

826/3 × 829/1. × *FESTULOLIUM HOLMBERGII* (Dörf.) P. Fourn. 17, Surrey; grassy track on waste ground at Ham Pits, several well-marked tufts, 1947, N. Y. SANDWITH, conf. C. E. HUBBARD.

826/15. *VULPIA MEMBRANACEA* (L.) Dumort. 44, Carm.; on sea edge of shifting dunes, Pembrey, I. M. VAUGHAN, det. A. E. WADE.

†827/1(2). *BROMUS DIANDRUS* Roth. 95, Elgin; station yards at Blacksboat, Knockando, Rothes and Mosstowie, 1956, M. McCALLUM WEBSTER, conf. A. MELDERIS. 106, E. Ross; Dalmore Distillery, Alness, Mrs. B. H. S. RUSSELL and Mrs. DYSON PERRINS.

827/9. *BROMUS INERMIS* Leyss. 95, Elgin; bank of river Findhorn, Greshop Wood, 1956, M. McCALLUM WEBSTER, det. A. MELDERIS.

827/19(3). *BROMUS THOMINII* Hardouin. 36, Hereford; Goodrich, F. M. DAY, det. C. E. HUBBARD.

833/2. *PARAPHOLIS INCURVA* (L.) C. E. Hubbard. S, Alderney; Braye, H. J. M. BOWEN, det. A. MELDERIS.

§835/1. *HORDEUM SECALINUM* Schreb. \*†106, E. Ross; Dalmore Distillery, Alness, Mrs. DYSON PERRINS and Mrs. B. H. S. RUSSELL.

§835/3. *HORDEUM MARINUM* Huds. \*†106, E. Ross; Dalmore Distillery, Alness, Mrs. DYSON PERRINS and Mrs. B. H. S. RUSSELL.

836/1. *ELYMUS ARENARIUS* L. 44, Carm.; on mobile dunes, Pembrey, 1955, I. M. VAUGHAN.

845/1. *CRYPTOGRAMMA CRISPA* (L.) R. Br. ex Hook. 47, Montg.; abundant by the road from Bala to Llangynog, P. M. Benoit (1957, *Nature in Wales*, 3, 479).

856/1(2). *DRYOPTERIS BORRERI* Newm. 105, W. Ross and 108, W. Sutherland; calcareous scree below cliffs, Cnochan, 1954, J. N. MILLS.

†868/1. *AZOLLA FILICULOIDES* Lam. 15, E. Kent; brackish ditch, Minster, Sheppey, M. KENT, det. and comm. D. H. KENT.

869/2. *ISOETES ECHINOSPORA* Durieu. 9, Dorset; old claypit, Furzebrook, H. J. M. BOWEN.

CHAROPHYTA all det. by G. O. ALLEN.

873/1. *TOLYPELLA INTRICATA* Leonh. 23, Oxon.; pond near Tadpole Bridge, 1955, H. J. M. BOWEN.

876/7b. *CHARA CONTRARIA* var. *HISPIDULA* A. Braun. S, Guernsey; sandy pools north of Grandes Rocques, H. J. M. BOWEN.

## ABSTRACTS FROM LITERATURE

Compiled by DOUGLAS H. KENT

Thanks are due to D. E. Allen, E. B. Bangerter and A. E. Wade for their assistance.

## SYSTEMATIC, ETC.

3. PULSATILLA. Aichele, D. & Schwegler, H.-W., 1957, Die Taxonomie der Gattung Pulsatilla, *Fedde Rep.*, **60**, 1-230. An extensive taxonomic revision of the genus *Pulsatilla*.—[D.H.K.]

6/33. RANUNCULUS FICARIA L. \*Allen, D. E. & Bing, M. B., 1957, Two races of the lesser celandine in the Isle of Man, *Peregrine*, **2**, 14-15. In addition to the widespread *Ranunculus ficaria* var. *fertilis* the bulbil-forming var. *ficaria* has now been detected in several localities in the north of the Isle of Man. It occurs for the most part in drier situations than var. *fertilis* and, unlike the latter, only on the level or on a gentle slope instead of on steep banks and hillsides. Some of the localities are in full sun, others in shade. Two useful features, not apparently mentioned in the literature, were noticed for distinguishing the two even from a distance: var. *ficaria* tends to grow in dense patches, causing the plants to have a weaker, drawn-out appearance, whereas var. *fertilis* is usually more thinly dispersed and the individual plants are consequently more robust; also, the leaves of var. *ficaria* are a clear light green, while those of var. *fertilis* are darker and more blotched, often with an almost variegated appearance. It is possible, however, that these differences are only clonal and cannot always be relied upon for separating the varieties. Attention is drawn to the geographical implications of the presence in the island of a plant reproducing solely by vegetative means.—[D.E.A.]

7. CALTHA. Maugini, E., 1957, Ricerche cito-sistematiche sul genere Caltha in Italia, *Caryologia*, **9**, 408-435.

7/1. CALTHA PALUSTRIS L. Reese, G., 1954, Euploidie, Aneuploidie und B-Chromosomen bei Caltha palustris L., *Planta*, **44**, 203-268.

19. NUPHAR. Beal, E. O., 1956, Taxonomic revision of the genus Nuphar Sm. of North America and Europe, *J. Elisha Mitchell Scient. Soc.*, **72**, 319-346. Keys to the species and subspecies of *Nuphar* are given, together with details of geographical distribution. *N. pumila* is reduced to *N. lutea* subsp. *pumila* (Timm) Beal, comb. nov.—[D.H.K.]

