

**Organization of Inland
Biological Field Stations**

**Newsletter
No. 11
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ORGANIZATION OF INLAND BIOLOGICAL FIELD STATIONS

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The organization of Inland Biological Field Stations (OIBFS) held its fourth annual meeting at the University of Montana Biological Station, Yellow Bay, Flat-head Lake; September 4, 5, and 6, 1969.

President Arch Tryon opened the first session of business on Friday morning, September 5, at 8:45 by announcing the agenda for Friday and Saturday morning which was as follows: Friday morning: I) Report from the Visiting Science Committee, Matt Hohn; II) Directory of Biological Field Stations, Robert Dalgleish; III) Model Field Stations, Cameron Gifford; IV) Training grants, George Lauff; V) CUEBS: Arch Tryon; Friday afternoon: VI) AIBS affiliation; Arch Tryon; VII) Report of the Treasurer, Loren Hill; IBP Programs, Frank Blair; and Saturday morning: VIII) Report of the Editor, John Parsons; IX) OIBFS Objectives, Arch Tryon; and X) concluding business.

I. Report from the Visiting Science Committee:

Matt Hohn opened the discussion with comments on the "visiting science program of OIBFS". In his introductory remarks, Hohn explained that such a program was very difficult to instigate and, in his opinion, not feasible as a working program. He suggested that individuals within the U.S. be consulted rather than attempting to bring a person from a foreign country.

In the pursuing discussion, the following points were stressed:

- A. Perhaps OIBFS should invite people to participate in the program who were already planning to attend a station.
- B. OIBFS may draw on AIBS as a source of potential candidates and as a means of coordinating the program.
- C. OIBFS should consider changing its efforts to a smaller scale, e.g. if a particular station has a visitor it should be mentioned to the committee for the visiting scientist program. In addition, communication among directors of neighboring stations of such a person may be a satisfactory solution to the problem.
- D. An attempt should be made to make the program more attractive, e.g. provide the visitor with leisure time, time to collect, or any such schedule which would be meaningful to their own research program.
- E. A complete list of biologists concerned with field stations in this country may be helpful in instigating the visiting scientist program.
- F. The visiting science program may well qualify for financial support from a funding agency. This problem should be investigated.

Summary: The Visiting Scientist Committee should continue to serve as a recommending body, and also explore the possibilities of exchanging staff members for seminar performances. OIBFS should continue to strive to produce a program which will materially enhance the effectiveness of all stations.

II. Directory of Field Stations:

Robert Dalglish reported that he and Don Hunsaker have been working independently on the directory, and that the first edition should soon be forthcoming. Presently, they have located and defined 135 field stations in the U.S., although he warned that the list was probably incomplete. He further commented that the present list excluded state agriculture stations, natural areas,

and marine stations. Several problems concerning the directory have not been reconciled e.g., the format of the directory; the style of printing; methods of funding the directory; and should the directory include marine stations with terrestrial programs. In the discussions that followed, several ideas were expressed.

- A. The directory should include a preface clearly defining what was included in the directory and correspondingly, units which were excluded.
- B. The point was made that there is some merit in including at least a list of the names of all stations, whether marine or inland.
- C. It was suggested to include all marine stations with inland or terrestrial activities.

The group agreed that such decisions should be the responsibility of the committee.

Bob Dalgleish reiterated the issue of format and cost of the directory. He conveyed that the thoughts of the committee were to make the directory both appealing and useful, and therefore, the committee would like to hear comments from the group, especially in reference to format and funding.

The following comments were made:

- A. An ad hoc committee be established with the responsibility of investigating various methods of printing the directory. The committee will also provide information, at a later date, on publication costs. President Tryon appointed George Lauff, Cameron Gifford, and Bob Dalgleish to serve on the ad hoc committee.
- B. Hopefully, the demand for a directory will be strong. This seems reasonable to assume since there are some 1,400 university and college libraries in the U.S., approximately 113 stations; and more than 300 biologists participating in field station activities. Therefore, at least 2,000 copies are needed to supply the potential demand.

