings by <i>Lepiota helveola</i> Bres. in southern Turkey. Mustafa İşiloğlu & Roy Watling	91
Effects of digestion on agaric structures. Sally J. Fender & Roy Watling	101
Cytological observations in <i>Albuca</i> , including a survey of polymorphic variation in the Sat-chromosome pair. Kwiton Jong	107
Book Reviews	129
Umbelliferae of Southern Africa: an introduction and annotated check-list. B. L. Burt	133
Taxonomic studies in the <i>Gaultheria</i> group of genera of the Tribe Andromedeae (Ericaceae). David J. Middleton	283
A comparative study of five cerrado areas in southern Mato Grosso, Brazil. A. T. Oliveira-Filho & F. R. Martins	307
Studies on the Flora of Arabia: XXVI. A new species of <i>Sarcostemma</i> from Arabia. P. Bruyns & P. I. Forster	333
A new species of <i>Teucrium</i> from Northern Somalia. M. Thulin	337

Further new names and combinations in Scrophulariaceae–Manuleae. O. M. Hilliard	341
New species of <i>Alpinia</i> from Sulawesi and Sarawak. R. M. Smith	347
Observations on the boletes of the Cooloolo Sand-mass, Queensland and notes on their distribution in Australia: Part 3. Lamellate taxa. Roy Watling & Norma M. Gregory	353
Studies in rusts (Uredinales) on <i>Astragalus</i> (Fabaceae). Halvor B. Gjærum	393
Book Review	402

- Abioton* Raf. 161
africanum (L.) Raf. 161
Acroglyphe [E. Mey. ex] Koso
 Poljansky 162
flexuosa E. Mey. 162
hispidula E. Mey. 162
obscura (Spreng.) Koso-Poljansky
 162
runcinata E. Mey. 162
Actinocladus E. Mey. 162
cinerascens E. Mey. 162
Aecidium phacae 399
Aethusa leptophylla (Pers.) Spreng. 162
 Agaric structures, Effects of digestion
 on 101
Agasyllis Spreng. 162
galbanum (L.) Spreng. 162
Agrocharis Hochst 159, 162
melanantha Hochst 162
Albuca, cytological observations in 107
Alepida O. Kuntze 163
Alepidea Delaroche 157, 163
acutidens Weimarck 164
amatymbica Eckl. & Zeyh. 164
 var. *aquatica* (O. Kuntze) Wei-
 marck 164
 var. *microbracteata* Weimarck 164
amatynsia 165
angustifolia Schlechter & Wolff 165
aquatica O. Kuntze 165
attenuata Weimarck 165
basinuda Pott 165
 var. *subnuda* Weimarck 165
baurii (O. Kuntze) Dümmer 165
 var. *lanceolata* (O. Kuntze) Düm-
 mer 165
calocephala Schlechter & Wolff 165
capensis (Berg.) R.A. Dyer 165
 var. *tenella* (Schlechter & Wolff)
 Weimarck 165
ciliaris Delaroche 166
 var. *baurii* O. Kuntze 166
 var. *caffrorum* H. Wolff 166
 var. *cathcartensis* O. Kuntze 166
 var. *cordata* [E. Mey. ex]
 O. Kuntze 166
 var. *lanceolata* O. Kuntze 166
 var. *latifolia* Eckl. & Zeyh. 166
 var. *moltenensis* O. Kuntze 166
 var. *normalis* O. Kuntze 166
 var. *serrata* (Eckl. & Zeyh.)
 O. Kuntze 166
ciliaris auct. non Delaroche 166
cirsifolia Schinz 166
cirsifolia Schlechter & Wolff 166
comosa Dümmer 166
concinna Dümmer 166
cordata [E. Mey. ex] Dümmer 166
delicatula Weimarck 166
duplidens Weimarck 167
galpinii Dümmer 167
galpinii Schlechter & Wolff 167
gracilis Dümmer 167
 var. *major* Weimarck 167
insculpta Hilliard & Burt 167
jacobsziae Dümmer 167
jenkinsii Pott 167
lanceolata O. Kuntze 167
longiciliata [Schinz ex] Dümmer 167
longiciliata [Schinz ex] H. Wolff 167
longifolia [E. Mey. ex] Dümmer 167
 subsp. *comosa* (Dümmer) Wei-
 marck 168
 subsp. *lancifolia* Weimarck 168
 var. *angusta* Dümmer 168
longipetiolata Schlechter & Wolff 168
macowanii Dümmer 168
moltenensis O. Kuntze 168
multisecta B.L. Burt 168, 253
natalensis Wood & Evans 168
pilifera Weimarck 168
pusilla Weimarck 168
rehmannii Burt Davy 168
reticulata Weimarck 168
schlechteri H. Wolff 168
schlechteri Hiroe 168
serrata Eckl. & Zeyh. 170
 var. *cathcartensis* (O. Kuntze) Wei-
 marck 170
setifera N.E. Br. 171
stellata Weimarck 171
tenella Schlechter & Wolff 171
thodei Dümmer 171