20. NYMPHAEA. Neuhäusl, R. & Tomsovic, P., 1957, Rod Nymphaea (L.) Smith v Československu, *Prestlia*, **29**, 225-249.

21. PAPAVER. Heslop-Harrison, J. W., 1957, The viability of poppy seeds, *Vasc. (Subst.)*, **42**, 22-23.

\*See also p. 45.—ED.

39. **CARDAMINE.** Lövkist, B., 1957, De skandinaviska arterna i Cardamine pratensis-komplexe, *Bot. Not.*, **110**, 237-250. Three species of the *Cardamine pratensis* complex occur in Scandinavia, namely *C. pratensis* L., *C. palustris* Peterm. and *C. nymani* Gand.

*C. pratensis* is represented only by tetraploids ( $2n = 32$ ) in this region, while octoploid, decaploid and dodecaploid populations of *C. palustris* occur. In the mountain regions of Scandinavia *C. nymani* occurs with a widespread octoploid form ( $2n=64$ ) with orbiculate leaves (one locality is known with decaploid plants). In the southern part of western Swedish Lapland a form with lanceolate leaflets occurs, which may be similar to the Canadian var. *angustifolia* Hook.

*C. pratensis* and *C. palustris* grow very often in the same locality. It is found that the water content of the soil is of importance for the population inhabiting a locality. The higher the water content, the higher is the chromosome number of the *C. pratensis-palustris* plants.—[Author's summary.]

45/7. **COCHLEARIA DANICA** L.—See 618/16. **RUMEX ACETOSELLA** L.

54/1. **BRASSICA OLERACEA** L. Sampson, D. R., 1957, The genetics of self- and cross-incompatibility in Brassica oleracea, *Genetics*, **42**, 253-263.

59/1. **CAPSELLA BURSA-PASTORIS** (L.) Medic. Kiermayer, O., 1957, Morphologische Veränderungen an den Früchten von Capsella bursa-pastoris durch den Einfluss von 2, 4-Dichlorphenoxyessigsäure, *Phyton*, **7**, 183-185.

92/1. **DIANTHUS GRATIANOPOLITANUS** Vill. Challenger, S., 1955, The Cheddar Pink, *Rep. Mid. Som. Nat. Sci.*, **3**, 26-31.

105. **SPERGULARIA.** Monnier, P., 1955, Introduction à une revision du genre Spergularia (Pers.) Presl au Maroc, *Bull. Soc. Sci. Nat. Maroc*, **35**, 145-163. Most British species are included in this revision of *Spergularia* in Morocco.—[D.H.K.]

127. **GERANIUM.** Baker, H. G., 1957, Genecological studies in Geranium (Section Robertiana). General considerations and the races of *G. purpureum* Vill., *New Phyt.*, **56**, 172-192.

133. **IMPATIENS.** Khoshoo, T. N., 1957, Cytology of some Impatiens species, *Cytologia*, **9**, 55-74.

142/1. **ACER PSEUDOPLATANUS** L. Cooper, R. E., 1957, The sycamore tree, *Notes & Queries*, **202**, 224. *Acer pseudoplatanus* is a central European tree presumed to have been introduced into Britain about the 14th century although there is no certain supporting evidence of this.

Solitary specimens aged up to 500 years are to be found standing to the south-west of ancient baronial halls and castles in England, Scotland and Wales. All such ancient trees remain unspoilt by any form of local vandalism, and indeed, seem to owe their safety to a form of respect almost amounting to veneration.

How these trees came to be planted and why they are given such homage and care is far from clear.—[D.H.K.]

153. *MEDICAGO*. Heyn, C., 1956, Some chromosome counts in the genus *Medicago*, *Caryologia*, **9**, 160-165. The author reports chromosome numbers of 19 species of *Medicago*, mostly from Israel. Some British species are included.—[D.H.K.]

155/37. *TRIFOLIUM RESUPINATUM* L. Červenka, J. B., 1957, Variačné statistická zkoumání jetele *Trifolium resupinatum*, *Preslia*, **29**, 64-70.

156/1. *ANTHYLLIS VULNERARIA* L. Jalas, J., 1957, Rassentaxonomische Probleme im Bereich des *Anthyllis vulneraria* L.-Komplexes in Belgien, *Bull. Jard. Bot. Brux.*, **27**, 405-416.

178. *LATHYRUS*. Davies, A. J. S., 1957, Successful crossing in the genus *Lathyrus* through styler amputation, *Nature*, **180**, 612. Gives details of artificial hybrids in the genus *Lathyrus* obtained by various workers at the University of Manchester; these include *L. latifolius* × *silvestris*.—[D.H.K.]

178/6. *LATHYRUS PRATENSIS* L. Larsen, K., 1957, Cryptospecies in *Lathyrus pratensis*, *Bot. Tidssk.*, **53**, 291-294. Two chromosome races of *Lathyrus pratensis* occur in Europe, a diploid,  $2n=14$ , and a tetraploid,  $2n=28$ . Tetraploids are found in Yugoslavia, Italy, France, Holland and the British Isles. Diploids occur in Finland, Sweden, Denmark, Faroes, France, Germany, Switzerland, Yugoslavia, Austria, Czechoslovakia and Latvia.—[D.H.K.]

185. *RUBUS*. Larsson, G., 1957, En spontan *Rubus chamaemorus*-hybrid, den första på den skandinaviska halvön, *Bot. Not.*, **110**, 284-285.

