E. J. H. Corner's Botany

by

D. J. MABBERLEY

Botany School, Oxford

The spirit of our little book is one of progress; although nodding to the past, we are looking ahead. Here then, is not the place to list the events of Professor Corner's life, his appointments, wanderings and honours: it has been done before*. What has not been written is that courses of Tropical Botany at Cambridge begun by Professor Corner and now, alas, discontinued, were an inspiration to generations of undergraduates and research students. Further, those beginning in less favourable surroundings and hearing Professor Corner as a visiting lecturer, have been led to see through the blinkers of that botany which is orientated to the plants of the temperate zone and peddled by the pusillanimous. These are the blinkers which have dragged the study of the whole plant down to the popular image of "pressing flowers", and driven many to the narrow reaches of the esoteric in pursuit of academic respectability. Of those fortunate to have been able to shake off such tyranny, and of the few who were able to do so at the Botany School in Cambridge under Professor Corner's supervision, I am privileged to say that I was one, though the last.

How did it begin? A new schoolmaster fresh from Cambridge went to Rugby: in the sixth form was John Corner. The schoolmaster had read the writings of A. H. Church, a remarkable philosopher of botany, then working in the Botany School at Oxford. Corner read Church's unassuming, unillustrated and rather slim Oxford Botanical Memoir entitled Thalassiophyta. Despite the tightly argued and rather heavy prose, much of which was not understandable to a schoolboy, the blinkers fell away. Much of the botany taught at Cambridge, whither he went from Rugby, was, in consequence, dull and uninteresting. He cut lectures. He read. In 1928 he presented a paper (still preserved at the Botany School) on Thalassiophyta to the Botany Club. A friend introduced him to Church, and, whilst still a research student in mycology at Cambridge, he travelled to Oxford to see Church and became his disciple. Church's works and teaching, unfashionable at the time, reflected an astounding vision and an unparalleled grasp of the fundamental problems of botany. He, who had never ventured beyond Plymouth, could discourse on the floras of the world. When Corner set out for the forests of Malaya, Church advised him, "Note everything! Draw everything! Photograph everything!", advice passed through Corner to his pupils, and now to Church's "great-grand-pupils".

This is not the only legacy as we hope this volume shows. It reflects Professor Corner's interests as shown by comparison with his list of publications. Some of the papers are controversial: Professor Corner's writings have never avoided controversy. Obvious are the Durian Theory, the new classification of *Clavaria*, as well as papers on conservation and the teaching of botany which have encouraged and excited discussion.

^{*} Flora Malesiana I, 1: 117-118 (1950) & I, 8: XXVI (1974); Biol J. Linn. Soc. 2: 322-324 (1970); Who's Who: 680 (1975); Flora Malesiana Bull. (29): 2536-2538 (1976).

The Indomalayan flora and "funguses", figs and breadfruit, durians and pachycauls; from trees, their form and evolution, to trees and man, to trees in horticulture and trees in conservation — a few of his subjects. And so here is offered Stearn's paper on the impact of tropical rain forest on those introduced to it for the first time; Ashton on the ecology of the Durian Theory; Soepadmo and Eow on the reproductive biology of Durio itself; Jarrett on the construction of the syncarp of Artocarpus; Mabberley on the afroalpine pachycaul flora; White on the origins of African geoxylic suffrutices, the final bars of the leptocaul opera; remarks on the evolution of rainforest herbs by Burtt. Brunig & Klinge compare the structure of forests in Borneo and South America. Van Steenis takes up the question of differing modes of evolution in animals and plants, while Fedorov deals with the 'Vavilovian' evolution he sees in Dipterocarpaceae. Stone sets down the infrageneric classification of *Pandanus*, pachycaul monocotyledons par excellence. Of the Malayan flora so well known to Professor Corner, Hsuan Keng describes a new species of Theaceae and Holttum monographs a group of thelypterid ferns, whilst David and Jaquenoud describe new Tremellales from Singapore. Perreau & Heim continue the mycological papers with a new Boletus whilst developmental anatomy is represented by Fahn & Joel's paper on the secretory ducts of the mango, and Sporne presents an essay on the enigmatic girdling bundles of dicotyledonous flowers. The construction studies pioneered by Professor Corner are represented by the paper of Hallé and Mabberley on primitive tree-forms while the origin of primitive flowering plants is tackled from a different angle by Thorne. Professor Corner's monographic work on Asian and Australian Ficus is here complemented by a study of the origin of the sycomore in the Middle East by Galil and co-workers, and by Wiebes's history of fig wasp research. The importance and limits of taxonomy are stressed by Heywood and the problems and objectives of Flora-writing by Frodin, whilst Menninger ends the volume with a consideration of the aesthetic importance of trees in tropical and subtropical horticulture.