- tysonii* Dümmer 171
woodii Oliv. 171
wyliei Dümmer 171
Alkanna angustifolia H. Sümbül 36
dumanii H. Sümbül 39
milliana H. Sümbül 36
Alpinia from Sulawesi and Sarawak,
 New species of 347
Alpinia Roxb. 347
 sect. *Eubracteata* K. Schum. 351
 sect. *Myriocrater* K. Schum. 347
amentacea R.M. Smith 351
glaciacerulea R.M. 349
maxii R.M. Smith 350
sandsii R.M. Smith 347
smithiae Sabu & Mangaly 69
Alpinia smithiae (Zingiberaceae): A
 new species from South India 69
Ammi 160
 majus L. 171
 var. *glaucifolium* (L.) Godron 171
Analyrium E. Mey. 171
 millefolium E. Mey. 172
Anesorhiza 172
Anethum capense Thunb. 172
 foeniculum sensu Thunb. 172
 graveolens L. 172
Angelica roylei (Lindley) P.K. Mukher-
 jee & Constance 44
Anginon Raf. 156, 158, 172, 254
 difforme (L.) B.L. Burt 172
 jaarsveldii B.L. Burt 173, 256
 paniculatum (Thunb.) B.L. Burt 173
 rugosum (Thunb.) Raf. 176
 swellendamense (Eckl. & Zeyh.) B.L.
 Burt 176
 uitenhagense (Eckl. & Zeyh.) B.L.
 Burt 176
 verticillatum (Sond) B.L. Burt 176
Anisum caffrum Eckl. & Zeyh. 177
 stadense Eckl. & Zeyh. 177
Annesorhiza Cham. & Schlechtd. 158,
 177
 altiscapa [Schlechter ex] H. Wolff 178
 angustifolia (Sond.) Drude 178
 caffra (Eckl. & Zeyh.) Schönl. 178
 caffra (Meisn.) Drude 178
 capensis Cham. & Schlechtd. 178
 elata Eckl. & Zeyh. 178
 filicaulis Eckl. & Zeyh. 178
 flagellifolia Burt Davy 178
 grandiflora (Thunb.) Hiroe 178
 grossulariifolia (Eckl. & Zeyh.)
 Hiroe 179
 gummifera (L.) O. Kuntze 179
 hirsuta Eckl. & Zeyh. 179
 inebrians (Thunb.) Wijnands 179
 interrupta (Thunb.) Sweet 179
 latifolia Adamson 179
 macrocarpa Eckl. & Zeyh. 179
 marlothii H. Wolff 179
 marlothii (H. Wolff) Hiroe 179
 montana Eckl. & Zeyh. 179
 montana (Schlechter & Wolff) Hiroe
 179
 nuda (Ait.) B.L. Burt 179, 257
 schlechteri H. Wolff 181
 spuria Eckl. & Zeyh. 181
 striata (Thunb.) Koso-Poljansky 181
 teretifolia Drude 181
 thunbergii B.L. Burt 181
 verticillata (Sond.) Hiroe 182
 villosa (Thunb.) Sonder 182
 wilmsii H. Wolff 182
Anthriscus Pers. 160, 182
 afra Koso-Poljansky 182
 capensis Spreng. 182
 sylvestris (L.) G.F. Hoffm. 182
Apium L. 160, 182
 ammi (Savi) Urban 183
 australe Thouars 183
 decumbens 183
 filiforme 183
 graveolens L. 183
 subsp. *australe* (Thouars) Engl. 183
 humile (Meisn.) Benth. & Hook. f.
 183
 inundatum (L.) Reichb.f. 183
 leptophyllum (Pers.) F. Muell. 183
 nodiflorum (L.) Lagasca 183
 petroselinum L. 183
 prostratum Ventenat 184
 repens (Jacq.) Reichb.f. 184

- tenuifolium* Thell. 184
Apradus Adans. 184
 Arabia, Studies in the flora of, XXVI
 333
Arctopus L. 157, 184
 dregei Sonder 184
 echinatus L. 184
 monacanthus [Carmichael ex] Sonder
 184
Astragalus anamurensis H. Sümbül 29
 chamberlainianus H. Sümbül 27
 citriniflorus H. Sümbül 29
 turcicus H. Sümbül 31
Astrantia capensis (Berg.) Druce 184
 capensis Burm. 184
 ciliaris Linn.f. 184
Athamanta lateriflora Eckl. & Zeyh.
 184
 scabra Burm. 185
- B**
Berula Koch 160, 185
 erecta (Huds.) Coville 185
 subsp. *thunbergii* (DC.) B.L. Burt
 185
 thunbergii (DC.) H. Wolff 186
 Bhutan, Notes relating to the flora of
 XVI, XVII, 19, 23
Bolax tridentata (L.fil.) Spreng. 186
 triloba (Thunb.) Spreng. 186
- BOOK REVIEWS
 Arctic and Alpine Fungi - 3 by B.
 Senn-Irlet, K.M. Janssen & G.
 Gulden 130
 The European Garden Flora, vol. 3
 edited by S.M. Walters and others
 131
 Flora of the Indian Desert, by M.M.
 Bhandari 402
 Flora Reipublicae Popularis Sinicae
 vol. 59 (1 & 2) by F.M. Chen &
 C.M. Hu 129
Brachypodium (Baill.) Maire 186
- BRUYNS, P. & FORSTER, P.I.
 Studies in the flora of Arabia: XXVI.
 A new species of *Sarcostemma*
 from Arabia 333
- Bubon* L. 186
Bubon auct. non L. 186
 aphyllum Cham. & Schlecht. 186
 capense (Eckl. & Zeyh.) Sonder 186
 galbaniferum Hill 186
 galbanum L. 186
 var. *tulbaghicum* Eckl. & Zeyh. 186
 hypoleucum Meisn. 186
 laevigatum Ait. 186
 montanum Sonder 186
 multiradiatum E. Mey. 187
 pimpinellifolium Eckl. & Zeyh. 187
 proliferum Burm.f. 187
 tenuifolium (Thunb.) Sonder 187
Bunium rigens (L.) Spreng. 187
Bupleurum L. 157, 187
 acerosum E. Mey. 187
 arborescens Thunb. non Jacq. 187
 baldense auct. non Host 187
 capitatum (L.f.) Thunb. 187
 ciliatum (L.f.) Thunb. 187
 collinum (Eckl. & Zeyh.) D. Dietr.
 187
 difforme L. 187
 var. *burmannianum* Eckl. & Zeyh.
 187
 falcatum L. var. *marginatum* (DC.)
 C.B. Clarke forma *stenophyllum*
 (H. Wolff) P.K. Mukherjee 43
 falcatum var. *africanum* Berg. 187
 giganteum (L.) Thunb. 187
 gracilescens Reehinger 187
 mundii Cham. & Schlecht. 187
 nudum Ait. 188
 quinquedentatum (L.) Thunb. 188
 rotundifolium L. 188
 trifoliatum Wendl. 188
 villosum L. 188
Buprestis Spreng. 188
 arborescens 188
 difformis (L.) Spreng. 188
 gigantea (L.f.) Spreng. 188
- BURTT, B.L. & XU ZHAORAN
 Towards a revision of *Paraboea* (Ges-
 neriaceae): I 1

