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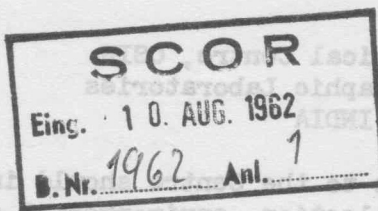


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in your reply, please refer to :
en répondant, veuillez rappeler :

n° NS/9/45A CL/19



- 3 AUG 1962

Subject: Indian Ocean Biological Centre in Cochin
India

Dear Sir,

Enclosed is a copy of a SCOR circular letter concerning the establishment of the Indian Ocean Biological Centre in Cochin, India. This Centre is being established by the Government of India with the co-operation of SCOR and with financial assistance from Unesco. A Consultative Committee, consisting of Professor Martin W. Johnson (U.S.A.), Professor Sigeru Motoda (Japan) and Dr. Michael Vinogradov (USSR) has been appointed by Unesco and will meet in Cochin and New Delhi early next year. It is hoped that a Curator of the international collections will be appointed by Unesco during the next few months.

It is essential to the success of the Centre that all ships participating in the International Indian Ocean Expedition take standard plankton collections, in addition to their regular plankton programme, and send the samples to the Centre for the determination of displacement volume and for sorting and distribution to specialists in the various zooplankton groups. A description of the net and its use has been prepared by Dr. Ronald I. Currie (National Institute of Oceanography, U.K.) and has been distributed to most of the laboratories concerned. Additional copies can be obtained from Dr. Currie or from this office. The nets are available from the Marine Biological Association, The Aquarium, Citadel Hill, Plymouth, England, or from Rigosha and Co. Ltd., 2 Kajicho 1-chome, Kanda, Chiyoda-ku, Tokyo, Japan.

It should be noted that the Centre is also anxious to receive other biological material, including duplicate collections, not required by the original collectors. In addition, arrangements for the sorting of zooplankton samples collected by non-standard means or other biological samples can be made by agreement between participating laboratories and the Centre.

Samples should be carefully labelled, packed and shipped to the following address:

Indian Ocean Biological Centre, CSIR
University Oceanographic Laboratories
Ernakulam, Cochin, INDIA

Notification of shipment to the Centre should include information on the time, method, and place of collection, environmental conditions, etc. Shipment to the Centre is at the shipper's expense; subsequent distribution of sorted samples will be at the expense of the Centre. Handling of the shipments by customs will be facilitated if they are marked by the stencil of the Expedition symbol recently distributed by Mr. Robert G. Snider.

It would be useful to me and to those in India concerned with the organization of the Centre if you would inform me on the willingness of the scientists in your country to participate in this project.

Enclosure

Yours sincerely,

Warren S. Wooster

Warren S. Wooster

Secretary, Intergovernmental Oceanographic
Commission

November 22, 1961

PROPOSAL FOR THE ESTABLISHMENT OF A BIOLOGICAL CENTRE IN COCHIN IN
CONNEXION WITH THE INTERNATIONAL INDIAN OCEAN EXPEDITION

The idea of having a Biological Centre for preliminary study and sorting of the large amount of material that will be brought by the various ships participating in the International Indian Ocean Expedition was first discussed in New York in 1959 during the meeting of SCOR. A more positive proposal that this Centre be in India was made in 1960 by the Indian Ocean Working Group at Copenhagen and at the SCOR meeting in Helsinki. The chief considerations which led to the selection of India for location of the Centre were:

1. Geographical location of India at whose ports many of the ships participating in the expedition are likely to call.
2. The very considerable interest in biological and taxonomic studies in India at the scientific and university institutions.
3. The availability of a large number of trained biologists who could take up this work.
4. The advantages of a Centre of this type in South Asia which would stimulate marine biological studies in the Asian region.

The principal functions of the Centre would be:

1. Maintaining a Named Reference Collection of Indian Ocean material.
2. Preparing Named Reference Collections of Indian Ocean material for other laboratories throughout the world.
3. Sorting zooplankton samples taken by the standard method.
4. Examining the sorted standard material or sending it to specialists throughout the world.
5. Sorting other zooplankton samples at the request and expense of participating laboratories.
6. Sorting other biological samples by special arrangement with participating laboratories.
7. Training.

The Indian National Committee on Oceanic Research has welcomed the establishment of such a Centre in India, and after evaluating the existing facilities at various places, recommended that it be located in Cochin. This recommendation was endorsed by the SCOR-Unesco zooplankton working group which met in Cochin and New Delhi in August 1961. The group included participants nominated by National Committees in Australia, Germany, India, Japan, Pakistan, U.K., and U.S.A.

The Director of the Unesco Office of Oceanography attended this meeting and indicated that Unesco is prepared to support the development of this Centre. Representatives of India attended part of this meeting and indicated that India would support the Centre by providing buildings, staff, and running expenses.