185. *RUBUS*. Larsson, G., 1957, Tetraploid *Rubus arcticus*, framställd genom colchicinbehandling, *Bot. Not.*, **110**, 151-159.

185. *RUBUS*. Legrain, J., 1957, Catalogue des ronces de Belgique, *Bull. Soc. Roy. Bot. Belg.*, **89**, 21-34. A systematic list of the species of *Rubus* occurring in Belgium, with an indication of the geo-botanic areas in which each is found.—[E.B.B.]

187. *GEUM*. Gajewski, W., 1957, A cytogenetic study of the genus *Geum*, *Monogr. Bot.* (Polish Bot. Soc.), **4**, 1-416. An account of all the known species of *Geum* with keys to subgenera and details of distribution (illustrated by maps), cytology and hybrids.—[D.H.K.]

190. *ALCHEMILLA*. Wiinstedt, K., 1957, *Alchemilla obtusa* og *Carex scandinavica*, *Bot. Tidssk.*, **53**, 326-328.

190/4(3). *ALCHEMILLA FILICAULIS* Buser. Sougnez, N., 1957, Nouvelles localités belges d'*Alchemilla filicaulis* Buser, *Bull. Soc. Roy. Bot. Belg.*, **89**, 108. New localities in Belgium for this species tend to fill the gaps in the apparent discontinuous distribution shown by de Langhe and Reichling (*Bull. Soc. Natur. Luxemb.*, **59** (1954)). It is said to be characteristic of the alliance *Trisetum-Polygonion* of submontane grassland.—[E.B.B.]

190(2)/2. *APHANES MICROCARPA* (Boiss. & Reut.) Rothm. Garjeanne, A.J.M., 1957, Kleine leeuweklauw, *Aphanes microcarpa*, *De Levende Natuur*, **60**, 205-209.

194. *ROSA*. Wulff, H. D., 1954, Cytologische Untersuchungen an einem pentaploiden Rosenbastard, *Planta*, **43**, 420-439.

194. ROSA. Wulff, H. D., 1954, Cytologische Untersuchungen an einer fertilen triploiden Rose, *Planta* **43**, 472-490.

199/23. SAXIFRAGA STELLARIS L. Temesy, E., 1957, Der Formenkreis von *Saxifraga stellaris* Linné, *Phyton*, **7**, 40-141. A taxonomic and cytological revision of *Saxifraga stellaris*, including a key to its sub-species and varieties.—[D.H.K.]

207/2. RIBES NIGRUM L. Bauer, R., 1957, The induction of vegetative mutations in *Ribes nigrum*, *Hereditas*, **43**, 323-337.

220/1. CHAMAENERION ANGUSTIFOLIUM (L.) Scop. Tamm, C. O., 1956, The response of *Chamaenerion angustifolium* (L.) Scop. to different nitrogen sources in water culture, *Planta*, **9**, 331-337.

220/3×10. EPILOBIUM HIRsutUM × MONTANUM. Sprague, T. A., 1956, A spontaneous willow-herb hybrid, *Proc. Cottsw. Nat. F.C.*, **32**, 43. The author describes and discusses a hybrid between *Epilobium hirsutum* and *E. montanum* which occurred spontaneously in his garden at Cheltenham.—[D.H.K.]

232/2. OENOTHERA ERYTHROSEPALA Borbás. Hara, H., 1955, *Oenothera erythrosepala* Borbás in Japan, *J. Jap. Bot.*, **30**, 369.

237→ UMBELLIFERAE. Bell, C. R. & Constance, L., 1957, Chromosome numbers in Umbelliferae, *Amer. J. Bot.*, **44**, 565-572. Chromosome numbers are given for 100 taxa of *Umbelliferae* including a number found in Britain.—[D.H.K.]

279/1. CORIANDRUM SATIVUM L. Sharma, A. K. & Datta, P. C., 1957, Artificial polyploidy in Coriander (*Coriandrum sativum* L.), *Caryologia*, **10**, 152-158.

284/1. HEDERA HELIX L. Frank, H. & Renner, O., 1956, Über Verjüngung bei *Hedera helix* L., *Planta*, **48**, 105-114.

284/1. HEDERA HELIX L. See 626/1. VISCUM ALBUM L.

296/2B. GALIUM MOLLUGO subsp. ERECTUM Syme. Pedersen, A., 1957, *Galium erectum* i Danmark, *Bot. Tidssk.*, **53**, 328-330.

301/4. VALERIANA PYRENAICA L. Lambinon, J., 1957, *Valeriana pyrenaica* L. en Belgique, *Bull. Soc. Roy. Bot. Belg.*, **89**, 107. This species was first observed in Belgium by the late Père Henrard according to an unpublished note in which it is suggested that it might have been introduced on tracks of tanks from Great Britain during the war.—[E.B.B.]

312. SOLIDAGO. Beaudry, J. R. & Chabot, D. L., 1957, Studies on *Solidago* L. 1. *S. altissima* L. and *S. canadensis* L., *Contrib. Inst. Bot. Univ. Montreal*, **70**, 65-72. *Solidago altissima* is closely related to *S. canadensis* and has at various times been treated as a variety of that species. It differs in being usually taller, thicker-leaved, more pubescent, later flowering and having larger capitula.

Much confusion has existed for many years in American botanical literature as to the status of the two taxa. Cytological evidence produced by the authors shows that the two species are distinct, *S. canadensis* having  $2n=18$  and *S. altissima*  $2n=54$ .—[D.H.K.]