- BURTT, B.L.
 Umbelliferae of Southern Africa: an introduction and annotated checklist 133
- C**
Camptoloma *lyperii*florum (Vatke) Hilliard 341
- Capnophyllum** Gaertn. 160, 188
africanum (L.) Gaertn. 189
 var. *leiocarpon* Sond. 189
jacquinii DC. 189
simplex Lagasca 189
- Carum** L. 189
 sect. *Brachyapium* Baill. 189
capense (Thunb.) Sond. 189
carvifolium Jackson 190
didymum (Sond) Jackson 190
hispidum (Thunb.) Jackson 190
meisneri Hiroe 190
streyi (Merxm.) Hiroe 190
- Caucalis** *africana* (L.) Crantz 190
africana Thunb. 190
capensis Lam. 190
daucoides L. 190
lanata Compton 190
latifolia auct. non L. 190
melanantha (Hochst.) Hiern 190
pedunculata auct. non Baker 190
platycarpos L. 190
- Centella** L. 156, 190
affinis (Eckl. & Zeyh.) Adamson 191
 var. *oblonga* Adamson 191
arbuscula (Schlechter) Domin 192
asiatica (L.) Urban 192
bupleurifolia (A. Rich.) Adamson 192
caespitosa Adamson 192
calliodus (Cham. & Schlechtd.) Drude 192
capensis (L.) Domin 192
 var. *micrantha* Adamson 193
chamissonis Drude 193
cochlearia (Domin) Adamson 193
comptonii Adamson 193
coriacea Nannfeldt 193
debilis (Eckl. & Zeyh.) Drude 193
dentata Adamson 193
didymocarpa Adamson 194
difformis (Eckl. & Zeyh.) Adamson 194
dregeana (Sond.) Domin 194
eriantha (A.Rich.) Drude 194
 var. *orientalis* Adamson 194
 var. *rotundifolia* Adamson 194
flexuosa (Eckl. & Zeyh.) Drude 194
fourcadei Adamson 195
fusca (Eckl. & Zeyh.) Adamson 195
glabrata L. 195
 var. *acuminata* Adamson 195
 var. *affinis* (Eckl. & Zeyh.) Adamson 195
 var. *bracteata* Adamson 195
 var. *cochlearia* Domin 195
 var. *coriacea* (Sond.) Domin 195
 var. *linifolia* (L.f.) Adamson 195
 var. *natalensis* Adamson 195
graminifolia Adamson 196
hederifolia (Burch.) Drude 196
hermannifolia (Eckl. & Zeyh.) Domin 196
 var. *litoralis* (Eckl. & Zeyh.) Domin 196
laevis Adamson 196
lanata Compton 196
lasiophylla Adamson 196
linifolia (L.f.) Drude 197
 var. *depressa* Adamson 197
macrocarpa (A. Rich.) Adamson 197
 var. *saxatilis* Adamson 197
macroodus (Spreng.) B.L. Burtt 197
montana (Cham. & Schlechtd.) Domin 198
 var. *longifolia* Adamson 198
pottebergensis Adamson 198
recticarpa Adamson 198
restioides Adamson 198
rupestris (Eckl. & Zeyh.) Adamson 198
scabra Adamson 198
sessilis Adamson 199
solandra (L.f.) Drude 199
stenophylla Adamson 199
stipitata Adamson 199

- tridentata* (L.f.) [Drude ex] Domin 199
triloba (Thunb.) Drude 199
verticillata (Thunb.) Fourcade 199
villosa L. 199
 var. *latifolia* (Eckl. & Zeyh.) Adamson 199
virgata (L.f.) Drude 200
 var. *congesta* Adamson 200
 var. *gracilescens* Domin 200
virginata auct. 200
Cephalaria gazipashensis H. Sümbül 33
 peshmenii H. Sümbül 31
Chaerophyllum capense Thunb. 200
Chamarea Eckl. & Zeyh. 158, 200
 capensis (Thunb.) Eckl. & Zeyh. 201
 esterhuyseniae B.L. Burt 201, 262
 gracillima (H. Wolff) B.L. Burt 201
 longipedicellata B.L. Burt 201, 263
 snijmaniae B.L. Burt 201, 267
Chiogenes 298
Choritaenia Benth. 159, 201
 capensis Benth. 202
Ciclospermum Lagasca 161, 202
 leptophyllum (Pers.) Eichler 202
Circuta africana (L.) Lam. 202
 rigens (L.) Lam. 202
 suffruticosa (Berg.) Poir. 202
Cirsium libanoticum DC.
 subsp. *libanoticum* 35
Cnidium bachmannii H. Wolff 202
 kraussianum (Meisn.) Sond. 202
 var. *elatius* Sonder 202
 var. *glabratum* Sonder 202
 suffruticosum (Berg.) Cham. & Schlechtd. 202
Conium L. 160, 161, 202
 africanum L. 203
 chaerophylloides (Thunb.) Sonder 203
 fontanum Hilliard & Burt 203
 var. *alticola* Hilliard & Burt 203
 var. *silvaticum* Hilliard & Burt 203
 jacquinii (DC.) D. Dietr. 203
 maculatum L. 203
 rigens L. 203
 rigidum Christm. 203
 rugosum Thunb. 203
 sphaerocarpum Hilliard & Burt 203
 suffruticosum Berg. 203
 tenuifolium Vahl 203
 CONSTANCE, L. & MUKHERJEE, P.K.
 New taxa and transfers in Indian Umbelliferae 41
Coriandrum 160
 sativum L. 203
Cromapanax Grierson 19
 lobatus Grierson 19
Cuminum cyminum L. 203
Cynorrhiza Eckl. & Zeyh. 203
 alta Eckl. & Zeyh. 204
 montana Eckl. & Zeyh. 204
 olifantiana Koso-Poljansky 204
 sulcata Eckl. & Zeyh. 204
 typica Eckl. & Zeyh. 204
D*asispermum* Raf. 160, 161, 204
 suffruticosum (Berg.) B.L. Burt. 204
Daucus 159
 carota L. 205
Deverra DC. 156, 158, 159, 205
 aphylla (Cham. & Schlechtd.) DC. 205
 burchellii (DC.) Eckl. & Zeyh. 205
 denudata (Viv.) Pfisterer & Podlech subsp. *aphylla* (Cham. & Schlechtd.) Pfisterer & Podlech 205
Diplolophium Turcz. 158, 159, 206
 swynnertonii (Bak.f.) Norman 206
Diplycosia 302
Dracosciadium Hilliard & Burt 157, 206
 italae Hilliard & Burt 206
 saniculifolium Hilliard & Burt 206
Dregea Eckl. & Zeyh. 206
 capensis (Thunb.) Eckl. & Zeyh. 206
 var. *angustifolia* Eckl. & Zeyh. 206
 collina Eckl. & Zeyh. 206
 montana Eckl. & Zeyh. 206
 virgata (Cham. & Schlechtd.) Eckl. & Zeyh. 207

