

THE PHYCOLOGICAL SOCIETY OF AMERICA

Volume XIII

News Bulletin, April, 1960
P. C. SILVA, Editor

Number 38

The Montreal Meetings

The fourteenth annual meeting of the Phycological Society of America was held in conjunction with the Ninth International Botanical Congress at Montreal. Paper-reading sessions were not sponsored by the Society, but many members participated in the activities of Section 3, Phycology, of the Congress, which held sessions on seven days and organized various excursions. The business meeting was held on Monday afternoon, August 24, followed by a social program at which all foreign phycologists in attendance (22) were guests of American and Canadian members. P. C. Silva summarized the history, organization, and activities of the Phycological Society of America, while Mary Parke did the same for the British Phycological Society, Jean Feldmann for the Société Phycologique de France, and Yukio Yamada for the Japanese Society of Phycology. All speakers were presidents of their respective societies. Appreciation was expressed to Jules Brunel, Chairman of the Organizing Committee for Phycology, for his part in making the Congress an outstanding success and for his cooperation in planning the meeting of the Phycological Society of America.

MINUTES OF THE BUSINESS MEETING

The business meeting of the Phycological Society of America was called to order by the President, Dr. P. C. Silva, at 4:20 p.m., August 24, 1959, in the Faculty Lounge, Université de Montréal, with about 70 members and guests present.

Minutes of the thirteenth annual meeting (Indiana University) were approved as circulated to members in News Bulletin No. 35.

OLD BUSINESS

Secretary's Report

The following officers were elected by mail ballot from a slate of nominees prepared by the Nominating Committee (G. F. Papenfuss, chairman; E. T. Moul, L. A. Whitford):

R. C. Starr, Indiana University President
Jack Myers, University of Texas Vice-President
[W. A. Daily, Butler University, continues his three-year term as Secretary-Treasurer]

As of August 15, 1959, we have 13 organizational members and 270 individual members. During the past year we gained 35 new members, but

unfortunately we lost 30 because of 27 drops, one resignation, and two deaths. There were five reinstatements. There are also 52 members who have not paid their 1959 dues.

Treasurer's Report

| | |
|--|-----------|
| Balance on hand, Aug. 22, 1958 | \$1388.61 |
|--|-----------|

Income

Dues

| | |
|-------------------|----------|
| Current | \$421.50 |
| Back | 88.00 |
| Future. | 46.50 |
| | ————— |
| | \$556.00 |

| | |
|-------------------------------|----------|
| Sale of reprints | \$166.30 |
| Interest on savings | 23.36 |
| | ————— |
| | \$745.66 |

Expenditures

| | |
|--|----------|
| Printing and mailing of <i>News Bulletin</i> | \$927.25 |
| Secretary-Treasurer's expenses | 12.65 |
| | ————— |
| | \$939.90 |

| | |
|--|-----------|
| Balance on hand, Aug. 15, 1959 | \$1194.37 |
|--|-----------|

Assets

| | |
|--|-----------|
| Checking account, Farmers Bank, Union Point, Georgia . . | \$ 294.55 |
| Savings account, Farmers Bank | 797.19 |
| Checks to be deposited | 111.00 |
| | ————— |
| | \$1202.74 |

| | |
|-----------------------------|-----------|
| Outstanding check | 8.37 |
| | ————— |
| | \$1194.37 |

Planning Committee

On September 2, 1958, President Silva appointed a planning committee comprised of J. L. Blum, T. Christensen, E. Y. Dawson, H. S. Forest, J. Myers, G. W. Prescott, W. R. Taylor, and R. C. Starr (chairman). This committee was directed to explore the possibilities for increasing the usefulness of the Phycological Society of America. The chairman presented an informal report to the business meeting at Montreal. In summary, although various activities were discussed, no definite action was taken to initiate them. The Society at present is limited by the small annual dues and the uncertainty of the status of the proposed international journal of phycology. Our present activities are limited to the publication of the *News Bulletin* and the holding of paper-reading sessions at annual meetings. Both activi-

ties have been of the highest quality in recent years and should continue to provide the main bonds which hold the Society together. After the question of the international journal has been settled, the problem of the contents of our present *News Bulletin* will again arise. At that time the question of an increase in dues should also be considered.

NEW BUSINESS

Executive Committee's Report

The fifteenth annual meeting of the Society will be held in conjunction with the A.I.B.S. convention at Oklahoma State University, Stillwater, Aug. 28 to Sept. 1, 1960.