318. ASTER. Delisle, A. L., 1956, Artificial formation of periclinal polyploid forms in asters, 2, *Indiana Acad. Sci.*, **65**, 53.

353. *BIDENS*. Nehon, J., 1956, Remarques sur deux *Bidens* (Composées) d'origine américaine: *B. frondosa* L. et *B. connata* Mühl., *Bull. Soc. Sci. Bret.*, **30**, 49-57. Two forms of *Bidens frondosa* L. occur at Nantes and in the valley of the Loire, one, designated form L, of greater size and late flowering with pilose apices of the young branches, the other, form E, smaller, early-flowering and almost glabrous on the branches. A key based on statistical data is given and illustrations of the achenes. *B. connata* Mühl. occurs with *B. frondosa* form E; ecological notes are provided.—[E.B.B.]

370/4. *CHRYSANTHEMUM LEUCANTHEMUM* L. Duckert, M. M. & Favarger, C., 1956, Sur l'existence dans le Jura d'une forme diploïde de *Chrysanthemum leucanthemum* L., *Ber. Schweiz. Bot. Ges.* **66**, 134-146. A population of *Chrysanthemum leucanthemum* var. *alpicola* Gremli was discovered in 1952 in the valley of La Brévine and subsequently investigated cytogenetically. The plants were found to be diploid with  $n=9$ . In general meiosis proved to be normal except for an irregularity giving rise to giant, multinuclear pollen-grains. It would seem that this variety, characterised by small size, might be ancestral to the species, and that the Jura population might be alpine glacial relicts. The account is illustrated by photographs and diagrams.—[E.B.B.]

370/4. *CHRYSANTHEMUM LEUCANTHEMUM* L. Duckert, M. M. & Favarger, C., 1957, Sur l'existence dans le Jura d'une forme diploïde de *Chrysanthemum leucanthemum*, *Bull. Soc. Neuchât. Sci. Nat.*, **80**, 226-227. Essentially the same study is here presented in summarised form as in the paper abstracted above. It is suggested that the taxonomy of the species requires revision in the light of cytological experiment.—[E.B.B.]

383/10.—*SENECIO VULGARIS* L. Heslop-Harrison, J. W., 1957, The rayed form of the common groundsel and its crosses with the type, *Vasc. (Subst.)*, **42**, 14. Reports hybridization between *Senecio vulgaris* and *S. vulgaris* var. *radiatus* Koch at Cassop Vale (v.c. 66). Besides  $F_1$  progeny a number of back crosses were observed.—[D.H.K.]

405/1. *CENTAUREA JACEA* L. Van Soest, J. L., 1957, Statistische beschouwing over de vormen-zwerm van *Centaurea sectio Jacea* Wahlb. in Nederland, *Bull. Jard. Bot. Bruz.*, **28**, 433-440. A statistical method of showing the relationships between three characters of *Centaurea* sect. *Jacea*: lobing of phyllary-appendages, presence of pappus and branching.—[E.B.B.]

405/13. *CENTAUREA SCABIOSA* L. Fröst, S., 1957, The inheritance of accessory chromosomes in *Centaurea scabiosa*, *Hereditas*, **43**, 403-421.

406/1. *CNICUS BENEDICTUS* L. Lalaurie, M., 1957, Recherches biologiques sur le Chardon Béni (*Cnicus benedictus* L.), *Rev. Gen. Bot.*, **64**, 365-465. Evidence is given to show that the name *Cnicus benedictus* L. is the correct one. Morphology and life-cycle are then discussed in considerable detail. A dry mediterranean climate is favourable to the species and the activities of man are more or less favourable; its main

area of distribution in France is the Mediterranean coastal belt.—[E.B.B.]

423. TARAXACUM. Haglund, O. E., 1957, Two new Taraxaca from Novaya Zemlya, *Nytt Mag. Bot.*, **5**, 7-12. *Taraxacum gracilipes* n.sp. and *T. lingeantum* n.sp. are described.—[D.H.K.]

423. TARAXACUM. Railonsala, A., 1957, Taraxaca nova, *Arch. Soc. Zool.-Bot. Fenn. 'Vanamo'*, **11**, 148-171.

423. TARAXACUM. Van Soest, J. L., 1957, Taraxacum sectio Obliqua Dt. en sectio Erythrosperma Dt. em Lb. in Nederland, *Acta Bot. Neerl.*, **6**, 74-92.

425/9. CICERBITA TATARICA (L.) Wallr. Steubing, L., 1957, Lactuca tatarica (L.) C. A. Meyer als Wanderpflanze und Insel-Endemit, *Fedde Rep.*, **59**, 179-189.

430/1. SCORZONERA HUMILIS L. Phipps, J. B., 1957, A consideration of the status of Scorzonera humilis L. in Warwickshire, *Proc. Birm. N.H. & Phil. Soc.*, **8**, 181-186. The status of *Scorzonera humilis* in Warwickshire is discussed, and its habitat is compared with a number of habitats in which the plant grows on the Continent. It is concluded that all the available evidence suggests that the species is native in Warwickshire.—[D.H.K.]

460. PRIMULA. Valentine, D. H., 1953, Evolutionary aspects of species differences in Primula, "Evolution", *Symposia of the Society of Exper. Biol.*, **7**, 146-158.

460/4. PRIMULA FARINOSA L. Heslop-Harrison, J. W., 1957, Notes on the Bird's-eye Primrose, *Primula farinosa* L., *Vasc. (Subst.)*, **42**, 14.