- Eryngium amatymbicum** (Eckl. & Zeyh.) Koso-Poljansky 207
caffrum Koso-Poljansky 207
Euphorbia forsskalii (Boiss.) Gay 39
Ezoscadium B.L. Burt 159, 207
capense (Eckl. & Zeyh.) B.L. Burt 207
- FENDER, SALLY J. & WATLING, ROY**
 Effects of digestion on Agaric structures 101
Ferula assa-foetida auct. 207
laevigata (Ait.) Spreng. 207
stricta Spreng. 207
 FILGUEIRAS, TARCISO S.
 A floristic analysis of the Gramineae of Brazil's Distrito Federal and a list of the species occurring in the area 73
Foeniculum 160
capense (Thunb.) DC. 207
dulce Mill. 207
kraussianum Meisn. 207
officinale All. 207
vulgare Mill. 207
 FORSTER, P.I. & BRUYNS, P.
 Studies in the flora of Arabia: XXVI.
 A new species of *Sarcostemma* from Arabia 333
- Galbanon** Adans. 208
officinale Rafin. 208
 Gaultheria group of genera, Taxonomic studies in 283
 Gaultheria L., Ecology, reproductive biology and hybridization in 81
 GJÆRUM, HALVOR B.
 Studies in rusts (Uredinales) on *Astragalus* (Fabaceae) 393
Glia Sonder 158, 208
capensis (Houtt.) B.L. Burt 208
gummifera auct. plur. 208
gummifera (L.) Sond. 208
prolifera (Burm.f.) B.L. Burt 208
Gliopsis Rauschert 211
pyrethrifolia (Cham. & Schlecht.) 211
 Gramineae of Brazil's Distrito Federal, A floristic analysis of 73
 GRIERSON, A.J.C.
 Notes relating to the flora of Bhutan: XVI. *Cromapanax lobatus*, a new genus and species from Bhutan 19
- Hedychium griersonianum** R.M. Smith 23
Heloscadium capense (Eckl. & Zeyh.) Sonder 211
gracillimum (H. Wolff) Hiroe 211
inundatum (L.) Koch 211
leptophyllum (Pers.) DC. 211
repens (Jacq.) Koch 211
Hermas L. 157, 211
capitata L.f. 211
ciliata L.f. 212
depauperata L. 212
gigantea L.f. 212
intermedia C. Norman 212
minima Eckl. & Zeyh. 212
pillansii Norman 212
quercifolia Eckl. & Zeyh. 212
quinquedentata L.f. 212
rudissima [Reichb. ex] Spreng. 212
uitenhagensis Eckl. & Zeyh. 212
villosa (L.) Thunb. 212
Heteromorpha Cham. & Schlecht. 156, 158, 213
abyssinica [Hochst. ex] A. Rich. 213
arborescens (Spreng.) Cham. & Schlecht. 213
collina Eckl. & Zeyh. 214
glauca [Engl. ex] Lemesle 214
involutrata Conrath 214
papillosa C.C. Townsend 214
pubescens Burt Davy 214
transvaalensis H. Wolff 214
trifoliata (Wendl.) Eckl. & Zeyh. 214
Heteroptilis [E. Mey. ex] Meisn. 215
arenaria [E. Mey. ex] Meisn. 215
suffruticosa (Berg.) Leute 215

HILLIARD, O.M.