- C. A total of 8 stations indicated their willingness to contribute \$100 to aid in defraying the cost of the first addition of the directory.

John Parsons reported that progress was being made on the cross-index. When completed, the index will be composed of three parts with an alphabetized list of each unit by director, station, and state.

Parsons encouraged each director to cooperate in preparing the cross-index, in listing participating faculty members, for 1969 and 1970.

III. Model Field Stations:

Cameron Gifford presented a preliminary report to the group on the types of inland biological field stations found within the U.S. For the purpose of understanding the structure and function of the various types of biological field stations, which do exist, an attempt was made using such criteria as how they are supported (Federal, state, or privately funded), primary emphasis (teaching or research), year-around or part time, and the academic level to which they speak (undergraduate, graduate, postgraduate).

The committee composed of Gifford, Arvey, and Walker, felt that the report would be most useful to newly developed stations and/or people contemplating starting a station. It was further pointed out that such problems as land acquisition and money were, for the most part, universal problems among field stations.

Following additional comments concerning problems of field stations, it was unanimously agreed that the present committee should remain active in an attempt to extend the information available, and to establish norms concerning programs, structure, functions and activities of field stations.

IV. Training Grants:

George Lauff briefly reviewed some of the recent developments of the International Biological Program. It was emphasized that field stations should contact the directors of the various biomes, making clear the contributions which stations might make to the IBP program. The recent establishment of "process study sites" within each biome may be particularly conducive to field station participation in the IBP. Information on process study sites may be obtained from each biome director.

Lauff elaborated on a recently funded proposal concerned with pre-doctoral research training, and suggested that if other stations were interested in submitting research training proposals that such proposals be directed towards the "coherent area program" under the environmental section of N.S.F.

MEETING ADJOURNED FOR LUNCH.
THE AFTERNOON SESSION RECONVENED AT 1:40 P.M.

The minutes of the preceeding of the 1968 meeting, at Put-in-Bay, were approved as presented.

The local chairman, Richard Solberg, announced plans concerning field trips for interested parties.

The ad hoc committee, (Lauff, Gifford, and Dalglish) concerned with the station directory, reported their suggestions.

- A. Format: - The hard-cover directory will describe each station on a single 7 X 10 page prefaced by introductory remarks explaining its contents.
- B. Page cost - \$20.00 for each station. Not mandatory, however.
- C. Price of directory - a charge of 100% above cost of publication. (Members and stations receive gratis copy)

- D. Promotion - advertise the directory in BioScience, mailing list of societies, etc.

The committee for the directory will be responsible for:

- 1) accepting bids for publication;
- 2) determining the number of copies needed for donation;
- and 3) decorations and biological inscription of the cover.

V. AIBS affiliation:

President Tryon reported on the results of the questionnaire circulated to OIBFS members; of the 17 responses, 7 agreed that OIBFS should be affiliated with AIBS, and 10 called for further discussion.

To aid in the discussion, the secretary read comments made last year at Put-in-Bay. Frank Blair strongly supported OIBFS participation in AIBS. Blair stated that he felt that AIBS will soon be the forward body of biological communications, and that AIBS speaks for biology. He further commented that in his opinion, it would be a mistake for OIBFS not to be affiliated with AIBS.

It was the concensus of the group that a mail ballot was an appropriate method for such a decision. Such a ballot has been sent to each member of OIBFS.

VI. CUEBS:

President Tryon led the discussion on the commission of undergraduate education in the Biological sciences (CUEBS). He introduced a series of correspondence between Jim Layne and the director of CUEBS. In essence, Layne had pointed out that CUEBS had overlooked Biological Stations as training areas in undergraduate education, both in teaching and research. The director's response was quite favorable towards stronger affiliations of CUEBS with field stations.