The meeting was adjourned.

Respectfully submitted,
W. A. DAILY,
Secretary-Treasurer

NECROLOGY

Sven Algéus of Västerås, Sweden, died during the spring of 1959. Algéus made important contributions in the field of algal nutrition, especially on the utilization of organic nitrogenous compounds by *Scenedesmus* and other green algae.

Robert Emerson's tragic death in an airplane crash in New York City on February 2, 1959, deeply stirred biologists throughout the world. Emerson received his doctorate in 1927 from the University of Berlin, working with Otto Warburg, from whom he learned the manometric techniques basic to his research in photosynthesis. Emerson's investigations reached heights of theoretical importance both early and late in his career: his flashing light experiments (in collaboration with William Arnold) have become classic; and at the time of his death he was on the threshold of elucidating the baffling problem of low quantum yield in the far red end of the spectrum. Seldom allowing himself to go beyond the strictest interpretation of data from carefully planned and executed experiments, Emerson (in collaboration with his capable laboratory assistant, Ruth Chalmers) nevertheless wrote a provocative article for the *News Bulletin* (No. 35), speculating on the function and phylogenetic significance of accessory pigments in algae. There is no doubt that Emerson will continue to influence profoundly the study of photosynthesis for many years to come. Those of us fortunate to have known Emerson personally will sorely miss this courageous, outspoken, severely self-critical, truly remarkable person. The May 1959 issue of *Plant Physiology* is dedicated to his memory and contains, in addition to 33 articles on photosynthesis, an obituary beautifully written by his colleague, Eugene Rabinowitch.

Ernst Fredrik Häyrén, eminent Finnish biologist, died November 25, 1957, at the age of 79. Häyrén was a student of aquatic and littoral vegetation and remained professionally active until his death. (Cf. obituary by

Sven Segerstråle in *Memoranda Soc. Fauna et Flora Fenn.* 34: 147-151, 1959).

Curt Hoffmann of the Institut für Meereskunde der Universität Kiel died June 1, 1959, at the age of 60. His research dealt with the physiology of marine algae.

Ivey Foreman Lewis, retired Dean of the University of Virginia, died in 1959 at the age of 77. Lewis held many administrative posts during his long career but found time to carry out several investigations of marine algae, working at Woods Hole, the Dry Tortugas, and Naples.

Margaret Rosamond McMillan, Assistant Professor of Biology at the New Orleans branch of Louisiana State University, died January 9, 1960. McMillan recently received her doctorate at Northwestern University, working with L. H. Tiffany on morphogenetic factors in *Ankistrodesmus*.

Franz Moewus, formerly of the Kaiser-Wilhelm-Institut für medizinische Forschung, Heidelberg, and most recently of the Applied Research Laboratories, Miami Springs, Florida, died May 30, 1959. Moewus published a long series of exceedingly important papers on sexuality and genetics of *Chlamydomonas*, *Polytoma*, and other green algae. Although the validity of his work has been questioned, there can be no doubt of its beneficial stimulatory effect.

Gilbert Morgan Smith, dean of American phycologists, died July 11, 1959, at the age of 74. Few biologists have exerted such extensive influence in teaching. Although Smith had relatively few graduate students, countless classes have been guided effectively by one or more of his text and reference books. Smith served the botanical profession brilliantly as organizer, editor, writer, teacher, and investigator. He was president of the Botanical Society of America (1944), the Microscopical Society of America (1928), and the Phycological Society of America (1946-47).

Edgar Nelson Transeau, Emeritus Professor and Chairman of the Department of Botany at Ohio State University, died January 25, 1960, at the age of 84. Transeau made significant contributions in fresh-water ecology and monographed the Zygnemataceae on a world-wide basis. He was president of the Botanical Society of America (1940), the Ecological Society of America (1924), and the Phycological Society of America (1950-51).

DARBAKER AWARD

The Committee on the Darbaker Prize of the Botanical Society of America (R. C. Starr, chairman) will accept nominations until June 1, 1960, for an award to be made for meritorious work in the study of algae. The award is limited to residents of North America. The Committee will base its judgment primarily on papers published by the nominee during the past two calendar years, but only papers in the English language will be considered. Nominations must be accompanied by a statement of the merits of the case and by reprints of publications supporting the candidacy.