466/1. GLAUX MARITIMA L. Demalsy, P., 1957, Une anomalie florale chez *Glaux maritima* L., *Bull. Soc. Roy. Bot. Belg.*, **89**, 81-83. A note, illustrated by diagram and photograph, of an abnormal specimen of *Glaux maritima*, on which one of the inflorescence nodes bears a whorl of three bracts.—[E.B.B.]

480. GENTIANELLA. Gillett, J. M., 1957, A revision of the North American species of *Gentianella* Moench, *Ann. Missouri Bot. Gard.*, **44**, 195-269.

496/4. AMSINCKIA INTERMEDIA Fisch. & Mey. Trist, P. J. O., 1956, A frequent alien—*Amsinckia intermedia*, *Trans. Suffolk Nat. Soc.*, **10**, 74. The author describes *Amsinckia intermedia* which is becoming a serious nuisance among arable crops at Bucklesham, Suffolk, where it is believed to have been introduced with Canadian Linseed about 1947. It is also known from other parts of East Anglia.—[D.H.K.]

517/17. SOLANUM SARRACHOIDES Sendtn. Asai, Y., 1956, A new naturalized weed, *Solanum sarrachoides* Sendtn., *J. Jap. Bot.*, **31**, 125. *Solanum sarrachoides* has been discovered in several parts of Japan.—[D.H.K.]

521/1. ATROPA BELLA-DONNA L. Desde, L., 1956, L'Atropa bella-donna in Sardegna, *Nuov. Giorn. Bot. Ital.*, **63**, 298-323. Studies on *Atropa bella-donna* in Sardinia.—[D.H.K.]

534. ANTIRRHINUM. Rothmaler, W., 1956, Taxonomische Monographie der Gattung Antirrhinum, *Fedde Rep. Beih.*, **136**, 1-124.

541/1. DIGITALIS PURPUREA L. Bille, O., 1957, Opprinnelsen til de folkelige navn på Digitalis purpurea, *Blyttia*, **15**, 61-64.

543/41. VERONICA FILIFORMIS Sm. Jalas, J., 1956, Koristekasvi vai vaarallinen rikkarucho?, *Luonn. Tut.*, **60**, 113-116. Tabulates the different characters of *Veronica filiformis* and *V. persica*, and gives the known history and distribution of the former in Europe, and suggests that it should be searched for in Finland.—[D.H.K.]

562(2)/4. CALAMINTHA ASCENDENS Jord. Stelfox, A. W., 1957, The County Antrim record for Calamintha officinalis Moench (C. ascendens Jord.), *Irish Nat. J.*, **12**, 200-201.

615/32. POLYGONUM CUSPIDATUM Sieb. & Zucc. Fuchs, C., 1957, Sur le développement des structures de l'appareil souterrain du Polygonum cuspidatum Sieb. et Zucc., *Bull. Soc. Bot. France*, **104**, 141-147. The physiology of the root and rhizome structure of this species, discussed and described in this paper, is such that it can readily resist harmful biochemical attack and may become a danger to road or railway.—[E.B.B.]

618/16. RUMEX ACETOSELLA L. Webb, D. A., 1957, Unusual habitats for Rumex acetosella and Cochlearia danica, *Irish Nat. J.*, **12**, 218. *Rumex acetosella*, a fairly reliable calcifuge species, was noted in Co. Louth growing abundantly on the stonework of a bridge built entirely of limestone, and set with ordinary lime-mortar. It was not seen elsewhere in the immediate vicinity.

*Cochlearia danica* was discovered growing on the roofs of old houses in Macroom over 20 miles from the sea.—[D.H.K.]

626/1. VISCUM ALBUM L. Hafsten, U., 1957, Om mistelteinens og bergflettens historie i Norge, *Blyttia*, **15**, 43-60. Studies on the history of *Viscum album* and *Hedera helix* in Norway. Pollen-analytical investigations show that both species had a much wider distribution in the country during the Post-Glacial warm period than they have to-day.—[D.H.K.]

634/1. HUMULUS LUPULUS L. Jacobsen, P., 1957, The sex chromosomes in Humulus, *Hereditas*, **43**, 357-370.

643/1. ALNUS GLUTINOSA (L.) Gaertn. Pekkari, A., 1957, De nordligaste förekomsterna av Alnus glutinosa i Sverige, *Svensk Bot. Tidsk.*, **51**, 344-346.

649/1. FAGUS SYLVATICA L. De Muckadell, M. S., 1955, A development stage of Fagus sylvatica characterized by abundant flowering, *Phys. Plant.*, **8**, 370-373.

655/1. STRATIOTES ALOIDES L. Hedlin, B., Julin, E. & Pekkari, A., 1957, Stratiotes-sjöar i Norrbotten, *Svensk Bot. Tidsk.*, **51**, 316-343.

657/1. VALLISNERIA SPIRALIS L. Corillion, R., 1956, Nouveaux progrès du Vallisneria spiralis L. dans le Nord-Ouest de la France, *Bull. Soc. Sci. Bret.*, **30**, 62-64. A list of localities shows the spread of *Vallisneria spiralis* from Lyon in 1864 towards the north and north-



west of France; it was discovered in 1955 in the Loire-Inférieure.—  
[E.B.B.]

668/5. *EPIPACTIS ATORRUBENS* (Hoffm.) Schult. Heslop-Harrison, J. W. & Richardson, J. A., 1957, The dark red helleborine, *Epipactis atorrubens*, in Co. Durham, *Vasc. (Subst.)*, **42**, 23.