Further new names and combinations
in Scrophulariaceae-Manuleae 341

New names in Thesium (Santalaceae)
from the Flora Zambesiaca area 53

Hydrocotyle L. 157, 215

affinis Eckl. & Zeyh. 215

alpina Eckl. & Zeyh. 215

americana auct. afr. austr., non L. 215

arbuscula Schlechter 215

asiatica L. 215

bonariensis Lam. 215

brevipes E. Mey. 216

bupleurifolia A. Rich. 216

caffra Meisn. 216

calliodus Cham. & Schlechtd. 216

capensis (L.) O. Kuntze 216

centella Cham. & Schlechtd. 216

confusa H. Wolff 216

cuspidata [Willd. ex] Sprengel 216

debilis Eckl. & Zeyh. 216

difformis Eckl. & Zeyh. 216

dregeana Sond. 216

eriantha A. Rich. 216

falcata Eckl. & Zeyh. 216

ficarioides Lam. 216

filicaulis Eckl. & Zeyh. 217

flexuosa Eckl. & Zeyh. 217

fusca Eckl. & Zeyh. 217

glabrata L.f. 217

hederifolia Burchell 217

hermanniifolia Eckl. & Zeyh. 217

heterophylla Schinz 217

interrupta Muehl. 217

jacksonii Hiroe 217

lanuginosa Eckl. & Zeyh. 217

linearis E. Mey. 217

linifolia L.f. 217

litoralis Eckl. & Zeyh. 217

macrocarpa A. Rich. 217

macrodonia Spreng. 217

macrodonia Spreng. 217

mannii Hook. f. 217

montana Cham. & Schlechtd. 218

montana sensu Sonder 218

moschata sensu Sprengel non Forster
218

multiflora Ruiz & Pavon 218

pallida DC. 218

plantaginea Spreng. 218

ranunculoides L.f. 218

repanda Pers. 218

rudatisii H. Wolff 218

rupestris Eckl. & Zeyh. 218

schlechteri Wolff 218

septemloba Schinz 218

sibthorpioides Lam. 218

solandra 218

tabularis Steud. 219

thunbergiana Sprengel 219

tomentosa Thunb. 219

trichophylla Eckl. & Zeyh. 219

tridentata L.f. 219

triloba Thunb. 219

umbellata auct. non Linn. 219

uncinata Turcz. 219

verticillata Thunb. 219

villosa (L.) L.f. 219

virgata L.f. 219

vulgaris L. var. *communis* Cham. &
Schlechtd. 220

vulgaris sensu Thunb. 220

I*fdregea* Steud. 220

capensis (Thunb.) Steud. 220

collina (Eckl. & Zeyh.) Steud. 220

montana (Eckl. & Zeyh.) Steud. 220

virgata (Cham. & Schlechtd.) Steud.
220

Indian Umbelliferae, New taxa and
transfers in 41

İŞILOĞLU, MUSTAFA & WATLING, ROY

Poisonings by *Lepiota helveola* Bres.
in southern Turkey 91

Itasina Raf. 157, 220

filifolia (Thunb.) Raf. 220

J*asione capensis* Berg. 221

JONG, KWITON

Cytological observations in *Albuca*,
including a survey of polymorphic
variation in the Sat-chromosome
pair 107

- KHAN, RONAQ**
 New taxa in Tanacetum (Anthemid-
 ae) from Pakistan 45
Kruberia caffra Eckl. & Zeyh. 221
- Laserpitium ('Lacerpitium') capense**
 Thunb. 221
dinteri (H. Wolff) Mattf. 221
lancifolia Mattf. 221
upingtoniae Schinz 221
- Lepiota helveola* Bres. in southern Tur-
 key, Poisonings by 91
- Lepiota brunneoincarnata* Chodat &
 Martin 98
castanea Quélet 96
citrophylla (Berk. & Br.) Sacc. 98
clypeolarioides Rea 96
favrei Kühner 97
fuscovinacea Lange & Moeller 97
helveola Bres. 92, 97
josserandii Bon & Boiffard 97
kuehneri Huijsman ex Hora 98
pseudohelveola Kühn. ex Hora 97
rufescens (Berk. & Br.) Lange 96
subincarnata Lange 97
xanthophylla P.D. Orton 98
- Lepisma paniculata* E. Mey. 221
verticillata E. Mey. 221
- Leucothoë* 299
- Levisticum grandiflorum* (Thunb.)
 Sond. 221
- Lichtensteinia* Cham. & Schlechtd. 157,
 221
beiliana Eckl. & Zeyh. 222
crassijuga [E. Mey. ex] Sonder 222
exaltata (Thunb.) Koso-Poljansky 222
inebrians (Thunb.) Eckl. & Zeyh. 222
interrupta (Thunb.) Sonder 222
kolbeana L. Bolus 223
lacera Cham. & Schlechtd. 223
latifolia Eckl. & Zeyh. 223
obscura (Spreng.) Koso-Poljansky 223
palmata DC. 224
pyrethrifolia Cham. & Schlechtd. 224
pyrethrifolia sensu DC. 224
runcinata Sond. 224
- sprengeliana* Eckl. & Zeyh. 224
trifida Cham. & Schlechtd. 224
 var. *palmata* (DC.) Sonder 224
 var. *pinnatifida* Sond. 224
triradiata E. Mey. 224
- Ligusticum capense* (Burm. f.) DC. 225
- Lyperia antirrhinoides* (L.f.) Hilliard
 341
formosa Hilliard 341
- MANGALY, JOSE K. & SABU, M.**
Alpinia smithiae (Zingiberaceae): a
 new species from South India 69
- Marlothiella* H. Wolff 157, 225
gummifera H. Wolff 225
- MARTINS, F.R. & OLIVEIRA-FILHO, A.T.**
 A comparative study of five cerrado
 areas in southern Mato Grosso,
 Brazil 307
- Mato Grosso, A comparative study of
 five cerrado areas in 307
- Meeboldia achilleifolia* (DC.) P.K.
 Mukherjee & Constance 44
- Mercurialis afra* L. 225
- MIDDLETON, DAVID J.**
 Ecology, reproductive biology and hy-
 bridization in *Gaultheria* L. 81
 Taxonomic studies in the *Gaultheria*
 group of genera of the tribe An-
 dromedeae (Ericaceae) 283
- MILL, R.R.**
 The generic position of C.B. Clarke's
 species of *Paracaryum* (Boragina-
 ceae) 55
- MUKHERJEE, P.K. & CONSTANCE, L.**
 New taxa and transfers in Indian Um-
 belliferae 41
- Myrrhis capensis* (Thunb.) Spreng. 225
- Oenanthe capensis** (Cham. &
 Schlechtd.) D. Dietr. 226
capensis Houtt. 225
dregeana E. Mey. 226
elata (Eckl. & Zeyh.) D. Dietr. 226
exaltata Thunb. 226
ferulacea Thunb. 226