In the ensuing discussion, the following points were stressed:

- A. An appropriate statement from OIBFS and its objectives should be prepared for our own identity as well as student information.
- B. Field stations (OIBFS) should take an active role in outlining the amount of field experience deemed sufficient in under-graduate education, as well as recommendations towards field station experience.
- C. Blair suggested that the feasibility of a symposium with AIBS on the relevance of field stations in undergraduate education be investigated.

VII. Report of the Treasurer:

Loren Hill presented the treasurer report. He reported the total of 25 paid members, with dues amounting to \$250. Debits were zero. Bringing the balance forward from the previous year (\$418.50), the ending balance as of September 2, 1969, was \$668.50 in the account to be transferred to the new Secretary-Treasurer. The report was unanimously approved by voice vote.

President Tryon reviewed membership requirements in OIBFS as stated in Article 4 of the constitution. In subsequent discussion, it was mutually agreed that each station would have only one vote on all official actions of the organization. However, more than one individual from any given station may be a member as determined by the executive officers.

VIII. International Biological Program:

Frank Blair discussed activities of the IBP. He stated that the main effort of IBP in the U.S. was "integrated research programs" of a large scale. "Some of the IBP programs in the past have not flourished, and thus some have been merged into integrated

programs." He further stated that, although IBP has had problems in the funding, that support of IBP was apparently quite good, and that agencies in addition to NSF were in support of IBP.

Blair discussed briefly some of the programs which he felt would be of interest to OIBFS. These programs, among the integrated research program, were (A) Biome studies (B) Phenology program (C) Aero-biology (D) Convergent-divergent evolution and (E) Monitoring global environments.

Blair reiterated that the theme of IBP in the U.S. was to work on large complicated problems through joint efforts of many that was impossible from few.

It was pointed out that the official life of IBP ended in 1972. However some countries have just started, and thus the national committee has recommended to the international committee to extend the program for another two years.

Meeting Adjourned.

Meeting called by President Tryon at 8:40 A.M. Saturday, September 6th.

VIII. Report of the Editor:

John Parsons explained a policy formed by the "board" that notes or recordings taken during meetings would be edited and sent to individuals for correction before they would appear in the newsletter or other publication of the organization.

Parsons next asked members to send materials for the newsletter. He requested all directors to send in a list of 1969 staff members and teachers to the editor and include 1970 people if they were known.

Tryon suggested that members should write statements or opinions on various ideas and send them in to Parsons for use in the newsletter.

Parsons favored this idea, saying we could thus use the newsletter as a year around discussion box.

Blair agreed to report IBP progress for the newsletter.

Following this, several of the group suggested we could use the newsletter as a means of information exchange on discount purchases.

In closing his discussion, Parsons stressed the importance of everyone cooperating in sending information to the editor.

IX. OIBFS Objectives:

A. President Tryon next opened a discussion on the objectives of the OIBFS. He posed the question of what the OIBFS should be as an organization? In connection with this question also, what do field stations do? Why are they unique? How can they be justified? Tryon followed these questions with another. "What can field stations provide in the sense of National needs?"

After reading the prepared paper, Tryon listed some of the reasons why field stations were unique.

- a. Proximity to natural situations.
- b. Isolation - literal and figurative.
- c. Concentration on a single concept.
- d. Continental grid of habitats.
- e. Physical recognition point for concept support.

Some discussion evolved and Jennifer Walker suggested in elaboration that field stations serve as a focal point where various disciplines of study can work together on a common problem.

George Lauff stated that in some situations a unique feature of field stations was the ability to preserve at least some environmental situations.

Fred Sparrow suggested that stations should do things which cannot be done as well on a central campus.

Some general discussion ensued on the factor of station uniqueness.

B. President Tryon next raised the question of "what can OIBFS do in terms of an active program which would be productive and beneficial to the various stations."

He listed the following possibilities.