Although Professor Corner has retired, the flow of work is unabated. The monumental *Seeds of Dicotyledons* which appeared in 1976, is the fruit of over thirty years' painstaking investigation and interpretation, whilst even now in Shelford surrounded by his books, notes and collections in a veritable *thesaurus botanicus*, enlarged to contain his fungus herbarium and other specimens, he is writing up the flora of the Sedili River in eastern Johore!

List of Publications

(excluding reviews, letters and reports of discussion)

(To 1 January 1977)*

- CORNER, E. J. H. (1927). A cytological investigation of a sport in a plant of the garden stock. *Proc. Linn. Soc. Lond.* 139: 75-77.
- 43: 491-505. A Humariaceous fungus parasitic on a liverwort. Ann. Bot.
- growth of apothecia. Trans. Br. mycol. Soc. 14: 263-275.
- and development of the ascocarp. *Trans. Br. mycol. Soc.* 14: 275-291.
- Clavuleae. Trans. Br. mycol. Soc. 15: 107-120.

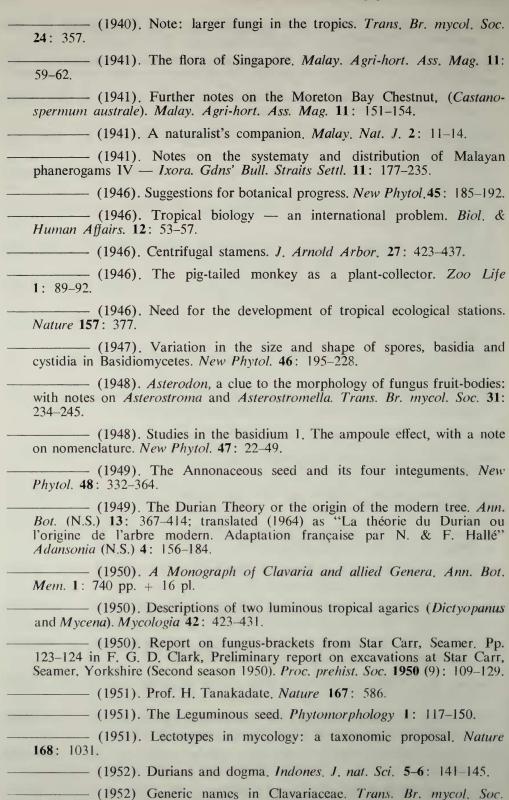
^{*} The compiler is indebted to Mrs. Heap of the Botany School Library, Cambridge for assistance, particularly in tracing some of the rarer items.

- (1930). Studies in the morphology of the Discomycetes IV. The evolution of the ascocarp. Trans. Br. mycol. Soc. 15: 121-134. - (1931). Studies in the morphology of the Discomycetes V. The evolution of the ascocarp (continued). Trans. Br. mycol. Soc. 15: 332-350. - (1931). The identity of the fungus causing wet rot of rubber trees in Malaya. J. Rubb. Res. Inst. Malaya 3: 120-123. - (1932). The fruit body of Polystictus xanthopus Fr. Ann. Bot. 46: 72-111. — (1932). A Fomes with two systems of hyphae. Trans. Br. mycol. Soc. 17: 51-81. — (1932). The identity of the brown-root fungus. Gdns' Bull. Straits Settl. 5: 317-352. — (1933). A revision of the Malayan species of Ficus: Covellia and Neomorphe. J. Malay. Brch R. Asiat. Soc. 11: 1-65. - (1934). An evolutionary study in Agarics: Collybia apalosarca and the veils. Trans. Br. mycol. Soc. 19: 39-88. - (1935). The fungi of Wicken Fen, Cambridgeshire, Trans, Br. mycol. Soc. 19: 280-287. - (1935). Observations on resistance to powdery mildews. New Phytol. 34: 180-200. - (1935). A Nectria parasitic on a liverwort: with further notes on Neotiella crozalsiana. Gdns' Bull. Straits Settl. 8: 135-144. — (1935). Cassia in Malaya, Malay, Agri-hort, Ass, Mag. 5: 37. — (1935). The seasonal fruiting of agarics in Malaya. Gdns' Bull. Straits Settl. 9: 79-88. — (1936). Hygrophorus with dimorphous basidiospores. Trans. Br. mycol. Soc. 20: 157-184. — (1938). Annual Report of the Director of Gardens for the year 1937. Singapore: Govt. Printing Office. – (1938). The systematic value of the colour of withering leaves. Chronica bot. 4: 119-121. - (1939). Notes on the systematy and distribution of Malayan phanerogams. Part I. Gdns' Bull. Straits Settl. 10: 1-55. - (1939). Notes on the systematy and distribution of Malayan phanerogams. Part II. Gdns' Bull. Straits Settl. 10: 56-81.
- Settl. 10: 82-161. - (1939). Notes on the systematy and distribution of Malayan phanerogams. Part III. Gdns' Bull. Straits Settl. 10: 239-329.