- filiculis* (Eckl. & Zeyh.) D. Dietr. 226
filiformis Lam. 226
hirsuta (Eckl. & Zeyh.) D. Dietr. 226
inebrians Thunb. 226
interrupta Thunb. 226
macrocarpa (Eckl. & Zeyh.) D. Dietr. 226
montana (Eckl. & Zeyh.) D. Dietr. 226
obscura Spreng. 226
seseloides C. Presl. 226
spuria (Eckl. & Zeyh.) D. Dietr. 226
tenuifolia Thunb. 226
- OLIVEIRA-FILHO, A.T. & MARTINS, F.R.
 A comparative study of five cerrado areas in southern Mato Grosso, Brazil 307
- Oreoselinum capense* Eckl. & Zeyh. 226
glaucum (Eckl. & Zeyh.) Presl. 226
uliginosum Eckl. & Zeyh. 226
- P**
Pappea Sond. & Harv. 226
capensis Sond. & Harv. 226
- Paraboea (Gesneriaceae), Towards a revision of : I 1
- Paraboea (C.B.Cl.) Ridley 1
amplifolia Xu & Burt 1
berouwensis Xu & Burt 2
chiangdaoensis Xu & Burt 3
kalimantanensis Xu & Burt 3
madaiensis Xu & Burt 4
mahaxayana Xu & Burt 5
matënsis Xu & Burt 5
multiflora (R.Br.) B.L. Burt 7
 var. *caulescens* 7
nervosissima Xu & Burt 9
paramartirii Xu & Burt 10
pubicorolla Xu & Burt 10
rabilii Xu & Burt 11
sabahensis Xu & Burt 12
tarutaonësis Xu & Burt 13
trachyphylla Xu & Burt 13
uniflora Xu & Burt 15
variopila Xu & Burt 15
- Paracaryopsis (H. Riedl) R. Mill 56
coelestina (Lindley) R. Mill 57
lambertiana (C.B. Clarke) R. Mill 57, 59
malabarica (C.B. Clarke) R. Mill 57, 59
- Paracaryum (Boraginaceae), The generic position of C.B. Clarke's species of 55
- Pastinaca 160
sativa L. 226
- Paxillus Fries 354
aureus Lloyd 355
crassus Fr. 355
eucalyptorum Berk. 355
hirtulus F. Mueller 355
infundibuliformis Cleland 356, 382
involutus (Fr.) Fr. 357, 384
muelleri (Berk.) Sacc. 357, 382
olivaceoflavidus (Cooke & Masee) Reid 380, 382
psammophila Cleland 359, 382
veluticeps (Sacc.) Singer 360, 382
- Perfoliata* [Burm.] O. Kuntze 226
capitata (L.f.) O. Kuntze 227
ciliata (L.f.) O. Kuntze 227
gigantea (L.f.) O. Kuntze 227
quinquedentata (L.f.) O. Kuntze 227
villosa (L.) O. Kuntze 227
- Pernettyopsis 302
- Petroselinum J. Hill 227
crispum (Mill.) A.W. Hill 227
hortense Hoffm. 227
humile Meisn. 227
sativum Hoffm. 227
- Peucedanum L. 156, 158-9, 227
abbreviatum [E.Mey. ex] Meisn. 227-8
angustisectum (Engl.) C. Norman 228
araliaceum (Hochst) Vatke 228
caffrum (Meisn.) Phillips 228
caledonicum Eckl. & Zeyh. 228
camdeboense B.L. Burt 228
capense (Eckl. & Zeyh.) D. Dietr. 228
capense (Thunb.) Sond. 228
 var. *lanceolatum* Sond. 228
 var. *latifolium* Sond. 229

- capillaceum* Thunb. 229
 var. *rigidum* Sonder 229
collinum (Eckl. & Zeyh.) D. Dietr. 229
connatum [E.Mey. ex] Sond. 230
cynorhiza Sond. 230
dinteri H. Wolff 230
dregeanum D. Dietr. 230
ecklonianum Sond. 230
ecklonis Walp. 230
elongatum [E.Mey. ex] Meisn. 230
ferulaceum (Thunb.) Eckl. & Zeyh. 230
 var. *stadense* (Eckl. & Zeyh.) Sond. 231
galbaniopse H. Wolff 231
galbanum (L.) Drude 231
gummiferum (L.) Wijnands 231
hypoleucum (Meisn.) Drude 232
kamiesbergense B.L. Burtt 232, 272
lancifolium (Mattf.) Hiroe 232
lateriflorum (Eckl. & Zeyh.) Sonder 233
magalismontanum Sonder 234
millefolium Sond. 234
montanum (Eckl. & Zeyh.) Drude 234
montanum (Sonder) Drude 234
multiradiatum Drude 234
natalense (Sonder) Engler 234
officinale L. 234
olifantianum (Koso-Poljansky) Hiroe 235
pearsonii Adamson 235
platycarpum [E.Mey. ex] Sonder 235
pungens [E.Mey. ex] Sonder 235
rigidum Eckl. & Zeyh. 235
rigidum E.Mey. 235
schlechteri Engl. 235
schlechterianum H. Wolff 235
sieberianum Sond. 235
sonderi (Hiroe) B.L. Burtt 235
stadense Eckl. & Zeyh. 237
striatum (Thunb.) Sonder 237
strictum (Sprengel), B.L. Burtt 237
sulcatum Sonder 237
tenuifolium Thunb. 238
 var. *hypoleucum* (Meisn.) O. Kuntze 239
thodei T. Arnold 239
triternatum Eckl. & Zeyh. 239
typicum (Eckl. & Zeyh.) B.L. Burtt 239
uliginosum (Eckl. & Zeyh.) D. Dietr. 239
upingtoniae (Schinz) Drude 239
venosum Burtt Davy 240
virgatum Cham. & Schlechtd. 240
wilmsianum H. Wolff 240
zeyheri Sond. 240
zeyheri Steud. 240
Phlyctidocarpa Cannon & Theobald 161, 240
flava Cannon & Theobald 240
Phylloporus Quélet 361
australiensis Watling 362, 383
bellus (Masse) Corner 364, 383
 var. *cyanescens* 383
bogoriensis Höhnel 367, 383
cingulatus Corner 368, 384
clelandii Watling 369, 383
foliiporus (Murr.) Singer 370, 383
hyperion (Cooke & Masse in Cooke) Singer 373, 383
leucomycelinus Singer 376, 383
orientalis Corner 377
paradoxus (Kalch.) Cleland 378
rhodoxanthus (Schw.) Bres. 378, 383
sulcatus (Pat.) Gilbert 379, 383
Phymatis cyminoides E. Mey. 240
Physospermopsis farillei P.K. Mukherjee & Constance 41
Physotrichia swynnertonii Bak.f. 240
Pimpinella L. 156, 159-161, 240
caffra (Eckl. & Zeyh.) D. Dietr. 241
capensis Thunb. 241
cordata E. Mey. 241
hydrophila H. Wolff 241
inundata (Farille & Malla) P.K. Mukherjee & Constance 44
kraussiana Meisn. 241
krookii H. Wolff 241
reenensis Rechner 241