1. Education: A review and evaluation of course offerings
 - a. Graduate
 - b. Undergraduate
 - c. Secondary
2. Research
 - a. Ecosystem analysis
 - b. Data standardization
 - 1) recording
 - 2) storage
 - 3) retrieval
 - c. Instrumentation
3. Information
 - a. Meetings
 - b. Specialized seminars.
 - c. Comparison of Views.
4. Publication
 - a. Newsletter
 - b. Directory
 - c. Brochure
5. Promotion

C. Discussion

In the comments on education, the group generally agreed that in lower division courses, general concepts should be presented and specialized materials should be emphasized at the graduate level.

A majority felt that Station Directors should move toward systems analysis with correlation among the various stations on methods, data storage and recorded for use on a nationwide basis. Even regular class data could be of considerable value if properly handled.

Several individuals expressed the view that the Newsletter could be of use in communication of facts in regard to instrumentation.

In the discussion on information, President Tryon asked, "should the OIBFS take stands and publish its views on various issues"?

Frank Blair said "absolutely yes". The group could thus act to give advice ahead of time rather than merely being negative.

Blair suggested that OIBFS should write selected persons and inform them of the existence and function of the organization.

Discussion on points 4 and 5 was limited, but the preparation of the directory and function of the Newsletter was noted.

Following the above discussion, President Tryon asked what items we should attempt action on and what would be the priority listing of these?

After some consideration, the group agreed on the following:

- a. A symposium should be organized which would consider and evaluate educational programs.
- b. A serious attempt should be made to exchange information on instrumentation through the medium of the Newsletter.
- c. A brochure should be published which would give information on field stations, their nature and their value.

X. Concluding Business:

President Tryon explained the system of electing officers on two year terms making possible some continuity in the Governing Board.

He then introduced the newly elected President, Dale Arvey, and newly elected Secretary-treasurer, Robert Dalglish.

Officers retained on their second year are Vice President, L. S. Putnam, and Editor, John Parsons. Arvey assumed the chair and called for any new business.

George Lauff suggested the possibility of meeting at Gull Lake in 1970. Date of meeting and arrangements will be worked out later.

L. S. Putnam suggested the possibility of changing the structure of the board so that office of Secretary-treasurer be divided and a permanent treasurer be selected. Such a procedure would simplify the collection of dues and the handling of accounts. George Lauff agreed this might be an improvement. No immediate action was taken.

President Arvey expressed his and the group's appreciation to Arch Tryon for his excellent and stimulating leadership. His statement was heartily applauded by the membership.

President Arvey also expressed the appreciation of the organization to Dick Solberg for the hospitality and excellent conduct of the meetings at Flathead Lake.

The meeting was adjourned at 11:30 A.M.

XI. A Word from the President:

At the annual meeting at Flat-head Lake, it was decided to investigate mechanisms to meet in 1970 for purposes of discussing the unique aspects of a field station in teaching. Research as a

function is well understood and recognized, but the training of students at various levels and with various objectives has not been so recognized. Frank Blair first suggested the idea, as a means to acquaint agencies and the station's own administrations with the field station and its role in higher education today.

George Lauff made preliminary inquiry at NSF in September, following which a letter to Harve Carlson elicited the response that it seems like a good idea, and a budget request was made in the amount of \$6000, primarily for paying travel expenses of invited participants to the symposium. The actual event may well be in conjunction with the International Biological Congress, sponsored by the AIBS, to be held in Detroit, November 6-10, 1970, or in the relatively closeby Gull Lake Station.

As new information develops, it is intended to utilize the medium of the Newsletter to keep you informed.

XII. A Word from the Editor:

So few directors sent lists of 1969 or 1970 staff that there is little need to report these at this time. The update on the staff members will remain February 1, 1970.

Unless a great deal of information arrives in the next few weeks, Newsletter No. 12 will be based on Arch Tryon's paper as presented at our Flat-head Lake meeting.

An update on the cross-indexed mailing list will be June 1, 1970.