- (1939). A revision of Ficus, subgenus Synoecia. Gdns' Bull. Straits

- (1940). Botanical monkeys. Malay Agri-hort. Ass. Mag. 10: 147-149.
- (1940). Wayside Trees of Malaya. Vol. I: 770 pp; vol. II: 228 pl. Singapore: Government Printing Office [2nd Ed. 1952].

: 285–298.



— (1952), Addenda Clavariacea I. Two new Pteruloid genera and Deflexula. Ann. Bot. (N.S.) 16: 269-291. - (1952), Addenda Clavariacea II. Pterula and Pterulicium. Ann. Bot. (N.S.) 16: 531-569. ——— (1953). Addenda Clavariacea III. Ann. Bot. (N.S.) 17: 347–369. — (1953). The construction of polypores — I. Introduction: *Polyporus* sulphureus, P. squamosus, P. betulinus and Polystictus microcylus. Phytomorphology 3: 152-167. — (1953). The Durian Theory extended — I. Phytomorphology 3: 465-476. - (1953). Proposal No. 10, principles for stability of nomenclature (VIIIth Int. Bot. Congr. prop. 10). Taxon 2: 101. - & L. E. HAWKER (1953). Hypogeous fungi from Malaya. Trans. Br. mycol. Soc. 36: 125-137. - (1954). The classification of higher fungi, Proc. Linn. Soc. Lond. **165**: 4-6. — (1954). The Durian Theory extended — II. The arillate fruit and the compound leaf. Phytomorphology 4: 152–165. - (1954). The Durian Theory extended — III. Pachycauly and megaspermy — Conclusion. Phytomorphology 4: 263-274. (1954), Evolution of tropical rainforest, Pp. 34-46 in J. Huxley, A. C. Hardy & E. B. Ford (eds.), Evolution as a Process. London: Allen & Unwin. — (1954). Further descriptions of luminous agarics. Trans. Br. mycol. Soc. 37: 256-271. - (1955). Botanical collecting with monkeys. Proc. R. Instn Gt Br. **36** (no. 162): 1–16. - (1955). Epilogia [sic] pro monographia sua. Taxon 4: 6-8. - (1956). Taxonomy and tropical plants. Proc. Linn. Soc. Lond. **168**: 65–70. — (1956). A new European Clavaria: Clavulinopsis septentrionalis sp. nov. Friesia 5: 218-220 - K. S. THIND & G. P. S. ANAND (1956). The Clavariaceae of the Mussoorie Hills (India) II. Trans. Br. mycol. Soc. 39: 475-484. - (1957). Craterellus Pers., Cantherellus Fr. and Pseudocraterellus gen. nov. Sydowia, beih. 1, Festschr. f. Franz Petrak: 266-276. ——— (1957). Some Clavarias from Argentina. Darwiniana 11: 193–206. -, K. S. THIND & SUKH DEV (1957). The Clavariaceae of the Mussoorie Hills (India) VII. Trans. Br. mycol. Soc. 40: 472-476. - (1958). The Clavariaceae of the Mussoorie Hills (India) IX. Trans Br. mycol. Soc. 41: 203-206.

(1958) Transference of function. J. Linn. Soc. Bot. 90: 33-40; J.