- schlechteri* H. Wolff 242
stadensis (Eckl. & Zeyh.) D. Dietr.
 242
transvaalensis Wolff 242
Pituranthos Viv. 242
aphyllus (Cham. & Schlechtd.)
 Schinz 242
burchellii (DC.) Schinz 242
Pleuranthodium replaces the illegitimate
Psychanthus (Zingiberaceae) 63
Pleuranthodium (K. Schum.) R.M.
 Smith 63
 sect. *Pleuranthodium* 64
 sect. *Psychanthus* 64
biligulatum (Val.) R.M. Smith 64
branderhorstii (Val.) R.M. Smith 64
comptum (K. Schum.) R.M. Smith 66
floccosum (Val.) R.M. Smith 64
floribundum (K. Schum.) R.M. Smith
 66
gjellerupii (Val.) R.M. Smith 66
hellwigii (K. Schum.) R.M. Smith 66
iboense (Val.) R.M. Smith 66
macropycnanthum (Val.) R.M. Smith
 64
neragaimae (Gilli) R.M. Smith 64
papilionaceum (K. Schum.) R.M.
 Smith 68
pedicellatum (Val.) R.M. Smith 68
peekelii (Val.) R.M. Smith 68
pelecystylum (K. Schum.) R.M.
 Smith 65
piundaundensis (van Royen) R.M.
 Smith 65
platynema (K. Schum.) R.M. Smith
 65
pterocarpum (K. Schum.) R.M. Smith
 65
racemigerum (F. Muell.) R.M. Smith
 65
roemeri (Val.) R.M. Smith 65
schlechteri (K. Schum.) R.M. Smith
 68
scyphonema (K. Schum.) R.M. Smith
 68
tephrochlamys (Lauterb. & K.
 Schum.) R.M. Smith 65
trichocalyx (Val.) R.M. Smith 66
Polemanna Eckl. & Zeyh. 156, 243
grossulariifolia Eckl. & Zeyh. 242
marlothii H. Wolff 242
montana Schlechter & Wolff 242
simplicior Hilliard & Burt 242
verticillata Sonder 243
Polemanniopsis B.L. Burt 156, 243
marlothii (H. Wolff) B.L. Burt 243
Ptychotis caruifolia Sond. 244
didyma Sond. 244
hispidata (Thunb.) Sond. 244
meisneri Sond. 244
rigens (L.) Harv. 244
rigens sensu Harv. 244
tenuis Sond. 245
R*hyticarpus* Sond. 245
difformis (L.) Briq. 245
ecklonis Sond. 245
paniculatus (Thunb.) Koso-Poljansky
 245
rugosus (Thunb.) Sond. 245
swellendamense (Eckl. & Zeyh.)
 Briq. 245
Rumia capensis Link 245
 Rusts (Uredinales) on *Astragalus* (Faba-
 ceae), Studies in 393
Ruthea Bolle 245
filiformis Koso-Poljansky 245
gummifera (L.) Drude 245
gummifera sensu Drude 245
interrupta (Thunb.) Drude 245
SABU, M. & MANGALY, JOSE K.
Alpinia smithiae (Zingiberaceae): a
 new species from South India 69
Sanicula L. 157, 245
canadensis sensu Thunb. 246
capensis (Cham. & Schlechtd.) Eckl.
 & Zeyh. 246
elata [Hamilt. ex] D. Don 246
europaea auct. non L. 246
natalensis Gandoger 246
Sarcostemma from Arabia, A new
 species of 333