669. *DACTYLORCHIS*. Heslop-Harrison, J., 1957, The physiology of reproduction in *Dactylorchis*, 1. Auxin and the control of meiosis, ovule formation and ovary growth, *Bot. Not.*, **110**, 28-48.

669/5. *ORCHIS MORIO* L. Webb, D. A., 1957, An unusual habitat for *Orchis morio*, *Irish Nat. J.*, **12**, 198-199. Reports the occurrence of *Orchis morio* on the relatively dry peat of a blanket bog near Roundstone.—[D.H.K.]

669/11. *DACTYLORCHIS FUCHSII* (Druce) Vermeul. Heslop-Harrison, J. W., 1957, Variation in the flowers of the spotted orchid, *Dactylorchis fuchsii*, *Vasc. (Subst.)*, **42**, 21-22.

674(4)/1. *NEOTINEA INTACTA* (Link) Reichb. f. Webb, D. A., 1957, *Neotinea* in Roscommon and *Sesleria* in Leix, *Irish Nat. J.*, **12**, 199. *Neotinea intacta* has been found near Ballinasloe, Co. Roscommon, 20 miles further east than its hitherto known range in Ireland. *Sesleria caerulea* is reported from Co. Leix.—[D.H.K.]

678. *CROCUS*. Warburg, E. F., 1957, Crocuses, *Endeavour*, **16**, 209-216.

706/2. *SCILLA AUTUMNALIS* L. Battaglia, E., 1957, *Scilla autumnalis* L. biotipi 2n, 4n, 6n e loro distribuzione geografica, *Caryologia*, **10**, 75-95.

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718/16. *JUNCUS TENUIS* Willd. Hiidensalo, O., 1956, *Juncus tenuis* Willd., Suomeen leviämässä oleva kasvilaji, *Luonn. Tut.*, **60**, 43-45.

719. *LUZULA*. Nordenskiöld, H., 1957, Hybridization experiments in the genus *Luzula*, 3. The subgenus *Pterodes*, *Bot. Not.*, **110**, 1-16.

728. *WOLFFIA*. Dore, W. G., 1957, *Wolffia* in Canada, *Canad. Field Nat.*, **71**, 10-16.

\*737. *POTAMOGETON*. Dandy, J. E. and Taylor, G., 1957, Two new British hybrid pondweeds, *Kew Bull.*, **1957**, 332. *Potamogeton* × *cadburyae* (*P. crispus* × *lucens*) and *P.* × *pseudofriesii* (*P. acutifolius* × *friesii*) are described.—[D.H.K.]

753. *CAREX*. Berton, A., 1957, Les *Carex* du groupe *Flava-Oederi*, *Le Monde des Plantes*, **320**, 23. Gives a key to the identification of *Carex flava*, *C. lepidocarpa*, *C. demissa* and *C. serotina*. Some ecological data are given.—[D.H.K.]

\*See also **Plant Notes.**—ED.

753. CAREX. Löve, A. & D. & Raymond, M., 1957, Cytotaxonomy of Carex section Capillares, *Canad. J. Bot.*, **35**, 715-761.

753/20(3). CAREX SCANDINAVICA E. W. Davies.—See 190. ALCHEMILLA.

753/47. CAREX AQUATILIS Wahlenb. Bakker, D., 1957, On the distribution of Carex aquatilis Wahlenb., *Acta Bot. Neerl.*, **6**, 93-95. Discusses the recent discovery of *Carex aquatilis* in several places in north-west Germany, and in various new localities in Holland, and reviews the known European distribution.—[D.H.K.]

753/47. CAREX AQUATILIS Wahlenb. Jonas, F., 1956, Carex aquatilis, eine nordische Gross segge im Unteremsgebiete, *Beitr. Natur. Nied. Hanover*, **9**, 65-67.

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758. SPARTINA. Burkholder, P. R. & Bornside, G. H., 1957, Decomposition of marsh grass by aerobic marine bacteria, *Bull. Torr. Bot. Club*, **84**, 366-383.

\*762. ELEUSINE. O'Byrne, J. Kennedy, 1957, Notes on African grasses, *29, Kew Bull.*, 1957, 65-72. The common tropical grass *Eleusine indica* (L.) Gaertn. is the most successful species of its genus and is a diploid ( $2n=18$ ). Robust plants formerly regarded as conspecific with *E. indica* have now been found to be tetraploids ( $2n=36$ ). On account of this cytological difference and of morphological differences the tetraploid is described as a new species *E. africana* n.sp. A table is given comparing diagnostic features of the two species. *E. africana* has occurred as a weed alien in Yorks., Worcs. and Beds.—[D.H.K.]

794. AVENA. Gram, E., 1956, Control of wild oats in Denmark, *F.A.O. Plant Protection Bull.*, **4**, 170-171.

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824/14. POA ANNUA L. Söding, H. & Wagner, M., 1955, Mehrjährige Versuche über die Beeinflussung der Keimung und Entwicklung von *Poa annua* durch Behandlung der Früchte mit Wirkstoffen, *Planta*, **45**, 557-572.

825/2×3. GLYCERIA × PEDICELLATA Townsend. Lawalrée, A., 1957, Une graminée hybride nouvelle pour la flore Belge, *Glyceria pedicellata* Towns., *Bull. Jard. Bot. Brux.*, **28**, 503-505. The hybrid *Glyceria* × *pedicellata* (*G. fluitans* × *plicata*) was first discovered in Belgium, at Viesville, in 1955. A long description of the hybrid is given with a key to the species of the genus in Belgium.—[D.H.K.]