Linn. Soc. Zool. 44: 33-40

- 4: 15-45. (1958). An introduction to the distribution of *Ficus. Reinwardtia* CASH, E. K. & E. J. H. CORNER (1958). Malayan and Sumatran Discomycetes. *Trans. Br. mycol. Soc.* 41: 273-282.
- CORNER, E. J. H. (1959). Vegetation of the humid tropics. *Nature* **183**: 795–796.
- Gdns' Bull. Singapore 17: 209-214.
- (1960). Taxonomic notes on Ficus Linn., Asia and Australasia. I-IV. Gdns' Bull. Singapore 17: 368-485.
- V-VI. Gdns' Bull. Singapore 18: 1-69.
- Nature 189: 24-25.
- ———— (1961). Agnes Arber. Phytomorphology 11: 197–198.
- ————— (1961). A tropical botanist's introduction to Borneo. Sarawak Mus. J. 10: 1-16.
- Addendum. Gdns' Bull. Singapore 18: 83-97.
- (1961). Introduction. Pp 1–7 in J. Wyatt-Smith & P. R. Wycherley (eds), *Nature Conservation in Western Malaysia*, Kuala Lumpur: Malay. Nat. Soc.
- (1961). Evolution. Pp. 95–115 in A. M. McLeod & L. S. Cobley (eds), Contemporary Botanical Thought. Edinburgh: Oliver & Boyd.
- Soc. 44: 230-232. (1961). A note on Wiesnerina (Cyphellaceae). Trans. Br. mycol.
- CORNER, E. J. H. & K. S. THIND (1961). Dimitic species of Ramaria (Clavariaceae). Trans. Br. mycol. Soc. 44:233-238.
- Symposium on the Impact of Man on the Humid Tropics Vegetation, Goroka 1960.
- 19: 187–252. The classification of Moraceae. Gdns' Bull. Singapore
- Addendum II. Gans' Bull. Singapore 19: 385-415.
- Persoonia 2: 241-304. The genus Amanita in Singapore and Malaya.
- (1963). The tropical botanist, Advmt Sci. Lond. 20: 328-334.
- (ed), *Pacific Basin Biogeography*. Honolulu: Bishop Mus. Press.

———— (1963). A criticism of the gonophyll theory of the flower. Phytomorphology 13: 290–292.
Ann. Bot. (N.S.) 27: 339-341.
Ark. 23: 19-32. (1963). Studies in the flora of Thailand 16. Moraceae. Dansk Bot.
———— (1936). Exploring North Borneo. New Scient. 366: 488-490.
Proc. Linn. Soc. Lond. 175: 9-32 (General Report); 37-45 (Special Reports).
Weidenfeld & Nicholson. [Also trans. Léo Dilé as <i>La Vie des Plantes</i> (1964), and trans. Lucia Maldacea as <i>La Vita delle Plante</i> (1972), both with additional pp. after p. 316 by P. Coursin.]
tion to North Borneo, 1961. Organized by E. J. H. Corner. <i>Proc. R. Soc. Lond.</i> B161 : 1-91 (Commentary on the general results: pp. 3-6; Conclusion: pp. 90-91).
identification. Gdns' Bull. Singapore 21: 1-186.
———— (1965). Mount Kinabalu East. Sabah Soc. J. No. 4: 170-187.
2: 255 pp. + 5 pl.
Weidenfeld & Nicholson. The Natural History of Palms. Pp. 393 + 24 pl. London:
(1966). Debunking the New Morphology. New Phytol. 65: 398-404.
Br. mycol. Soc. 49: 101-113. (Clavariaceae) without clamps. Trans.
———— (1966). Kinabalu. Straits Times Annual 1966: 34–37.
(1966). On Clavaria inaequalis Fr. Nova Hedwigia 12: 61-63.
dropsis. Trans. Br. mycol. Soc. 49: 205-211.
4: 345-350. Paraphelaria, a new genus of Auriculariaceae. Persoonia
Jurassic history of Melanesia. <i>Phil. Trans. R. Soc. Lond.</i> B253 : 23-159.
———— (1967). On thinking big. <i>Phytomorphology</i> 17: 24–28.
————— (1967). Notes on Clavaria, Trans. Br. mycol. Soc. 50: 33-44.
Lond. 178: 91-106 (1967). Clavarioid fungi of the Solomon Islands. Proc. Linn. Soc.
(1967). Biological expeditions. May & Baker Lab. Bull. 7: 90-92.
Dansk bot. Ark. 25: 64-67. Bot. Rep. Danish Noona Dan Expedition].

Printing Office.