- Sarcostemma arabica* Bruyns & Forster 333
- Scandix pecten-veneris* L. 246
- Schlechterosciadium* H. Wolff 246
- gracillimum* H. Wolff 246
- Schulzia garhwalica* (H. Wolff) P.K. Mukherjee & Constance 43
- hameliana* (Farille & Malla) P.K. Mukherjee & Constance 43
- Sciothamnus* Endl. 246
- Scorzonera longiana* H. Sümbül 35
- Scrophulariaceae-Manuleae, Further new names and combinations in 341
- Selinum annesorhizum* F. Muell. 246
- galbanum* (L.) Spreng. 246
- gummiferum* (L.) Spreng. 246
- kraussianum* Jackson 246
- suffruticosum* (Berg.) Benth. & Hook.f. 246
- Seseli asperum* Thunb. 246
- caffrum* Meisn. 247
- chaerophylloides* Thunb. 247
- filicifolium* Thunb. 247
- natalense* Sond. 247
- sonderi* Hiroe 247
- striatum* Thunb. 247
- uliginosum* (Eckl. & Zeyh.) Hiroe 247
- Sinocarum acronemifolium* (C.B. Clarke) P.K. Mukherjee & Constance 43
- clarkeanum* P.K. Mukherjee & Constance 42
- sikkimense* (P.K. Mukherjee) P.K. Mukherjee & Constance 43
- wolffianum* (Fedde) P.K. Mukherjee & Constance 42
- Sison capensis* (Thunb.) Spreng. 247
- ruta* Burm.f. 247
- Sium* L. 160, 247
- angustifolium* L. 247
- asperum* Thunb. 247
- difforme* (L.) Hiroe 247
- filifolium* Thunb. 247
- grandiflorum* Thunb. 247
- hispidum* Thunb. 247
- patulum* Thunb. 247
- repandum* [Welw. ex] Hiern. 247
- repens* Jacq. 247
- thunbergii* DC. 247
- villosum* Thunb. 248
- SMITH, R.M.
- New species of *Alpinia* from Sulawesi and Sarawak 347
- Notes relating to the flora of Bhutan: XVII. Zingiberaceae 23
- Pleuranthodium* replaces the illegitimate *Psychanthus* (Zingiberaceae) 63
- Solandra* L. 248
- capensis* L. 248
- Sonderina* H. Wolff 159, 161, 248
- caruifolia* (Sond.) H. Wolff 248
- didyma* (Sond.) Adamson 248
- hispida* (Thunb.) H. Wolff 248
- humilis* (Meisn.) H. Wolff 249
- streyi* Merxm. 249
- tenuis* (Sond.) H. Wolff 249
- Stahlianthus andersonii* (Baker) R.M. Smith 24
- involucratus* (King ex Baker) R.M. Smith 24
- Steganotaenia* Hochst 158, 249
- araliacea* Hochst. 249
- Stenosemis* [E. Mey. ex] Sonder 250
- angustifolia* [E. Mey. ex] Sonder 250
- caffra* (Eckl. & Zeyh.) Sonder 250
- Stoibrax* Rafin. 159, 250
- capense* (Lam.) B.L. Burt 251
- SÜMBÜL, H.
- Ten new species from Anatolia and two new records for the flora of Turkey 27
- Sutera calciphila* Hilliard 342
- cinerea* Hilliard 342
- comptonii* Hilliard 342
- decipiens* Hilliard 342
- glandulifera* Hilliard 343
- impedita* Hilliard 343
- langebergensis* Hilliard 343
- longipedicellata* Hilliard 343
- multiramosa* Hilliard 344
- paniculata* Hilliard 344
- placida* Hilliard 344

- polelensis* Hiern
 subsp. *fraterna* Hilliard 344
septentrionalis Hilliard 345
subsessilis Hilliard 345
tenuicaulis Hilliard 345
titanophila Hilliard 345
uncinata (Derouss.) Hilliard 346
- Tanacetum** (Anthemidae) from Pakistan, new taxa 45
Tanacetum emodi R. Khan 45
 gilgitii R. Khan 45
 roylei (DC.) R. Khan 47
 stoliczkae (C.B. Clarke) R. Khan 50
Tapinella Gilbert 380
 panuoides (Fr.) Gilbert 381, 382
Tenoria arborescens Spreng. 251
 difformis (L.) Spreng. 251
 nuda (Soland.) Spreng. 251
Tepuia 303
Teucrium from northern Somalia, A
 new species of 337
Teucrium eburneum Thulin 337
Thesium (Santalaceae) from the Flora
 Zambesiaca area, New names in 53
Thesium bundiense Hilliard 53
 fanshawei Hilliard 53
 helodes Hilliard 53
 inhambanense Hilliard 53
 inonense Hilliard 54
 magnifrutum Hilliard 54
 pygmaeum Hilliard 54
 singulare Hilliard 54
THULIN, M.
 A new species of *Teucrium* from
 northern Somalia 337
Thunbergiella H. Wolff 251
 filiformis (Koso-Poljansky) H. Wolff
 251
Torilis Adans. 159, 251
 africana Spreng. 251
 arvensis (Huds.) Link 251
 melanantha (Hochst.) Vatke 252
 nodosa (L.) Gaertn. 252
Trachydium rigens (L.) Hiroe 252
Trachysciadium (DC.) Eckl. & Zeyh.
 252
Trachysciadium sensu H. Wolff 252
 capense Eckl. & Zeyh. 252
Trachyspermum capense Eckl. & Zeyh.
 252
 capense (Eckl. & Zeyh.) Drude 252
 caruifolium (Sond.) Drude 252
 didymum (Sond.) Drude 253
 rigens (L.) G. Don 253
 tenue (Sond.) Engl. 253
Tragiopsis didyma (Sond.) H. Wolff 253
 swellendamensis Eckl. & Zeyh. 253
 uitenhagensis Eckl. & Zeyh. 253
Trisanthus Lour. 253
- Umbelliferae** of Southern Africa 133
Uromyces astragali-alopecuri Gjørum
 393, 399
 astragali-atopilosuli Gjørum 395,
 399
 astragali-lasiosemi 399
 astragali-pseudoutrigeris Gjørum
 395, 400
 jordanus 400
 lapponicus Lagerh. 396, 399, 400
 phacae-frigidae 400
 punctatus Schroet. 396, 400
 semnanensis Gjørum 399, 400
 transcaspicus 400
 wartoensis Petr. 399, 400
- WATLING, ROY & FENDER, SALLY J.**
 Effects of digestion on Agaric struc-
 tures 101
WATLING, ROY & GREGORY, NORMA
 Observations on the boletes of the
 Cooloola sand-mass, Queensland
 and notes on their distribution in
 Australia: Part 3. Lamellate taxa
 353
WATLING, ROY & İŞILOĞLU, MUSTAFA
 Poisonings by *Lepiota helveola* Bres.
 in southern Turkey 91

XU ZHAORAN & BURTT, B.L.

Towards a revision of *Paraboea* (Gesneriaceae): I. 1

Zenobia 301