Phycological Literature for 1958

Compiled by P. C. SILVA

Titles of references with text in Oriental, Semitic, Slavic, or Finno-Ugric languages without English, French, or German summaries are translated into English and enclosed in brackets. Titles of references with text in Oriental, Semitic, Slavic, or Finno-Ugric languages with English, French, or German summaries are given in the language of the summary. Titles of references with text in Romance or Teutonic languages are not translated and information as to summaries in other languages usually is not given. In the code for summaries, the first symbol designates the language of the text, subsequent symbols the language of summaries. Thus, (REG) means "text in Russian with English and German summaries." Symbols include B, Bulgarian; C, Chinese; Cz, Czech; D, Danish; Du, Dutch; E, English; F, French; Fi, Finnish; G, German; H, Hebrew; I, Italian; Is, Icelandic; J, Japanese; M, Magyar; N, Norwegian; P, Polish; Pg, Portuguese; R, Russian; Ro, Romanian; S, Spanish; Se, Serbo-Croatian; Sl, Slovenian; Sw, Swedish; U, Ukrainian. References published in 1957 but unintentionally omitted from the 1957 bibliography have been included. References dealing solely with fossil algae have been omitted. References marked with asterisks have been obtained from secondary sources and have not been verified. For their cooperation in this compilation, sincere thanks are due E. M. Burrows, H. F. Chisaki, T. Christensen, P. S. Dixon, H. J. Humm, J. Jacoby, R. A. Lewin, and C. Rieser. Major assistance was given by D. E. G. Irvine, supported by a grant from the National Science Foundation.

AHMADJIAN, V. A guide for the identification of algae occurring as lichen symbionts. *Bot. Not.* 111(4): 632-644.

AKIYAMA, M. Notes on the newly found species *Draparnaldiopsis alpina* Smith & Klyver from Shokotan, Hokkaido. *Bull. Jap. Soc. Phye.* 6(2): 75-79. (JE)

ALFIMOV, N. N., AND O. G. MIRONOV. [On the influence of the river diatom plankton on certain chemical indicators of water contamination.] *Bot. Zhurn.* 43(12): 1763-1765. (R)

ALLEN, M. B. An approach to the problem of marine nitrogen fixation. *Abstr. Third Int. Seaweed Symp.*, pp. 23-24.

ALLEN, M. B., AND S. W. BENDIX. Mutations affecting the photosynthetic apparatus of *Chlorella pyrenoidosa*. *Abstr. VII Int. Congr. Microbiol.*, p. 69.

ALSTON, R. E. An investigation of the purple vacuolar pigment of *Zygogonium ericorum* and the status of "algal anthocyanins" and "phycoporphyrins." *Amer. J. Bot.* 45(9): 688-692. [Abstr. in

Phye. Soc. Amer. News Bull. 11 (35): 60.]

ANDERSON, F. B., E. L. HIRST, D. J. MANNERS, AND A. G. ROSS. The constitution of laminarin. Part III. The fine structure of insoluble laminarin. *J. Chem. Soc.* 1958: 3233-3243.

ANDERSON, G. C. Seasonal characteristics of two saline lakes in Washington. *Limnol. & Oceanogr.* 3(1): 51-68.

—. Some limnological features of a shallow saline meromictic lake. *Ibid.* 3(3): 259-270. (Hot Lake, Washington)

ANDERSON, R. G., AND R. C. LOMMASSON. Some effects of temperature on the growth of *Chara zeylanica* Willd. *Butler Univ. Bot. Stud.* 13(2): 113-120.

ANDO, Y. Studies on physodes I. *Bull. Jap. Soc. Phye.* 6(1): 28-34. II. *Ibid.* 6(2): 45-50. (JE) (refractive vesicles in *Phaeophyceae*)

ARAKI, C., S. HIRASE, AND T. ITO. Chemical constituents of the mucilage of *Gloiopeplis furcata*. *Abstr. Third Int. Seaweed Symp.*, pp. 81-82.