The zooplankton working group recommended that the Centre function in the following manner:

Standard zooplankton samples

1. Participating ships would collect zooplankton samples by hauling a standard net vertically from 200 metres depth to the surface at a rate of 1 metre per second. The standard net is similar to the N 100 net, having a diameter of 110 cm at the mouth and a mesh aperture of 0.33 mm.
2. The samples would be preserved and sent to the Centre.
3. The samples would be catalogued and their displacement volume measured. Then they would be sorted into appropriate fractions, the unsorted residue being retained.
4. The displacement volume and, where practicable, the number of organisms in each fraction would be determined.
5. The fractions would then be sent to appropriate specialists for further examination. Some of these specialists will work at the Centre and others at laboratories throughout the world. The latter specialists would be requested to return the material to Cochin.
6. Catalogues, station lists, and atlases would be prepared and published at appropriate intervals.
7. A series of Named Reference Collections would be assembled as identified material became available.
8. All specialists would be requested to deposit holotypes in the appropriate Indian national collection and paratypes in the Centre at Cochin and in other national collections.

Special zooplankton and other biological samples

Zooplankton samples made by non-standard methods, and other biological samples, would be processed in accordance with arrangements between the Centre and the collecting laboratory.

Training

The development of the Indian Ocean Biological Centre will provide a unique opportunity for the training of biologists from India and other countries of the region. The following types of training could be provided:

1. During the routine sorting of standard samples into fractions, experience will be gained in the recognition and preliminary identification of zooplankton.
2. Under the supervision of the more experienced biologists, opportunities will be available for advanced investigations of systematics, ecology, and zoogeography of certain components of the plankton.
3. Because of the location of the Centre in Kerala State, advantage can be taken of the special courses given by the University's Department of Marine Biology and Fisheries.
4. As the Centre develops it will attract increasing numbers of visiting scientists who will bring with them a knowledge of theory and techniques not otherwise available in the region. These scientists will be encouraged to give seminars, demonstrations, and lectures and to provide specialized guidance in taxonomic and experimental investigations.
5. Various kinds of fellowships will be required to implement the training programme of the Centre:
 - (a) Biologists from other Indian Universities - assistance of the University Grants Commission of India should be sought.
 - (b) Biologists from other countries - assistance of Unesco, FAO, ICA, Nuffield Foundation, and similar organizations should be sought.
 - (c) Biologists from government agencies in India - where possible this should be done by secondment.
 - (d) Advanced study abroad - an initial period of study and investigation at the Centre will enable Indian biologists to equip themselves for the award of international fellowships. The advanced experience and knowledge gained will allow these biologists to assume senior positions in government and university service upon their return.

ORGANIZATION OF CENTRE

It is proposed that the Biological Centre at Cochin be organized in the following manner:

1. The Centre would be called the Indian Ocean Biological Centre.
2. Appropriate working space for the staff of the Centre and for storage of the collections would be provided by Kerala University through their new oceanographic laboratory building and other buildings which could be temporarily hired at Ernakulum or Cochin.
3. An adequate staff would be assembled by the Indian Government. The Indian National Committee has recommended the following composition of the staff:

Scientific Assistants (Class III) - 20

Junior Scientific Officers (Class II) - 5

Senior Scientific Officers (Class I Junior) - 3

Senior Biologist (Class I Senior) - 1

Administrative staff: 4 stenographers, 1 accounts clerk, 1 library assistant, 2 store clerks, 4 messengers, and 12 laboratory assistants.

It is estimated that the salaries and expenses of this staff would amount to approximately Rs. 10 lakhs for a period of five years. This sum would be provided by the Indian Government.

4. A Curator of the International Collections would be recruited and employed by Unesco, who would also provide the basic equipment and supplies necessary for the work as well as some funds for the purchase of essential reference publications.

5. Other financial support might be expected from institutions in various countries who would contract for the Centre to do special work on their samples.

6. The Centre would be organized initially on a five-year basis, but should be considered as a permanent facility devoted to biological research and to maintenance of the International Collections. Unesco support would be reduced after an initial period at which time India would assume full responsibility for the project.

As soon as possible, a Curator of the International Collections would be appointed by Unesco with the advice of SCOR. During the first few years his salary and related expenses would be paid by Unesco; thereafter India would provide the necessary financial support. The Curator will have the following responsibilities:

1. To establish methods and techniques to be used in the processing of the international samples.

2. To determine the order in which the international samples will be sorted.

3. To determine which specialists, including Indian scientists and visitors to the Centre, will study the sorted fractions of the international samples.

4. To supervise the preparation and distribution of Named Reference Collections.

5. To supervise the preparation of station lists, atlases, identification sheets, and catalogues of material in the International Collections.

6. To assist in training local staff and visiting investigators, where appropriate.

The requests of specialists desiring to work on various parts of the International Collections would be forwarded to the Curator by National Committees on Oceanic Research in their respective countries. Selection of the specialists for various fractions would be made by the Curator with the advice of a small consultative group to be appointed by Unesco with the advice of SCOR. It is proposed that this group be three biologists of international renown, who would visit the Centre for several weeks each year to consult with the Curator and staff and to give lectures and seminars. Expenses of this group would be paid by Unesco.

The Indian staff would be directed by a senior biologist who would have the following responsibilities:

1. Administration of the Centre, including personnel, accounting and purchasing (Indian funds), shipping, maintenance of facilities, etc.
2. Allocation of staff for the sorting of the international samples.
3. Direction of work on Indian collections and other programmes requested by the Government.
4. Training and advancement of the Indian staff.

The Centre would be operated as a specific project of the appropriate agency of the Indian Government. Policy would be determined by an advisory board, organized under the Indian National Committee for Oceanic Research, and composed of representatives of Unesco, SCOR, and participating Indian agencies.