\*See also **Plant Notes**.—Ed.

826. *FESTUCA*. Litardière, R. de, 1955, Notes sur quelques *Festuca* du Maroc, *Bull. Soc. Sci. Nat. Maroc*, **35**, 139-143. A number of British species are included in this account of the species of *Festuca* found in Morocco.—[D.H.K.]

826/4. *FESTUCA PRATENSIS* Huds. Bosemark, N. O., 1957, On accessory chromosomes in *Festuca pratensis*, 5. Influence of accessory chromosomes on fertility and vegetative development, *Hereditas*, **43**, 211-225.

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872→ *CHARACEAE*. Corillion, R., 1956, Les Charophycées de France et d'Europe occidentale, étude systématique, écologique, phytosociologique et phytogéographique, *Bull. Soc. Sci. Bret.*, **30**, 59-61.

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41, GLAM. Webb, J. A., 1956, The Flora of the Peninsula of Gower, Part 1, Ranunculaceae to Geraniaceae, *Proc. Swansea Field Nat. Soc.*, **3**, supp. 1-25. This important contribution to the flora of the county of Glamorgan represents for the most part the result of the author's own botanising over the past 35 years or more. It is freely annotated with notes on habitat preferences. Native, naturalised and casual plants are included. It is to be regretted that the *Proceedings of the Swansea Field Naturalists' Society* appears only at two-yearly intervals and that no provision has been made for the printing of separates.—[A.E.W.]

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51, FLINT. Carter, P. W., 1956, Notes on the botanical exploration of Flintshire, *Flintshire Miscellany*, **1**, 21 pp.

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64, MID-W. YORK. Bootham School N.H.S., 1956, Overton Wood, in *Two Country Parishes*, 30-37. An ecological account of Overton Wood near York.—[D.H.K.]

64, MID-W. YORK. Bootham School N.H.S., 1956, Other botany, in *Two Country Parishes*, 38-47. Short ecological accounts of woods, railway excavations and a stream in the vicinity of Bootham School.—[D.H.K.]

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81, BERWICK. Swinton, Mrs. E. K., 1954, Uncommon plants found in 1953, *Hist. Berwick Nat. Club*, **33**, 89.

81, BERWICK. Swinton, Mrs. E. K., 1955, Botany, 1954, *Hist. Berwick Nat. Club*, **33**, 138.

H.21, DUBLIN. Hudson, H. J., 1957, Changes in Dublin's flora, *Irish Nat. J.*, **12**, 190-192. Discusses the changes which have taken place in the flora since the publication of Colgan's *Flora of the County Dublin* over 50 years ago. Improved drainage has reduced the area of marsh and bog, and as a result *Scutellaria galericulata* and *S. minor* have not been seen for many years, while *Hammarbya paludosa*, *Utricularia vulgaris*, *U. neglecta* and *Ranunculus lingua* have been reduced to a single station each. The spread of built-up areas around the city and along the coast has been responsible for the near extinction of *Saxifraga granulata*, *Salvia horminoides* and *Sisymbrium irio*. Quarry-

ing and sand removal have destroyed *Geranium lucidum* in its only station, and *G. columbinum* and *Arabis hirsuta* are much reduced.

There have, however, been some gains to the flora of the county, these include *Juncus acutus*, *Hypericum maculatum (dubium)*, *Littorella uniflora*, *Dactylorhiza traunsteineri* and *Epilobium pedunculare*.—[D.H.K.]

#### ECOLOGICAL (See also TOPOGRAPHICAL)

ARNELL, S., 1957, The south-Swedish Calluna-Heath and its relation to the Calluneto-Genistetum, *Bot. Not.*, **110**, 363-398.

CLAUSEN, J., 1957, A comparison of some methods of establishing plant community patterns, *Bot. Tidssk.*, **53**, 253-278.

GALIANO, E. F., 1957, Quelques associations de la classe des Litorelletea dans la Province de Québec, *Contr. Inst. Bot. Univ. Montreal*, **70**, 107-118. An ecological study, according to the Braun-Blanquet method, of some Canadian lakes, enabling comparison with analogous studies in Europe. The association *Eleocharetum acicularis*, rare in Ireland, is frequent in the Province of Quebec. Tables and habitat photographs illustrate the work.—[E.B.B.]

HOPKINS, B., 1957, The concept of minimal area, *J. Ecol.*, **45**, 441-463.

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Soó, R., 1957, Conspectus des groupements végétaux dans les bassins Carpathiques, 2. Les associations psammophiles et leur génétique, *Acta Bot. Acad. Sci. Hung.*, **3**, 43-64. A history of the work done on sandy areas of the Hungarian Plain is given, followed by an account of habitats and their associations which are listed systematically. Tables of five associations, viz. *Brometum tectorum*, *Festucetum vaginatae*, *Festuceto-Corynephoretum*, *Astragalo-Festucetum sulcatae* and *Potentillo-Festucetum* are given with explanations in the text.—[E.B.B.]

VAN DEN BERGHEM, C., 1957, Etude sur les forêts situées au nord de Virton, *Bull. Soc. Roy. Bot. Belg.*, **89**, 35-80. A detailed study of

forests in the extreme south of Belgium. An introduction deals with topography, geology, climate and the effect of man; the forest associations are then tabulated and discussed under: A. Ash and mixed beech-oak-hornbeam of basic soils, and B. Oak-beech and birch (*Betula pubescens*) of more acid soils. A final section analyses the cryptogamic groups.—[E.B.B.]