- ARASAKI, S., AND K. NOZAWA. On the algicide Delrad 70. Bull. Jap. Soc. Sc. Fish. 23(10): 599-603. (JE)
- ARCE, G., AND H. C. BOLD. Some Chlorophyceae from Cuban soils. Amer. J. Bot. 45(6): 492-503. (sp. nov. in *Hormotilopsis*, *Chlorococcum*, *Neochloris*, *Chlorosarcinopsis*)
- ARCHIBALD, A. R., D. J. MANNERS, AND J. F. RYLEY. Structure of a reserve polysaccharide (leucosin) from *Ochromonas malhamensis*. Chem. & Ind. 1958(46): 1516-1517.
- ARDRÉ, F., F. CABANAS RUESGAS, E. FISCHER-PIETTE, AND J. SEOANE. Petite contribution à une monographie bionomique de la Ria de Vigo. Bull. Inst. Océanogr. [Monaco] 55(1127). 56 pp.
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- . Some functional aspects of inorganic micronutrients in the metabolism of green plants. In Buzzati-Traverso, A. A. (ed.), Perspectives in marine biology, pp. 351-383. (*Scenedesmus*, *Anabaena*)
- *AUGIER, J. Au sujet de la composition glucidique de *Chondria crenulata* (Crouan) Falkenb. Bull. Centre Étud. et Rech. Se. Biarritz 1(3): 395-396. 1957.
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- . The quantitative composition of the fucoid zone. *Ibid.* 7-10. (Abstr. Third Int. Seaweed Symp., p. 28.)
- BAAS BECKING, L. G. M. The influence of algae on the natural environment. Blumea, suppl. 4: 87-90. (accumulation, secretion, excretion)
- BABA, H., Y. KOBATAKE, AND E. TAMURA. Nutritional studies on *Chlorella* (Report 14). Ann. Rep. Natl. Inst. Nutrit. [Tokyo] 1958: 12-14. (Report 15). *Ibid.* 15-16.
- BACH, M. K., AND J. FELLIG. Effect of ethanol and auxins on the growth of unicellular algae. Nature 182 (4646): 1359-1360. (*Chlorella*)
- BAGENAL, T. B., AND H. T. POWELL. Glasgow University Expedition to North Rona and Sula Sgeir. Nature 182(4638): 775-776. (*Fucus distichus* ssp. *edentatus* recorded)
- BAIER, P. Une tourbière du Dauphiné: "Le Luitel." Mém. Soc. Bot. France 36: 3-19. (mostly desmids)
- BAILLAUD, L. Rythmes endogènes et rythmes exogènes, notamment chez les végétaux. Année Biol., ser. 3, 34(7/8): 299-329.
- BALAKRISHNAN, M. S. Notes on Indian red algae—I. J. Indian Bot. Soc. 37(1): 138-146. (*Gymnothamnion elegans*, *Antithamnion floccosum*)
- . A new species of *Sphaerellopsis*. *Ibid.* 37(3): 382-386.
- . On the red alga *Corynomorpha prismatica*. Curr. Sc. 27(8): 307-309. (*Corynomorphaceae*, fam. nov.)
- BALECH, E. Dinoflagellés et Tintinnides de la Terre Adélie (secteur français antarctique). Vie et Milieu 8(4): 382-408. (sp. nov. in *Peridinium*; also lists diatoms)
- . Plancton de la campaña Antártica argentina 1954-1955. Physis 21(60): 75-108. (sp. nov. in *Dinophysis*, *Diplopeltopsis*, *Peridinium*)
- RAMFORTH, S. S. Ecological studies on the planktonic protozoa of a small artificial pond. Limnol. & Oceanogr. 3(4): 398-412. (at Univ. of Penn.)
- *BARKMAN, J. J. On the ecology of cryptogamic epiphytes with special reference to the Netherlands. Diss. Univ. Leiden. 202 pp.
- BARRETT, J. H., AND C. M. YONGE. Collins pocket guide to the seashore. London: Collins. 272 pp. (algae, pp. 219-252.)
- BARRY, C., AND D. T. FLOOD. The seasonal variation in the alginic acid content of *Ascophyllum nodosum*.

