1985

CyanoNews (Vol. 1, No. 2, December 1985)

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CYANONEWS

December 1985

CYANONEWS is intended to provide cyanobacteriologists with a forum for rapid, informal communication, unavailable through journals. It relies entirely on news provided by its readers. Please send news, requests, publications, comments, etc. to the address below. DEADLINE for the next issue is MARCH 1, 1986. If you wish to be included in the mailing list, send your name, address, telephone number, and a brief description of your research interests to:

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The 7th INTERNATIONAL CONGRESS ON PHOTOSYNTHESIS will be held at Brown University, Providence, Rhode Island 02912 USA (contact Dr. J. Biggins), August 10-15, 1986. The symposia will focus on electrochemistry, biochemistry, and development.

For those who did not attend the 5th INTERNATIONAL SYMPOSIUM ON PHOTOSYNTHETIC PROKARYOTES in Grindelwald this summer, a limited number of copies of the collected abstracts are available. There may also be a second printing, if demand warrents. The congress was dominated by reports on cyanobacteria and purple sulfer bacteria: ecology, physiology and metabolism, photosynthetic structure, and genetics. The organizer, Prof. H. Zuber, has asked me to collect requests for a second printing, or, I suppose you can write to him directly: Prof. H. Zuber, Institut fur Molekularbiologie und Biophysik, Eidg. Technische Hochschule, ETH-Honggerberg, CH-8093 Zurich, Switzerland. The cost will be about $20 U.S., but DO NOT SEND MONEY UNTIL ASKED!

Proceedings of the 6th INTERNATIONAL SYMPOSIUM ON NITROGEN FIXATION (August 4-10, 1985, Corvallis, Oregon, USA) have been published under the title Nitrogen Fixation Research Progress, edited by H.J. Evans, P.J. Bottomley, and W.E. Newton, and published by Martinus Nijhoff Publishers, Dordrecht, Boston, and Lancaster.

Thank you to those who have helped defray the cost of publishing this newsletter. I am trying to find a sponser, either a scientific organization interested in cyanobacteria or some benevolent corporation. If you have any ideas, please send them along, but for the moment, it is not necessary for me to ask you for personal contributions or subscription fees (Contributions already received will be refunded when a sponser is found).

A few correspondents have commented that it would be informative to read about NEGATIVE EXPERIMENTAL RESULTS. For example, S. Nierzwicki-Bauer was curious to hear what media have <u>failed</u> to support growth of Anabaena azollae isolated from its symbiotic partner. If you have expended a good deal of energy on a project that did not turn out as you hoped, despair not! Your efforts might still provide a useful starting point for your successor.

The name of the CORRESPONDENT for each item in this newsletter is capitalized, so you know who to write to for reprints or whatever. The CORRESPONDENT'S ADDRESS appears in the DIRECTORY of Cyanobacteriologists (Cyanonews, July 1985) or at the END OF THIS NEWSLETTER. An updated Directory will appear in the next newsletter.

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LARS HALLBOM is looking for toxic strains of Nodularia and axenic, toxic Oscillatoria agardhi.

REGINALD LAU would like to receive from any colleagues strains of cyanobacteria that are resistant to heavy metals.

The Geomicrobiology Division of Oldenburg University is offering a six week graduate course next Oct-Nov, covering oxy- and anoxyphotobacteria. The course is open to 2-3 English speaking participants without fee. Contact W.E. Krumbein, Geomicrobiology Division, Univ. of Oldenburg, P.O. Box 2503, D-2900 Oldenburg, FRG.

T.W. CHEN wants to know if anyone can supply a pure culture of Nostoc commune and Nostoc flagelliforme. He is also interested in any recent isolations of these two species.

W.E. KRUMBEIN announces that beginning with spring 1986 the Geomicrobiology Division of Oldenburg University will have several openings for cyanobacteriologists or microbial ecologists in the frame of rock dwelling phototrophic microorganisms related to rock weathering and monument protection. Also, one post-doc position is available in the same frame.

GEOFFREY CODD serves notice that antiserum against cyanobacterial phosphoribulokinase has been produced and is available.

Having magnanimously offered his antiserum, GEOFFREY CODD wonders if anyone could send him Microcystis cultures, for comparative purposes in current studies on the properties of Microcystis toxins.

PETER WOLK has an opening in his lab for a post-doc to work on genetic manipulation of filamentous nitrogen-fixing cyanobacteria

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The U.S. National Institute of Health will be awarding a large sum of money to some laboratory agreeing to grow huge amounts of cyanobacteria (30-50 liters, hundreds of strains) as part of an effort to isolate new anti-cancer agents. Within the next few years, then, comparative cyanobacterial biochemistry requiring large cultures may be feasible -- by the laboratory receiving this grant, at least, and conceivably by the cyanobacterial world at large.

WANDA ZEVENBOOM reports that in 1984, large concentrations of small coccoid red-pigmented cyanobacteria were found at several locations in the Banda Sea (Indonesia). They showed a preference for deeper layers in the water column.

W.E. KRUMBEIN reports that two cyanobacteria (Oscillatoria strain 23 Oldenburg and Microcoleus chthonoplastes) produce lactate, reduce elemental sulfur and produce ethanol under anaerobic conditions using endogenous gloycogen reserves.

GEORGE S. BULLERJAHN reports on work that is in press (Biochim. Biophys. Acta). The paper describes the polypeptide composition of thylakoid membrane fractions, phycobilisomes, and active core preparations of PS I and PS II, all from Aphanocapsa 6714. One of three chlorophyll-binding complexes associated with PS II is comprised solely of a novel 36 kDa protein.

TOIVO KALLAS reports on work that will appear in Plant Molecular Biology. The work examined the nif gene organization from unicellular strains (Synechoccus 7335 and 7425; Cyanothece 7424), filamentous non-heterocystous strains ("LPP" 73110 and Pseudanabaena 7409), and heterocystous cyanobacteria and Het- derivitives (Nostoc 7121 and 7906; Calothrix 7601-D and 7601-Het$^+$). All nonheterocystous cyanobacteria examined (unicellular and filamentous) had a contiguous nifKDH gene cluster, whereas all of the heterocystous strains showed separation of nifK from contiguous nifDH genes.

BORIS GROMOV has sent a volume that itemizes the algal culture collections at several biological institutes in the Soviet Union. The book (Kul'tivirovanie Kollektsionnikh Shtammov Vodoroslei [Russian], B.V. Gromov, ed., 1983) not only describes these collections but also provides methods for maintaining, purifying, and storing microalgae. Over 200 cyanobacterial strains are described (and many more green algae). I don't know if Dr. Gromov is able to provide for all who might find this book useful. If not, I can supply photocopies, (preferably of small portions, eg. strain lists). Anyone whose Russian exceeds my own meager skills is urged send for a copy and provide us all with a more adequate gloss of its contents.

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J. FEUILLADE has edited a new book, Le Lac de Nantua (Nantua Lake), a collection of essays [in French] describing the restoration of a degraded ecosystem. Published by Institut National de la Recherche Agronomique, Service des Publications, C.N.R.A., route de Saint-Cyr, 78000 Versailles, FRANCE. 168 pages, price 95 Fr.francs, payable to Regisseur des Publications.

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