- (1968). A monograph of *Thelephora* (Basidiomycetes). Beih. zur *Nova Hedwigia* **27**: 110 pp + 4 pl. - (1968). Mycology in the tropics- apologia pro monographia sua secunda. New Phytol. 67: 219-228. - (1968). Conservation — future prospects. *Biol. Conserv.* 1: 21–26. - (1969). Notes on Cantharelloid fungi. Nova Hedwigia 18: 738–818. - (1969). A discussion of the results of the Royal Society Expedition to the British Solomon Islands Protectorate, 1965. Organized by E. J. H. Corner. Phil. Trans R. Soc. Lond. **B255**: 185-631 (Introduction: 187-188; Ficus: 567-570; The botany of Jaagi Is., Santa Isabel: 571-573; Mountain flora of Popomanusen, Guadalcanal: 575-577; Larger fungi of the Solomon Islands: 579; Summary of the discussion: 621–623). - (1969). The complex of Ficus deltoidea; a recent invasion of the Sunda Shelf. Phil. Trans. R. Soc. B256: 281-317. – (1969). Ficus sect. Adenosperma, Phil. Trans, R. Soc. **B256**: 318-355. - (1969). The conservation of scenery and wild life. Proc. Ceylon Asst. Advmt Sci. 2: 220-231. – (1969), Ecology and natural history in the tropics. *Proc. Ceylon* Asst. Advmt Sci. 2: 261-273. WATANABE, K. & E. J. H. CORNER (1969). Illustrated Guide to Tropical Plants. 1147 pp. Tokyo: Hirokawa. CORNER, E. J. H. (1970). Ficus subgen. Ficus. Two rare and primitive pachycaul species. Phil. Trans. R. Soc. B259: 353-381. - (1970). Ficus subgen. Pharmosycea with reference to the species of New Caledonia. Phil. Trans. R. Soc. Lond. B259: 383-433. – (1970). New species of Streblus and Ficus (Moraceae). Blumea 18: 393-411. - (1970). Phylloporus Quél. and Paxillus Fr. in Malaya and Borneo. Nova Hedwigia 20: 793–822. - (1970). Supplement to "A Monograph of Clavaria and allied genera". Beih. zur Nova Hedwigia 33: 299 pp. + 4 pl. — (1970). 37. Ficus (Moraceae). Ident. Lists Malaysian Spec.: 537-648b. Foundation Flora Malesiana. ——— (1971). Merulioid fungi in Malaysia. Gdns' Bull. Singapore 25: 355-381. - (1971). Mycological reports from New Guinea and the Solomon Islands. 4, Enumeration of the Clavariaceae. Bull. natn Sci. Mus., Tokyo 14: 423-427. – (1972). New taxa of *Ficus* (Moraceae). *Blumea* **20**: 427–432. - (1972). Studies in the basidium — spore spacing and the *Boletus* spore. Gdns' Bull. Singapore 26: 159-194. - (1972). Boletus in Malaysia. 263 pp. + 23 p. Singapore: Govt.

- (1972). 43. Ficus (Moraceae) from India, Burma, Thailand, China, Korea, Japan, Ryu Kyu, Formosa and Hainan. Ident. Lists Malaysian Spec.: 735-784. Foundation Flora Malesiana. — (1972). Urgent exploration needs: Pacific Floras. Pac. Sci. Assoc. Inform. Bull. 24: 17-27. - (1974), Boletus and Phylloporus in Malaysia: further notes and descriptions. Gdns' Bull. Singapore 27: 1-16. ——— (1975). New taxa of Ficus (Moraceae) 2. Blumea 22: 299–309. —— (1975). Prototypic organisms XIII. Tropical trees. Theoria to Theory 9: 33-43. — (1975). The evolution of *Streblus* Lour. (Moraceae): with a new species of sect. Bleekrodea. Phytomorphology 25: 1-12. — (1975), Ficus in the New Hebrides, Phil. Trans. R. Soc. Lond. **B 272**: 343–367. — (1976). The climbing species of Ficus: derivation and evolution. Phil. Trans. R. Soc. Lond. B 273: 379-386. — (1976). The Seeds of Dicotyledons. Vol. I: 311 pp.; Vol. II: 552 pp. Cambridge: Cambridge University Press. - (1976). Further notes on Cantharelloid fungi and Telephora. Nova Hedwigia 27: 325-342.
- Gdns' Bull, Singapore 28: 183-190.
- (in press). The freshwater swamp-forest of south Johore and Singapore. Gdns' Bull. Singapore, Supp. 1.