- dosum* growing in Dublin Bay. Abstr. Third Int. Seaweed Symp., pp. 71-72.
- BARTSCH, A. F. Algae and their effects on D. O. and B.O.D. Part III. Water & Sewage Works 105(8): 339-341.
- BAS, C. On *Laminaria rodrigetzi* [sic!] on the Catalouian coast (West Mediterranean). Abstr. Third Int. Seaweed Symp., p. 38.
- BASSHAM, J. A. (Abstr.) Thermodynamic properties of a biological steady-state system as represented by the carbon reduction cycle in photosynthesis. Science 128(3332): 1142. (unicellular green algae)
- BASSHAM, J. A., M. KIRK, AND M. CALVIN. The effects of hydroxylamine on the C^{14}O_2 fixation pattern during photosynthesis. Proc. Natl. Acad. Sc. 44(6): 491-493. (*Chlorella, Scenedesmus*)
- BATHAM, E. J. Ecology of southern New Zealand exposed rocky shore at Little Papanui, Otago Peninsula. Trans. Roy. Soc. N. Z. 85(4): 647-658.
- BAUMEISTER, Walter. Die Aschenstoffe. In Ruhland, W. (ed.), Handbuch der Pflanzenphysiologie 4: 5-36.
- BAUMEISTER, Willy. Neue Dinococcales aus dem niederbayerischen Hügelland zwischen Isar und Inn (II). Arch. Protistenk. 102(3/4): 241-257. (sp. nov. in *Cystodinium*, comb. nov. in *Gymnocystodinium*)
- . Zur Kenntnis der Dinophyceen des Seerömer Gebietes (II). Ibid. 258-264. (var. nov. in *Cyslodinium*)
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- BEEFTINK, W. G. De betekenis van de natuurterreinen in het Deltagebied voor de botanie. Natura 55 (7/8): 102-106.
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- . [On the latitudinal zonation in the distribution of Antarctic phytoplankton.] Inform. Bull. Soviet. Antarkt. Eksped. 3: 35-36. (R)
- BELCHER, J. H., AND G. E. FOGG. Studies on the growth of Xanthophyceae in pure culture. III. *Tribonema aquale* Pascher. Arch. Mikrobiol. 30(1): 17-22.
- BELFORD, D. S., A. MYERS, AND R. D. PRESTON. Electron diffraction study of adsorbed metal ions on the surface of cellulose microfibrils. Nature 181(4622): 1516-1518. (incl. *Rhodymenia*)
- . Spatial and temporal variation of microfibrillar organisation in plant cell walls. Ibid. 181(4618): 1251-1253. (incl. *Valonia, Rhodymenia, Porphyra, Chaetomorpha*)
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- BENTLEY, J. A. Role of plant hormones in algal metabolism and ecology. Nature 181(4622): 1499-1502.
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- BERGE, G. The primary production in the Norwegian Sea in June 1954, measured by an adapted ^{14}C technique. Cons. Int. Explor. Mer, Rapp. et Proc.-Verb. 144: 85-91.
- BERGQUIST, P. L. Effect of potassium cyanide on apparent free space in a brown alga. Nature 181(4618): 1270. (*Hormosira*)
- . Evidence for separate mechanisms of sodium and potassium regulation in *Hormosira banksii*. Physiol. Pl. 11(4): 760-770.

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- . Effets d'un afflux prolongé d'eaux atlantiques sur les unicellulaires de la baie d'Alger. C. R. Soc. Biol. 152(2): 334-337.
- . Comparaison de la fertilité élémentaire entre l'Atlantique tropical africain, l'Océan Indien et la Méditerranée. C. R. Acad. Sc. [Paris] 247 (22): 2045-2048. (esp. *Coccolithus*)
- . Données récentes sur la fertilité élémentaire en Méditerranée. Cons. Int. Explor. Mer, Rapp. et Proc. Verb. 144: 103-108.
- BERNARD, F., AND C. BERTOLDO. Étude, jour par jour, de la fertilité marine élémentaire à l'extérieur du port d'Alger. Bull. Inst. Océanogr. [Monaco] 55(1110). 30 pp.
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- . (Abstr.) A Bermudian marine *Vaucheria* at Capo Cod. *Ibid.* 344. (*V. nasuta*)
- BERSAMIN, S. V. Fluctuations in the planktonic population of the estuaries of Navotas and Malabon. Philip. J. Sc. 86(4): 339-357.
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- BHASKARAN, S., AND G. S. VENKATARAMAN. Occurrence of a blue-green alga in the nodules of *Trifolium alexandrinum*. Nature 181 (4604): 277-278. (*Nostoc punctiforme*)
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- . Biosynthesis of radioactive manitol from C^{14}O_2 by *Fucus vesiculosus*. Science 128(3327): 776.
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- . Perspectives in the study of seasonal changes of plankton and of the number of generations at different latitudes. In Buzzati-Traverso, A. A. (ed.), Perspectives in marine biology, pp. 145-158.
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