VAN DEN BERGHEM, C., 1957, Remarques au sujet de la systématique des hêtraies de l'Europe occidentale, *Bull. Soc. Roy. Bot. Belg.*, **89**, 15-19. A short account of three types of beech associations in western Europe; mountain forests, rich soil lowland and poor soil forests.—[E.B.B.]

VIROT, R., 1957, Modifications, récentes et actuelles de la flore et de la végétation du Périgord méridional (Bas-Périgord), *Cahiers des Nat.*, **13**, 43-61. A study of recent and present changes in the flora and vegetation of the area, presented under the headings—A. Hygrophilous herbaceous groups: B. Heaths: C. Xerophilous and mesophilous grassland: D. Forests: E. Cultivated land: F. Ways of communication: G. Wall-flora. Man is said to be the most important factor in modifying vegetation; deforestation, drainage, indiscriminate weed-killing being among activities causing loss of, until recently, common species (e.g. *Adonis annua*, *Bupleurum rotundifolium*, *Asperula arvensis*). The creation of new habitats arising from spread of communications, etc. is responsible for introduction of such aliens as *Conyza* (*Erigeron*) *canadensis* and *Matricaria matricarioides*, and the loss of native species. Three salient points noted are: 1. Extreme localisation in refugestations of boreal and mid-European species: 2. Advance of mainly mediterranean warmth-loving species towards the north and west: 3. Converse penetration from west to east of adventives.—[E.B.B.]

### HISTORICAL

HEIMANS, J., 1957, Carolus Linnaeus, *De Levende Natuur*, **60**, 119-120.

HIITONEN, I., 1957, Carl von Linné 250-vuotismuisto, *Luonn. Tut.*, **61**, 65-73.

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LOUIS, A., 1957, Considérations historiques sur une Flore pseudo-lobelienne, *Bull. Jard. Bot. Brux.*, **27**, 317-326. Considerable evidence is given to show that Mathieu de l'Obel (1538-1616) cannot be considered the author of the *Stirpium seu Plantarum Icones* of 1581. This work, described as the precursor of modern dichotomous Floras, must be ascribed to Christophe Plantin.—[E.B.B.]

PRUD-HOMME VAN REINE, W. J., 1957, Wijeren een groot man, *Natura*, **54**, 57. A short account of Linnaeus.—[D.H.K.]

SPRAGUE, M. L., 1956, Botany 200 years ago: The bicentenary of Linnaeus, *Species Plantarum*, *Proc. Cottsw. Nat. F.C.*, **32**, 36-42.



## NOMENCLATURE

BOOM, B. K., 1957, *Populus canadensis* Moench versus *P. euroamericana* Guinier, *Acta Bot. Neerl.*, **6**, 54-59. The name *Populus canadensis* Moench is the correct one for the hybrid *P. deltoides* × *nigra*. The neotype of *P. canadensis* Moench is preserved in the Schildbach's xylothech under no. 188. This xylothech is kept in the Natural History Museum at Kassel (Germany). The name *P. euroamericana* Guinier is superfluous and therefore illegitimate.—[Author's summary.]

HUI-LIN LI, 1957, A symbol for introgressants, *Taxon*, **6**, 216-218.

PARODI, L. R., 1956, Noticia sobre el ejemplar tipo de "Bromus catharticus" Vahl, *Rev. Argent. Agron.*, **23**, 115-121.

SHINNERS, L. H., 1957, *Sisyrinchium bermudianum* L. instead of *S. angustifolium* Miller, *Rhodora*, **59**, 159-160.

## MISCELLANEOUS

ALMQUIST, E., 1957, Järnvägsfloristiska notiser, *Svensk Bot. Tidsk.*, **51**, 223-263. A historical account of the flora of the Swedish railway system.—[D.H.K.]

BAKER, H. G., 1953, Race formation and reproductive method in flowering plants, "Evolution", *Symposia of the Soc. Exper. Biol.*, **7**, 114-145.

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BAKKER, D. & VAN DER ZWEEP, W., 1957, Plant-migration studies near the former island of Urk in the Netherlands, *Acta Bot. Neerl.*, **6**, 60-73.

CONSTANCE, L., 1957, Plant taxonomy in an age of experiment, *Amer. J. Bot.*, **44**, 88-92.

COURBET, H., 1956, Conflit de l'homme et de la Nature, *Bull. Soc. Sci. Nancy*, **15**, 130-136. The conflict between man and nature is exemplified in two ways; by the disappearance of rare species owing to works such as the widening of roads at Liverdun on the right bank of the Moselle, a noted spot for bryophytes and ferns; and by the ability of species such as *Convolvulus arvensis*, *Agropyron repens*, *Equisetum arvense* and *Carex hirta* to break through road surfaces, as on the road from Nancy to Metz.—[E.B.B.]

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in recent years. It flowers for a short time and in a vegetative state may be confused with *Aegopodium podagraria*; points of difference are:—

<i>Peucedanum</i>	<i>Aegopodium</i>
Leaf: dull-green; plicate; strongly serrate.	somewhat yellowish-green; ± flat; feebly toothed; clearly marked.
Lobes: indefinite, giving ± palmately lobed leaf.	definite, giving triternate leaf.
Smell: strongly aromatic.	weakly of carrot.

—[E.B.B.]

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Descriptions are given of a number of alien species new to the Dutch flora.—[D.H.K.]

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